Gamewell WORLDWIDE

SMART START™

IDENTIFLEX 630

ANALOG / ADDRESSABLE

FIRE ALARM CONTROL PANEL

INSTALLATION & OPERATION MANUAL

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PROPRIETARY MATERIAL

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GENERAL INFORMATION

The Gamewell Company thanks you for choosing the IdentiFlex 630 to serve your monitor and control signaling needs. As with all our products we have taken great care to insure that we have provided a quality Fire Alarm Control Panel. To receive maximum benefit and many years of reliable service we would like to make the following recommendations:

1. **Read this manual carefully** and in it's entirety before proceeding with the installation of the IF630 control panel.

2. **Never** make any connections **with the power connected.**

3. Gamewell spends many hours testing devices that are supplied by Gamewell to be used with it's control panels to verify compatibility. **To maximize system performance, and minimize risk of damage to the equipment, we suggest using all Gamewell Components.**

4. **There is no substitute for proper maintenance and testing** of this or any life safety product. Gamewell recommends testing and maintenance of your IdentiFlex 630 system in accordance with the guidelines set forth by the National Fire Protection Association, be done on a regular basis, as a minimum.

5. **This manual should be stored with the IdentiFlex 630** for future reference, and should not be removed, providing reference to the operation and programming of the installed IdentiFlex 630 System.

Thank you again for choosing Gamewell. If you have any comments regarding your IdentiFlex 630 Analog Addresable Control Panel, or other Gamewell products, please feel free to write us at:

The Gamewell Company
Product Marketing Department
60 Pleasant Street
Ashland, MA 01721

Phone: (508) 231-1400
Fax: (508) 231-0900

E-Mail: GamewellCo@aol.com
WWW: http://www.gamewell.com

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Section 1

IDENTIFLEX 630

System Description

SYSTEM OVERVIEW

IF 630 Control Panel

The Gamewell IdentiFlex 630 (IF630) is a microprocessor based fire alarm control panel. The IF630 system is available in three configurations; a 126 point, one circuit analog/addressable circuit control panel (IF630-126), a 252 point, two circuit analog/addressable circuit control panel (IF630-252), and a 504 point, four circuit analog/addressable circuit control panel (IF630-504). The IF630-252 panel can be expanded to 504 points by adding an expansion module (AAM-630E) ,a 252 point, 2 circuit, analog addressable expander card. The system is designed to accommodate a wide variety of applications providing the user with a full range of features including; self testing, self monitoring and full field programming capability. The IF630 system comes complete with a system housing, a main 8 amp power supply, the analog addressable module (1, 2, or 4 circuits) and the operators display module.

SYSTEM MODULAR CONSTRUCTION

Common Control Section

The common control section (CCS) consists of four modules; the operators display, the bus driver module, a relay expansion module, and the main CPU module.

Operators Display Module

The operators display module (ODM) is the main user interface to the IF630 system. It includes the interactive alphanumeric display, LED indicators, and tactile switches. The operators display module provides the user with visual indications and guided prompts during all operating conditions. All alarms, faults, or supervisory actions, as well as system operating conditions (*Normal, Alarms, Faults)* are shown on the alphanumeric display. LED's provide indication and prompt the user to respond to the next sequential action. The "Power On" LED indicator is green, alarms or activated signal circuits and city tie are indicated by red LED's. Faults and user prompts are indicated by yellow LED's.

Bus Driver Module

The bus driver module contains the circuitry that interfaces with the CPU and system modules. The bus driver module is equipped with two Style Y or Z, limited energy signaling circuits (2 amps maximum each) and a city tie circuit. It has three power limited outputs for 24 Vdc auxiliary power, 12 Vdc, and resetable 24 Vdc smoke detector power. Circuitry to monitor the status of the CPU and set the system in a default mode of operation is also incorporated in the bus driver module.

Relay Expansion Module

The bus driver module is equipped with a relay expansion module. This module provides *Common Alarm, Common Trouble and Supervisory* relays (Form c). Each relay has a fused common rated at ten (10) amps. Each relay has a positive feedback terminal for status indication. The expansion module mounts (via standoffs) to the right side of the bus driver module. A spare relay is provided for future application.

CPU Module

The CPU module (or microprocessor module) contains the system operating firmware and non-volatile memory. It provides all the system memory and processing functions as well as providing the local/remote communications and supervision.

System I/O Components

Analog Addressable Module

The analog addressable module is a 1 or 2 circuit card that monitors and controls up to 126 analog/addressable devices (points) per circuit for a total of 126 or 252 points per module. The analog interface module has its own microprocessor which simultaneously communicates with the connected field devices and with the main CPU. Each analog/addressable circuit can be wired as a Style 4 (class B) or, Style 6 (class A) analog/addressable circuit.

Analog Expansion Module

For the IF630-252, the optional expansion module (AAM-630E) provides 2 additional analog addressable circuits allowing a total of 504 devices to be connected to a system.

Main Power Supply

The main power supply is an eight (8) amp DC supply. The main power supply has provisions for a battery charger module and connections to the battery. Provisions for "Brown Out" protection are functional when the main AC power drops below a safe operating voltage level. Operating from a 120 VAC source, the main power supply mounts in the lower left hand corner of the cabinet, and cables to the bus driver module.

Lead Acid Battery Charger Module

The battery charger module is a plug-in type module and installs directly into the main power supply card. This module will monitor and recharge 60 AH lead acid type batteries and has provisions for extending the life of batteries. This is accomplished by eliminating the build-up of contaminants on the plates.

Addressable Input Devices

The IF630 system is designed to operate with Gamewell's complete line of analog detectors (ionization, photoelectric) and with the IdentiFlex 600 series of Addressable Input Devices. These input devices are available as either a single Point Identification Device (PID-95) or as a manual pull station (MS-95). The addressable input devices provide the means for communicating between the IF630 analog circuits and contact devices or conventional type smoke detectors. Both the PID-95 and the MS-95 devices are field programmable.

Section 2

IDENTIFLEX 630

System Operation

COMMON CONTROL DISPLAY-FUNCTIONAL DESCRIPTION

Operator Display Controls

Refer to Figure 1 Common Control Display found at the end of section 2.

Acknowledge Switch

The Acknowledge switch (ACK), silences the internal buzzer of the panel and returns to normal. Any signal circuit or relay, programmed to return to normal condition, when the "ACK" switch is depressed, will return to normal. Should a second alarm activate the same points (signal circuit or relay programmed) which have been returned to normal, the system will re-activate.

Δ WARNING !

Do NOT reset the system until the Authority having Jurisdiction has authorized reset.

Reset Switch

The Reset switch (RESET) removes power from the initiating devices for a period of four (4) seconds. Power is temporarily removed from the S+ S- terminals. Any devices latched into alarm should return to the normal condition, provided the cause of alarm has been eliminated. The signal circuits, city tie, alarm relay and/or supervisory relay will restore, and the panel will return to the normal quiescent condition.

Signal Silence

The Signal Silence switch (SIGNAL SILENCE) will silence (i.e. return to normal), any circuit or relay that is programmed to restore on Signal Silence. The Signal Silence switch is an alternating action switch. Pressing the Signal Silence switch will return the silenced circuits to an active state.

Drill

The Drill switch (DRILL) will activate all circuits that have been programmed to respond when the Drill switch is pressed. The Drill switch is alternate acting. Pressing the Drill switch again will deactivate the test.

Keypad Switches

These switches are used for test and programming functions.

City Tie

Used to test, program or bypass the city notification function, (see programming sections).

Signal Circuit 1 & 2

Used to test, program or bypass signal circuits 1 or 2 (see programming sections).

Arrow Keys

Use to scroll the alphanumeric display and assist the user during system programming.

Indicators

POWER ON Indication	The green "Power On" LED indicates AC line operation. If pulsing, this indicates a problem with the incoming AC line voltage.
ALARM	The "Alarm" LED (red) indicates a common fire alarm has been activated in the system.
PRE ALARM	The PreAlarm LED (red) indicates that the system is in a first stage alarm condition , such as alarm verification.
DRILL	The Drill LED (yellow) indicates the Drill feature has been activated.
ACKNOWLEDGE	The Acknowledge LED (yellow) will flash to indicate the next action is to press the "ACK" switch.
SUPERVISORY ALARM	The Supervisory LED (yellow) indicates a supervisory zone has activated (alarmed).
SIGNAL SILENCE	The Signal Silence LED (red) will flash to indicate that the signal silence switch is active.
CITY TIE	The City Tie LED's are red for active, yellow for trouble.
SIGNAL CIRCUIT 1	Signal Circuit 1 LED's are red for active, yellow for trouble.
SIGNAL CIRCUIT 2	Signal Circuit 2 LED's are red for active, yellow for trouble.
RESET	The Reset LED's (red) flash when the reset switch is available for use.
TROUBLE	The Trouble LED (yellow) indicates the system is not in the normal condition, a fault has been detected.

SYSTEM OPERATING CONDITIONS

Default Mode

When shipped from the factory, the IdentiFlex 630 system has been initialized to a minimal "default" configuration as part of our system testing procedures. It is important that the system be re-initialized utilizing the SmartStart feature upon installation. This will result in a customized default configuration.

WARNING NOTE

The IF630 System will not recognize or communicate with any of the connected devices until the SmartStart process has been exercised. The IF630 will not report an alarm until this process has been completed. Refer to the programming section of this manual for details about activating SmartStart.

After the SmartStart routine has reinitialized the IF630, the system will be configured as follows:

1. All (input) initiating points are configured to be "Automatic" initiating points (standard smoke detector points). Point Identification Devices (PID's) shall be configured as manual stations if the priority interrupt is set.

2. The system defaults to Security Level #2 (Acknowledge, Signal Silence and Reset Switches are accessible without a password).

3. Whenever any input point(s) goes into alarm:

   A. All output signaling circuits activate and produce a steady, 24VDC output.

   B. All output relays are activated.

   C. The city-tie and common alarm relays activated.

Normal Quiescent Condition (default)

When the system is in the normal quiescent condition, the green "Power On" LED is illuminated indicating the system is operating from normal AC line power. All input and output circuits are "normal" (no alarm or trouble conditions). All other LED's and alphanumeric display are extinguished, the system internal buzzer is silent. To view system status message, press "**Enter**". Refer to Figure O-1.

In the normal condition, the green "Power-On" LED will be 'ON' - steady. All other indicators will be extinguished.

ÛNOTE: The system is equipped with a built-in screen saver. When the system remains in the idle mode (i.e. normal quiescent condition) for over 15 seconds the screen will automatically go blank.

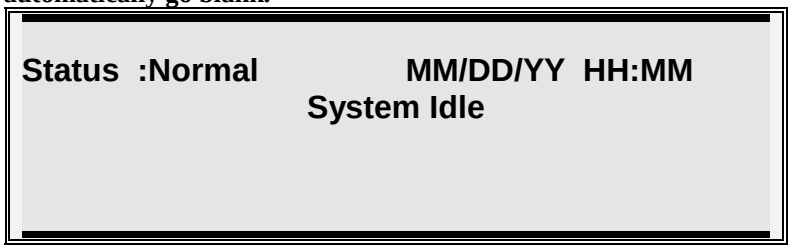


Figure O-1

Alarm Condition (default)

The IdentiFlex 630 will go into an ALARM state when any analog/addressable initiation device reports an alarm condition. By default the following actions will occur at the common control display. Refer to Table O-1, System Events Messages for complete listing of message displays.

1. The red "Alarm" LED will begin flashing. The flash rate is a continuously repeating sequence of 1/4 second 'On' followed by 1/4 second 'Off'. The internal system buzzer will sound.
2. The alphanumeric display will show the identification of the *Alarm* along with date and time. (Refer to Figure O-2) Alarm information is logged into the History Buffer to provide a time stamped record of the event's occurrence. In the event of multiple alarms, the alphanumeric display can be scrolled (using the up/down arrow keys) to show all active initiating devices.
3. The red Alarm LED for "City Tie" will light steady to indicate that the city tie circuit has been activated.
4. Signaling Circuits indication will be as follows;

   The red alarm LED's for (Signal Circuit 1 and Signal Circuit 2) will light steady to indicate any signaling circuits that have been activated.
5. The Form C common alarm relay contacts will transfer.
6. The acknowledge switch red LED will begin to flash. This guided prompt feature notifies the user that the next expected action is to press the "ACK" switch - acknowledging the *Alarm Condition*.

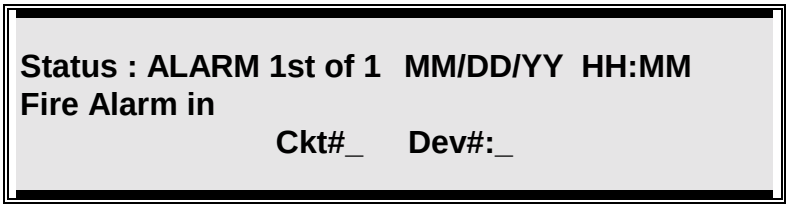


Figure O-2

Display for Multiple Alarm(s)

- **NOTE:** Multiple alarms are shown after the words ALARM Total "x"; with "x" representing the total amount of alarms.

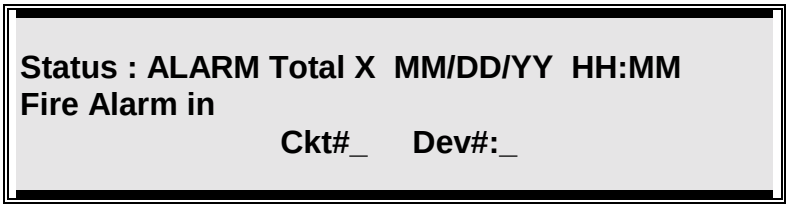


Figure O-3

OPERATING PROCEDURES

Acknowledging the Alarm Condition

When the user presses the "ACK" switch to acknowledge an alarm condition, the following actions will occur.

1. The control panel's internal audible buzzer will (always) silence.
2. The acknowledge key's activation is logged into the History Buffer to provide a time stamped record of the event's occurrence.
3. The Acknowledge red LED will extinguish.
4. Any outputs programmed to return to the normal condition upon pressing the "ACK" switch will return to normal at this time.
5. The red LED's for RESET and SIGNAL SILENCE switches will flash. This "guided prompt" feature notifies the user that the next expected action is to *Reset* the system or *Silence* the signals (if so programmed).

Signal Silence

In the Alarm condition, the red LED for SIGNAL SILENCE will begin to flash. This guided prompt feature notifies the user that it is possible, but not necessary, to press the SIGNAL SILENCE switch. In the *default mode*, all signal circuits will silence.

If the user presses the SIGNAL SILENCE switch, the following actions will occur:

1. The LED for the SIGNAL SILENCE switch will remain flashing.
2. All output signal circuits which have been programmed to silence when the SIGNAL SILENCE switch is activated (which is all output circuits in the "default" case) will silence and the red activated LED will extinguish.

Resound or Return of Signals

1. The signal silence switch is an alternating action switch. If the user subsequently presses the SIGNAL SILENCE switch again, the signal circuits will activate.
2. All the output signal circuits which had deactivated will reactivate; returning to the *Alarm* condition. Tthe red active LED’s will light.

Reset

After the initiating device(s) have been restored to normal condition, the momentary *Reset* switch should be depressed. When the user presses the RESET switch the following actions will occur:

1. The LCD Display will announce the System Reset (Refer to Figure O-4).

2. If no further alarms exist in the system, all signal circuits will deactivate. The RESET key's activation is logged into the History Buffer to provide a time stamped record of the event's occurrence.

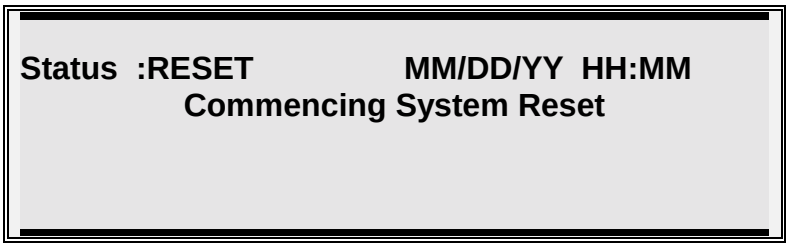


Figure O-4

Alarm Verification

Alarm verification is used to reduce the occurrence of nuisance alarm conditions (transient smoke etc.). Careful consideration should be taken before enabling the Alarm Verification feature on any device. **Programming the Alarm Verification feature may delay the reporting of an actual emergency.** Only those devices that are subject to conditions that require verification should be programmed with this feature.

Individual devices within the IdentiFlex 630 system may be programmed as verification zones. When this feature is enabled, all automatic detectors connected to the device are subject to the alarm verification cycle.

Any two wire automatic detectors reporting an alarm condition, programmed for verification will start the pre-set verification timer (see Programming section) and the event will be recorded in the verification history log. At the expiration of the Verification Timer (10 seconds), the device is automatically reset for a period of four seconds and the devices are allowed a stabilization period (30 seconds). After the device stabilization period, a sixty second monitor cycle begins. If an alarm condition is detected during any portion of the verification sequence the system will activate all CBE functions and the alarm condition processed. If no other alarm conditions are reported during this period the system resumes normal operation.

Supervisory Alarm Condition

A supervisory alarm condition occurs when an analog/addressable device programmed as a supervisory device activates. The common supervisory alarm LED (yellow) illuminates. The alphanumeric display indicates the point where the supervisory device is located and logs it into the History Buffer to provide a time stamped record of the event's occurrence. Refer to Figure O-5. The system common buzzer shall sound, and the Form C common supervisory alarm relay transfers. Any signal, or relay point programmed to the supervisory zone will activate.

When the momentary *Acknowledge* switch is pressed, the audible indicator will be silenced. If a subsequent supervisory alarm should occur in a different supervisory alarm zone, the alphanumeric display will annunciate the new point, and the system common signal will reactivate.

The acknowledged supervisory alarm(s) will remain until the device(s) have been restored to normal condition, and the momentary *Reset* switch has been depressed. If no further supervisory alarms exist in the system, the panel will return to normal quiescent condition otherwise the panel will return to supervisory alarm condition.

Any unacknowledged supervisory alarms, that are cleared before the point was acknowledged, will not latch in and need to be reset. The information will still be placed into the history log. Refer to Table O-1, System Event Messages, for complete listing of message displays.

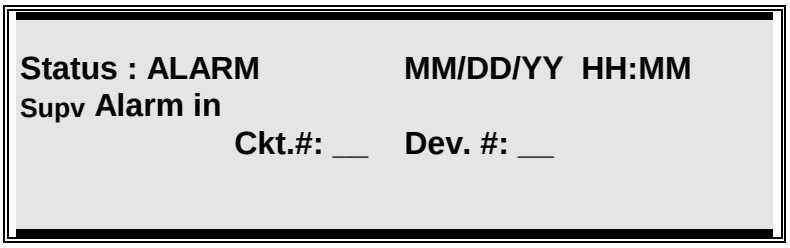


Figure O-5

Trouble Condition

A trouble condition occurs when a fault or potential problem develops within the system, system components, or system wiring connections. When a fault is detected the system common fault LED will be illuminated on the common control display, and the system common audible will be sounded. The origin of the fault message will be shown on the LCD alphanumeric display and logged into the History Buffer to provide a time stamped record of the event's occurrence. When the *Acknowledge* button is depressed, the system trouble audible is silenced and the system trouble LED remains illuminated. Should another trouble occur the panel will return to trouble audible. Refer to the Appendix, System Event Messages, for a complete listing of message displays.

When all trouble conditions have been corrected the panel will extinguish the common *Trouble* LED, returning the system to the normal quiescent condition.

Status: FAULT MM/DD/YY HH:MM
Fault in Ckt.#: __ Dev. #: __

Description of Fault

Figure O-6

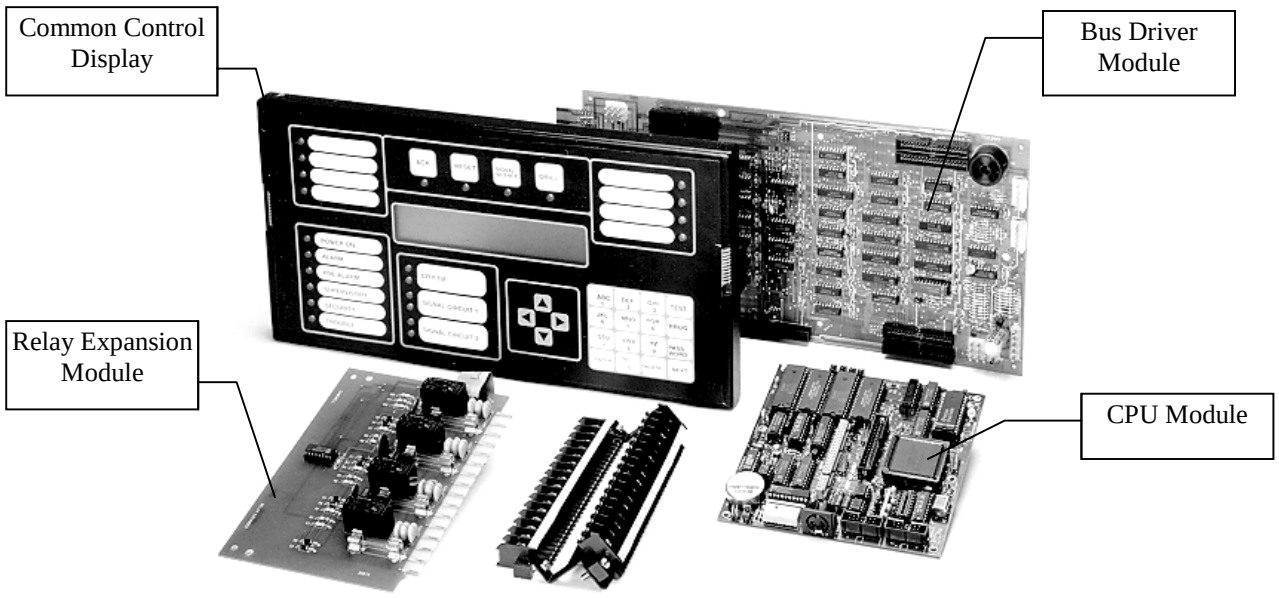


Figure 1 - IF 630 Common Control

Section 3

IDENTIFLEX 630

Installation

IdentiFlex 630 System Housing

The system is a modular compact stand-alone unit. The top area of the cabinet houses the IdentiFlex 630 common control section. This section includes the CPU module, Operators Display, the Bus Driver Module and the Relay Expander card. In the lower section of the cabinet, the Analog Addressable Interface Modules, and the power supply are mounted. A 5"H x 12"W x 5"D area is reserved for batteries. For complete system installation (including sub-assembly and control device circuit wiring) refer to Wiring, IF630 Analog Addressable System (D-W1145). All field wiring must be in accordance with N.F.P.A. pamphlet #70 article #760.

Drawing #	Part Number	Title
D-W1160		IdentiFlex 630-126
D-W1145		Wiring, IF630 Analog Addressable System

Table 1, Installation Wiring Diagrams

Hardware Assembly

Û **NOTE: Upon receiving the control panel, remove all packaging materials. Inspect for any damage that may have occurred during shipment. Notify the manufacturer immediately if damage is detected.**

Control Panel Mounting

Complete the following instructions to mount the control panel. The main chassis must be removed from the cabinet to correctly secure the cabinet. The control panel is shipped utilizing a right hand hinge door. If the mounting location requires the cabinet door to open to the left, mount the cabinet accordingly. The main chassis is designed to accept either mounting. Refer to drawing D-W1145, Wiring, IF630 Analog Addressable System (or D-W1160 for IF630-126).

---

1. Remove the six mounting screws securing the dead front panel.

2. Remove the two horizontal cross rails.

3. Remove five main chassis mounting hex nuts. Remove the main chassis.

4. Secure the cabinet to the mounting foundation. Connect all conduit and secure.

5. Ensure the cabinet is clean before re-mounting the main chassis. Clean as required.

6. Mount the main chassis to the cabinet studs and secure hex nuts.

7. Connect all field wiring. Referenced drawing D-W1145, Wiring, IF630 Analog Addressable System as required (or D-W1160 for IF630-126).. (All field wiring must be in accordance with N.F.P.A. pamphlet #70 article #760.) Ensure the cabinet is clean.

8. Mount the cross rails and secure.

9. Position the operators display into alignment pins of cross rails.

10. Plug in the battery charger card.

11. Re-mount the dead front panel and secure.

Module Identification and Placement

Modular Functions

The IF630 system utilizes a unique addressing scheme that allows it to supervise card placement and monitor *card types.* This addressing scheme monitors specific pre-assigned module locations in the IF630 system. The module locations used in the IF630 system are locations 0, 4, 5, 6 and 17.

Card Type Code

Each module returns a *card type* code when polled by the main CPU. Card type codes are fixed codes that are assigned to each module type. When a valid response is detected to any of the addresses polled, a data base for the device is created in memory. The specific card type codes which are read from these locations are defined in Table I-1 below.

Card Locations 0 through 7

Cards numbered 0 through 7 identify the location of card types that reference the common control section of the system. Specifically, the electronic module functions are identified. These card location numbers reference hardwired physical circuits.
Card identification numbered 0 through 3 reference designated hardwired circuits interconnecting to the common control display module. Card identification numbered 4 - 7 reference designated hardwired circuits on the bus driver module.

Cards #17

The IdentiFlex 630 utilizes card location number 17 for the analog addressable interface module and the analog addressable expander module (if installed).

Card Location	Card ID No.	Card Type Code (hex value)	Card Description
Display Module	Card# 0	0A	Alphanumeric (LCD) display card
Bus Driver Module	Card# 4	01	Signal Circuit Card
Relay Expander Card	Card# 5	02	Relay Card
Bus Driver Module	Card# 6	05	Variety of features (city tie supervision, ground fault, default power supply supervision, +24 V, +12V, -12V +5V supervision, V-battery to power supply, unregulated raw supply, system on AC/Battery, Charging Monitor, battery monitor, aux 1 & 2).
Analog Addressable Module	Card# 17	09	XP95 analog addressable interface (1, 2 or 4 circuits)

Table I-1

Main Power Supply

The main power supply (p/n 30887) is a combination 8 amp system power supply and battery charger. The standard battery charger is sized to maintain up to 50 Ah batteries. The battery charger is designed to operate during set intervals extending the battery life and a battery charger is capable of operating with lead acid batteries.

Installation Diagram

Refer to D-W1145, Wiring, IF630 Analog Addressable System (or D-W1160 for IF630-126) for installation and cable connections.

Specifications

Input Voltage	120 VAC 50/60 Hz 3 amps Max.
Operating Temperature	0 to +49 degrees C
Humidity	85% non-condensing

Interconnects

24 VAC	(2) secondary transformer connection
C+, C-	Connection (Red, Black) to Filter Capacitor
B+, B-	(Red, Black) connections to Battery
J4 connector	Interconnects to J2 on the analog addressable module
J3 connector	Interconnects to J16 on bus driver module
J2 connector	Interconnects to J12 on bus driver module (5V, 12V, and 24V supervision)

Operators Display

The Operators Display (OD) is the main interface to system. The display provides the user with all necessary switches, keys and annunciation points to maintain and monitor the system. Alarm, supervisory and trouble conditions are indicated by dedicated LED's and the internal sounder. The system's operating status is shown on the alphanumeric display. LED annunciation is also provided for AC power, PreAlarm, (2) signal circuits, City Tie connection and Bypass. The alphanumeric keypad provides user access for programming and password entry.

The alphanumeric display contains a 4 x 40 character backlit display. To regulate the contrast of the alphanumeric LCD display, adjust the potentiometer R29 located (solder side of the display board - lower left hand corner) - see drawing D-W1145). The card location identification number is " 0 " (see above Table I-1).

Installation Diagram

Refer to (drawing# D-W1145) Wiring, IF630 Analog Addressable System(or D-W1160 for IF630-126). The 34 pin ribbon cable (p/n 71158) interconnects the OD to the bus driver module (J11 connector).

Power Requirements

- 2mA operating current
- 1mA for each Red LED (ON)
- 6mA for each Yellow or Green LED (ON)

CPU Module

The CPU module (or microprocessor module) contains the system operating firmware and non-volatile memory. It provides all the system memory and processing functions as well as providing the local/remote communications and supervision.

Baud Rate Setting

Setting the system's baud rate is accomplished by utilizing dip switch SW1 (S7 & S8), see DIP Switch SW1 Table below.

CPU Module (continued)

Installation Diagram

Refer to D-W1145, Wiring, IF630 Analog Addressable System. The CPU module jumper settings are preset at the factory and do not require any field programming. Do not place any jumpers on the module.

SW1 - Default Settings		
S1	Open	Do Not Change
S2	Open	Do Not Change
S3	Always Closed	Do Not Change
S4	Open	Do Not Change
S5	Open	Do Not Change
S6	Open	Do Not Change
S7, S8 Open	9600 Baud Rate	*Auto Detect Baud*
S7, S8 Closed	4800 Baud Rate	
S7 Open, S8 Closed	2400 Baud Rate	
S7 Closed, S8 Open	1200 Baud Rate	

DIP Switch SW1 Table

The LED's on the CPU Module provide the following indications:

LED Indication

All four LED's "On"	Hardware Reset
D1 "On" only	Normal Quiescent Condition Indication
D2 "On" only	*not used*
D3 "On" only	*not used*
D4 "On" only	*not used*

Cable Connections:

IBX1 connector	Interconnection (ribbon cable) to P1 connection on the bus driver module
P2 connector	Laptop interface - use ribbon cable 71332
P3 connector	Interconnecting cable for CPU power via J13 connector on the bus driver module
P4 (pins 3 & 4)	System Hardware Reset (momentary short) jumper pins

Bus Driver Module

The bus driver module contains the circuitry that interfaces with the CPU module and the system modules. The bus driver module is equipped with two Style Y or Z, limited energy signaling circuits (2 amps maximum each) and a city tie circuit .

The bus driver module provides the system with the following :

- Controls the default alarm mode bus if the CPU fails
- Monitors system modules for placement
- Monitors system for ground faults
- Watchdog circuit
- Programmable Signal Circuits (1 & 2)
- Auxiliary Power Outputs (A+/A-, S+/S-, +/- 12VDC

The internal circuitry draws about 18mA from the +24V power supply with both signal circuits terminated with a 3.9K ohm resistor (with no current draw on the city tie circuit).

City Tie Programming

The bus driver module contains three jumpers for city tie programming (J1, J2, & J3) located in the center of the board. These three jumpers are used to select the reverse polarity or the master box connection.

For City Tie Programming - Set jumpers as follows:	
Reverse Polarity	J1 and J3
Master Box	J2

Installation Diagram

Refer to D-W1145, Wiring, IF630 Analog Addressable System (or D-W1160 for IF630-126). The module utilizes card identification locations 4 through 7.

Cable Connections

P1 Connector	Interconnect (ribbon cable) to IBX1 on the CPU module
J8 Connector	Interconnect (ribbon cable) to P1 on the Analog Addressable module
J11 Connector	Interconnect (ribbon cable) to P1 on the operators display
J12 Connector	Cable connector to J2 - Power Supply
J13 Connector	Cable connector to P3 - CPU module
J16 connector	Three conductor cable to J3 power supply
J17 Connector	Interconnect (ribbon cable) to J2 on the Relay Expander Card
LED Indication	Microprocessor Failure

Relay Expander Card

The relay expansion module provides four programmable relay circuits with Form C (normally open) contacts. When connected to the bus driver module this module provides for *Common Alarm*, *Common Trouble*, and *Supervisory Alarm* relay. Each relay has a fused common rated at ten (10) amps and provides positive feedback for status indication. Each relay on the bus driver module draws 22mA when activated. In normal operation only the trouble relay is activated. The system initialization determines if the feedback loop is utilized. A feedback circuit must have less than 50 ohms in loop resistance. The function of relays (K1 - K4):

- Relay K1 Common Alarm
- Relay K2 Common Trouble (Relay is normally energized)
- Relay K3 Common Supervisory
- Relay K4 Spare/For future applications

Installation Diagram

Refer to drawing# D-W1145 (or D-W1160 for IF630-126). for wiring the Relay Expander Card. Card location identification number is "5".

Cable Connection & Notes

J2 Connector	Interconnection (ribbon cable) to J17 connector on the bus driver module
F1 fuse	10 Amp overload protection K1 relay
F2 fuse	10 Amp overload protection K2 relay
F3 fuse	10 Amp overload protection K3 relay
F4 fuse	10 Amp overload protection K4 relay

Common Control Specifications

Common Control Specifications

The specifications listed identify the interfacing modules housed in the common control section; the operators display module, the bus driver module, a relay expander card, and the CPU module.

Common Control	
Input Power	24VDC
Quiescent Current	275 mA
Alarm Current	407 mA plus Signal Circuit power plus 2mA for master box or 22 mA for reverse polarity connections.

	Terminal #	Designation	Description
Auxiliary Output			
	terminal 1	A+	21 VDC, 2 Amps auxiliary power
	terminal 2	A-	21 VDC Common
Smoke Detector Power			
	terminal 3	S+	21 VDC, 2 Amps, resetable power - power is removed for 4 seconds during the Reset cycle.
	terminal 4	S-	21 VDC common for S+
12V Power			
	terminal 5	(+)12	12VDC, 2 Amps power
	terminal 6	(-)12	common for +12VDC
City Tie			
	terminal 7	M1	Connections for master box or line reversal option
	terminal 8	M2	
Signal Circuit 1			Signal CCT#1, 24V@2A, Style Y or Z Style Y requires 3.9K ohm end of the line resistor.
	terminal 9	1L1R	Style Z (+) Return
	terminal 10	1L1	(+) Signal Power (normal condition)
	terminal 11	1L2	(-) Signal Power (normal condition)
	terminal 12	1L2R	Style Z (-) Return
Signal Circuit 2			Signal CCT#2, 24V@2A, Style Y or Z Style Y requires 3.9K ohm end of the line resistor.
	terminal 13	2L1R	Style Z (+) Return
	terminal 14	2L1	(+) Signal Power (normal condition)
	terminal 15	2L2	(-) Signal Power (normal condition)
	terminal 16	2L2R	Style Z (-) Return

*** NOTE: Total load of regulated power including system power, A+A- and S+S- must not exceed 4 Amps.**

**** NOTE: Style Y signal circuit wiring requires 3.9k EOL Resistor.**

Relay Expander Card

RELAY 1 COMMON ALARM	**Terminal #**	**Designation**	**Description**
	1	1 NO	Form C normally open Alarm contact
	2	1 NC	Form C normally closed Alarm contact
	3	1 C	Form C Alarm relay common contact 10A @ 30 VDC or 230 VAC fused @ 10 amps.
	4	1 M	Alarm relay feedback point to monitor status of controlled device

RELAY 2 COMMON TROUBLE	**Terminal #**	**Designation**	*** Relay is shown normally energized (normal condition)**
	5	2 NC	Form C normally closed Trouble contact
	6	2 NO	De-energizes on Trouble, restores on "ACK" or when Trouble is remedied (programmable)
	7	2 C	Form C Trouble relay common contact 10A @ 30 VDC or 230 VAC fused @ 10 amps.
	8	2 M	Alarm relay feedback point to monitor status of controlled device

RELAY 3 COMMON SUPERVISORY	**Terminal #**	**Designation**	**Description**
	9	3 NO	Form C normally open Supervisory contact
	10	3 NC	Form C normally closed Supervisory contact
	11	3 C	Form C Supervisory relay common contact 10A @ 30 VDC or 230 VAC fused @ 10 amps.
	12	3 M	Supervisory relay feedback point to monitor status of controlled device

RELAY 4 SPARE	**Terminal #**	**Designation**	**Description**
	13	4 NO	Form C normally open spare contact
	14	4 NC	Form C normally closed spare contact
	15	4 C	Form C spare relay common contact 10A @ 30 VDC or 230 VAC fused @ 10 amps.
	16	4 M	Spare relay feedback point to monitor status of controlled device

ANALOG INTERFACE MODULE & SUBASSEMBLY SPECIFICATIONS

Analog Addressable Interface Module

This module (one main board with an expander card) drives four circuits that can monitor and control up to 126 analog addressable devices (points) per line for a total of 504. The functions of this card are controlled by a micro controller and the software programming. The system uses a 12 point field wiring terminal strip.

The main board with the micro controller and two channel driver circuits draws 35mA from the 24V supply not allowing for any draw by devices on the lines and with the class A relays de-energized. The expander card brings the current draw to 55mA. If either line on the main board or on the expander board opens, then the relays for both lines are activated, adding an additional 20 mA draw from the 24V supply.

Installation Diagram

Refer to (drawing# D-W1145) Wiring, IF630 Analog Addressable System for installation and cable connections (or D-W1160 for IF630-126).

Analog Addressable Card

Circuit 1	Terminal #	Designation	Description
Lower	1	+24	+24 vdc
Terminal	2	+24 R	+24 vdc return
Block	3	L1	Common (-)
	4	L1R	Common (-) return
	5	L2	Data
	6	L2R	Data return

Circuit 2	Terminal #	Designation	Description
Lower	7	+24	+24 vdc
Terminal	8	+24 R	+24 vdc return
Block	9	L1	Common (-)
	10	L1R	Common (-) return
	11	L2	Data
	12	L2R	Data return

Circuit 3	Terminal #	Designation	Description
Upper	1	+24	+24 vdc
Terminal	2	+24 R	+24 vdc return
Block	3	L1	Common (-)
(optional)	4	L1R	Common (-) return
	5	L2	Data
	6	L2R	Data return

Circuit 4	Terminal #	Designation	Description
Upper	7	+24	+24 vdc
Terminal	8	+24 R	+24 vdc return
Block	9	L1	Common (-)
(optional)	10	L1R	Common (-) return
	11	L2	Data
	12	L2R	Data return

		Analog Circuit Wiring Requirements and Limitations :
1.		Cable length per circuit - 4,000 feet maximum including all "T-tap' runs. “T-Tap” wiring is not allowed on signal circuits.
2.		Use twisted cable wherever possible, even when in conduit.
3.		Twisted cable required on all open wiring runs involving 1,000 Ft. or more.
4.		Avoid running circuits parallel with power wiring for any distance.
5.		Avoid running circuits parallel with cables having high switching rates.
6.		Avoid running circuits parallel with fluorescent fixtures.
7.		Avoid running analog circuits parallel with signal circuit wiring.
8.		Shield signal circuit wiring, even if in conduit, if run together with analog circuits.
9.		Maximum conductor resistance for circuits is 25 ohms.

Table 4

Addressable Input Devices

Gamewell's IdentiFlex 600 series of Addressable Input Devices provide the interface between the IF600 Analog circuits and contact devices. The input devices are available as a point identification device (PID-95) and as an addressable manual station (MS-95). Point Identification devices provide for a style B circuit.

PID-95 Installation

The PID-95 is intended to provide the interface between conventional devices and the analog circuit of the IF600. They provide a means of connecting and identifying monitor points without the use of conventional zone modules at the main control panel. The use of PID-95's can drastically reduce the field wiring required on many projects by reducing the number of wires required on the installation.

The PID-95 is designed to mount in standard electrical backboxes. When monitoring other contact devices the unit can be mounted in a standard double gang back box.

PID-95P is a PID-95 mounted on a 4 11/16 plastic plate where visual identification of the device's location is required.

MS-95

The MS-95 is an Addressable Manual Station with in and out leads. The MS-95 is designed to mount in standard electrical backboxes.

CZI-95

The CZI-95 is a collective zone interface for the analog addressable circuit. It is designed to power up to 25 conventional smoke detectors. It accommodates both style B or D wiring. The CZI-95 mounts to any standard 4 11/16" backbox and is provided with screw terminals for wiring.

Addressable Input Devices
Installation Notes:

Electrical Specifications	PID-95, PID-95P, MS-95	CZI-95
Input Power	21 VDC	21 VDC
Quiescent Current:	.0004 amperes	10 mA
Alarm Current:	.0014 amperes	100 mA
Operating temperature	0·C to +49·C	0 to 49°C
Relative Humidity	85%, non-condensing	85% non-condensing

FLEX 600 COMPATIBLE INDICATING APPLIANCES			
PART NUMBER	**MODEL NUMBER**	**DESCRIPTION**	**CURRENT**
70874	MB-G6-24-R	MOTORBELL 6"	.030
70875	MB-G10-24-R	MOTORBELL 10"	.030
71557	RSP-2430-VFR	30 Cd Strobe Adapter Red	.124
71631	SRP-2475-VFR	75 Cd Strobe Adapter Red, Sync.	.215
71558	RSP-2475-VFR	75 Cd Strobe Adapter Red	.200
71561	SRP-24110-HFR	110 Cd Strobe Adapter Red	.250
71586	CSX10-24-DC-R	10” SS Exp indoor Red..	.500
71587	CSXG10-24DC-R	10” SS Exp outdoor Red..	.500
71581	CH-BF1-R	Chime SS/Vib Red	.020
71585	CH-CF1-W	Chime SS/Vib ceiling white	.020
68460-01	CH-DF1-R	Chime Vibrating	.020
71583	CH-CF1-LS-24-VFR	Chime SS/Vib Red	.100
71300	CH-DF1-LS-24-VFR	Chime SS/Vib Red	.100
71301	CH-DF1-LSM-24-VFR	Chime SS/Vib Red	.135
71584	CH-CF1-MS-24-CFW	Chime SS/Vib White	.155
71302	CH-DF1-MS-24-VFR	Chime SS/Vib Red	.155
71582	CH-CF1-IS-24-CFW	Chime SS/Vib White	.245
71303	CH-DF1-IS-24-VFR	Chime SS/Vib Red	.245
71548	SM-12/24-R	Single Circuit Sync Module	.025
71549	DSM-12/24-R	Dual or Class A Sync Module	.038
70871	MIZ-24-R	Mini Horn Red	.017
70873	MIZ-24-W	Mini Horn White	.017
71287	MIZ-24-LS-VFR	Mini Horn/Strobe 15 Cd	.092
71288	MIZ-24-LSM-VFR	Mini Horn/Strobe 15/75 Cd	.127
71289	MIZ-24-MS-VFR	Mini Horn/Strobe 30 Cd	.147
71290	MIZ-24-IS-VFR	Mini Horn/Strobe 75 Cd	.237
71138	MT-12/24-R	Multi-tone Horn Red	See DS851
71573	AMT-12/24-R	Multi-tone Horn Red 3 Input	See DS851
71614	MT4-12/24-R	Multi-tone Horn Red Surface	See DS851
71292	MT-24-LS-VFR	Multi-tone Horn/Strobe Red 15 Cd	See DS851
71574	AMT-24-LS-VFR	Multi-tone Horn/Strobe Red 15 Cd 3 input	See DS851
71295	MT-24-IS-VFR	Multi-tone Horn/Strobe Red 75 Cd	See DS851
71575	AMT-24-IS-VFR	Multi-tone Horn/Strobe Red 75 Cd 3 input	See DS851
71293	MT-24-LSM-VFR	Multi-tone Horn/Strobe Red 15/75 Cd	See DS851
71576	AMT-24-LSM-VFR	Multi-tone Horn/Strobe Red 15/75 Cd 3 input	See DS851
71294	MT-24-MS-VFR	Multi-tone Horn/Strobe Red 30 Cd	See DS851

FLEX 600 COMPATIBLE INDICATING APPLIANCES (Cont.)			
PART NUMBER	**MODEL NUMBER**	**DESCRIPTION**	**CURRENT**
71140	MT-24-WM-VFR	Multi-tone Horn/Strobe Red 110 Cd	See DS851
71426	MT-24-SL-VFR	Multi-tone Horn/Strobe Red 15 Cd Sync	See DS851
71427	MT-24-SLM-VFR	Multi-tone Horn/Strobe Red 15/75 Cd Sync	See DS851
71550	RS-2415-VFR	Strobe 15 Cd	.074
71553	RS-241575-VFR	Strobe 15/75 Cd	.100
71552	SRP-2415-VFR	Strobe 15 Cd Plate mount Sync	.096
71551	SR-2415-VFR	Strobe 15 Cd Sync	.096
71569	RSP-241575-VFR	Strobe 15/75 Cd Plate Mount	.100
71554	SRP-241575-VFR	Strobe 15/75 Cd Plate Mount Sync	.138
71555	SR-241575-VFR	Strobe 15/75 Cd Sync	.138
71557	RSP-2430-VFR	Strobe 30 Cd Plate mount	.124
71556	RS-2430-VFR	Strobe 30 Cd	.124
71558	RSP-2475-VFR	Strobe 75 Cd Plate mount	.200
71559	RS-2475-VFR	Strobe 75 Cd	.200
71616	SR-2475-VFR	Strobe 75 Cd Sync	.200
71560	RS-24110-HFR	Strobe 110 Cd	.200
71561	SRP-24110-HFR	Strobe 110 Cd Plate mount Sync	.200
71562	SR-24110-HFR	Strobe 110 Cd Sync	.200
71543	AS-2415-VFR	Horn/Strobe 15 Cd	.093
71544	AS-241575-VFR	Horn/Strobe 15/75 Cd	.121
71545	AS-2430-VFR	Horn/Strobe 30 Cd	.126
71546	AS-2475-VFR	Horn/Strobe 75 Cd	.239
71547	AS-24110-HFR	Horn/Strobe 110 Cd	.269

Table I-2

WIRING GUIDELINES SIGNALING CIRCUIT WIRE SIZES 24 VOLT DC PARALLEL					
WIRE RESISTANCE		PAIR IN DISTANCE TO LAST DEVICE (MAXIMUM LINE LOSS 10%)			
AWG	OHM/ 1000	0.5amp	1.0amp	1.5amp	2.0amp
18	6.5	400'	200'	130'	100'
16	4.1	620'	300'	210'	160'
14	2.6	1000'	500'	330'	250'
12	1.6	1600'	800'	520'	400'
10	1.0	2500'	1250'	840'	620'

CIRCUIT CHARACTERISTICS			
CIRCUIT	EOL	LINE RESISTANCE	CABLE TYPE
PID-95 (Analog)	3.9 K ohm 1/2W	25 ohm	strait lay - 18 Ga.
SIGNAL	3.9 K ohm 1/2W	4.8 ohm @0.5a	strait lay - 14 Ga.
		1.2 ohm @2.0a	strait lay - 12 Ga.
ANALOG LINE	Not Required	25 ohm	twisted pair - 16 Ga.

Table I-3

PART# / IDENTIFIER	DESCRIPTION	COMPATABLE BASES / MOUNTING	QTY MAX
XP95-P	Photo-Electric Analog Smoke Sensor	XP95-B4, XP95-B6, XP95-B6LOW, XP95-B6R4, XP95-B6SNDR	126
XP95-I	Ionization Analog Smoke Sensor	XP95-B4, XP95-B6, XP95-B6LOW, XP95-B6R4, XP95-B6SNDR	126
XP95-T	Thermal Analog Sensor	XP95-B4, XP95-B6, XP95-B6LOW, XP95-B6R4, XP95-B6SNDR	126
XP95-PD	Photo-Electric Duct Analog Smoke Sensor	Provided	126
XP95-ID	Ionization Duct Analog Smoke Sensor	Provided	126
XP95-LI	Line Isolator Module for Analog Circuit	Provided	
MS-95	Analog Addressable Manual Pull Station	Single Gang 28762 Backbox (optional)	126
CZI-95	Collective Zone Interface	4 11/16" Backbox	40
PID-95	Point Identification Device	None Required	126
PID-95P	Point Identification Device (Plate Mounted)	4 11/16" Backbox	126
RCE-95	Relay Control Element	4 11/16" Backbox	126
SCE-95	Signal Control Element	4 11/16" Backbox	126
BCE-95	Building Control Element	4 11/16" Backbox	126

Table I-5

Initial System Startup

CAUTION !

Connect primary power to the system before connecting battery/standby power source.

1. Activate main power. The "Power ON" message (Figure I-1) is displayed.

Figure I-1

2. Wait the required 15 seconds. [Power ON] LED is flashing. Commencing System Reset screen is displayed (see Figure I-2).

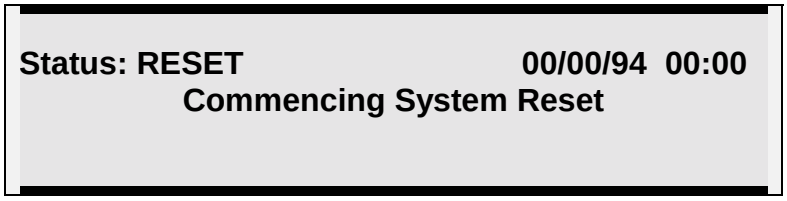


Figure I-2

3. After the initial system startup is completed, the display will show the current date (month/day/year) and time (military), see Figure I-3.

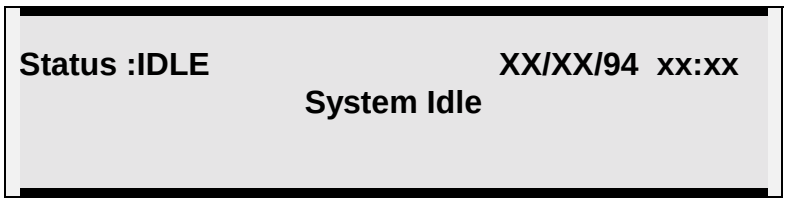


Figure I-3

Û **NOTE: The system is equipped with a built-in screen saver. When the system remains in a idle mode (i.e. normal quiescent condition) for over 15 seconds the screen will automatically go blank.**

Û **NOTE: To regulate the contrast of the alphanumeric LCD display, adjust the potentiometer R29 located (solder side of the display board - lower left hand corner) - see drawing D-W1145(or D-W1160 for IF630-126).**

Section 4

IDENTIFLEX 630

System Test Mode

OVERVIEW

Detector Test, Walk Test and Bypass mode can be selected at any time from the Password Protected - Access Level 3. Detector Test is accessed by pressing the Detector Test key, Walk Test by pressing the Walk Test key, and Bypass by pressing the Bypass key.

Detector Test

The detector test function allows the user to individually test the functionality of each device, operation and response.

Device LED will illuminate if selected for Detector Test. The LED will turn off when the device is deselected.

1. From the Operational Mode, press the key marked 'Test'.
2. Press "**Enter**". Figure T2 is now displayed.

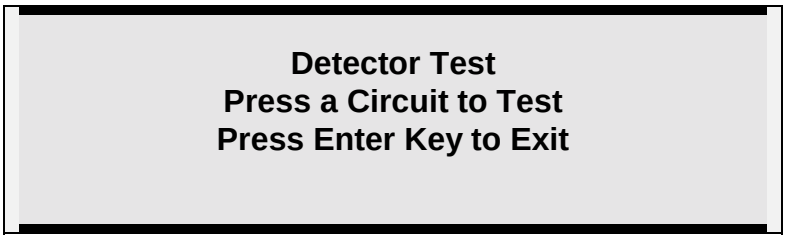


Figure T2

3. Select the circuit of the device to be monitored. Use circuit select switches located on the zone display for the analog loop being tested. The LED of the selected circuit illuminates. Figure T3 is now displayed.

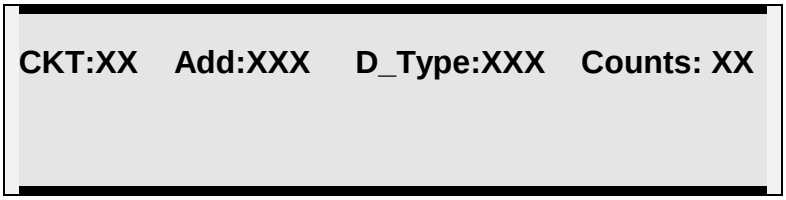


Figure T3

CCT	Circuit of selected device (1-4)
Add:	Address of the selected device
D_Type	Device type (*see table P3 in programming section)*
Counts	Real time analog value

4. Use the up/down arrow keys to scroll through the connected devices. When the device address is selected, the device type and real time analog value will be displayed automatically.
5. Determine the functionality and operating response of the Detector using the following table.
6. To exit the Detector Test Mode press the Enter key at any time.

T-1 DEVICE TEST TABLE

Input Device

Display Panel	Description	Trouble / No Feedback	Background	Dirty	Pre-Alarm on 1st	Alarm / Shorted
Ion	Ionization Detector	0 - 9	10 - 40	41 - 44	Background + 26	Background + 36
Opt.	Photo Detector (non-comp.)	0 - 9	10 - 40	41 - 44	45 - 54	55 - 127
Opt.	Photo Detector (Compensated)	0 - 9	10 - 40	41 - 44	Background + (sensitivity * 6) + 8	Background + (sensitivity * 6) + 18
Heat	Thermal Detector	0 - 9	10 - Fixed Value	*NA*	*NA*	Above Fixed Value
CZI or CZII	Collective Zone	0 - 17	18 - 54	*NA*	*NA*	55 - 122 2nd Alarm above 122
PID or MAN	PID - 95 or MS - 95	0 - 9	10 - 54	*N/A*	*N/A*	55 - 127
REL	RCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127
SCE or Snd.	SCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127
BCE	BCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127

Walk Test

Walk Test is an automatic test used to test devices in the system both silently and audibly. Signal circuits must be programmed before the Walk Test function can be utilized. Testing the system in the Walk Test mode enables one person to test the system without the aid of another to confirm activation and reset the panel. Activation (i.e. detected ALARM or TROUBLE signal) in the initiating device will cause the panel to log the event and activate all associated indicating circuits if programmed. The device is reset after four (4) seconds. Activation of a Fault (Trouble) follows the same routine. For ALARM testing all associated signal circuits will sound twice. For TROUBLE testing, all associated signal circuits will sound once.

Û **NOTE: All devices selected for Walk Test become disabled and will not ALARM. Devices not selected for Walk Test will report an ALARM condition. After 25 minutes of inactivity the system will time out of Walk Test.**

1. From the operational mode, press the key marked “Walk Test”.
2. The Walk Test LED will begin flashing at 120 PPM. Figure T4 is now displayed.

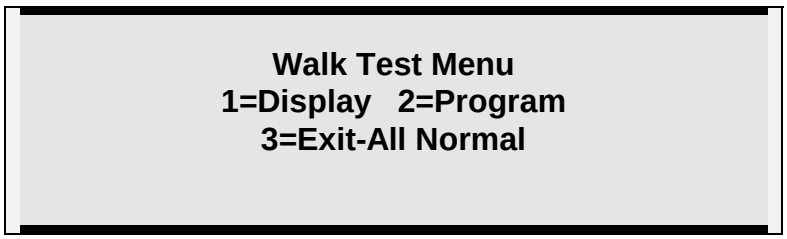


Figure T4

3. Select “Display” [1] to display the circuits (input and output) that are currently in the Walk Test mode. Select “Prog” [2] to select circuits for Walk Test mode. Figure T5 is now

displayed. Use the up/down arrow keys to select the circuit of the devices to be tested. The LED of the selected channel illuminates.

Û **NOTE: Use the right arrow key to move the cursor under the device address.**

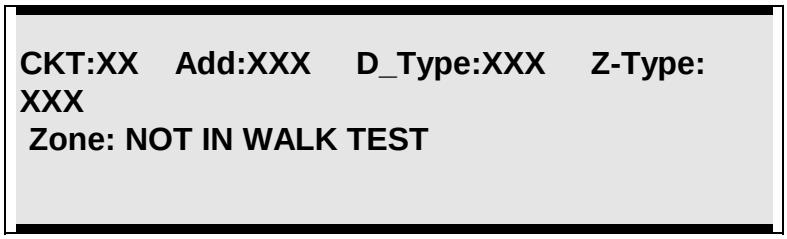


Figure T5

4. Use the up/down arrow keys to select the device address. When the device address is selected, the device type, zone type and zone status will be displayed automatically.
5. Use the left/right arrow keys to move to the Walk Test status field.
6. Use the up/down arrow keys to select "NOT in Walk Test" or "In Walk Test" option.
7. Repeat steps 3 through 6 for each device to be tested.
8. When all desired devices have been selected - Press "**Enter**".

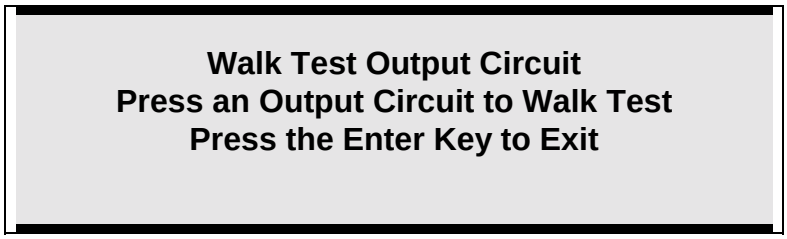


Figure T5A

9. The system will now prompt you for a signal circuit to select for Walk Test annunciation.

Û **NOTE: The system will display addressable relay modules that are not available for walk test mode.**

Figure T5B

9A. Signal circuits are numbered by their physical location in the system. Use the up/down arrows to select circuits sequentially or enter the circuit number with the alphanumeric keypad and press enter.

Û **NOTE: Signal Circuits 1 and 2 located on the Operators Display are Numbers 129 and 130, respectively.**

10. The display will show the status of the signal circuit in respect to Walk Test. Use the up/down arrow keys to toggle the signal circuit into and out of the Walk Test mode. When you have made your selection press the "**Enter"** key to begin Walk Test.

11. The system will now enter the Walk Test Mode. The Acknowledge and Trouble LED's will flash and the buzzer will sound. The system will remain in Trouble until all Walk Test devices are cleared from the system.

Figure T6

Δ WARNING !

If the system is in Walk Test mode ,and a device not in the test mode is activated, the system will go into alarm and all output circuits will be activated.

Once the system has been reset after an actual alarm all Walk Test settings will be cleared.

12. To clear Walk Test operation each device and output must be individually taken out of Walk Test. This is accomplished in the same manner as described in steps 1-10 above. Each device must be set to "NOT IN WALK TEST".

13. If all devices have been cleared from Walk Test the system will return to the Idle Mode.

ByPass Mode

The ByPass function is used to remove an addressable device or signal circuit from service. Bypassing a device will disable the control panel response from the device selected or prevent activation of the device or signal circuit.

1. From the Operational Mode menu, press key marked 'ByPass' keypad (default Access Level 3).
2. Figure T7 is now displayed. The ByPass LED will flash at 120 PPM.

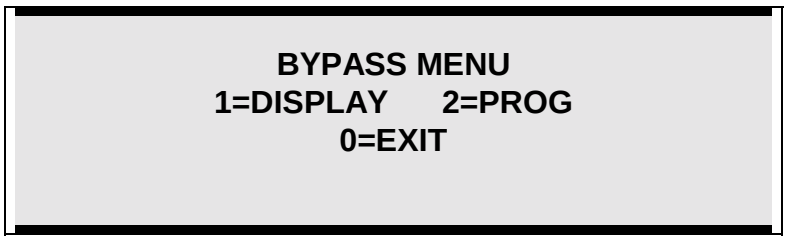


Figure T7

∆ WARNING !

Devices will not report an alarm or trouble condition. A Fire Watch or other reliable means should be employed to monitor the unprotected area.

3. Select “Display” [1] to display the circuits (input and output) that are currently in the Bypass mode. Select “Prog” [2] to select circuits for bypass. Figure T8 is now displayed. Use the up/down arrow keys to select the circuit of the devices to be bypassed. The LED of the selected channel illuminates.

Û **NOTE: Use the right arrow key the cursor under the device address.**

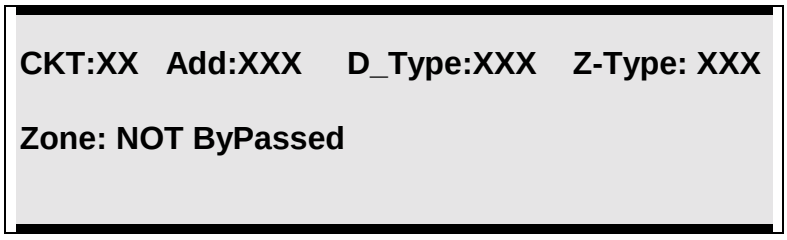


Figure T8

4. Use the up/down arrow keys to select the device address. When the device address is selected, the device type, zone type and zone status will be displayed automatically.
5. Use the left/right arrow keys to move to the Bypass status field.
6. Use the up/down arrow keys to select "NOT BYPASSED" or "Bypassed" option.
7. Repeat steps 3 through 6 for each device to be Bypassed.
8. When all desired input devices have been selected - press "**Enter**".
9. The display will now prompt you for outputs to be bypassed. Figure T8 now displayed.

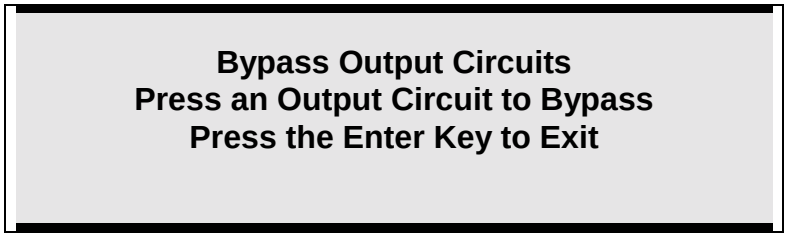


Figure T9

10. Repeat steps 3-8 to bypass outputs.
11. Press the Enter key. Then exit the test menu by depressing 0, then Enter.
12. The system will now flash the Acknowledge and Trouble LED’s and the sounder will activate. Once the system has been acknowledged the Trouble LED will remain flashing until all bypassed devices are cleared. The display will indicate that a part of the system has been disabled. Figure T9 is now displayed.

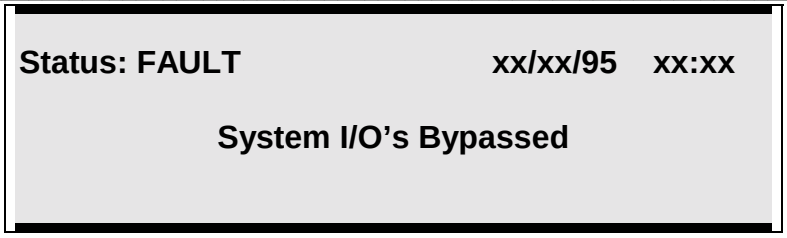


Figure T10

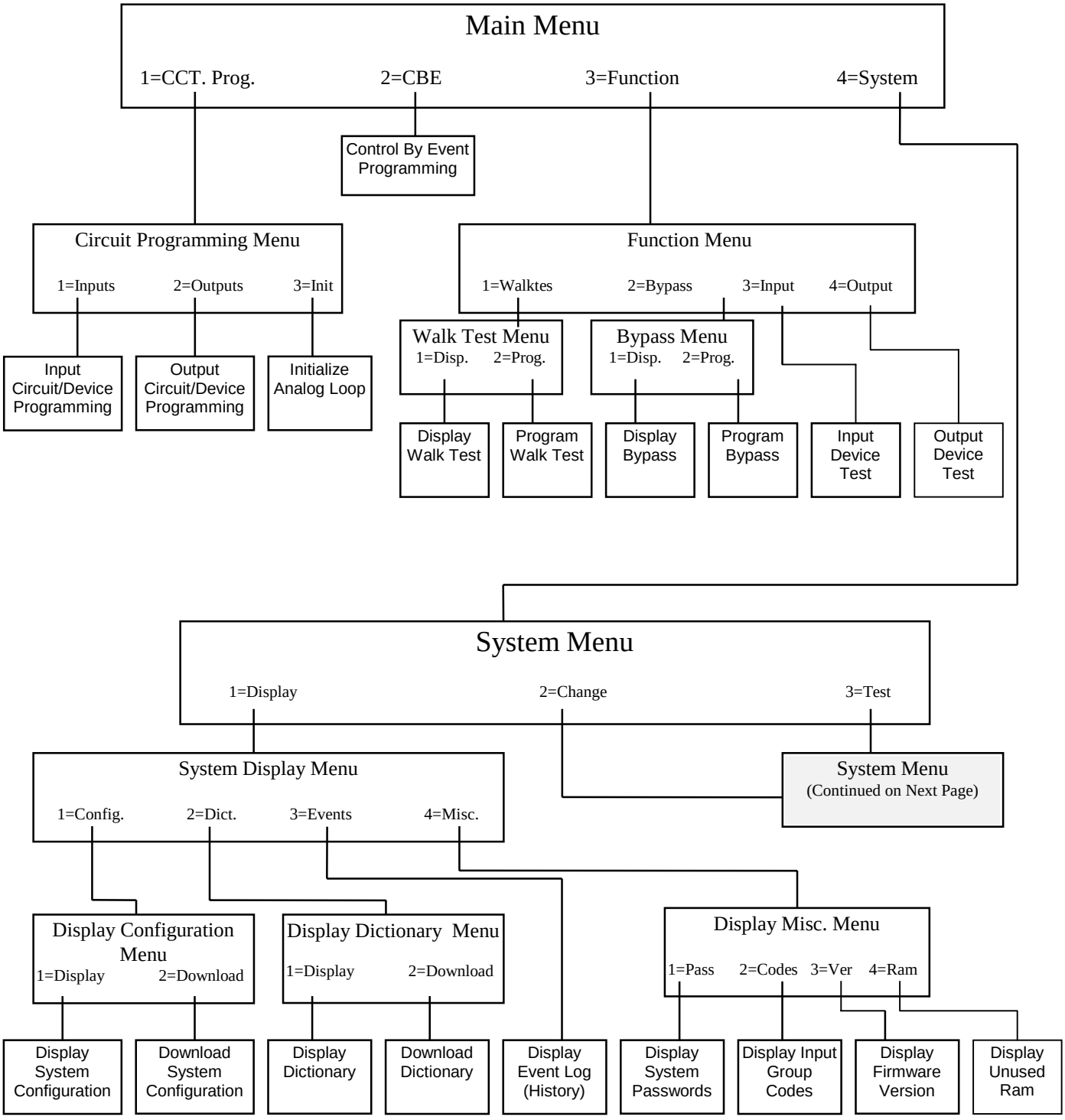
13. To reactivate Bypassed devices repeat steps 1-11 toggling each device to the "NOT-BYPASSED" selection.

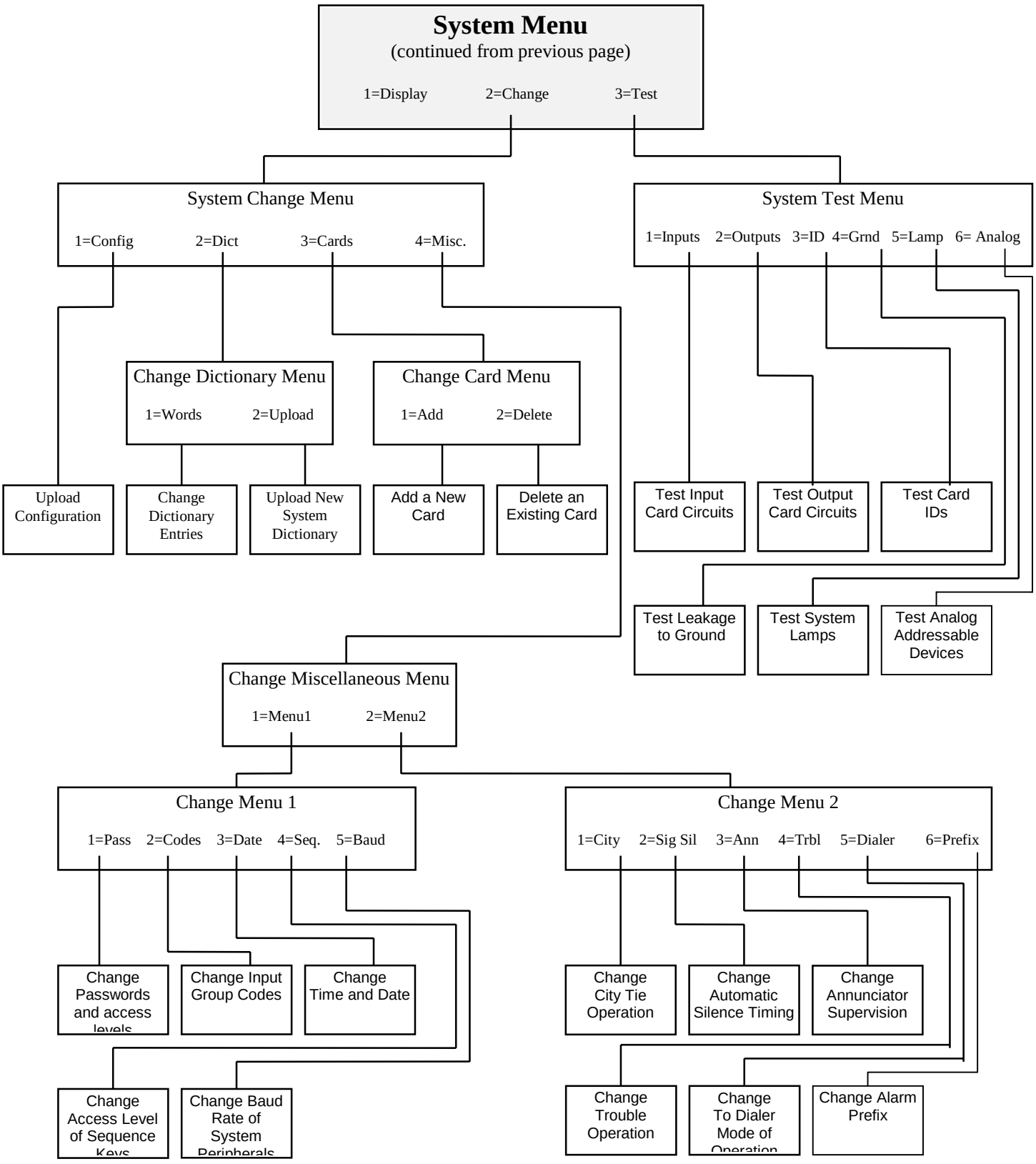
Section 5

IDENTIFLEX 630

Programming

PROGRAMMING FLOWCHART/OUTLINE




System Menu
(continued from previous page)
1=Display
2=Change
3=Test
System Change Menu
1=Config
2=Dict
3=Cards
4=Misc.
System Test Menu
1=Inputs
2=Outputs
3=ID
4=Grnd
5=Lamp
6= Analog
Change Dictionary Menu
1=Words
2=Upload
Change Card Menu
1=Add
2=Delete
Upload Configuration
Change Dictionary Entries
Upload New System Dictionary
Add a New Card
Delete an Existing Card
Test Input Card Circuits
Test Output Card Circuits
Test Card IDs
Test Leakage to Ground
Test System Lamps
Test Analog Addressable Devices
Change Miscellaneous Menu
1=Menu1
2=Menu2
Change Menu 1
1=Pass
2=Codes
3=Date
4=Seq.
5=Baud
Change Menu 2
1=City
2=Sig Sil
3=Ann
4=Trbl
5=Dialer
6=Prefix
Change Passwords and access levels
Change Input Group Codes
Change Time and Date
Change Access Level of Sequence Keys
Change Baud Rate of System Peripherals
Change City Tie Operation
Change Automatic Silence Timing
Change Annunciator Supervision
Change Trouble Operation
Change To Dialer Mode of Operation
Change Alarm Prefix

INTRODUCTION

"SmartStart"™ {XE "\"SmartStart\""}

The SmartStart™ automated programming process feature is available in all Gamewell's IdentiFlex and FlexAlarm 600 series control panels. This initialization process uniquely configures the system parameters in memory. The system automatically ties its inputs to its outputs through the creation of the control-by-event tables.

During power-up or after a hardware reset, the controller decides if the system has previously had a data base configured. If the system has not configured a data base, the system polls all of the modules for type codes, status and placement, then builds a hardware configuration data base. It then polls all 126 device addresses on each circuit of the Analog Interface card(s). When a valid response is detected to any of the addresses polled, a data base for the device is created in memory. This data base for the device consists of information specific to the device such as its circuit, its address, its device type etc. The complete data base for the addressable devices is divided into circuit tables that store the information for all of the 126 maximum devices on each circuit. The circuit table is then further divided into an input table and an output table. Input tables consist of all initiating devices (detectors, pull stations, etc.) while the output table consists of all the actuating devices (relays and signal circuits, etc.). At the completion of the SmartStart™ cycle the system is configured as a general alarm system. All initiating devices are assigned to automatic zones. Any initiating device(s) reporting an alarm condition will activate all signal circuits steady and relays active.

Polling{XE "Polling"}

During system operation the controller sequentially polls all initiating devices that are part of the input tables. All 4 circuits are polled independently and asynchronously.

General Overview

The system programming is completed through tactile keypad switches mounted on the front Operators Display (OD). Main level display screens are menu driven and users are prompted to enter sequential keystrokes.

Programming Prompts

Δ WARNING !

During all levels of programming, the system will be in an off-line status and no alarm's will be processed. The protected premises should be monitored by a fire watch or other reliable measure(s).

Û **NOTE: Before proceeding, notify all personnel, monitoring companies and municipalities that the system will be temporarily "out of service".**

Programming Prompts (continued)

Throughout the programming sequence, the user is prompted to enter data selections at the location of the flashing cursor. To select sub- menu options, use the following prompts:

To Select a Field Option	Use Right and Left arrow keys to horizontally scroll and select option field.
To Select Field Variable Types	Use up and down arrows keys to vertically scroll variable types.
Keypad prompts	Keypad prompts (e.g. [Password], [Drill], [1] [2] etc.) will be enclosed with brackets.
Display Messages	All formats for display messages will be enclosed in quotation marks.
"**Enter**" key	To complete the choice of an option, press the "**Enter**" key. This standard format of the word "**Enter**" is used throughout the programming section.

SYSTEM STARTUP

This section is subdivided into two sections, Initial System Startup and System Restart / Re-Configuration. Instructions for a newly installed system are detailed in the Initial System Startup section. Instructions for a "hardware reset" are detailed in the System Restart / Re-Configuration section.

CAUTION !

Connect primary power to the system before connecting battery/standby power source.

Û **NOTE: It is assumed all system installation wiring procedures detailed in this manual have been completed in accordance with local, state and federal codes.**

Initial System Startup

1. Activate main power. The "Power ON" message (Figure 2) is displayed. Power will now be applied to all modules and devices.

Figure 2

2. Wait the required 15 seconds. [Power ON] LED is flashing. Commencing System Reset screen is displayed (see Figure 2A).

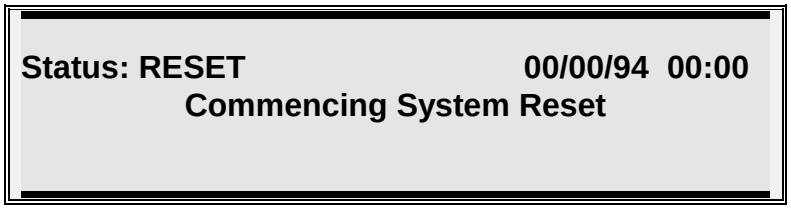


Figure 2A

3. To modify the program, proceed to **Password Entry - Access Levels** section.

SYSTEM RESTART / RE-CONFIGURATION - SMARTSTART

Δ WARNING !

All programming data will be lost when the system is re-configured. The system will initialize the SmartStart™ feature and will configure a new data base.

Hardware Reset

1. Complete a hardware reset by shorting the jumper pins on P4, located on the CPU card. Figure 2 screen will be displayed. (Power On/System Reset)
2. While the Power On LED is still flashing, press the [Power On] switch. Figure 3 will be displayed.
3. A Warning Message will be displayed. If no action is taken the system will continue its reset process.

To Initialize System to Default settings
Press Enter Key Now
WARNING WARNING WARNING WARNING
All Programmed Data will be lost !!!!

Figure 3

Δ WARNING !

Pressing "Enter" - all programmed data will be lost. Pressing any other key will Bypassed the re-configuration sequence.

4. Press "**Enter**" to begin SmartStart processing. Figure 3B is displayed. "Time remaining *N* sec" is a countdown from 15 seconds.

Status : Normal 00/00/94 00:00
Begin System I/O Assignments.
Please Wait .... 15 sec Power Up Delay !
Time remaining *N* sec

Figure 3A

Hardware Reset (continued)

5. After a 15 second delay, the system commences a hardware restart. Modules and devices are being read and will scroll up on the display, Figure 3C. Next the System RESET screen is shown, Figure 2A. Then the "System Idle" screen is displayed, Figure 4.

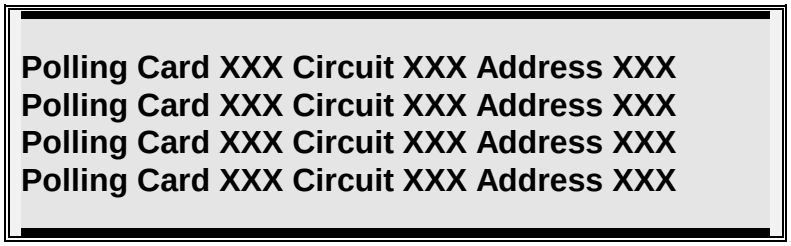


Figure 3C

Û **NOTE: Upon completion of the SmartStart process, all connected addresses will be contained in system memory and all inputs will be tied to all outputs.**

System Idle Display

After the initial system startup or system re-configuration is completed, the display will show the current date (month/day/year) and time (military), see Figure 4.

Û **NOTE: The system is equipped with a built-in screen saver. When the system remains in a idle mode (i.e. normal quiescent condition) for over 15 seconds the screen will automatically go blank.**

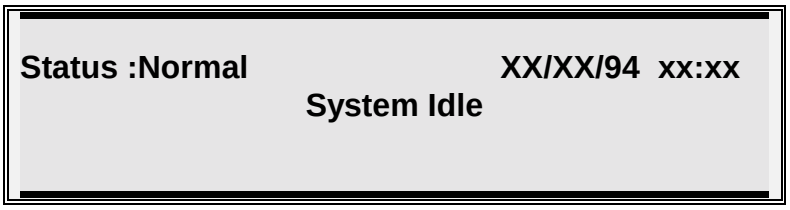


Figure 4

PASSWORD ENTRY - ACCESS LEVELS

Four levels of password protection have been incorporated in the IF630 system firmware. These passwords allow access to various functions of the system. Each of the four levels default to certain functions of the system and can be re-assigned to other functions via programming. Up to ten passwords may be assigned to these access levels. As well, an area to assign a user ID to each password has also been provided for quick reference. Each user ID may contain up to 10 characters. Each of these password ID's may be assigned up to a ten character string.

Û **NOTE: System configuration (i.e. SmartStart™) defaults to level 2 password access. When the password access level is changed, the system defaults to that level even when the system loses power. Password re-assigned to level 4 are not accessible.**

The four access level default settings are:

Access level 1 = Ack.
Access level 2 = Ack., Sig. Sil., Reset, Drill
Access level 3 = Ack., Sig. Sil., Reset, Drill, Det. test, WalkTest, Bypass
Access level 4 = Programming

Default passwords for the access levels are:

Password 1111 = Access level 1
Password 2222 = Access level 2
Password 3333 = Access level 3
Password 4444 = Access level 4

Δ WARNING !

When the system is in access level 4, programming, the system will not recognize an alarm or trouble condition. The premises should be protected by a fire watch or other reliable measure(s) whenever the system is being programmed.

Password Entry

1. Press "Password" keypad switch. Figure 5 is now displayed.

Line 1
Line 2
Line 3
Line 4

Password Entry Screen

Enter Password:
Security Level: *X* User ID: *XXX*

Figure 5

2. To change access levels, enter the appropriate password on the keypad.
3. To modify the SmartStart program after a system configuration, enter the password access LEVEL 4.

Û **NOTE: System will reset out of Programming mode after 5 minutes of inactivity.**

PROGRAMMING MODE

Main Display

The main programming display shows the user an overview of the programming modes. The user is allowed to select from from three categories. (Figure 6)

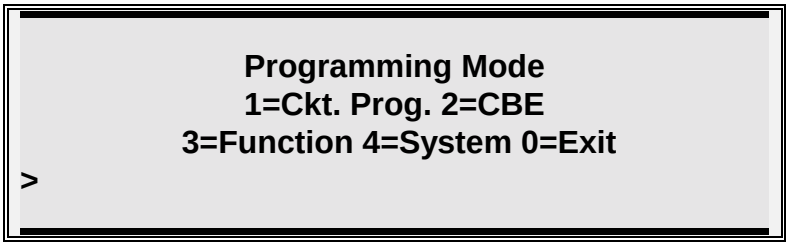


Figure 6

1= Circuit Prog	Circuit Programming
2 = CBE	Control-By-Event
3= Function	System Test/Bypass
4 = System	System Wide Programming
0= Exit	Exit

PROGRAMMING MODES
TABLE P1

CIRCUIT PROGRAMMING

Select "Circuit Prog" from the main "Programming Mode" menu to modify input/output device characteristics (e.g. zone type, group assignment, signal code and device specification text). (Figure 7)

Figure 7

"Inputs" Circuit Selection

1. From the Circuit Programming menu, Press [1] on kepad.
2. Press "**Enter**".

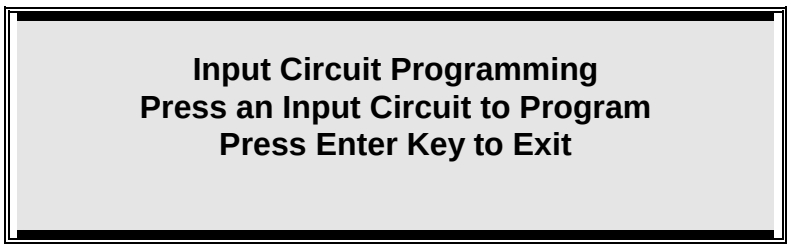


Figure 7A

3. Select the circuit to be modified. Use circuit select switches located on the front panel display. (see Figure 1, Common Control Display, Section 2). The LED of the selected circuit illuminates.

Û **NOTE: The cursor will be flashing under the circuit number. If the device type is an ion detector Figure 8 will be displayed.**

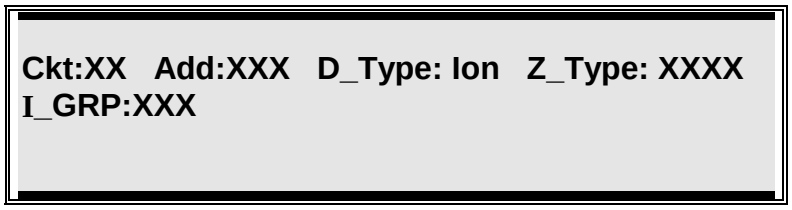


Figure 8

Û **NOTE: The display starts with Circuit 1 and begins with the highest address in circuit.**

Field Descriptions

"Ckt": xx"	Indicates the circuit (analog line or conventional) that has been selected.
"Add: xxx"	Shows the address of the device to be modified (1 - 126).
"D_Type:xxx"	Shows the type of device (from type code of addressed device). If the device type is a photo detector, Figure 8A will be displayed. For a complete list of Device Types refer to Table P3 - page 52.
"Comp:x"	A photo detector can be selected for operation with background compensation (Yes) or without background compensation (no). Default is Yes.
"Sens:x"	The sensitivity range of a photo detector can be adjusted (compensated) to the environment. The device sensitivity range; 3 is the least sensitive and 0 is the most sensitive. The default is '2'.
"R/R:x" "FTemp:x"	If the device is a heat detector, Figure 8B will be displayed. If the device is a heat detector, the rate of rise parameters can be defined in Celsius or Fahrenheit.
"Z_Type: xxx"	Shows the type of zone that has been selected for the device. Zone types are defined in Zone Type Table P2 - page 52.
"I_GRP: x"	Indicates the selected initiating group of the device. Each input device can only be assigned to one group. One initiating group can contain many input devices (logically arranged). The user can utilize up to 256 initiating groups.
"W1:xxx "	Indicates the five (5) separate word dictionaries (W1 - W5) stored and words contained in each dictionary (0 - 127 coded words). This field is not displayed until selected. Refer to Table P4.

Û **NOTE: The user can scroll through field variables using up/down arrow keys or enter the address number directly via the key pad.**

Device Selection

4. Use the left/right arrow keys to move the cursor flashing under the device address "Add:xxx", enter the address number or use the up/down arrow keys to

select the address of the device to be modified then press enter.

Photo Device Sensitivity Selection

Δ WARNING !

Changing the sensitivity of a Smoke Detector may delay alarm reporting. No device should be changed without the approval of the authority having jurisdiction. All settings should be in compliance with all NFPA codes, UL listings, or other local codes.

4.1 To modify the device sensitivity, use the left/right arrow keys to scroll to "sense:". Use the up arrow key to adjust sensitivity.

Û **NOTE: The sensitivity scale allows the user to select a range of settings which are numeric values (0 through 3). The number 0 is the most sensitive device setting and the number 3 is the least sensitive device setting. Refer to Figure 8A.**

```
Ckt:XX  Add:XXX   D_Type:Opt    Z_Type: XXX
I_Grp:XXX         Sens: X          Comp: X
```

Figure 8A

4.2 To change an optical detector to a compensated/uncompensated device use the left/right arrow keys to scroll to "comp:". Use the up/down keys to select "Y" or "N" (Yes/No).

Heat Device Operating Selection

4.3 To select a heat detector operating characteristic or use the left/right arrow keys to scroll to "R/R". Use the up arrow key to select "Y" (Yes) rate of rise function. When rate of rise is selected the device will alarm when it detects a 15° increase in temperature within one minute. Select "N" (No) for fixed temperature device. "F Temp" refers to the device's fixed high temperature setting. To change the temperature setting use the up/down arrow keys. The default is 55C/131F. Rate of Rise default is 'yes'.

```
CCT:XX   Add:XXX   D_Type: Heat  Z_Type: XXX
I_GRP:XXX   R/R: xxC/xxF Temp: XXX
```

Figure 8B

Zone Type Selection

5. Use the right arrow key to move to "Z_Type:". Use the up/down arrow keys to select zone type. Only zone types that apply to device types will be displayed. Refer to Table P2 - page 52 - for a complete list of all zone types.

Initiating Group Selection

6. Use the right arrow key to move to "I_Grp". Enter the initiating group number or use the up/down arrow keys to select initiating group type (see Field Description).

User Text Selection

7. Use the right/left arrow keys to move to select *text word dictionaries* "W1" through "W5:" field (not shown until selected).

8. Use the up/down arrow keys or enter the three digit word number to select text entries from *text word dictionaries* "W1" through "W5:". The ## represents the text entry number in dictionary *D.* See Figure 10.

   Û **NOTE: The "W*D*" field is not displayed until the cursor is placed in its field. When the dictionary 1 through 5 is selected "W*D*" will be shown on the lower right hand corner of the display. See Figure 10.**

Figure 10

9. When the desired coded word is displayed, use the left/right arrow keys to select the next field.

Û **NOTE: It is not necessary to press "Enter" when the Up/Down arrow keys are used to change the parameter of a field. The field contents are automatically updated for the device as shown on the display (Except I_Grp).**

10. When all input devices have been programmed, press "**Enter**" to exit the input circuit programming mode.

ZONE TYPE TABLE - P2

Display Panel	Name	Description
Ver	Verification	Automatically verifies the device (see Glossary). (Default program resets after 10 seconds, allows to stabilize for 30 seconds, then monitors device for 60 seconds to verify an alarm condition.
Auto	Automatic	Any automatic (as opposed to programmed or manual) check of validity of data. *(device status).*
Gener	Generic	All the device control functions are active without placing the system in a general alarm condition at the panel.
And	And Initiating Zone	Two stage automatic detection (see Glossary).
Ack	Acknowledgment	Remote location acknowledgment (see Glossary)
Drill	Drill	Remote drill system condition.
Reset	Reset	Remote reset of the panel - resets system.
Super	Supervisory	Sprinkler Supervisory signal input

DEVICE TYPE TABLE - P3

Display Panel	Description
Ion.	Ionization Sensor
Opt .	Photo-Electric Sensor
Heat	Thermal Sensor
Mon.	PID - Point Identification Device (contact monitor)
Man.	Manual Station (or PID with priority interrupt set)
CZI	Collective Zone Interface
CZII	Collective Zone Interface (with priority interrupt set)

TEXT DICTIONARY TABLE - P4

W1	W2	W3	W4	W5
Fire Alarm	Smoke Detector	1st.	Floor Room Number	1
Alarm	Heat Detector	2nd.	Floor Corridor	2
Gas	Duct Detector	3rd.	Floor Elevator Lobby	3
Sprinkler	Water flow	4th.	Floor	4
Trouble	Tamper switch	5th.	AHU	5
Acknowledge	Manual Station	6th.	Floor-Closet	6
Reset	Pull Station	7th.	Level	7
Mechanical	Beam Detector	8th.	Floor-Service Elevator Lobby	8
Electrical	Fire Station	9th.	Sub-level	9
Boiler	Ionization Smoke Detector	10th.	Basement Level	10
Utility	Photo Smoke Detector	11th.	Sub-basement Level	11
Extinguishing	Tunnel Heat Detector	12th.	Basement	12
Fire	PIV switch	13th.	Parking Level	13
	Pressure switch	14th.	Garage Level	14
	Fire Pump	15th.	Wing	15
	Generator	16th.	Floor Wing	16
		17th.	Atrium	17
		18th.	Mezzanine	18
		19th.	Ballroom	19
		20th.	Kitchen	20

Output Circuit Programming

Select "Outputs" from the Circuit Programming menu to modify indicating output signal characteristics (e.g. zone type, group assignment signal codes, restore options and Drill mode).

Signal Circuit 1 and Circuit 2

Select Outputs from the circuit programming menu to modify the signal circuits characteristics (e.g. drill, group assignments, signal type, etc).

1. From the Circuit Programming menu, Press [2] on keypad, see Figure 7.
2. Press "**Enter**".
3. When a signal circuit is selected for programming from the operators display, Figure 11. The red LED of the selected circuit will illuminate.

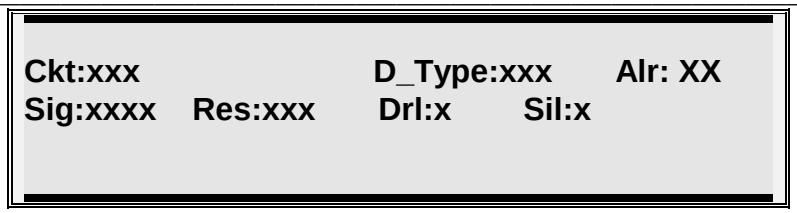
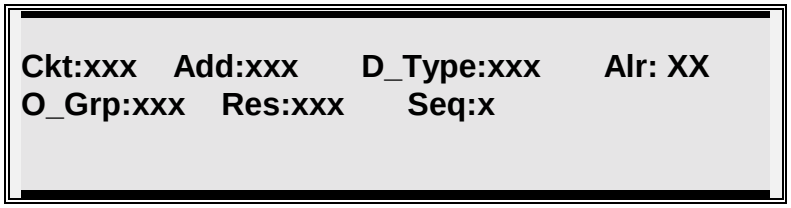


Figure 11

3.2 When an analog addressable line is selected for programming from the operators display, Figure 11B. The yellow LED of the selected circuit will illuminate



Û **NOTE: If a signal device is not present on the selected analog addressable line, the result is no action.**

Field Descriptions for Signal Circuits and Analog Addressable

"Ckt:xxx"	Indicates the signal circuits memory address
"Add:xxx	Address of analog relay module
"D_Type:Sig"	Shows the type of output circuit
"ALR:x"	Indicates to what alarm level the circuit will be activated in the event that "and" zones are programmed. **NOTE: The use of Cross and Counting Zones must comply with the applicable requirements of NFPA 72, 3-8.2.5:** **Systems that require the operation of two automatic detection devices to initialize the alarm response shall be permitted, provided:** **(a) They are not prohibited by the authority having jurisdiction.** **(b) There are at least two automatic detection devices in each protected space.** **(c) Automatic detection device area spacing is no more than one-half that determined by the application of NFPA 72 Chapter 5.**
"Sig:xxx"	Indicates the type of signaling to be output by the circuit (i.e. steady, marchtime, etc). Refer to table P5 for a complete description .
"Res:xxx"	Indicates when the signal circuit has been programmed to return to normal. See table P6 for a complete list of options.
"DRL:x"	Indicates if a signal circuit will activate when the drill switch is depressed.
"Sil:x"	Auto Silence - 10 minutes.
"O_Grp:xxx"	Identifies the output group to be modified.
"Seq:"	Sequentially Restores.

Û **NOTE: If an analog addressable line (or single device) is not present when selected, the result is no action.**

4. Program the signal circuit by using the left/right arrow keys to move between fields and the up/down keys to assign the desired characteristics.

5. To program the second signal circuit press its associated switch and repeat step 4.

6. To exit output circuit programming press the "**Enter**" key.

Signal Circuit Types

Output Signal Circuit Type

A. STEADY DC

Steady DC type signal circuit is the System Default. When Activated, any signal circuits programmed for Steady DC will provide a 24VDC uninterrupted output.

B. MARCHTIME 60

Marchtime 60 circuits, when activated, will provide a 24 VDC output on the selected circuits at a 60 pulses per minute rate with a duration of 50% on and 50% off cycle.

C. MARCHTIME 120

Marchtime 120 circuits, when activated, will provide a 24 VDC output on the selected circuits at a 120 pulses per minute rate with a duration of 50% on and 50% off cycle.

D. TEMPORAL

Temporal signaling circuits, when activated, will provide a 24 VDC output in the pattern of a Morse Code "U". This pattern is active for .25 seconds, off for .25 seconds, active for .25 seconds, off for .25 seconds, active for .75 seconds, off for .75 seconds. The pattern repeats until the circuit is returned to Idle.

E. CALIFORNIA UNIFORM FIRE CODE

California Uniform Fire Code Signal circuits, when activated, will provide a 24 VDC output in Marchtime 120 format for 10 seconds on and 5 seconds off. The pattern repeats until the circuit is returned to Idle.

F. CODED

Zone coded signaling circuits when activated will produce a 24VDC pulsed numeric code to be transmitted up to 6 times or as programmed. A separate code is usually transmitted for each input zone.

Signal Circuit Restore

A. Restore On - ACKNOWLEDGE

Any active output point programmed to restore on ACKNOWLEDGE will return to Idle whenever the Acknowledge switch is pressed. All output points that were returned to Idle will reactivate upon a subsequent alarm.

B Restore On - SIGNAL SILENCE (** System Default **)

Any active output point programmed to restore on Signal Silence will be silenced by the activation of the Signal Silence Switch and will return to Idle. The Signal Silence Switch operates as a toggle switch. All outputs that were returned to idle will reactivate upon a subsequent alarm or by depressing the Signal Silence Switch again. Both Signal Circuits and Relay Outputs can be programmed to restore on Signal Silence.

C. Restore On - RESET

Serves as System Default. Any active output point not programmed or de-programmed from Restore on Acknowledge, or Restore on Signal Silence will cause the output point to restore on RESET.

Û **NOTE: There are a few restrictions to be aware of regarding output signal circuits:**

1. The two signal circuits on the Bus Driver Module (BDM) can be used for steady or pulsing DC (marchtime, temporal, etc.) and programmed separately.

Alarm Levels Available

There are three levels of alarm that can be assigned to each type of output circuit, PreAlarm, 1st Alarm or 2nd Alarm. These levels designate at which level of alarm an output circuit will activate. Output circuits assigned to 1st alarm level (system default) will activate when a first alarm is detected on its assigned input circuit(s), provided the input circuit is assigned to activate that output circuit in the CBE table. Circuits designated as PreAlarm will activate when a prealarm level is detected on an input circuit. Circuits requiring activation on 2nd alarm (AND zones) can be assigned to alarm level 2. An AND zone assigned to activate both 1st and 2nd alarm level output circuits will activate only those outputs assigned to level 1 during a first alarm condition. When a second alarm is detected both first and second alarm outputs will activate. A shorting device will activate both first and second alarm outputs (CZI).

Special Signal Circuit Functions

A. SIGNAL SILENCE INHIBIT

Silence Inhibit will prevent the operation of the Signal Silence function for a programmable period ranging from 30 seconds to 5 minutes from the time the first point goes into alarm. If the panel is programmed for Silence Inhibit any activation of the Signal Silence Switch will be ignored, allowing the output signal circuits to be active, until the one (1) minute delay has elapsed.

B. AUTO SILENCE - Automatic Signal Cutoff

If an output signaling circuit is programmed for Auto Silence it will automatically silence the signal circuits ten (10) minutes from the time the first point goes into alarm. If subsequent to its silencing, a new alarm occurs, the output signaling circuit will resound and the auto silence time-out feature will reset its timer to silence its associated outputs at ten (10) minutes past the last alarm.

C. Drillable

Any signal circuit programmed as drillable will activate when the drill feature is activated.

Restoring Outputs

A. Restore On - ACKNOWLEDGE

Any active output point programmed to restore on ACKNOWLEDGE will return to Idle whenever the Acknowledge switch is Depressed. All output points that were returned to Idle will reactivate upon a subsequent alarm.

B. Restore On - RESET (** System Default **)

Serves as System Default. Any active output point not programmed or de-programmed from Restore on Acknowledge, or Restore on Signal Silence will cause the output point to restore on RESET.

C. SEQUENTIAL RESTORE - Upon System Reset

The sequential restore only applies to relay outputs. Any active RCE-95 programmed for Sequential Restore will only restore on Reset, not on Acknowledge. Selected relays will return to Idle 4 seconds apart, starting with the highest address and ending at the lowest address set. The restore sequence is determined by the actual address of the RCE and is not programmable.

Initializing an analog Circuit

Initializes an individual circuit. Allows the user to add new devices (detectors) or remove devices in the specific circuit selected. All other circuit information previously entered (utilized in Control By Event data base programming) is protected and cannot be altered or damaged.

1. From the circuit programming display menu, select the [3] numeric key.

2. Press "**Enter**". Figure 12 C is displayed.

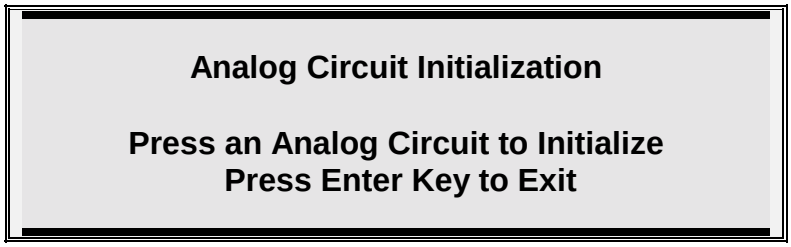


Figure 12C

3. Select the circuit to initialize (1-4). SmartStart™ feature configures new data base making any changes that have been detected. See Figure 12D.

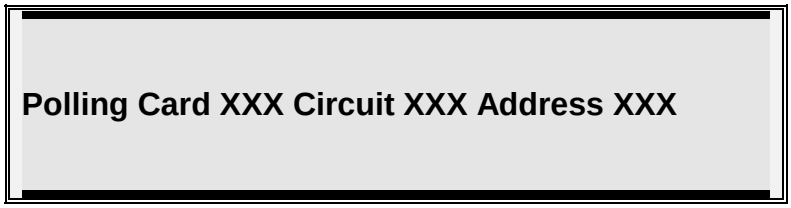


Figure 12D

CONTROL BY EVENT

Control-by-Event programming allows the user to create a matrix whereby selected groups of input devices are logically arranged to selected groups of output devices or circuits. The SmartStart™ feature automatically assigns all input devices to select all output devices or circuits.

In the device specific screens, input or output group numbers (1 - 256) can be assigned to each device. Multiple devices can be assigned to a single group but each device can only be assigned to a single group.

In the output programming menu for each device or circuit there is a field (Alr) for assigning the Alarm level it will activate. The three levels of alarm, 1= pre-alarm, 2= 1st alarm and 3=2nd alarm. These levels combined with the CBE table determine when the circuit or device will activate.

CBE Programming

Control-by-Event "CBE" programming is dedicated to system wide ALARM functions. Select "CBE" (#2) from the main "Programming Mode" menu to change or assign input group assignment with the associated output group.

To select "logical" Group Inputs

1. Select "CBE" (#2) from the main "Programming Mode" menu.

2. Press "**Enter**".

Enter Input Group#: *XXX*

Figure 13

3. Using numeric keys, enter the corresponding input group number. The group number will be displayed in the location as shown in Figure 14.

xxx

Enter Input Group: *xxx*

Figure 14

4. Enter all desired input group numbers. The assigned input group number is displayed in top left of screen. As the next input group number is entered, group numbers are sequentially arranged (ascending order). Enter up to 256 group input numbers.

Û **NOTE: To cancel an individual input group, enter that group number and press "Enter". The group number is <u>not</u> shown and is then canceled.**

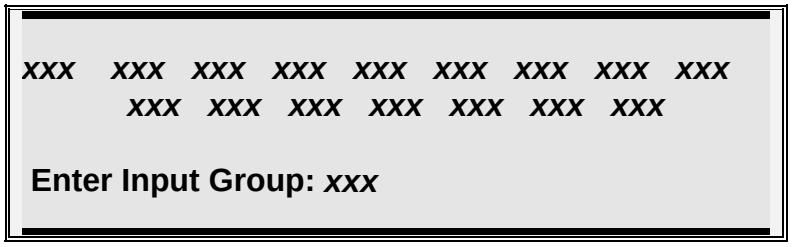


Figure 14A

To assign a "logical" Output Group

5. Press "**Enter**". Figure 15 is now displayed.

Figure 15

6. Using numeric keys, enter the desired output group number or press the signal circuit switch. The assigned output group number now is displayed in top left as shown in Figure 15A.

Figure 15A

7. Enter all desired output group numbers. The assigned output group number is displayed in the top left of the screen. As the next output group number is entered, group numbers are sequentially arranged (ascending order). Enter up to 256 group output numbers, see Figure 15B.

Û **NOTE: To cancel an individual output group, enter that group number and press "Enter". The group number is <u>not</u> shown and is then canceled.**

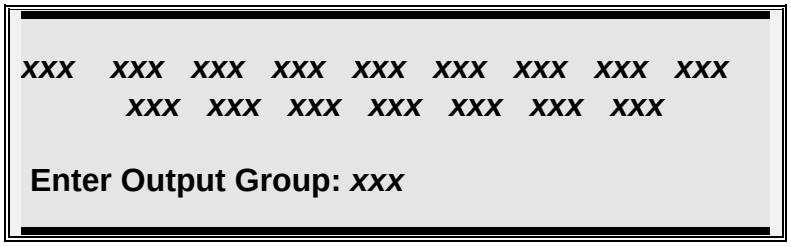


Figure 15B

8. Repeat sequential steps (3 through 7) for each associated input/output group to be modified in the selected circuit.

FUNCTION PROGRAMMING

Refer to Section 4 - System Test Mode

SYSTEM PROGRAMMING

Programming

System programming menus may be accessed if the proper programming password is entered at the "ENTER PASSWORD:" prompt.

Programming may also be performed from a laptop computer connected to the RS-232 port on the CPU of the control panel. Refer to the end of this section for instructions.

Û **NOTE: Before proceeding, notify all personnel, monitoring companies and municipalities the system will be temporarily "out of service". During all levels of programming, the system will be in an off-line status.**

System Menu

The "System Menu" menu is displayed when the programming password is entered.

System Menu
1=Display 2=Change 3=Test
0=Exit

Display Menu

Selecting the "Display" option from the "System Menu" which allows the user to display or download various system parameters. There are four options that may be selected from this menu (see Figure 5-2) and four options that may be selected from the "MISC." menu selection. (Figure 5-3).

Display Menu
1=Config 2=Dict 3=Events
4=Misc 0=Exit

Config Menu

The Configuration Menu allows the user to select either displaying the system module configuration or downloading the entire system configuration.

Configuration Menu
1=Display 2=Download 0=Exit

Display Config

The system module configuration is displayed when option 1 is selected from the Configuration Menu. This display shows the modules that are present in each card location, their associated card type, code and a description of the card. The modules displayed are retrieved from the system configuration memory and are not a real time scan of the actual cards present (refer to the system test menu for a real time display).

Configuration Menu
1=Display 2=Download 0=Exit

```
>1
Card:0, ID:16 is CCM0: A/N Panel
Card:1, ID:FF is Vacant
Card:2, ID:FF is Vacant
Card:3, ID:FF is Vacant
Card:4, ID:01 is CCM4: 2 Sig Ckt, Class A
Card:5, ID:02 is CCM5: 4 Rel Ckt
Card:6, ID:05 is CCM6: Misc. Ckts.
Card:7, ID:FF is Vacant
Card:8, ID:FF is Vacant
Card:9, ID:FF is Vacant
Card:10, ID:FF is Vacant
Card:11, ID:FF is Vacant
Card:12, ID:FF is Vacant
Card:13, ID:FF is Vacant
Card:14, ID:FF is Vacant
Card:15, ID:FF is Vacant
Card:16, ID:FF is Vacant
Card:17, ID:FF is Vacant
Press Enter Key To Continue
```

System Configuration

Select this field to view the system modular placement (hardware configuration, card identification number and I/O card type assignment). The IdentiFlex 600 series systems utilize a fixed card placement design for identifying I/O module types (and associated displays), installed in the main cabinet as well as any expander cabinets. The card locations are pre-defined and cannot be altered.

Modular Placement

Card numbered 0 through 7 are reserved for the various common control module sections. These card location numbers are hardwired physical circuits. **Card locations 8 through 39 are assigned to specific cards and displays utilized in Gamewell's FlexAlarm 620 system and the IdentiFlex 650 systems.** The exception is the analog addressable module which is assigned to card location number 17.

Card #17

The IdentiFlex 630 utilizes card location number 17 for the analog addressable interface module and the analog addressable expander module (if installed). All other card locations (8 through 39) are vacant.

IDENTIFLEX 630 System Housing

Common Control Section Cards 0 - 7				
Left Display Cards	**Left I/O Cards**		**Right I/O Cards**	**Right Display Card**
12	8		16	20
13	9		**17 (AAM)**	21
14	10		18	22
15	11		19	23

Table L3, IF630 Card Locations

Note: AAM = analog addressable module

Card ID #

Each type of card is assigned a unique 8 bit code that the card transmits to the CPU when it is polled. In operation each card is periodically polled and returns its type code. The CPU detects if the card is functioning correctly, for a card type at that location. Refer to Table L4, IF630 Card ID Type.

Card Location	Card No.	Card ID Type Code (hex value)	Card Description
Display Module	Card# 0	0A	Alphanumeric (LCD) display card
Bus Driver Module	Card# 4	01	Signal Circuit Card
Relay Expander Card	Card# 5	02	Relay Card
Bus Driver Module	Card# 6	05	Variety of features (city tie supervision, ground fault, default power supply supervision, +24 V, +12V, -12V +5V supervision, V-battery to power supply, unregulated raw supply, system on AC/Battery, Charging Monitor, battery monitor, aux 1 & 2).
Analog Addressable Module	Card# 17	09	XP95 analog addressable interface (2 or 4 circuits)

Table L4, IF630 Card ID Type

System Configuration

1. Select [1], the "Config" field.

2. Select “Display” [1], Press "**Enter**". (*Figure L-3 is an example of data shown*).

3. The alphanumeric screen will scroll and the user can view desired circuit.

4. Select “Download” [2] to download system configuration to a laptop computer. Refer to Flex 600 computer/laptop programming manual.

Card 00, ID# 0A is: A/N Panel
Card 04, ID# 01 is: CCM: 2 Sig Ckt, Class A
Card 05, ID# 02 is: CCM: 4 Rel Ckt
Card 06, ID# 05 is: CCM: City Tie, Buzzer etc.
Card 07, ID# 07 is: Unused
Card 17, ID# 09 is: Apollo Interface

Figure L-3

4. Press "**Enter**" key for previous menu. Figure L-2, is shown.

Download Config

Selecting Download from the Display Configuration Menu will prompt the system to transmit the complete system configuration file to the RS-232 port. When this is selected the system prompts the user to perform several steps. These steps are the actions required to receive an ASCII file when using PROCOMM communications software. When using alternate software packages follow the procedure required for that software to receive an ASCII file. The next CR the system receives will start the transmission of the file.

Configuration Menu
1=Display 2=Download 0=Exit

>2

Ready to Download Configuration File.

To Download:
1. Press PgDn
2. Choose 7 (ASCII)
3. Enter Filename

Û **NOTE: For Procomm only, the ASCII transfer setup must have the following parameters. Use the following table)**

ASCII Upload			**To Down Load**	
1) Echo locally	No		1) Press PgUp	
2) Expand blank lines	No		2) Choose 7	(ASCII)
3) Pace Character	0		3) Enter "Dict" (filename)	
4) Character Pacing	0			
5) Line pacing `	0		CR translation	none
6) CR translation	none		LF translation	none
7) LF translation	strip			

Display Dict. Menu

This display option allows the user to view the contents of word dictionaries 1 - 5. Dictionaries 1 - 4 may contain up to 128 entries and dictionary 5 may contain up to 1024 entries. By selecting this option the contents of all 5 user dictionaries are output to the laptop/computer screen.

Display Dictionary Menu
1=Display 2=Download 0=Exit

Display Dict.

The following is the format in which the dictionary will be displayed.

```
Start of Dictionary #1

End of Dictionary #1
Start of Dictionary #2

End of Dictionary #2
Start of Dictionary #3

End of Dictionary #3
Start of Dictionary #4

End of Dictionary #4
Start of Dictionary #5

End of Dictionary #5

Press Enter Key to Continue.
```

Download Dict. Selecting Download from the Display Dictionary Menu will prompt the system to transmit the complete set of 5 dictionaries to the RS-232 port. When this is selected, the system prompts the user to perform several steps. These steps are the actions required to receive an ASCII file when using PROCOMM communications software. When using alternate software packages follow the procedure required for that software to receive an ASCII file. The next CR the system receives will start the transmission of the file.

```
                    Display Dictionary Menu
                1=Display 2=Download 0=Exit
>2
Ready to Download Dictionary File.

        To Download:
        1. Press PgDn
        2. Choose 7 (ASCII)
        3. Enter Filename
```

Display Events The display events selection will prompt the CPU to output it's complete history log to the RS-232 port. The history log will contain all information regarding the system status changes for the previous 1000 events or since the last time the system SmartStart™ feature was invoked.

```
                    Display Menu
                1=Config 2=Dict 3=Events
                    4=Misc 0=Exit
>3
**** Start of Event Buffer ****
Status:NORMAL          03/27/95 15:08

Press Enter Key To Continue
```

Display, Misc. When 4 (Misc) is selected from the Display menu, a sub-menu of selections is displayed.

```
                    Display Menu
              1=Config 2=Dict 3=Event
                       0=Exit
>4
                  Display Menu (Misc.)
                    1=Pass 2=Codes
                  3=Ver 4=Ram 0=Exit
```

Display Pass

Displaying the passwords allows the user to view the 10 passwords that are assigned to the system. Each password has a user ID and a security or access level assigned to it. This screen also shows the security levels that are assigned to each of the function keys. The following display are the default settings for the Flex 600 system.

```
                    Display Menu
              1=Config 2=Dict 3=Event
                       4=Misc 0=Exit
>4
                  Display Menu (Misc.)
                    1=Pass 2=Codes
                  3=Ver 4=Ram 0=Exit
>1
1. Pass:1111 User ID:USER1 Sec:1
2. Pass:2222 User ID:USER2 Sec:2
3. Pass:3333 User ID:USER3 Sec:3
4. Pass:4444 User ID:USER4 Sec:4
5. Pass:5555 User ID:USER5 Sec:1
6. Pass:6666 User ID:USER6 Sec:1
7. Pass:7777 User ID:USER7 Sec:1
8. Pass:8888 User ID:USER8 Sec:1
9. Pass:7111 User ID:USER1 Sec:1
10. Pass:7222 User ID:USER2 Sec:1

Ack:01 Rst:02 Sig:02 Drl:03
Byp:03 Wlk:03
    Press Enter Key To Continue
```

Display Codes

Displaying the codes will allow the user to view the codes that are assigned to each of the 256 input groups. This is followed by information on the timing of the codes, number of rounds transmitted and whether the system reverts to March Time coding or silences after the coding is completed. The default setting for each code is 1,2,3,4,5,6.

Display Menu (Misc.)
1=Pass 2=Codes
3=Ver 4=Ram 0=Exit

```
>2
1=123456 2=123456 3=123456 4=123456
5=123456 6=123456 7=123456 8=123456
9=123456 10=123456 11=123456 12=123456
13=123456 14=123456 15=123456 16=123456
17=123456 18=123456 19=123456 20=123456
21=123456 22=123456 23=123456 24=123456
25=123456 26=123456 27=123456 28=123456
29=123456 30=123456 31=123456 32=123456
33=123456 34=123456 35=123456 36=123456
37=123456 38=123456 39=123456 40=123456
41=123456 42=123456 43=123456 44=123456
45=123456 46=123456 47=123456 48=123456
49=123456 50=123456 51=123456 52=123456
53=123456 54=123456 55=123456 56=123456
57=123456 58=123456 59=123456 60=123456
61=123456 62=123456 63=123456 64=123456
65=123456 66=123456 67=123456 68=123456
69=123456 70=123456 71=123456 72=123456
73=123456 74=123456 75=123456 76=123456
77=123456 78=123456 79=123456 80=123456
81=123456 82=123456 83=123456 84=123456
85=123456 86=123456 87=123456 88=123456
89=123456 90=123456 91=123456 92=123456
93=123456 94=123456 95=123456 96=123456
97=123456 98=123456 99=123456 100=123456
101=123456 102=123456 103=123456 104=123456
105=123456 106=123456 107=123456 108=123456
109=123456 110=123456 111=123456 112=123456
113=123456 114=123456 115=123456 116=123456
117=123456 118=123456 119=123456 120=123456
121=123456 122=123456 123=123456 124=123456
125=123456 126=123456 127=123456 128=123456

Pls:1.0Sec Cyl:04 Sig:OFF
Press Enter Key To Continue
```

Display Ver. The version of firmware installed in the main CPU will be displayed when 3 (Ver) is selected from the Display Menu (Misc.).

```
                    Display Menu (Misc.)
                      1=Pass 2=Codes
                    3=Ver 4=Ram 0=Exit
>3
Flex 620 System, Version 1.0
Last Updated on Mar 14 1995 at 15:43:58

Press Enter Key To Continue
```

Display RAM Displaying the RAM allows the user to view the available system Random Access Memory. This feature is helpful when non-standard configurations are applied.

```
                    Display Menu (Misc.)
                      1=Pass 2=Codes
                    3=Ver 4=Ram 0=Exit
>4

Unallocated bytes of ram: XXXXXX

Press any Key to continue
```

Change Menu

The system change menu allows the user to change various system parameters.

```
                    Change Menu
              1=Config 2=Dict 3=Card
                 4=Misc 0=Exit
>
```

Change Config

Changing the system configuration requires a previously downloaded system configuration file. When selected, the user is prompted with the sequence of keystrokes required for the PROCOMM software package to upload an ASCII file. When using other software packages, the keystrokes required to upload an ASCII file should be followed. When using the PROCOMM software package the following settings should be configured.

```
                    Change Menu
              1=Config 2=Dict 3=Card
                 4=Misc 0=Exit
>1
Ready to Upload Configuration File.

        To Upload:
        1. Press PgUp
        2. Choose 7 (ASCII)
        3. Enter Filename
```

Change Dictionary

Changing the dictionary entries can be achieved by two means, changing the words or uploading an entirely new dictionary.

```
                    Change Menu
              1=Config 2=Dict 3=Card
                 4=Misc 0=Exit
>2
                 Change Dictionary Menu
              1=Words 2=Upload 0=Exit
```

Change Dict.Words

To change the Dictionary words, select 1 from the Change Dictionary Menu. The system will prompt you with the dictionary and word number to be changed. The existing word is then displayed. To change the word, type the desired text or press enter to leave the existing text and return to the word number prompt.

```
                    Change Dictionary Menu
                    1=Words 2=Upload 0=Exit
>1
Enter Dictionary #:1
Enter Word #:1
      Overwrite Current Word:
           Fire Alarm
Enter New Word:
Enter Word #:22
  Word Doesn't Exist, Append New Word
Enter New Word:
Enter Word #:
```

To select word options from the faceplate of the control panel:

Prompt	Description
<a1> =	first lower case letter of a word or key
<a2> =	second lower case letter of a word or key
<a3> =	third lower case letter of a word or key
<a#> =	etc. (sequential order)
<A1> =	First Upper Case letter of a word or key
<A2> =	Second Upper Case letter of a word or key
<A#>	etc. (sequential order)

1. Press the Letters/ Numbers key on the Keypad until the proper selection is displayed. The display indicates the selection by the following means.

1.1 When assigning the first letter to a word (or key) <a1> should be displayed in the upper right hand corner of the display. To select the second letter of that word, press the Letters/ Numbers key until <a2> is displayed. <a3> should be displayed if the third letter is desired and <#> should be displayed if the number associated with that key is desired.

1.2 The case of the letters may be changed by pressing the Caps key. The case is indicated by the case setting of the <A> within the brackets shown on the display. When the desired number or letter field is displayed press the key associated with it then go on to the next letter, number or punctuation mark. When the text entry is complete press the "**Enter**" key and go on to the next text entry to change. To exit the programming area, and save the changes made, press the "**Enter**" key.

Û **NOTE: When changes are made to any dictionaries they are appended to the existing dictionary. Therefore the entire number of added text may change when you exit the programming area. For example, if dictionary 2 has twelve entries and you add an entry as number 15, when you exit the program, the dictionary is appended and your new entry becomes number 13.**

Upload Dictionary

Uploading is accessed by selecting 2 from the Change Dictionary Menu. In order to upload a new dictionary, a file containing the new dictionary entries must be created using an ASCII text editor. The SAN-RAN disk (P/N 30972) contains the AHED text editor that may be used to create the dictionary file. The dictionary file is comprised of a simple format that has very few restrictions (See Dictionary File Format).

Change Dictionary Menu
1=Words 2=Upload 0=Exit

>2
Ready to Receive Dictionary File.

To Upload:
1. Press PgUp
2. Choose 7 (ASCII)
3. Enter Filename

Dictionary File

The dictionary file format consists of the five dictionaries, each separated by two fore slashes (//) as delimiters. The first line of the dictionary file would contain two fore slashes indicating that it is the beginning of the file and the next line received will be word #0 of dictionary #1. This line should be left blank since each device defaults to word #0 of each dictionary. The following lines would contain the desired text entries, in numerical order, for dictionary #1. When all of the entries for dictionary #1 have been entered two fore slashes should be inserted on the next line to signify the end of dictionary #1 and the start of dictionary #2. Again the next line, word #0 dictionary #2, should be left blank for default purposes. This format is followed throughout the five dictionaries. The end of dictionary five is also signified by two fore slashes.

Some important points to keep in mind when writing the file are as follows. Dictionary #1 through dictionary #4 may contain up to 128 entries (0-127). Dictionary #5 may contain up to 1024 entries (0-1023). If all of the entries in any one dictionary are not used, the file does not need to contain blank lines before terminating the dictionary with two fore slashes. Each dictionary entry may contain up to 40 characters. However, entries from dictionaries #1 and #2 are displayed on the third line of the alphanumeric display, and, entries from dictionaries #3, #4, and #5 are displayed on the fourth line of the alphanumeric display. The total characters of dictionary entries used in conjunction with each other should not exceed 40 characters.

The file below illustrates a simple dictionary file.

```
//

Fire Alarm
Supervisory Alarm
//

Smoke Detector
Heat Detector
//

First Floor
Second  Floor
Third Floor
//

Stairwell
Computer Room
Mechanical Room
//

Room 111
Room 112
Below Raised Floor
//
```

Û **NOTE: For Procomm only, the ASCII transfer setup must have the following parameters. Use the following table):**

ASCII Upload			**To Down Load**	
1) Echo locally	No		1) Press PgUp	
2) Expand blank lines	Yes		2) Choose 7	(ASCII)
3) Pace Character	0		3) Enter “Dict” (filename)	
4) Character Pacing	0			
5) Line pacing `	0		CR translation	none
6) CR translation	none		LF translation	none
7) LF translation	strip			

Change Card

The Flex 600 system allow components to be added or deleted without disturbing the programming (Control By Event, etc.) of other system components. When the Change Card menu is selected, an Add or Delete option is then prompted. Select the desired option and enter the card number to be changed. (See system configuration in the installation section of this manual for card location information)

NOTE: When changing card types in a location, the existing card should be deleted before the new card is added. This will ensure that the control by event table is up to date.

```
                    Change Menu
                1=Config 2=Dict 3=Card
                   4=Misc 0=Exit
>3
                  Change Card Menu
                1=Add 2=Delete 0=Exit
>1
        Enter Card # To Add:
    Delete Existing Card First !
    Press Enter Key To Continue

          Change Card Menu
       1=Add 2=Delete 0=Exit
>2
      Enter Card # To Delete: 1
      Card Deleted From System
    Press Enter Key To Continue

          Change Card Menu
       1=Add 2=Delete 0=Exit

Enter Card # To Add: 1
        Card Added To System
    Press Enter Key To Continue
```

Change Misc

The Change Misc selection accesses two sub-menus, Menu1 and Menu2. These menus allow access to other change functions when selected.

```
                    Change Menu
                1=Config 2=Dict 3=Card
                   4=Misc 0=Exit
>4
                  Change Card Menu
              1=Menu1  2=Menu2  0=Exit
```

ChangeMenu 1

Change Menu 1 accesses menus to change Passwords, Codes, Time and Date, Sequence Key Access levels and the Baud Rate detect function.

Change Pass

The Change Password menu is used to change the password, user name and/or the access level associated with the passwords. When this is selected from Change Menu 1, the previously programmed password information is displayed, followed by a prompt requesting the password number to be changed. When the password number is entered the "Enter Password" prompt is displayed. Enter the new password (Four Digits) or press enter to leave the existing password. This is followed with the User ID prompt. The User ID may contain up to 8 ASCII characters. After defining the user, the access level or security level (Sec:) assigned to that password is defined.

NOTE: Before changing the password # 4 (programming password) make sure that you have added a new password to access the programming (Sec: 4) area.

```
                    Change Menu (Misc.)
                    1=Menu1 2=Menu2
                    0=Exit
>1
                    Change Menu 1
                    1=Pass 2=Code 3=Date 4=Seq
                    5=Baud 0=Exit
>1
1. Pass:1111 User ID:USER1 Sec:1
2. Pass:2222 User ID:USER2 Sec:2
3. Pass:3333 User ID:USER3 Sec:3
4. Pass:4444 User ID:USER4 Sec:4
5. Pass:5555 User ID:USER5 Sec:1
6. Pass:6666 User ID:USER6 Sec:1
7. Pass:7777 User ID:USER7 Sec:1
8. Pass:8888 User ID:USER8 Sec:1
9. Pass:7111 User ID:USER1 Sec:1
10. Pass:7222 User ID:USER2 Sec:1
Enter Password # To Change:1
Enter Password:1234
Enter User ID: John Doe
Enter Security level:1
1. Pass:1234 User ID:John Doe Sec:1
2. Pass:2222 User ID:USER2 Sec:2
3. Pass:3333 User ID:USER3 Sec:3
4. Pass:4444 User ID:USER4 Sec:4
5. Pass:5555 User ID:USER5 Sec:1
6. Pass:6666 User ID:USER6 Sec:1
7. Pass:7777 User ID:USER7 Sec:1
8. Pass:8888 User ID:USER8 Sec:1
9. Pass:7111 User ID:USER1 Sec:1
10. Pass:7222 User ID:USER2 Sec:1
Enter Password # To Change:
```

Change Code

The codes in the Flex 600 systems are assigned to the input groups. When a device within that group alarms, that code would be sounded on the signal circuits that have been programmed as coded circuits. Each input group may be assigned an individual code that contains up to 6 digits. The digits are defined in hexadecimal and range from 0-9 and A-F. When selected each digits (1-6) of the code is entered individually.

After the code has been entered a sub-menu appears. This menu allows you to change the Timing, the number of Cycles and the output of the signal circuits after the code is complete, silence or March Time signal.

Change Menu 1
1=Pass 2=Code 3=Date 4=Seq
5=Baud 0=Exit

>2
Enter Input Ckt/Group Number:1
Current Code For Ckt/Group1=123456
Enter Digit 01:656565Re-enter Input :6
Enter Digit 02:5
Enter Digit 03:4
Enter Digit 04:3
Enter Digit 05:2
Enter Digit 06:1
New Code For Ckt/Group1=654321
Enter Input Ckt/Group Number:

Change Coded Signal's Parameters
1=Timing 2=Cycles 3=Signal
0=Exit

>1

Change Coded Signal's Timing
1=0.5 2=1.0 3=1.5 4=2.0
0=Exit

>2
Enter # of Cycles (1-8):

>3

Choose Signal
1=OFF 2=March Time
0=Exit

Change Date

To change the date and/or time in the Flex 600 system, the Change Date Menu must be selected. This menu prompts the user with the information the system requires to enter a new time and date.

```
                    Change Menu 1
                1=Pass 2=Code 3=Date 4=Seq
                   5=Baud 0=Exit
>3
        Current Date/Time
    Date 03/31/95  Time 09:52:41
Enter Month  :03
Enter Date   :30
Enter Year   :95
Enter Hour   :10
Enter Minutes: 43
          New Date/Time
    Date 03/30/95  Time 10:43:00
    Press Enter Key To Continue
```

Change Seq

The Change Sequence option allows the user to redefine the access levels associated with each of the sequence keys. Each of these keys is assigned an access level by default. The Acknowledge key is assigned to level 1 access. The Reset, Signal Silence and Drill keys are assigned to level 2. And, the Detector test, WalkTest and Bypass keys are assigned to level 3.

Any of these keys may be reassigned by selecting this option, pressing the key to be reassigned and entering the access level desired. These keys may also be assigned to level 4 access (programming level). By assigning a key to level 4 access, that keys operation is inhibited.

```
                    Change Menu 1
                1=Pass 2=Code 3=Date 4=Seq
                   5=Baud 0=Exit
>4

     Change Sequence's Security
      Press A Sequence's Key
      Press Enter Key To Exit

  Acknowledge, Current:01 Enter New:01
```

Change Baud

The Change Baud selection will cause the system to output a printer test pattern to the RS-232 port. This continuous output allows the user to select the baud rate of the connected device without having to cause system abnormalities.

Change Menu 1
1=Pass 2=Code 3=Date 4=Seq
5=Baud 0=Exit

```
>5
Ready To Read Dip Switch and Set
Serial Port 1's Baud Rate.
Press Enter Key To Proceed...

0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdef
ghijklmnopqrstuvwxyz{|}~!"#$%&'()*+,./0123456789:;<=>?@ABCDEFGH
IJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~!"#$%
&'()*+,./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^
_`abcdefghijklmnopqrstuvwxyz{|}~!"#$%&'()*+,./0123456789:;<=>?@AB
CDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|
}~!"#$%&'()*+,./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUV
WXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~!"#$%&'()*+,./0123456789:;
<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqr
stuvwxyz{|}~!"#$%&'()*+,./0123456789:;<=>?@ABCDEFGHIJKLMNOP
QRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~!"#$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ{|}~
```

Baud Rate Switch Settings

The baud rate is changed by setting DIP switch SW1 on the CPU module to the desired speed (see below table). Select this option to read new setting.

SW1 - Settings		
S1	Open	Do Not Change
S2	Open	Do Not Change
S3	Always Closed	Do Not Change
S4	Open	Do Not Change
S5	Open	Do Not Change
S6	Open	Do Not Change
Note:	P2 baud rate of is selected via S7 and S8. **Auto Detect Baud rate is utilized for peripheral devices.**	
S7, S8 Open	9600 Baud Rate	
S7, S8 Closed	*4800 Baud Rate*	
S7 Open, S8 Closed	*2400 Baud Rate*	
S7 Closed, S8 Open	*1200 Baud Rate*	

ChangeMenu 2

Change Menu 2 has options to change the City Tie operation, the Automatic Signal Silence Timer, The Annunciator Supervision, The Trouble Relay operation and the Automatic Dialer connection.

Change City

The City Tie Circuit is designed to operate in two modes of operation; Standard mode and Chicago mode. In the Standard mode alarms and troubles are transmitted over the city tie circuit. In the Chicago mode the City Tie transmits all troubles and alarms with the exception of City Tie troubles. If the City Tie circuit detects a trouble condition the Spare relay will transfer for use with a local indicator. That indicates troubles and alarms can't be transmitted.

Change Menu (Misc.)
1=Menu1 2=Menu2
0=Exit

Change Menu 2
1=City 2=Sig Sil 3=Ann 4=Trbl
5=Dialer 6=Prefix 0=Exit

```
>1
      Press Enter Key To Exit
    Press Any Other Key To Toggle
    City Tie Is In Standard Mode
    City Tie Is In Chicago  Mode
```

Change Sig Sil

The Sig Sil option allows the user to set the Signal Silence delay. This is the length of time the signals circuits will operate before automatically silencing when selected.
EXAMPLE: Entry of the number 3 would equal 90 seconds (3 x 30 sec.= 90sec.)

Change Menu 2
1=City 2=Sig Sil 3=Ann 4=Trbl
5=Dialer 6=Prefix 0=Exit

```
>2
    Sig Sil Delay Is Set To:0 Min
    Delay = Entry (0-10) x 30 Sec
   Enter New Sig Sil Delay (0-10):
```

Change Ann

The Change Ann option allows the user to enable and disable the supervision of the supervised devices connected to the RS-232 port.

Change Menu 2
1=City 2=Sig Sil 3=Ann 4=Trbl
5=Dialer 6=Prefix 0=Exit

```
     Press Enter Key To Exit
   Press Any Other Key To Toggle
  Remote Annunciator is Detached
  Remote Annunciator is Attached
```

Change Trbl

The Change Trouble option should be in the "Troubles are Annunciated" Mode. This feature is used in Special Applications where a backup system is required. Special modules and wiring are required to utilize this option. Please consult your factory representative for applications requiring redundant system operation.

```
                    Change Menu 2
              1=City 2=Sig Sil 3=Ann 4=Trbl
               5=Dialer 6=Prefix 0=Exit
>4
      Press Enter Key To Exit
   Press Any Other Key To Toggle
  I/O Troubles Are Annunciated
  I/O Troubles Are Not Annunciated
```

Change Dialer

This option allows the system to delay the reporting of AC failure as required by UL when the "Dialer Is Installed" is selected. Normal reporting of AC failure troubles is restored when the "Dialer Is Not Installed " option is selected.

```
                    Change Menu 2
              1=City 2=Sig Sil 3=Ann 4=Trbl
               5=Dialer m 6=Prefix 0=Exit
>5
      Press Enter Key To Exit
   Press Any Other Key To Toggle
    Dialer Is Not Installed
    Dialer Is Installed
```

Change Prefix

This option allows the user to change the Prefix for alarm events that occur. The default setting is FIRE Alarm. If the panel were monitoring Gas detectors, for example. The Prefix could be changed to GAS and therefore display GAS Alarm during alarm conditions.

```
                    Change Menu 2
              1=City 2=Sig Sil 3=Ann 4=Trbl
               5=Dialer 6=Prefix 0=Exit
>6
Current Alarm Prefix is: Fire
Enter New Alarm Prefix: XXXX

Do you want to clear prefix Y/N? N

Alarm Prefix is set to! Fire
Press any key to continue
```

Test Menu

The test menu is a useful tool when testing and troubleshooting the Flex 600 systems. The various options allow the testing of input and output devices, circuits, ground fault monitoring and system communications.

Test Input

The Input Test allows the user to test input circuit cards and monitor for circuit noise. This selection requires the input of the card location number (see installation section for card location numbers) to be tested. The card is continuously scanned and a "real time" value in hexadecimal format (base 16) is returned for each of the 8 circuits (0-7) for that card location.

EXAMPLE: The normal value for a CIM card to return would be approximately 0E hex. If the circuit is open the value would drop to 00 hex . If a short circuit occurs the value returned would increase up to FF hex.

```
                    Test Menu
          1=Input 2=Output 3=ID 4=Gnd
          5=Lamp 6=Analog 0=Exit
>1

        Input Card Test
      Enter Input Card #:11
     Press Enter Key To Exit
0=0E 1=0E 2=0E 3=0E 4=0E 5=0E 6=0E 7=0E
0=0F 1=0E 2=0E 3=0E 4=0F 5=0F 6=0E 7=0F
```

Test Output

The Output Test is used to test the interaction between an input circuit and an output circuit. When selected the user is prompted to enter the output card location number to be tested. Then the input card location that is to be used to control the output card is entered. When the input circuit is activated, the corresponding output card circuit will activate.

EXAMPLE1: If card location 12 (CIM display) is selected as the output card location and card location 12 is selected as the input card location, when a switch on card 12 is pressed the corresponding LED will light.

EXAMPLE2: If output card location 17 (USM-8) is selected and input card 21 (USM-8 display) is selected, the corresponding signal circuit will activate when the display switch is pressed.

NOTE : When card 0 (main display) is selected on the 630 and 650 systems, no input card option is displayed. Pressing the front panel switches will toggle the LED's and display the switch number pressed.

```
                    Test Menu
          1=Input 2=Output 3=ID 4=Gnd
          5=Lamp 6=Analog 0=Exit
>2
        Output Card Test
Enter Output Card #:9
Enter Input (Keys) Card #:13
      Press Enter Key To Exit
```

Test ID

Selecting the Test ID option will continuously display the "real time" card readings from the system card locations. The card locations (0-39) should always equal the card type installed in that location.

```
                    Test Menu
          1=Input 2=Output 3=ID 4=Gnd
          5=Lamp 6=Analog 0=Exit
>3
00=16 01=12 02=FF 03=FF 04=01 05=02
06=05 07=07 08=2C 09=0F 10=04 11=2E
12=1E 13=18 14=1E 15=1E 16=30 17=5E
18=FF 19=FF 20=1E 21=1A 22=FF 23=FF
24=FF 25=FF 26=FF 27=FF 28=FF 29=FF
30=FF 31=FF 32=FF 33=FF 34=FF 35=FF
36=FF 37=FF 38=FF 39=FF

00=16 01=12 02=FF 03=FF 04=01 05=02
06=05 07=07 08=2C 09=0F 10=04 11=2E
12=1E 13=18 14=1E 15=1E 16=30 17=5E
18=FF 19=FF 20=1E 21=1A 22=FF 23=FF
24=FF 25=FF 26=FF 27=FF 28=FF 29=FF
30=FF 31=FF 32=FF 33=FF 34=FF 35=FF
36=FF 37=FF 38=FF 39=FF
```

Test Gnd

The Gnd (Ground) test utilizes a unique method of ground detection. A measurement is taken from the +5 supply to earth ground and a value is displayed. Then a measurement from system common is taken and its value is displayed. The differential value between these two measurements must be greater than 142 but less than 255 for a reading of "Good".

NOTE: The values displayed are derived from an A/D conversion and not displayed in actual voltages.

```
                    Test Menu
          1=Input 2=Output 3=ID 4=Gnd
          5=Lamp 6=Analog 0=Exit
>4
        Ground Fault Test
      Press Enter Key To Exit
        142 < Diff < 255
     5V=216, Gnd=1, Diff=215 : Good
```

Test Lamps

The Lamp test feature will illuminate all of the system LEDs when selected. It will light one panel at a time while alternating the internal sounder with each panel lit.

```
                    Test Menu
          1=Input 2=Output 3=ID 4=Gnd
          5=Lamp 6=Analog 0=Exit
>5
Press enter to continue
```

Test Analog

The analog test is designed to allow the user to control and obtain "real time" information about individual analog addressable devices. When analog is selected from the Test Menu ,the system prompts the user to enter the Card # (650 only) to be tested. Then the channel of the card and device address must be entered. The "Data to Send" (0-7) prompt is expecting an entry from 0-7. This entry controls the analog device mode of operation. There are 3 bits of information that control the state of each analog device (see table below). The accumulated total of these bits for the desired state is the number that should be entered at the "Data to Send" prompt. When this information is entered, the system displays the "real time "information including CCT#, Address #, Device type and Counts for the device selected.

NOTE: This feature is not available for the Flex 620 system.

```
                    Test Menu
          1=Input 2=Output 3=ID 4=Gnd
          5=Lamp 6=Analog 0=Exit
>6
Enter Card #
Enter Channel to Poll (1-4):
Enter Address to Poll (0-127):
Enter Data to Send (0-7):

Ch:01   Add:26    D_Type:Mon.   Counts:17
Flags:x08   Bits:x08
```

	BIT1	BIT 2	BIT 4
XP-95P	Local LED	Test Mode	Remote LED
XP-95I	Local LED	Test Mode	Remote LED
XP-95T	Local LED	Test Mode	Remote LED
MS-95	Local LED	N/A	N/A
PID-95	Local LED	N/A	N/A
CZI-95	Local LED	Class "A" Relay	Zone Power Off
RCE-95	Local LED	N/A	Relay
SCE-95	Local LED	N/A	Signal Power
BCE-95	Local LED	"OFF" Relay	"ON" Relay

Figure 1: Output Control Bits

Display Panel	Description	Trouble / No Feedback	Background	Dirty	Pre-Alarm on 1st	Alarm / Shorted
Ion	Ionization Detector	0 - 9	10 - 40	41 - 44	Background + 26	Background + 36
Opt.	Photo Detector (non-comp.)	0 - 9	10 - 40	41 - 44	45 - 54	55 - 127
Opt.	Photo Detector (Compensated)	0 - 9	10 - 40	41 - 44	Background + (sensitivity * 6) + 8	Background + (sensitivity * 6) + 18
Heat	Thermal Detector	0 - 9	10 - Fixed Value	*NA*	*NA*	Above Fixed Value
CZI or CZII	Collective Zone	0 - 17	18 - 54	*NA*	*NA*	55 - 122 2nd Alarm above 122
PID or MAN	PID - 95 or MS - 95	0 - 9	10 - 54	*N/A*	*N/A*	55 - 127
REL	RCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127
SCE or Snd.	SCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127
BCE	BCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127

Figure 2: Device Count Threshold

COMPUTER/LAPTOP PROGRAMMING OVERWIEW

Overview of Computer Programming

This section describes the system communications via a computer. System monitoring, general control functions and system programming can be achieved from a computer terminal. All figures shown are displayed on the computer screen.

Interconnect

The 14 pin ribbon cable P/N 71332, is used to connect the computer to the CPU Module port P2. If the SIM-232 card is installed use cable P/N 70704 to connect to the Com2 port of SIM-232 module. Refer to (drawing # D-W1142).

Communication Protocol

The system communicates with a computer at baud rates of 1200,2400,4800 and 9600 BPS (see baud rate settings in CPU installation section). The standard protocol is Xon/Xoff, No Parity, 8 Data Bits and 1 Stop Bit.

Û **NOTE: Most standard communication packages for computers will allow you to set the proper protocol for the communications port of your computer.**

PROCOMM SOFTWARE

Configuration

When using PROCOMM to communicate with your FLEX 600 system the following configuration should be used. Several areas of the Procomm setup menu and the line settings menu must be accessed to configure the protocol required.

Line Settings

The Line Settings option can be selected by pressing the ALT and P keys simultaneously. From this menu select the option that your RS-232 port is set for (e.g., 2400,N,8,1 would be selected if your port speed is set to 2400 baud). The protocol is Baud Rate (port speed setting), No Parity (N), 8 Data bits (8) and 1 Stop Bit (1).

Setup Menu

The Procomm SETUP MENU is accessed by pressing the ALT and S keys simultaneously. The following screen should appear:

```
1) MODEM SETUP
2) TERMINAL SETUP
3) KERMIT SETUP
4) GENERAL SETUP
5) HOST MODE SETUP
6) ASCII TRANSFER SETUP
S) SAVE TO DISK
```

Terminal Setup

Select option 2 from the Procomm SETUP MENU to display the TERMINAL SETUP menu. The following options should be displayed. To change the settings, select the desired number and use the up/down arrows to scroll through the selections. Press ESC to return to the SETUP MENU.

```
1) Terminal emulation... VT-100          10) Break Length (ms) .... 350

2) Duplex ............. Full            11) Inquiry (CTRL-E) ..... OFF

3) Flow control........ XON/XOFF

4) CR translation (in).. CR

5) CR translation (out). CR

6) BS translation ...... NON-DEST

7) BS key definition.... BS

8) Line wrap ........... ON

9) Scroll .............. ON
```

General Setup

From the Procomm SETUP MENU select option 4 to display the GENERAL SETUP menu. The following settings should be displayed.

```
1)  Editor name ..........               12) Xlat pause character . ~
2)  Default d/l path .....               13) Xlat CR character .... !
                                         14) Xlat CTRL character .. ^
3)  Default log file ..... PROCOMM.LOG   15) Xlat ESC character ... |
4)  Screen dump file ..... PROCOMM.IMG
                                         16) Aborted downloads .... KEEP
5)  Screen write method .. DIRECT
6)  Translate table ...... OFF           17) Transmit pacing (ms) . 25

7)  Sound effects ........ ON
8)  Alarm sound .......... ON
9)  Alarm time (secs)..... 5
10) Exploding windows .... YES

11) XMODEM mode .......... NORMAL
```

NOTE: **The Editor Name should be set to reflect the name of the text editor you are using. The Default D/L Path option should be set to the directory where you want to keep your downloaded Configuration and Dictionary files. With no directory specified downloaded files will be saved in the current directory.**

ASCII Transfer

From the ASCII TRANSFER SETUP menu select option 6 to display the ASCII TRANSFER SETUP menu. The following settings should be displayed.

```
        ASCII UPLOAD

1) Echo locally ......... NO
2) Expand Blank Lines ... NO

3) Pace character ....... 0    (ASCII)
4) Character pacing ..... 0   (1/1000 sec)
5) Line pacing .......... 0   ( 1/10 sec)

6) CR translation ....... NONE
7) LF translation ....... STRIP

        ASCII DOWNLOAD

8) CR translation ....... NONE
9) LF translation ....... NONE
```

SYSTEM MONITORING & CONTROL

Status Monitoring

The computer can be used to monitor the status of the system. All status changes are transmitted from the P2 port of the CPU. The data transmitted can provide detailed information on alarm, trouble and system status changes. It can also aid in troubleshooting by providing detailed information of system faults.

Access Levels

System access levels may be accessed via the computer. By transmitting a carriage return (Enter) to the system you will be prompted with " ENTER PASSWORD" . By entering the proper password you may set the system to it's various access levels.

Control Strings

Certain control strings may be transmitted to the system that provide remote control of the system from the computer. If the proper access level is enabled (see access levels) the system can be acknowledged, the signals can be silenced or the system can be reset from the computer. The following control strings provide these functions:

RESET = ^[Ox
ACKNOWLEDGE = ^[OP
SIGNAL SILENCE = ^[Or

Most software communication packages will allow the function keys to be configured for transmission of these control strings.

Section 5A

IDENTIFLEX 630

Appendix

SYSTEM EVENT MESSAGES - Table O-1

	Event	Displayed Message	Description
1.	Status	skip I/O assignments	
2.	Status	start of I/O assignment	
3.	Trouble	out of memory during I/O assignments	
4.	Status	reset system	
5.	Trouble	card deleted	
6.	Trouble	card inserted	
7.	Trouble	out of memory assigning zone outputs	
8.	Status	I/O being bypassed	
9.	Status	bypassed I/O being restored	
10.	Status	zone being Trouble tested	
11.	Status	zone being Alarm tested	
12.	Alarm	zone in verification sequence	
13.	Alarm	Reserved for Future Use	
14.	Alarm	Fire zone in alarm sequence	
15.	Alarm	Supervisory zone in Alarm sequence	
16.	Alarm	Reserved for Future Use	
17.	Status	System Acknowledge	
18.	Trouble	I/O device not detected on card	
19.	Status	Signals activated	
20.	Status	Signals de-activated	
21.	Trouble	Unknown card ID detected	
22.	Trouble	Error bad configuration	
23.	Trouble	AD converter malfunction	

24.	Trouble	Bad card 6 supervisory voltages	
25.	Trouble	Good card 6 supervisory voltages	
26.	Status	Outputs automatically silenced	
27.	Trouble	+5 volts on card off limits	
28.	Trouble	+24 volts on CCT 0, 1, off limits	
29.	Trouble	+24 volts on CCT 2, 3, off limits	
30.	Trouble	+24 volts on CCT 4, 5, off limits	
31.	Trouble	+24 volts on CCT 6, 7, off limits	
32.	Trouble	+5 volts on card OK	
33.	Trouble	+24 volts on card 0, 1, OK	
34.	Trouble	+24 volts on card 2, 3, OK	
35.	Trouble	+24 volts on card 4, 5, OK	
36.	Trouble	+24 volts on card 6, 7, OK	
37.	Trouble	analog card crashed event	
38.	Trouble	programming mode	
39.	Trouble	key stuck	
40.	Trouble	zone in trouble sequence (input)	
41.	Trouble	zone in trouble sequence (output)	
42.	Trouble	duplicate analog detector (input)	
43.	Trouble	duplicate analog detector (output)	
44.	Trouble	missing analog detector (input)	
45.	Trouble	missing analog detector (output)	
46.	Trouble	dirty analog detector	
47.	Status	system idle	

48.	Trouble	analog channel in Class B operation	
49.	Trouble	LCD malfunction	
50.	Status	system in walktest	
51.	Status	system out of walktest	

Gamewell WORLDWIDE

IDENTIFLEX 600

Stand Alone Panel

FIRMWARE VERSION R7
MANUAL SUPPLEMENT

GAMEWELL
60 PLEASANT STREET
ASHLAND, MA 01721

P/N 71956
ISSUE 1 06/16/2000

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GENERAL INFORMATION

Gamewell. thanks you for choosing the IF 600 to serve your monitor and control signaling needs. As with all our products we have taken great care to insure that we have provided a quality Fire Alarm Control Panel. To receive maximum benefit and many years of reliable service we would like to make the following recommendations:

1. **Read this manual carefully** and in it's entirety before proceeding with the installation of the IF 600 control panel programming. The contents of this manual replace the equivalent sections of the Identiflex 600 manual.

2. Gamewell. spends many hours testing devices that are supplied by Gamewell. to be used with it's control panels to verify compatibility. **To maximize system performance, and minimize risk of damage to the equipment, we recommend using all Gamewell. components.**

3. **There is no substitute for proper maintenance and testing** of this or any life safety product. Gamewell. recommends testing and maintenance of your IF 600 system in accordance with the guidelines set forth by the National Fire Protection Association, be done on a regular basis, as a minimum.

5. **This manual should be stored with the IF 600** for future reference, and should not be removed, providing reference to the operation and programming of the installed IF 600 System.

Thank you again for choosing Gamewell.. If you have any comments regarding your IF 600 Analog Addressable Control Panel, or other Gamewell. products, please feel free to write us at:

Gamewell
60 Pleasant St.
Ashland, MA 01721

Phone: (508)231-1400
Fax: (508)231-0900

E-Mail: gamewellco@aol.com
Web Site: http://www.gamewell.com

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Section 1

IF 600 FIRMWARE VERSION R7

MANUAL SUPPLEMENT

Introduction

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GENERAL

Identiflex 600 Fire Alarm Control Panel firmware, version r7 is an update of the prior versions of IF 600 FACP firmware. The version r7 provides all of the features and performance of the previous IF 600 firmware as well as many new features and improved panel configuration data storage. The version r7 firmware can be used in existing IF 600 systems, including IF 610, IF 632, IF 630, and IF 650. Because the structure of the Panel Configuration files has changed in revision 7, this revision is not backwards compatible with version 6 or version 5 and earlier. To upgrade an existing IF-600 panel it is necessary to either convert the Configuration file using the Gamewell Lap Top program, or completely reprogram the panel.

NEW FEATURES

SmartStart Password

With the exception of the automatic SmartStart which occurs when firmware chips are installed in an IF-600 panel, a level 4 password is required to initiate a SmartStart.

Releasing

Provides a multi-step releasing sequence with ANDed inputs, and programmable Pre-release, Abort and Dump.

Water Zone

Allows inputs to be designated as Water Flow with programmable delays, and selectable silencing.

Daylight Savings time

Allows automatic correction of the time for the entry and exit from daylight savings time.

Leap Year

Allows the automatic correction of the date for Leap Years. (Including the year 2000)

Positive Alarm Sequence

Allows Day/Night control of the use of PAS.

Verification Counter

Provides a tally of the number of times a Verification point activates without going into alarm, within the past 30 days. A programmable limit will place a point into trouble if the tally for that point exceeds the limit.

Alarm, Supervisory, Trouble Displays

Allows the selectable display of Alarms, Supervisories, or Troubles.

All Input Walk Test

Allows the placement of all inputs and outputs into walk test without individual programming.

Expanded RAN/SAN Supervision

Allows the supervision of up to 20 RAN/SANs connected to the panel.

Auto Silence Timeout

Allows the timeout for Auto Silence to be programmed.

Silence Inhibit

Allows the inhibit time for Signal Silence to be programmed.

Building Control Switch Supervision

Allows the switches on Building Control Displays to indicate Trouble if they are not in the Auto position.

Building Control Display Placement
Allows Building Control Displays to be located over an Analog card in the top two positions.

Walk Test Auto Terminate
Causes the automatic termination of walk test after 30 minutes without activity.

INSTALLATION

New Fire Alarm Control Panels will be delivered with the version r7 firmware installed. When upgrading the firmware in an existing system, it is necessary to replace the existing Read Only Memory (ROM) ICs with version r7 ROMS.

Δ WARNING !

During the installation process, the panel will not report an alarm or trouble condition. A Fire Watch or other reliable means should be employed to monitor the unprotected area.

Make a copy of the panel's configuration file by down loading it to a laptop computer using the Gamewell Ver. R7 Laptop program, PN 31021-01.. Run the conversion routine in the program to convert the configuration file to a version r7 file.

Before removing or installing any components make sure that all power is removed from the panel.
1. Disconnect the battery.
2. Remove A. C. power from the transformer.

Refer to Figure G 1, Processor card and remove the Integrated circuit chip marked U5, 6xxxxxx.LO and install the new IC marked U5, 6xxxxxx.LO r7. In the same manner replace the chip marked U4, 6xxxxxx.HI with the chip marked U4, 6xxxxxx.HI r7. Pay careful attention to the orientation of the chip (the notch side of the chip should be to the left). Make sure that all of the pins go into the socket, and not bend over beneath the chip.

Restore power to the panel by
1. reconnecting A. C. to the transformer.
2. Reconnect the battery.

The panel will automatically do a SmartStart.

After the SmartStart is complete, upload the converted configuration file from the laptop computer.

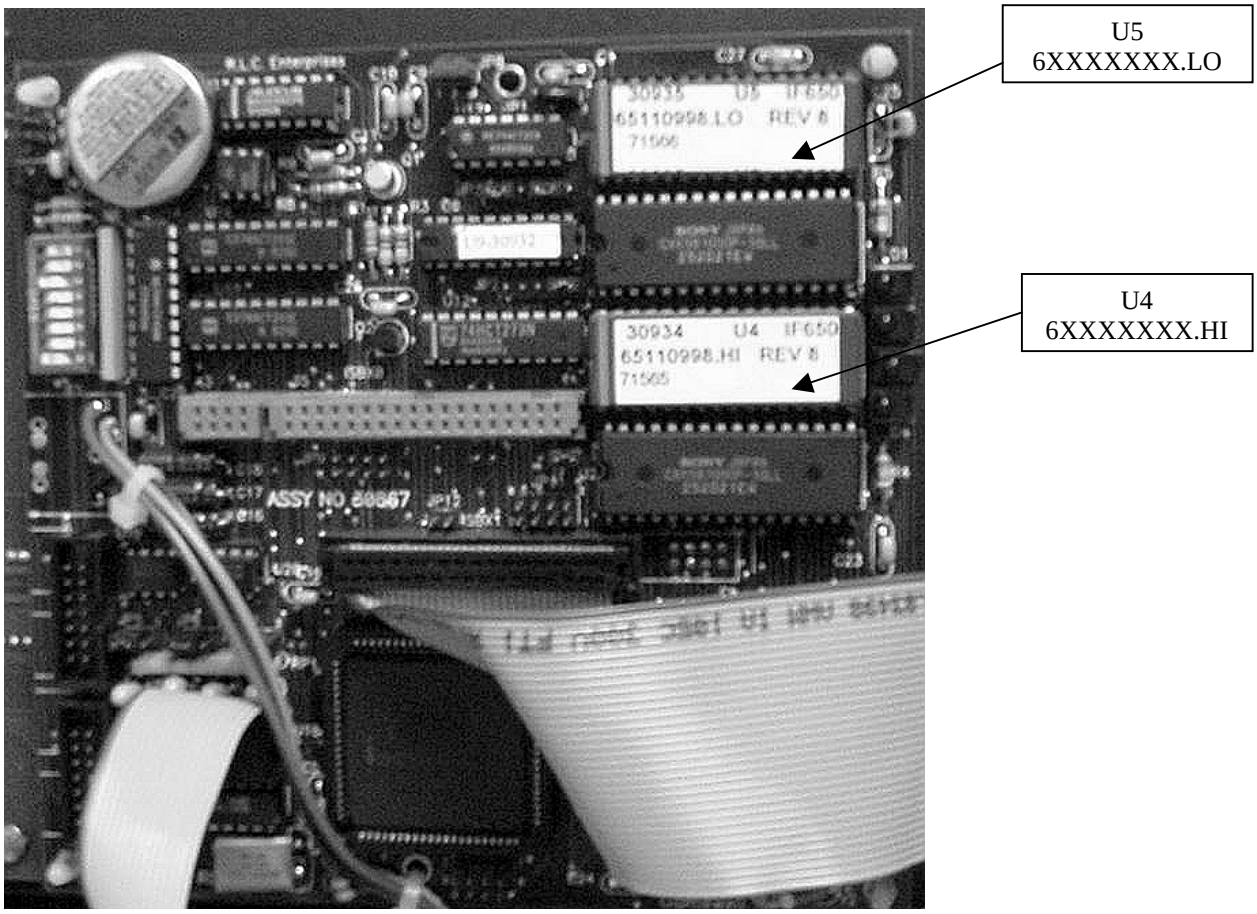

Figure G 1 Processor Card

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Section 2

IF 600 FIRMWARE VERSION R7

MANUAL SUPPLEMENT

Special System Functions

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General

There are special functions which can be accomplished with the Gamewell Series 600 Fire Alarm Control Panel. One is Releasing, which allows control of dump or deluge forms of fire suppression.

RELEASING

The Gamewell Series 600 Fire Alarm Control Panel, with version r7 firmware, and Analog Addressable devices, can provide all of the required functions to control the releasing of bulk fire suppressant materials. The Series 600 FACP is currently listed for NFPA 13 Sprinkler, NFPA 11 Low Expansion Foam, NFPA 16 Water Foam, NFPA-17 Dry Chemical types of suppressant and NFPA 2001 Clean Agent suppressant. **NOTE When using the panel for releasing NFPA 2001 agents, a mechanical manual release must be provided in accordance with NFPA 2001**.

Operation

The releasing process is started by the activation of two ANDed initiating devices. When the first of the programmed pair activates it is displayed on the control panel of the FACP and the Signal Circuit output will provide an audible signal at the rate 60 bpm. When the second of the programmed pair activates, the Signal Circuit output changes to 120 bpm, and the Predischarge timer starts. The time period of this timer is programmable from 15 second to 60 seconds. At any time during this timer period, an Abort switch may be activated to manually intervene in the time cycle. There are five modes of Abort operation, which are selectable through programming.

1. **One Shot (Default)** — The Abort switch will pause the Predischarge counter as long as the switch is activated. Upon deactivation of the switch, the counter will resume from where it was paused. Only one activation of the Abort switch is recognized. Subsequent activations will have no effect on the Releasing cycle.

2. **Timer Expiry** — The Predischarge timer continues the count down while the Abort switch is activated, the Releasing process does not occur until the switch has been deactivated, AND the Predischarge counter has reached zero.

3. **Immediate** — The Releasing process commences immediately after the deactivation of the Abort switch, regardless of the Predischarge timer setting.

4. **10 Second Delay** — *NOTICE: This mode does not conform to UL requirements! It is included since it is allowed by some AHJs*.
The Releasing process commences 10 to 18 seconds after the deactivation of the Abort switch, regardless of the Predischarge timer setting.

5. **Reset Timer** — *NOTICE: This mode does not conform to UL requirements! It is included since it is allowed by some AHJs*.
The Predischarge counter is halted each time the Abort switch is activated, and reset back to the full programmed delay when the Abort switch is deactivated. This delay cycle can be initiated as many times as required.

Upon completion of the Predischarge counter cycle, or the programmed Abort operation, the FACP enters into the Releasing process. The Signal Circuit output will provide a steady signal, and the Discharge delay counter is started. This counter is programmable from 0 to 30 seconds. At the completion of the programmed delay, the Releasing solenoids are activated and fire suppressant discharge is performed. A manual **Dump** switch will immediately initiate the Discharge delay counter, after the deactivation of the Abort switch (if it is activated), regardless of the state of the Predischarge delay timer.

Programming

WARNING! In order to properly prepare the inputs and outputs required for Releasing, very specific programming steps must be performed. Failure to follow these steps could result in failure of the suppressant to be discharged, or there could be unplanned discharge of the suppressant.

The following describes the steps to be taken to program the IF 600 FACP for releasing. The detailed programming instructions can be found in Section 4 Programming.
In order to create a Releasing sub system, it is necessary to select and program Input devices, Control devices, and Output devices.

Input Devices

Select the first initiating device to activate Releasing, program it as an AND zone and Assign Input Group X
Select the 2nd initiating device to activate Releasing, program it as an AND zone and Assign Input Group X

Control Devices

Select the input device for the Abort switch, program it as an Abort zone and Assign Input Group X
Select the input device for the Dump switch, program it as a Dump zone and Assign Input Group X

Output Devices

Select the Signal Circuit (Conventional) to sound the audible alarm, program it's Alarm Level (ALR:2) to Releasing and it's Signal type (SIG:XXX) to Releasing. Program the Output Group to Y.
Select the Releasing Solenoid Module (RSM-95) to control the releasing solenoid, program it's Alarm Level (ALR:3) to Releasing. Program the Output Group to Y.

Tying it together

Program the Control By Event (CBE) table to have Input group X activate Output Group Y

IMPORTANT

Only the Analog Addressable Device RSM-95 with a SID module, installed in accordance with the Wiring Drawing A-W532-1 should be used to actuate the Releasing Solenoid. This device is Bypassed during a SmartStart to prevent accidental discharge , should inputs be activated during the generic configuration. After a SmartStart, the correct configuration should be uploaded to the FACP, the Releasing Solenoid disconnected from the RSM-95, and the Bypass removed from the RSM-95. After determining that the RSM-95 is not active, the solenoid should be reconnected.

Section 3

IF 600 FIRMWARE VERSION R7

MANUAL SUPPLEMENT

System Test Mode

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Overview

Walk Test, Bypass mode, Detector/Device Test, and information displays can be selected at any time from the Password Protected - Access Level 3. Function Programming Menu by pressing one of the **FN** keys on the left or right arrow keys, and selecting the desired test as indicated on the LCD screen.

1. Make sure that a level 3 pass word has been entered
2. From the Operational Mode press the key marked '**FN**'.

Function Programming
1=Walk Test 2=Bypass 3=Input Test
4=Output Test 5=Display 0=exit

Walk Test

Walk Test is an automatic test used to test devices in the system both silently and audibly. Testing the system in the Walk Test mode enables one person to test the system without the aid of another to confirm activation and reset the panel. Activation (i.e. detected ALARM or TROUBLE signal) in the initiating device will cause the panel to log the event and activate all associated indicating circuits if programmed. The device is reset after four (4) seconds. Activation of a Fault (Trouble) follows the same routine. For ALARM testing all associated signal circuits will sound twice. For TROUBLE testing, all associated signal circuits will sound once.

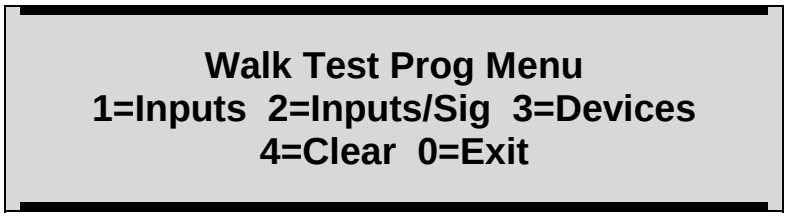
>>**NOTE: All devices selected for Walk Test become disabled and will not ALARM. Devices not selected for Walk Test will report an ALARM condition. After 30 minutes of inactivity the system will time out of Walk Test.**

1. From Function Programming Display, press the "**1**" key followed by the "**Enter**" key
2. 2. The **Walk Test** LED will begin flashing at 60 PPM. Figure T4 is now displayed.

Function Programming
1=Walk Test 2=Bypass 3=Input Test
4=Output Test 5=Display 0=exit
>1
Walk Test Menu
1=Display 2=Program
3=Exit

Figure T4

3. Select "Display" [1] to display the circuits (input and output) that are currently in the Walk Test mode. Select "Prog" [2] to select circuits for Walk Test mode.



1=Inputs	Places all inputs in Walk Test
2=Inputs/Sig	Places all Inputs and Signal Circuits in Walk Test
3=Devices	Allows individual selection of Inputs and Signal circuits to placed in Walk Test through the following procedures..

Figure T5 is now displayed. Use the up/down arrow keys to select the circuit of the devices to be tested.

>>**NOTE: Use the right arrow key to move the cursor under the device address.**

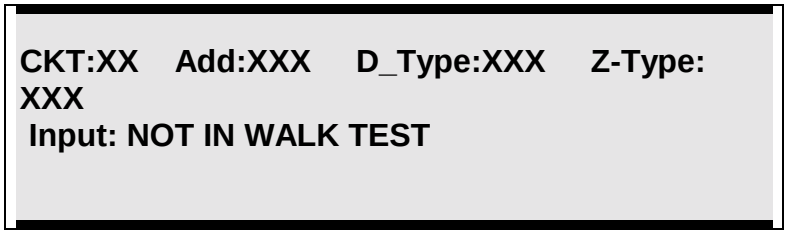


Figure T5

4. Use the up/down arrow keys to select the device address. When the device address is selected, the device type, zone type and zone status will be displayed automatically.
5. Use the left/right arrow keys to move to the Walk Test status field.
6. Use the up/down arrow keys to select "NOT in Walk Test" or "In Walk Test" option.
7. Repeat steps 3 through 6 for each device to be tested.
8. When all desired devices have been selected - Press "**Enter**".
9. The system will now prompt you for a signal circuit to select for Walk Test annunciation.

>>**NOTE: The system will display addressable relay modules that are not available for walk test mode.**

Figure T5B

9A. Signal circuits are numbered by their physical location in the system. Use the up/down arrows to select circuits sequentially or enter the circuit number with the alphanumeric keypad and press enter.

>>**NOTE: Signal Circuits 1 and 2 located on the Operators Display are Numbers 129 and 130, respectively.**

10. The display will show the status of the signal circuit in respect to Walk Test. Use the up/down arrow keys to toggle the signal circuit into and out of the Walk Test mode. When you have made your selection press the "**Enter"** key to begin Walk Test.

11. The system will now enter the Walk Test Mode. The Acknowledge and Trouble LED's will flash and the buzzer will sound. The system will remain in Trouble until all Walk Test devices are cleared from the system.

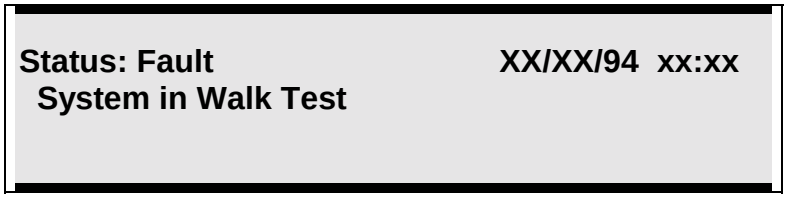


Figure T6

Δ WARNING !

If the system is in Walk Test mode ,and a device not in the test mode is activated, the system will go into alarm and all output circuits will be activated.

12. To clear Walk Test operation select 4=Clear from the Walk Test Prog Menu to clear all devices, individual devices may be cleared in the same manner as described in steps 1-10 above. Each device must be set to "NOT IN WALK TEST".

13. If all devices have been cleared from Walk Test the system will return to the Idle Mode.

ByPass Mode

The ByPass function is used to remove an addressable device or signal circuit from service. Bypassing a device will disable the control panel response from the device selected or prevent activation of the device or signal circuit.

1. From the Function Programming menu, press the "2" followed by the "Enter" key.
2. Figure T7 is now displayed. The ByPass LED will flash at 60 PPM.

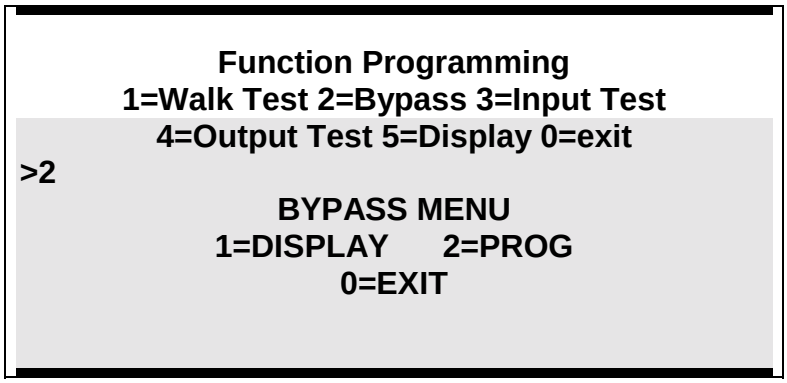


Figure T7

∆ WARNING !

Devices will not report an alarm or trouble condition. A Fire Watch or other reliable means should be employed to monitor the unprotected area.

3. Select "Display" [**1**] to display the circuits (input and output) that are currently in the Bypass mode.
4. Select "Prog" [**2**] to select circuits for bypass. Figure T8 is now displayed.

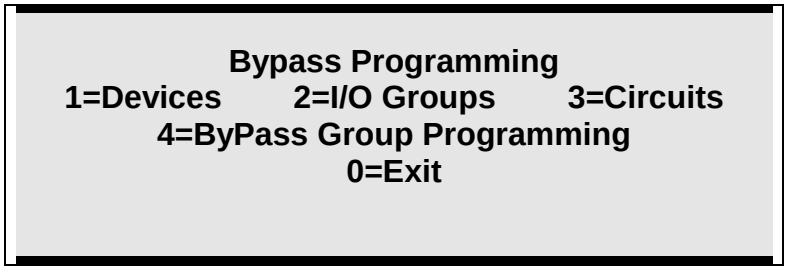


Figure T8

5. Select [**1**] to program circuits. Figure T8A is now displayed

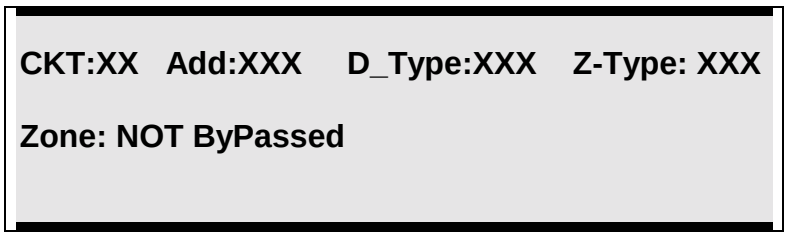


Figure T8A

6. Use the up/down arrow keys to select the circuit of the devices to be bypassed.

>>NOTE: Use the right arrow key to place the cursor under the device address.

7. Use the up/down arrow keys to select the device address. When the device address is selected, the device type, zone type and zone status will be displayed automatically.
8. Use the left/right arrow keys to move to the Bypass status field.
9. Use the up/down arrow keys to select "NOT ByPassed" or "ByPassed" option.
10. Repeat steps 3 through 6 for each device to be Bypassed.
11. When all desired input devices have been selected - press "**Enter**".
12. Repeat steps 3-8 to bypass outputs.
13. Press the Enter key. Then exit the test menu by depressing 0, then Enter.

In the same manner as above, Select I/O Groups [2] and/or Circuits [3] for ByPass.

14. The system will now flash the Acknowledge and Trouble LED's and the sounder will activate. Once the system has been acknowledged the Trouble LED will remain flashing until all bypassed devices are cleared. The display will indicate that a part of the system has been disabled. Figure T10 is now displayed.

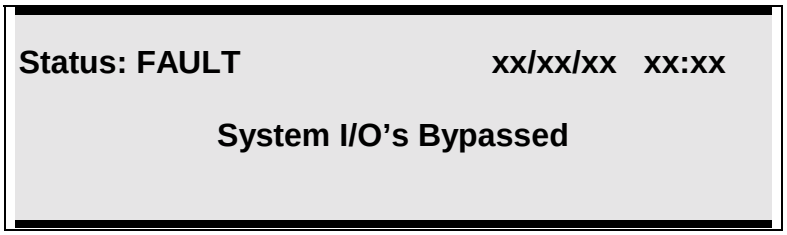


Figure T10

15. To reactivate Bypassed devices repeat steps 1-11 toggling each device to the "NOT-BYPASSED" selection.

ByPass Group Programming

1. Select [4] from the ByPass Menu. Figure T11 is now displayed

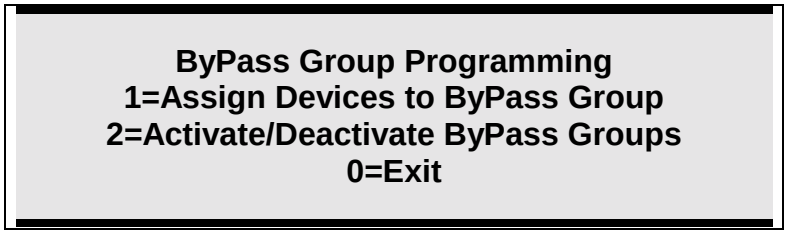


Figure T11

2. Select [**1**] from the menu to assign Devices to ByPass groups, then select either [**1**} for Inputs, or [**2**] for Outputs
3. Select the desired Circuit and Device by using the arrow keys. With the left/right arrow keys select **B_Grp:**. Using the up/down arrow keys select the desired ByPass Group number, or enter the number and press the ENTER key.
4. Repeat this process until all of the desired Devices are assigned to ByPass Groups.

5. Press the Enter key to exit the menu to active or deactivate ByPass Groups, press[**2**] at the ByPass Group Programming menu

7. Enter the number of the desired ByPass group and press the Enter key
8. The selected ByPass group number will be displayed with a message that the Group is either ByPassed or NOT ByPassed.
9. Pressing any key will toggle the state of the group. When the desired condition is shown, press the Enter key to go to the next group selection.
10. Pressing the Enter key at the Group number selection screen without entering a group number will exit the ByPass Group Activate/Deactivate programming operation.

Input Test

The Input test function allows the user to individually test the functionality of each device, operation and response.

Device LED will illuminate if selected for Input Test. The LED will turn off when the device is deselected.

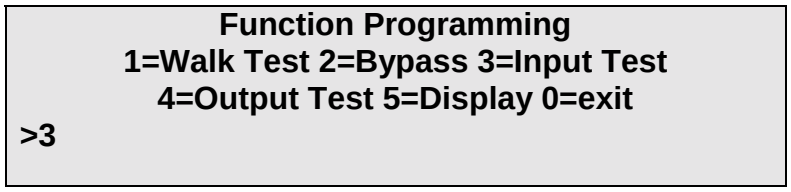


Figure T2

1. Press "**3**" and then "**Enter**"
2. Figure T3 is now displayed.

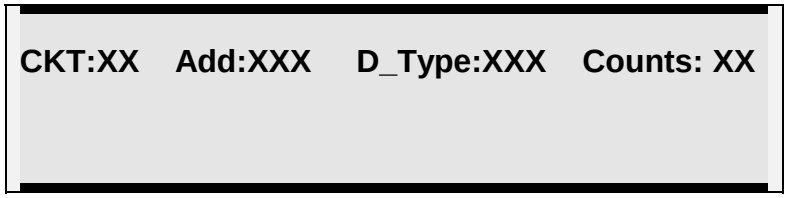


Figure T3

CCT	Circuit of selected device (1-4)
Add:	Address of the selected device
D_Type	Device type (*see table P3 in programming section)*
Counts	Real time analog value

3. Use the up/down arrow keys to scroll through the connected devices. When the device address is selected, the device type and real time analog value will be displayed automatically.
4. Determine the functionality and operating response of the Detector using the following table.
5. To exit the Detector Test Mode press the Enter key at any time.

T-1 DEVICE TEST TABLE
Input Device

Display Panel	Description	Trouble / No Feedback	Background	Dirty	Pre-Alarm on 1st	Alarm / Shorted/ Active
Ion	Ionization Detector	0 - 9	10 - 40	41 - 44	Background + 26	Background + 36
Opt.	Photo Detector (non-comp.)	0 - 9	20 - 30	41 - 44	25 + (sensitivity * 6) + 8	25 + (sensitivity * 6) + 18
Opt.	Photo Detector (Compensated)	0 - 9	10 - 40	41 - 44	Background + (sensitivity * 6) + 8	Background + (sensitivity * 6) + 18
Heat	Thermal Detector	0 - 7	10 - Fixed Value	*NA*	*NA*	Above Fixed Value
CZI or CZII	CZI-95	0 - 16	17 - 54	*NA*	*NA*	55 - 122 2nd Alarm above 122
PID or MAN	PID - 95 or MS - 95	0 - 9	10 - 54	*N/A*	*N/A*	55 - 127
REL	RCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127
RSM	RSM-95	0 – 14	15 – 45	*NA*	*NA*	46 - 127
SCE or Snd.	SCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127

Output Test

The Output test function allows the user to individually test the functionality of each device, operation and response.

Device LED will illuminate if selected for Output Test. The LED will turn off when the device is deselected.

Function Programming
1=Walk Test 2=Bypass 3=Input Test
4=Output Test 5=Display 0=exit
>4

This displays in the same fashion as the Input Test

CKT:XX Add:XXX D_Type:XXX Counts: XX
Flags:xXX Bits:xXX

Display

The Display Function allows the Operator to view or download the system configuration, dictionaries, operating information, and current detector values.

```
Function Programming
1=Walk Test 2=Bypass 3=Input Test
4=Output Test 5=Display 0=exit
>5
Display
1=Config 2=Dict. 3=Events
4=Misc. 5=Detectors 0=Exit
```

```
Display
1=Config 2=Dict. 3=Events
4=Misc 5=Detectors 0=exit
>1
```

Config.

The Configuration Menu allows selection of either viewing or downloading the system configuration.

```
Configuration Menu
1=Display 2=Download 3=Exit
```

Dict. The Dictionary Menu allows selection of either viewing or downloading the system dictionaries.

```
Display
1=Config 2=Dict. 3=Events
4=Misc 5=Detectors 0=Exit
>2
```

```
Display Dictionary Menu
1=Display 2=Download 3=Exit
```

```
Display
1=Config 2=Dict. 3=Events
4=Misc 5=Detectors 0=Exit
>3
```

Events The Events Menu allows viewing of the system events log

```
Use up/down keys to scroll
Press Enter key to Exit
```

```
Display
1=Config 2=Dict. 3=Events
4=Misc 5=Detectors 0=exit
>4
```

Misc. The Misc. function allows the viewing of critical information about the operation of the panel..

```
Display Menu (Misc.)
1=Pass 2=Codes 3=Tally
4=Ver 5=Ram 0=exit
>1
```

Pass

The Passwords Menu Is not available in this mode. It requires a Level 4 password to activate.

```
This Function Is Only Accessible
At Security Level 4
```

```
Display Menu (Misc.)
1=Pass 2=Codes 3=Tally
4=Ver 5=Ram 0=exit
>2
```

Codes

The Codes Menu allows viewing of the programmed Codes

```
Use up/down keys to scroll
Press Enter key to Exit
```

Tally

The Menu Menu allows selection of either viewing or downloading the 30 day accumulated tally of Verification events that did not result in a general alarm.

```
Tally Menu
1=Display 2=Download 3=Exit
```

```
Display Menu (Misc.)
1=Pass 2=Codes 3=Tally
4=Ver 5=Ram 0=exit
>4
```

Ver

The Version Display shows the system type and the panel software version and update date and time.

```
610 System Ver. 7.00
Last Updated On:
Oct. 14 1999 At 09:55:11
Press Any Key To Continue
```

```
Display Menu (Misc.)
1=Pass 2=Codes 3=Tally
4=Ver 5=Ram 0=exit
>5
```

Mem

The Mem Display shows the available Random Access Memeory.

```
Unallocated Bytes of Ram: 206123
Press Any Key To Continue
```

```
Display
1=Config 2=Dict. 3=Events
4=Misc 5=Detectors 0=exit
>4
```

Detectors

The Display Detectors menu allows the downloading of the smoke and heat detector sensitivity values.

```
List Detector Sensitivity
1= Download 0=Exit
```

Section 4

IF 600 FIRMWARE VERSION R7 MANUAL SUPPLEMENT

Programming

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PROGRAMMING OVERVIEW

1 Circuit programming
- 1 Inputs
- 2 Outputs
- 3 Init

2 Control by Event

3 Function programming
- 1 Walk test
  - 1 Display
  - 2 Program
    - I Inputs
    - 2 Inputs/Sig
    - 3 Devices
    - 4 Clear
- 2 Bypass
  - 1 Display
  - 2 Program
    - 1 Device
    - 2 I/0 Groups
    - 3 Circuits
    - 4 Bypass groups
      - 1Assign devices to grp
      - 2 Act/Deact Groups
- 3 Test input devices
- 4 Test output devices
- 5 Display
  - 1 Configuration
    - 1 Display
    - 2 Download
  - 2 Dictionary
    - 1 Display
    - 2 Download
  - 3 Events
    - 1 Display
    - 2 Download
  - 4 Misc.
    - 1 Display pass codes
    - 2 Display codes
    - 3 Tally
    - 4 Display software version
    - 5 Display available RAM
  - 5 Detectors
    - 1 Download

4 System

- 1 Display
  - 1 Configuration
    - 1 Display
    - 2 Download
  - 2 Dictionary
    - 1 Display
    - 2 Download
  - 3 Events
  - 4 Misc.
    - 1 Display pass codes
    - 2 Display codes
    - 3 Tally
    - 4 Display software version
    - 5 Display available RAM
  - 5 Detectors
    - 1 Download
- 2 Change
  - 1 Menu 1
    - 1 Pass Codes
    - 2 Initiating codes
    - 3 Time/date
    - 4 Access level
    - 5 Baud rate
  - 2 Menu 2
    - 1 City
      - Select MB,LR,Chicago,Dialer
    - 2 Ann. Supervision
    - 3 I/O troubles
    - 4 BC Key
    - 5 Day Enable
    - 6 Day/night – manual/auto
  - 3 Menu 3
    - 1 Abort type
    - 2 Alarm Prefix
    - 3 Config file name
    - 4 Tally verification
    - 5 Silence inhibit
    - 6 Auto silence
  - 4 Menu 4
    - 1 Cfg {Not available from Front Panel}
    - 2 Waterflow delay
    - 3 Release timing
    - 4 Dump timing
    - 5 Dictionary
      - 1 Edit
      - 2 Upload
    - 6 Cards
      - 1 Add
      - 2 Delete

3 Test

1 Inputs
2 Outputs
3 Card I.D
4 Ground fault
5 Lamp test
6 Analog test

INTRODUCTION

"SmartStart"™

The SmartStart automated programming process feature is available in the Gamewell's IF 600 control panels. This initialization process uniquely configures the system parameters in memory. The system automatically ties its inputs to its outputs through the creation of the Control-By-Event tables.
During power-up and after a hardware reset, the controller decides if the system has previously had a configuration in memory. If the system does not have a configuration data base, the system polls all of the modules for type codes, status and placement, then builds a hardware configuration data base. It then polls all 126 device addresses on each circuit of the Analog Interface card. When a valid response is detected to any of the addresses polled, a data base for the device is created in memory. This data base for the device consists of information specific to the device such as its circuit, its address, its device type etc. The complete data base for the addressable devices is divided into circuit tables that store the information for all of the 126 possible devices on each circuit. The circuit table is then further divided into an input table and an output table. Input tables consist of all initiating devices (detectors, pull stations, etc.) while the output table consists of all the actuating devices (relays and signal circuits, etc.). At the completion of the SmartStart cycle the system is configured as a general alarm system. All initiating devices are assigned to automatic zones. Any initiating device(s) reporting an alarm condition will activate all signal circuits steady and relays active.

Polling

During system operation the controller sequentially polls all initiating devices that are listed in the input tables. All analog circuits are polled independently and asynchronously.

General Overview

The additional system programming is completed through tactile keypad switches mounted on the front Operators Display (OD). Main level display screens are menu driven and users are prompted to enter sequential keystrokes. Additional programming can also be accomplished through a P. C. connected to the serial port.

Programming Prompts

Δ WARNING !

During all levels of programming, the system will be in an off-line status and no alarms will be processed. The protected premises should be monitored by a fire watch or other reliable measure(s).

>>NOTE: Before proceeding, notify all personnel, monitoring companies and municipalities that the system will be temporarily "out of service".

Programming Prompts (continued)

Throughout the programming sequence, the user is prompted to enter data selections at the location of the flashing cursor. To select sub- menu options, use the following prompts:

To Select a Field Option	Use Right and Left arrow keys to horizontally scroll and select option field.
To Select Field Variable Types	Use up and down arrows keys to vertically scroll variable types.
Keypad prompts	Keypad prompts (e.g. [Password], [Drill], [1] [2] etc.) will be enclosed with brackets.
Display Messages	All formats for display messages will be enclosed in quotation marks.
"**Enter**" key	To complete the choice of an option, press the "**Enter**" key. This standard format of the word "**Enter**" is used throughout the programming section.

SYSTEM STARTUP

This section is subdivided into two sections, Initial System Startup and System Restart / Re-Configuration. Instructions for a newly installed system, or a system in which the firmware has been changed, are detailed in the Initial System Startup section. Instructions for a "hardware reset" are detailed in the System Restart / Re-Configuration section.

CAUTION !

Connect primary power to the system before connecting battery/standby power source.

>>**NOTE: It is assumed all system installation wiring procedures detailed in this manual have been completed in accordance with local, state and federal codes.**

Initial System Startup

1. Activate main power. The "Power ON" message (Figure 2) is displayed. Power will now be applied to all modules and devices.

Figure 2

2. If this is an initial power up, or if the processor firmware has been changed, the panel will proceed into the SmartStart, without the need for a password. Wait the required 15 seconds. [Power ON] LED is flashing. Commencing System Reset screen is displayed (see Figure 2A).

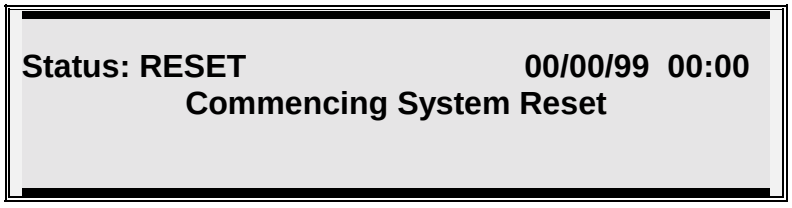


Figure 2A

3. To modify the program, proceed to **Password Entry - Access Levels** section.

SYSTEM RESTART / RE-CONFIGURATION - SMARTSTART

Δ WARNING !

All programming data will be lost when the system is re-configured. The system will initialize the SmartStart™ feature and will configure a new data base.

Hardware Reset

1. Complete a hardware reset by shorting the jumper pins on P4, located on the CPU card. Figure 2 screen will be displayed. (Power On/System Reset)
2. While the Power On LED is still flashing, press the [**ACK**] switch. Figure 3 will be displayed.

Password Entry Screen

Enter Password:
Security Level: *X* User ID: *XXX*

Figure 3

3. Enter a Level 4 password. If an invalid password is entered, or no password is entered, the system will go into normal reset and skip the SmartStart.
4. If the password is accepted Figure 3A will be displayed. If no action is taken the system will continue its reset process.

To Initialize System to Default settings
Press Enter Key Now
All Programmed Data will be lost !!!!

Figure 3A

Δ WARNING !

Pressing "Enter" - all programmed data will be lost. Pressing any other key will Bypassed the re-configuration sequence.

5. Press "**Enter**" to begin SmartStart processing. Figure 3A is displayed. "Time remaining *N* sec" is a countdown from 15 seconds.

Status : Normal 00/00/94 00:00
Begin System I/O Assignments.
Please Wait .... 15 sec Power Up Delay !
Time remaining *N* sec

Figure 3B

Hardware Reset (continued)

5. After a 15 second delay, the system commences a hardware restart. Modules and devices are being read and will scroll up on the display, Figure 3C. Next the System RESET screen is shown, Figure 2A. Then the "System Idle" screen is displayed, Figure 4.

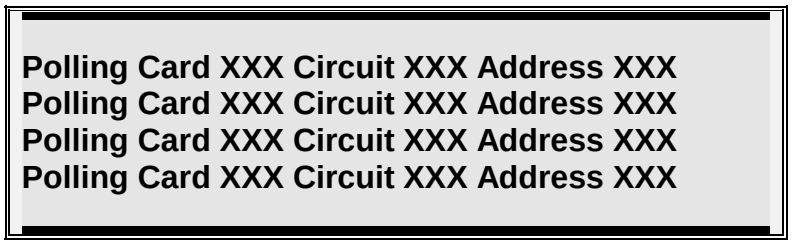


Figure 3B

>>**NOTE: Upon completion of the SmartStart process, all connected addresses will be contained in system memory and all inputs will be tied to all outputs. Any input in Alarm will activate the system outputs.**

System Idle Display

After the initial system startup or system re-configuration is completed, the display will show the current date (month/day/year) and time (military), see Figure 4.

>>**NOTE: The system is equipped with a built-in screen saver. When the system remains in a idle mode (i.e. normal quiescent condition) for over 15 seconds the screen will automatically go blank.**

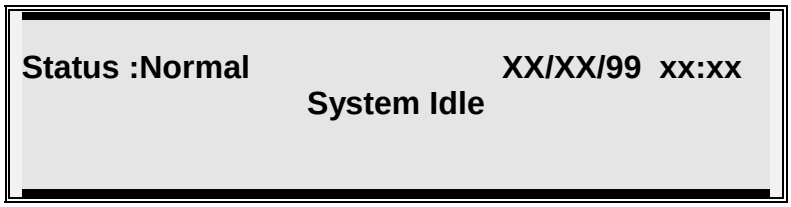


Figure 4

PASSWORD ENTRY - ACCESS LEVELS

Four levels of password protection have been incorporated in the IF 610 system firmware. These passwords allow access to various functions of the system. Each of the four levels default to certain functions of the system and can be re-assigned to other functions via programming. Up to ten passwords may be assigned to these access levels. As well, an area to assign a user ID to each password has also been provided for quick reference. Each user ID may contain up to 10 characters. Each of these password ID's may be assigned up to a ten character string.

>>**NOTE: System configuration (i.e. SmartStart™) defaults to level 2 password access. When the password access level is changed, the system defaults to that level even when the system loses power. The system will <u>not</u> default to a Level 4 .**

The four access level default settings are:

Access level 1 = Ack.
Access level 2 = Ack., Sig. Sil., Reset, Drill
Access level 3 = Ack., Sig. Sil., Reset, Drill, Det. test, Walk Test, Bypass
Access level 4 = Programming, SmartStart

Default passwords for the access levels are:

Password 1111 = Access level 1
Password 2222 = Access level 2
Password 3333 = Access level 3
Password 4444 = Access level 4

Δ WARNING !

>>**When the system is in access level 4, programming, the system will not recognize an alarm or trouble condition. The premises should be protected by a fire watch or other reliable measure(s) whenever the system is being programmed.**

Password Entry

1. Press "Password" keypad switch. Figure 5 is now displayed.

Figure 5

2. To change access levels, enter the appropriate password on the keypad.
3. To enter the programming mode after a system configuration, enter the password access LEVEL 4.

>>**NOTE: System will exit the Programming mode and commence a Reset after 5 minutes of inactivity.**

PROGRAMMING MODE

Main Display

The main programming display shows the user an overview of the programming modes. The user is allowed to select from four categories. (Figure 6)

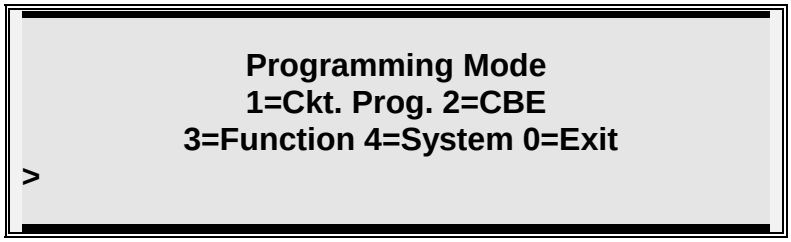


Figure 6

1= Ckt Prog	Circuit Programming
2 = CBE	Control-By-Event
3= Function	System Test/Bypass
4 = System	System Wide Programming
0= Exit	Exit

PROGRAMMING MODES
TABLE P1

Circuit Programming

Select "Ckt Prog" from the main "Programming Mode" menu to modify input/output device characteristics (e.g. zone type, group assignment, signal code and device specification text). (Figure 7)

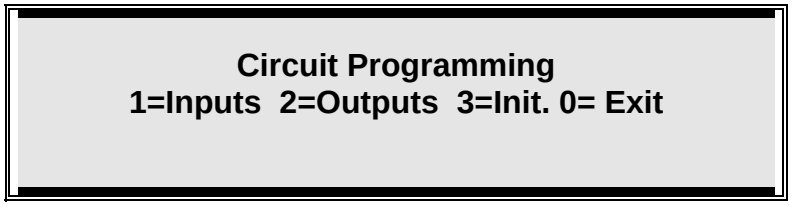


Figure 7

"Inputs" Circuit Selection

1. From the Circuit Programming menu, Press [**1**] on keypad.
2. Press "**Enter**".

>>**NOTE: The cursor will be flashing under the circuit number. If the device type is an ion detector Figure 8 will be displayed.**

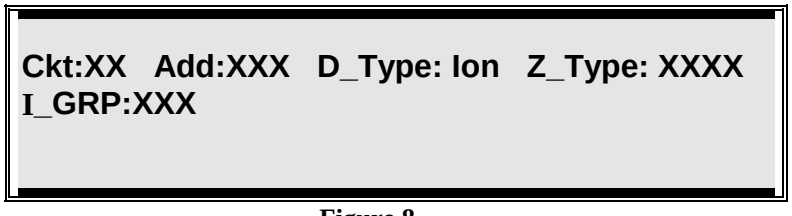


Figure 8

>>**NOTE: The display starts with Circuit 1 and begins with the highest address in circuit.**

Field Descriptions

“Ckt”: xx"	Indicates the circuit (analog line or conventional) address that has been selected.
"Add: xxx"	Shows the address of the analog device to be modified (1 - 126).
"D_Type:xxx"	Shows the type of device (from type code of addressed device). If the device type is a photo detector, Figure 8A will be displayed. For a complete list of Device Types refer to Table P3.
“Comp:x”	A photo detector can be selected for operation with background compensation (Yes) or without background compensation (no). Default is Yes.
“Sens:x”	The sensitivity range of a photo detector can be adjusted (compensated) to the environment. The device sensitivity range; 3 is the least sensitive and 0 is the most sensitive. The default is ‘2’.
“R/R:x” “FTemp:x”	If the device is a heat detector, Figure 8B will be displayed. If the device is a heat detector, the temperature can be defined in Celsius or Fahrenheit.
"Z_Type: xxx"	Shows the type of zone that has been selected for the device. Zone types are defined in Zone Type Table P2.
"I_GRP: x"	Indicates the selected initiating group of the device. Each input device can only be assigned to one group. One initiating group can contain many input devices (logically arranged). The user can utilize up to 256 initiating groups.
"W1:xxx "	Indicates the five (5) separate word dictionaries (W1 - W5) stored and words contained in each dictionary (0 - 127 coded words for Dict. 1 - 4, and 0 - 1024 for Dict. 5). This field is not displayed until selected. Refer to Table P4.

>>**NOTE: The user can scroll through field variables using up/down arrow keys or enter the address number directly via the key pad.**

Device Selection

4. Use the left/right arrow keys to move the cursor flashing under the device address "Add:xxx", enter the address number or use the up/down arrow keys to select the address of the device to be modified then press enter.

Photo Device Sensitivity Selection

Δ WARNING !

>>**Changing the sensitivity of a Smoke Detector may delay alarm reporting. No device should be changed without the approval of the authority having jurisdiction. All settings should be in compliance with all NFPA codes, UL listings, or other local codes.**

4.1 To modify the device sensitivity, use the left/right arrow keys to scroll to "sense:". Use the up arrow key to adjust sensitivity.

>>**NOTE: The sensitivity scale allows the user to select a range of settings which are numeric values (0 through 3). The number 0 is the most sensitive device setting and the number 3 is the least sensitive device setting. Refer to Figure 8A.**

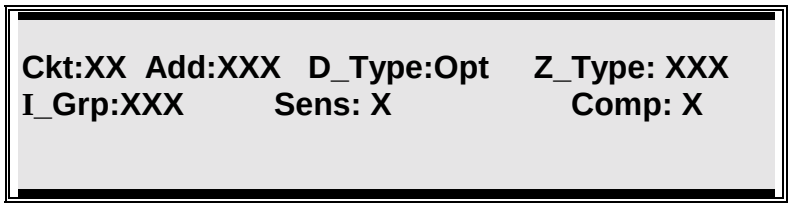


Figure 8A

4.2 To change an optical detector to a compensated/uncompensated device use the left/right arrow keys to scroll to "comp:". Use the up/down keys to select "Y" or "N" (Yes/No).

Heat Device Operating Selection

4.3 To select a heat detector operating characteristic or use the left/right arrow keys to scroll to "R/R". Use the up arrow key to select "Y" (Yes) rate of rise function. When rate of rise is selected the device will alarm when it detects a 15° increase in temperature within one minute. Select "N" (No) for fixed temperature device. "F Temp" refers to the device's fixed high temperature setting. To change the temperature setting use the up/down arrow keys. The default is 55C/131F. Rate of Rise default is 'yes'.

Figure 8B

Zone Type Selection

5. Use the right arrow key to move to "Z_Type:". Use the up/down arrow keys to select zone type. Only zone types that apply to device types will be displayed. Refer to Table P2 for a complete list of all zone types.

Initiating Group Selection

6. Use the right arrow key to move to "I_Grp". Enter the initiating group number or use the up/down arrow keys to select initiating group type (see Field Description).

User Text Selection

7. Use the right/left arrow keys to move to select *text word dictionaries* "W1" through "W5:" field (not shown until selected).

8. Use the up/down arrow keys or enter the three digit word number to select text entries from *text word dictionaries* "W1" through "W5:". The ## represents the text entry number in dictionary *D.* See Figure 10.

>>**NOTE: The "W*D*" field is not displayed until the cursor is placed in its field. When the dictionary 1 through 5 is selected "W*D*" will be shown on the lower right hand corner of the display. See Figure 10.**

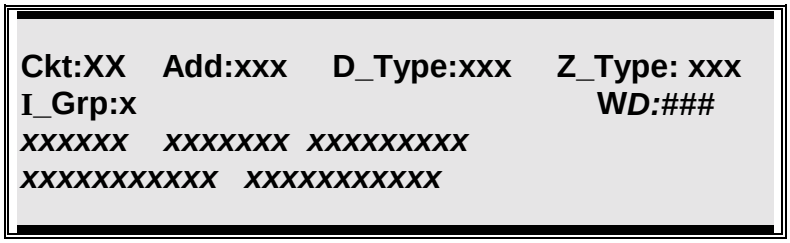


Figure 10

9. When the desired coded word is displayed, use the left/right arrow keys to select the next field.

>>**NOTE: It is not necessary to press "Enter" when the Up/Down arrow keys are used to change the parameter of a field. The field contents are automatically updated for the device as shown on the display (Except I_Grp).**

10. When all input devices have been programmed, press "**Enter**" to exit the input circuit programming mode.

ZONE TYPE TABLE - P2

Display Panel	Name	Description
Ver	Verification	Automatically verifies the device). (Default program, after a 45 sec. Min., 60 sec. Max Reset/Stabilization delay, monitors the device for 60 seconds to verify an alarm condition.
Auto	Automatic	Places the panel into General Alarm
Gener	Generic	All the device control functions are active without placing the system in a general alarm condition at the panel.
And	And Initiating Zone	Two stage automatic detection.
Ack	Acknowledgment	Remote location acknowledgment
SigSil	Signal Silence	Remote location Signal Silence
Drill	Drill	Remote drill system condition.
Reset	Reset	Remote reset of the panel - resets system.
Abort	Abort	Delays or stops discharge cycle
Dump	Dump	Initiates discharge manually
Super	Supervisory	Sprinkler Supervisory signal input
Water	Water flow	Water flow, non silenceable
Watr	Water flow delayed	Water flow, delayed, non silenceable
Watrs	Water flow delayed	Water flow, delayed, silenceable

DEVICE TYPE TABLE - P3

Display Panel	Description
Ion.	Ionization Sensor
Opt .	Photo-Electric Sensor
Heat	Thermal Sensor
Mon.	Point Identification Device (contact monitor)
Man.	Manual Station (or PID with priority interrupt set)
CZI	Collective Zone Interface
CZII	Collective Zone Interface (with priority interrupt set)

TEXT DICTIONARY TABLE - P4

W1	W2	W3	W4	W5
Fire Alarm	Smoke Detector	1st.	Floor Room Number	1
Alarm	Heat Detector	2nd.	Floor Corridor	2
Gas	Duct Detector	3rd.	Floor Elevator Lobby	3
Sprinkler	Water flow	4th.	Floor	4
Trouble	Tamper switch	5th.	AHU	5
Acknowledge	Manual Station	6th.	Floor-Closet	6
Reset	Pull Station	7th.	Level	7
Mechanical	Beam Detector	8th.	Floor-Service Elevator Lobby	8
Electrical	Fire Station	9th.	Sub-level	9
Boiler	Ionization Smoke Detector	10th.	Basement Level	10
Utility	Photo Smoke Detector	11th.	Sub-basement Level	11
Extinguishing	Tunnel Heat Detector	12th.	Basement	12
Fire	PIV switch	13th.	Parking Level	13
	Pressure switch	14th.	Garage Level	14
	Fire Pump	15th.	Wing	15
	Generator	16th.	Floor Wing	16
		17th.	Atrium	17
		18th.	Mezzanine	18
		19th.	Ballroom	19
		20th.	Kitchen	20

Output Circuit Programming

Select "Outputs" from the Circuit Programming menu to modify Indicating and Output signal characteristics (e.g. zone type, group assignment signal codes, restore options and Drill mode).

Signal Circuit 1 and Circuit 2

Select Outputs from the circuit programming menu to modify the signal circuits characteristics (e.g. drill, group assignments, signal type, etc).

1. From the Circuit Programming menu, Press [**2**] on keypad, see Figure 7.
2. Press "**Enter**".
3. When a signal circuit is selected for programming from the operators display, Figure 11. The red LED of the selected circuit will illuminate.

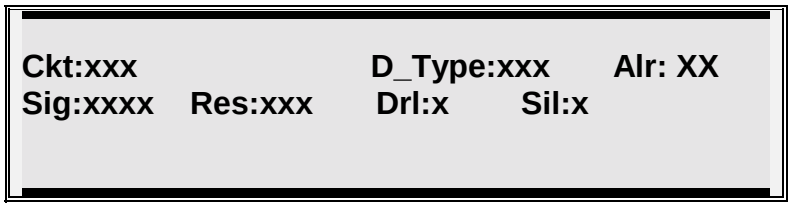
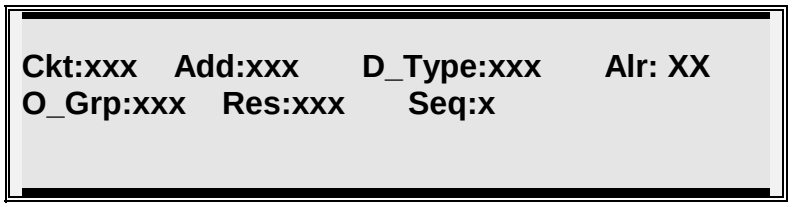


Figure 11

3.2 When an analog addressable line is selected for programming from the operators display, Figure 11B. The yellow LED of the selected circuit will illuminate



>>**NOTE: If an output device is not present on the selected analog addressable line, the result is no action.**

Field Descriptions for Signal Circuits and Analog Addressable

"Ckt:xxx" Indicates the signal circuits memory address

"Add:xxx Address of analog relay module

"D_Type:Sig" Shows the type of output circuit

"ALR:x" Indicates to what alarm level the circuit will be activated in the event that "and" zones are programmed.

>>NOTE: The use of Cross and Counting Zones must comply with the applicable requirements of NFPA 72, 3-8.2.5:

Systems that require the operation of two automatic detection devices to initialize the alarm response shall be permitted, provided:

(a) They are not prohibited by the authority having jurisdiction.

(b) There are at least two automatic detection devices in each protected space.

(c) Automatic detection device area spacing is no more than one-half that determined by the application of NFPA 72 Chapter 5.

"Sig:xxx" Indicates the type of signaling to be output by the circuit (i.e. steady, marchtime, etc). Refer to ***Output Signal Circuit Type*** for a complete description .

"Res:xxx" Indicates when the signal circuit has been programmed to return to normal. **Refer to *Signal Circuit Restore*** for a complete list of options.

"DRL:x" Indicates if a signal circuit will activate when the drill switch is depressed.

"Sil:x" Auto Silence – Programmable, 2 – 15 min..

"O_Grp:xxx" Identifies the output group.

"Seq:" Sequentially Restores.

>>**NOTE: If an analog addressable line (or single device) is not programmed when selected, the result is no action.**

4. Program the signal circuit by using the left/right arrow keys to move between fields and the up/down keys to assign the desired characteristics.

5. To exit output circuit programming press the "**Enter**" key.

Signal Circuit Types

Output
Signal Circuit Type

A. STEADY DC

Steady DC type signal circuit is the System Default. When Activated, any signal circuits programmed for Steady DC will provide a 24VDC uninterrupted output.

B. MARCHTIME 60

Marchtime 60 circuits, when activated, will provide a 24 VDC output on the selected circuits at a 60 pulses per minute rate with a duration of 50% on and 50% off cycle.

C. MARCHTIME 120

Marchtime 120 circuits, when activated, will provide a 24 VDC output on the selected circuits at a 120 pulses per minute rate with a duration of 50% on and 50% off cycle.

D. TEMPORAL

Temporal signaling circuits, when activated, will provide a 24 VDC output in the pattern of a Morse Code "U". This pattern is active for .25 seconds, off for .25 seconds, active for .25 seconds, off for .25 seconds, active for .25 seconds, off for .75 seconds. The pattern repeats until the circuit is returned to Idle.

E. CALIFORNIA UNIFORM FIRE CODE

California Uniform Fire Code Signal circuits, when activated, will provide a 24 VDC output in Marchtime 120 format for 10 seconds on and 5 seconds off. The pattern repeats until the circuit is returned to Idle.

F. CODED

Zone coded signaling circuits when activated will produce a 24VDC pulsed numeric code to be transmitted up to 6 times or as programmed. A separate code is usually transmitted for each input zone.

G RELEASING

Releasing coded signaling circuits will sound at 60 bpm during one alarm, 120 bpm during pre-release, and steady during discharge and the discharge delay if programmed.

Signal Circuit Restore

A. Restore On - ACKNOWLEDGE *For use with supplementary signaling and functions*

Any active output point programmed to restore on ACKNOWLEDGE will return to Idle whenever the Acknowledge switch is pressed. All output points that were returned to Idle will reactivate upon a subsequent alarm which is programmed to activate those output points.

B Restore On - SIGNAL SILENCE (** System Default **) *All required Fire Alarm outputs in which silence is intended to occur, shall be programmed under this switch or function.*

Any active output point programmed to restore on Signal Silence will be silenced by the activation of the Signal Silence Switch and will return to Idle. The Signal Silence Switch operates as an alternate acting switch. All outputs that were returned to idle will reactivate upon a subsequent alarm or by depressing the Signal Silence Switch again. Both Signal Circuits and Relay Outputs can be programmed to restore on Signal Silence. . All output points that were returned to Idle will reactivate upon a subsequent alarm.

C. Restore On - RESET

Serves as System Back up. Any active output point not restored by any other means will restore on RESET. Any active output programmed to restore on RESET will not restore on any other action.

>>**NOTE: There are a few restrictions to be aware of regarding output signal circuits:**

1. The two signal circuits on the Bus Driver Module (BDM) can be used for steady or pulsing DC (marchtime, temporal, etc.) and programmed separately.

Alarm Levels Available

There are four levels of alarm that can be assigned to each type of output circuit, PreAlarm, 1st Alarm, 2nd Alarm or Releasing. These levels designate at which level of alarm an output circuit will activate. Output circuits assigned to 1st alarm level (system default) will activate when a first alarm is detected on its assigned input circuit(s), provided the input circuit is assigned to activate that output circuit in the CBE table. Circuits designated as PreAlarm will activate when a prealarm level is detected on an input circuit. Circuits requiring activation on 2nd alarm (AND zones) can be assigned to alarm level 2. An AND zone assigned to activate both 1st and 2nd alarm level output circuits will activate only those outputs assigned to level 1 during a first alarm condition. When a second alarm is detected both first and second alarm outputs will activate. A shorting device will activate both first and second alarm outputs (CZI).Discharge devices are assigned to Level three, and will activate after the 2nd alarm plus the releasing and dump timing, if not aborted.

Special Signal Circuit Functions

A. SIGNAL SILENCE INHIBIT

Silence Inhibit will prevent the operation of the Signal Silence function for a programmable period ranging from 30 seconds to 5 minutes from the time the first point goes into alarm. If the panel is programmed for Silence Inhibit any activation of the Signal Silence Switch will be ignored, allowing the output signal circuits to be active, until the programmed delay has elapsed.

B. AUTO SILENCE - Automatic Signal Cutoff

If an output signaling circuit is programmed for Auto Silence it will automatically silence the signal circuits, after the programmed delay, from the time the first point goes into alarm. If subsequent to its silencing, a new alarm occurs, the output signaling circuit will resound and the auto silence time-out feature will reset its timer to silence its associated outputs after the programmed delay.

C. Drillable

Any signal circuit programmed as drillable will activate when the drill feature is activated.

Restoring Outputs

A. Restore On - ACKNOWLEDGE *For use with supplementary signaling and functions*

Any active output point programmed to restore on ACKNOWLEDGE will return to Idle whenever the Acknowledge switch is Depressed. . All output points that were returned to Idle will reactivate upon a subsequent alarm.

B. Restore On - RESET

Serves as System Back up. Any active output point not restored by any other means will restore on RESET. Any active output programmed to restore on RESET will not restore on any other action.

C. SEQUENTIAL RESTORE - Upon System Reset

The sequential restore only applies to relay outputs. Any active RCE-95 programmed for Sequential Restore will only restore on Reset, not on Acknowledge. Selected relays will return to Idle 4 seconds apart, starting with the highest address and ending at the lowest address set. The restore sequence is determined by the actual address of the RCE and is not programmable.

Initializing an analog Circuit	Initializes an individual circuit. Allows the user to add new devices (detectors) or remove devices in the specific circuit selected. All other circuit information previously entered (utilized in Control By Event data base programming) is protected and cannot be altered or damaged.

1. From the circuit programming display menu, select the [3] numeric key.

2. Press "**Enter**"..

3. Select the circuit to initialize (1-4). SmartStart™ feature configures new data base making any changes that have been detected. See Figure 12D.

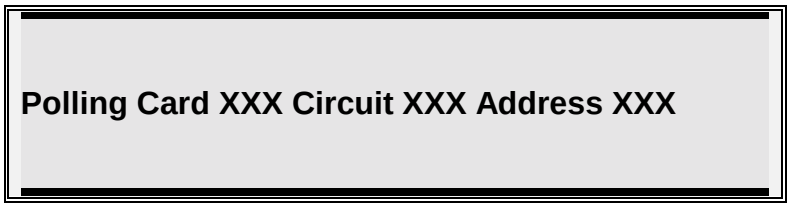


Figure 12D

CONTROL BY EVENT

Control-by-Event programming allows the user to create a matrix whereby selected groups of input devices are logically connected to selected groups of output devices or circuits. The SmartStart feature automatically assigns all input devices to select all output devices or circuits.

In the device specific screens, input or output group numbers (1 - 256) can be assigned to each device. Multiple devices can be assigned to a single group but each device can only be assigned to one group.

In the output programming menu for each device or circuit there is a field (Alr) for assigning the Alarm level it will activate. The four levels of alarm, 0= pre-alarm, 1=1st alarm, 2=2nd alarm and 3=Rleasing. These levels combined with the CBE table determine when the circuit or device will activate.

CBE Programming

Control-by-Event "CBE" programming is dedicated to system wide ALARM functions. Select "CBE" (#2) from the main "Programming Mode" menu to change or assign input group assignment with the associated output group.

To select "logical" Group Inputs

1. Select "CBE" (**2**) from the main "Programming Mode" menu.

2. Press "**Enter**".

Figure 13

3. Using numeric keys, enter the corresponding input group number. The group number will be displayed in the location as shown in Figure 14.

Figure 14

4. Enter all desired input group numbers. The assigned input group number is displayed in top left of screen. As the next input group number is entered, group numbers are sequentially arranged (ascending order). Enter up to 256 group input numbers.

>>**NOTE: To cancel an individual input group, enter that group number and press "Enter". The group number is <u>not</u> shown and is then canceled.**

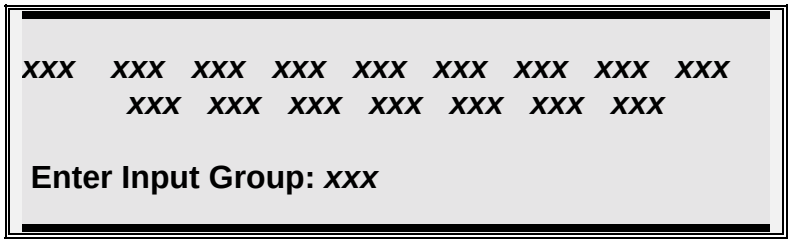


Figure 14A

To assign a "logical" Output Group

5. Press "**Enter**". Figure 15 is now displayed.

Figure 15

6. Using numeric keys, enter the desired output group number or press the signal circuit switch. The assigned output group number now is displayed in top left as shown in Figure 15A.

Figure 15A

7. Enter all desired output group numbers. The assigned output group number is displayed in the top left of the screen. As the next output group number is entered, group numbers are sequentially arranged (ascending order). Enter up to 256 group output numbers, see Figure 15B.

>>**NOTE: To cancel an individual output group, enter that group number and press "Enter". The group number is <u>not</u> shown and is then canceled.**

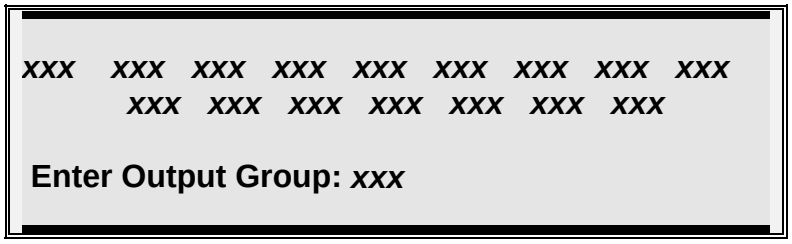


Figure 15B

8. Repeat sequential steps (3 through 7) for each associated input/output group to be modified in the selected circuit.

FUNCTION PROGRAMMING

See System Test Mode

SYSTEM PROGRAMMING

Programming

System programming menus may be accessed if the proper programming password is entered at the “ENTER PASSWORD:” prompt.

Programming may also be performed from a laptop computer connected to the RS-232 port on the CPU of the control panel. Refer to the end of this section for instructions.

>>**NOTE: Before proceeding, notify all personnel, monitoring companies and municipalities the system will be temporarily "out of service". During all levels of programming, the system will be in an off-line status.**

System Menu

The “System Menu” menu is displayed when selected from the programming mode menu.

System Menu
1=Display 2=Change 3=Test
0=Exit

Display Menu

Selecting the “Display” option from the “System Menu” which allows the user to display or download various system parameters. There are four options that may be selected from this menu (see Figure 5-2) and four options that may be selected from the “MISC.” menu selection. (Figure 5-3).

Display Menu
1=Config 2=Dict 3=Events
4=Misc 5=Detectors 0=Exit

Config Menu

The Configuration Menu allows the user to select either displaying the system module configuration or downloading the entire system configuration.

Configuration Menu
1=Display 2=Download 0=Exit

Display Config

The system module configuration is displayed when option 1 is selected from the Configuration Menu. This display shows the modules that are present in each card location, their associated card type, code and a description of the card. The modules displayed are retrieved from the system configuration memory and are not a real time scan of the actual cards present (refer to the system test menu for a real time display).

```
Configuration Menu
1=Display 2=Download 0=Exit
>1
Card:0, ID:0C is CCM0: A/N Panel
Card:1, ID:FF is Vacant
Card:2, ID:FF is Vacant
Card:3, ID:FF is Vacant
Card:4, ID:01 is CCM4: 2 Sig Ckt, Class A
Card:5, ID:02 is CCM5: 4 Rel Ckt
Card:6, ID:05 is CCM6: Misc. Ckts.
Card:7, ID:FF is Vacant
Card:8, ID:FF is Vacant
Card:9, ID:FF is Vacant
Card:10, ID:FF is Vacant
Card:11, ID:FF is Vacant
Card:12, ID:FF is Vacant
Card:13, ID:FF is Vacant
Card:14, ID:FF is Vacant
Card:15, ID:FF is Vacant
Card:16, ID:FF is Vacant
Card:17, ID:09 is Analog Addressable Module
Press AnyKey To Continue
```

System Configuration

Select this field to view the system modular placement (hardware configuration, card identification number and I/O card type assignment). The IF 610 series systems utilize a fixed card placement design for identifying I/O module types. In the IF 610 the card locations are pre-defined and cannot be altered.

Modular Placement

Card numbered 0 through 7 are reserved for the various common control module sections. These card location numbers are hardwired physical circuits.

Card #17

The IF 610 utilizes card location number 17 for the analog addressable interface module. All other card locations (8 through 39) are shown as vacant.

Card ID # Each type of card is assigned a unique 8 bit code that the card transmits to the CPU when it is polled. In operation each card is periodically polled and returns its type code. The CPU detects if the card is functioning correctly, for a card type at that location. Refer to Table L4, IF 610 Card ID Type.

Card Location	Card No.	Card ID Type Code (hex value)	Card Description
Display Module	Card# 0	0C	Alphanumeric (LCD) display card
Bus Driver Module	Card# 4	01	Signal Circuits
Bus Driver Module	Card# 5	02	Relays
Bus Driver Module	Card# 6	05	Variety of features (city tie supervision, ground fault, default power supply supervision, +24 V, +12V, +5V supervision, V-battery to power supply, unregulated raw supply, system on AC/Battery, Charging Monitor, battery monitor, aux 1 & 2).
Analog Addressable Module	Card# 17	09	XP95 analog addressable interface (1, 2 or 4 circuits)

Table L4, Typical Card ID Type

System Configuration

1. Select [1], the "Config" field.

2. Select “Display” [1], Press "**Enter**". (*Figure L-3 is an example of data shown*).

3. The alphanumeric screen will scroll and the user can view desired circuit.

4. Select “Download” [2] to download system configuration to a laptop computer. Refer to IF 610 computer/laptop programming manual.

Card 00, ID# 0C is: A/N Panel
Card 04, ID# 01 is: CCM: 2 Sig Ckt, Class A
Card 05, ID# 02 is: CCM: 4 Rel Ckt
Card 06, ID# 05 is: CCM: City Tie, Buzzer etc.
Card 07, ID# 07 is: Unused
Card 17, ID# 09 is: Apollo Interface

Figure L-3

4. Press "**Enter**" key for previous menu. Figure L-2, is shown.

Download Config

Selecting Download from the Display Configuration Menu will prompt the system to transmit the complete system configuration file to the RS-232 port. When this is selected the system prompts the user to perform several steps. These steps are the actions required to receive an ASCII file when using PROCOMM communications software. When using alternate software packages follow the procedure required for that software to receive an ASCII file. The next CR the system receives will start the transmission of the file.

Configuration Menu
1=Display 2=Download 0=Exit

>2
Ready to Download Configuration File.

To Download:
1. Press PgDn
2. Choose 7 (ASCII)
3. Enter Filename

>>**NOTE: For Procomm only, the ASCII transfer setup must have the following parameters. Use the following table)**

ASCII Upload			**To Down Load**	
1) Echo locally	No		1) Press PgUp	
2) Expand blank lines	No		2) Choose 7	(ASCII)
3) Pace Character	0		3) Enter (filename)	
4) Character Pacing	15			
5) Line pacing `	10		CR translation	none
6) CR translation	none		LF translation	none
7) LF translation	strip			

Display Dict. Menu

This display option allows the user to view the contents of word dictionaries 1 - 5. Dictionaries 1 - 4 may contain up to 128 entries and dictionary 5 may contain up to 1024 entries. By selecting this option the contents of all 5 user dictionaries are output to the laptop/computer screen.

Display Dictionary Menu
1=Display 2=Download 0=Exit

Display Dict.

The following is the format in which the dictionary will be displayed.

```
Start of Dictionary #1

End of Dictionary #1
Start of Dictionary #2

End of Dictionary #2
Start of Dictionary #3

End of Dictionary #3
Start of Dictionary #4

End of Dictionary #4
Start of Dictionary #5

End of Dictionary #5

Press Enter Key to Continue.
```

Download Dict.

Selecting Download from the Display Dictionary Menu will prompt the system to transmit the complete set of 5 dictionaries to the RS-232 port. When this is selected, the system prompts the user to perform several steps. These steps are the actions required to receive an ASCII file when using PROCOMM communications software. When using alternate software packages follow the procedure required for that software to receive an ASCII file. The next CR the system receives will start the transmission of the file.

Display Dictionary Menu
1=Display 2=Download 0=Exit

>2
Ready to Download Dictionary File.

To Download:
1. Press PgDn
2. Choose 7 (ASCII)
3. Enter Filename

Display Events

The display events selection will prompt the CPU to output it's complete history log to the RS-232 port. The history log will contain all information regarding the system status changes for the previous 1000 events or since the last time the system SmartStart™ feature was invoked.

```
                    Display Menu
              1=Config 2=Dict 3=Events
              4=Misc 5=Detectors 0=Exit
>3
**** Start of Event Buffer ****
Status:NORMAL          03/27/95 15:08

Press Enter Key To Continue
```

Display, Misc.

When 4 (Misc) is selected from the Display menu, a sub-menu of selections is displayed.

```
                    Display Menu
              1=Config 2=Dict 3=Event
              4=Misc5=Detectors 0=Exit
>4
                 Display Menu (Misc.)
              1=Pass 2=Codes 3=Tally
              4=Ver  5=Ram 0=Exit
```

Display Pass

Displaying the passwords allows the user to view the 10 passwords that are assigned to the system. Each password has a user ID and a security or access level assigned to it. This screen also shows the security levels that are assigned to each of the function keys. The following display are the default settings for the IF 600 system.

```
                    Display Menu
              1=Config 2=Dict 3=Event
              4=Misc5=Detectors 0=Exit
>4
                 Display Menu (Misc.)
              1=Pass 2=Codes 3=Tally
              4=Ver 5=Ram 0=Exit
>1
1. Pass:1111 User ID:USER1 Sec:1
2. Pass:2222 User ID:USER2 Sec:2
3. Pass:3333 User ID:USER3 Sec:3
4. Pass:4444 User ID:USER4 Sec:4
5. Pass:5555 User ID:USER5 Sec:1
6. Pass:6666 User ID:USER6 Sec:1
7. Pass:7777 User ID:USER7 Sec:1
8. Pass:8888 User ID:USER8 Sec:1
9. Pass:7111 User ID:USER1 Sec:1
10. Pass:7222 User ID:USER2 Sec:1

Ack:01 Rst:02 Sig:02 Drl:03
Fun:03
    Press Any Key To Continue
```

Display Codes

Displaying the codes will allow the user to view the codes that are assigned to each of the 256 input groups. This is followed by information on the timing of the codes, number of rounds transmitted and whether the system reverts to March Time coding or silences after the coding is completed. The default setting for each code is 1,2,3,4,5,6.

```
                Display Menu (Misc.)
              1=Pass 2=Codes 3=Tally
              4=Ver 5=Ram 0=Exit
>2
1=123456 2=123456 3=123456 4=123456
5=123456 6=123456 7=123456 8=123456
9=123456 10=123456 11=123456 12=123456
13=123456 14=123456 15=123456 16=123456
17=123456 18=123456 19=123456 20=123456
21=123456 22=123456 23=123456 24=123456
25=123456 26=123456 27=123456 28=123456
29=123456 30=123456 31=123456 32=123456
33=123456 34=123456 35=123456 36=123456
37=123456 38=123456 39=123456 40=123456
41=123456 42=123456 43=123456 44=123456
45=123456 46=123456 47=123456 48=123456
49=123456 50=123456 51=123456 52=123456
53=123456 54=123456 55=123456 56=123456
57=123456 58=123456 59=123456 60=123456
61=123456 62=123456 63=123456 64=123456
65=123456 66=123456 67=123456 68=123456
69=123456 70=123456 71=123456 72=123456
73=123456 74=123456 75=123456 76=123456
77=123456 78=123456 79=123456 80=123456
81=123456 82=123456 83=123456 84=123456
85=123456 86=123456 87=123456 88=123456
89=123456 90=123456 91=123456 92=123456
93=123456 94=123456 95=123456 96=123456
97=123456 98=123456 99=123456 100=123456
101=123456 102=123456 103=123456 104=123456
105=123456 106=123456 107=123456 108=123456
109=123456 110=123456 111=123456 112=123456
113=123456 114=123456 115=123456 116=123456
117=123456 118=123456 119=123456 120=123456
121=123456 122=123456 123=123456 124=123456
125=123456 126=123456 127=123456 128=123456

Pls:1.0Sec Cyl:04 Sig:OFF
Press Any Key To Continue
```

Tally

This displays the number of times that a detector which is selected for Verification, has activated without confimation within the last 30 days.

```
                Display Menu (Misc.)
          1=Pass 2=Codes 3=Tally
           4=Ver 5=Ram 0=Exit
>3
Press any Key To Continue
```

Display Ver.

The version of firmware installed in the main CPU will be displayed when 3 (Ver) is selected from the Display Menu (Misc.).

```
                Display Menu (Misc.)
          1=Pass 2=Codes 3=Tally
           4=Ver 5=Ram 0=Exit
>4
  610 System, Version 7.00
Last Updated on Oct 10, 1999 at 15:43:58

Press any Key To Continue
```

Display RAM

Displaying the RAM allows the user to view the available system Random Access Memory.
This feature is helpful to Tech. Support for problem solving..

```
                Display Menu (Misc.)
          1=Pass 2=Codes 3=Tally
           4=Ver 5=Ram 0=Exit
>5

Unallocated bytes of ram: XXXXXX

Press any Key to continue
```

Display Detectors

The Detector Display Menu allows the average counts of the input devices to be down loaded.

```
                  Display Menu
          1=Config 2=Dict 3=Events
          4=Misc 5=Detectors 0=Exit
>5

1=Down Load  0=Exit
```

Change Menu The system change menu allows the user to change various system parameters.

Change Menu 1

```
                Change Menu
        1=Menu 1 2=Menu 2 3=Menu 3
             4=Menu 4 0=Exit
>
```

```
                Change Menu
        1=Menu 1 2=Menu 2 3=Menu 3
             4=Menu 4 0=Exit
>1
                Change Menu 1
        1=Pass 2=Code 3=Date 4=Seq
             5=Baud 0=Exit
```

Change Pass

The Change Password menu is used to change the password, user name and/or the access level associated with the passwords. When this is selected from Change Menu 1, the previously programmed password information is displayed, followed by a prompt requesting the password number to be changed. When the password number is entered the "Enter Password" prompt is displayed. Enter the new password (Four Digits) or press enter to leave the existing password. This is followed with the User ID prompt. The User ID may contain up to 8 ASCII characters. After defining the user, the access level or security level (Sec:) assigned to that password is defined.

NOTE: Before changing the password # 4 (programming password) make sure that you have added a new Security Level 4 password to access the programming area.

```
                    Change Menu
          1=Menu 1 2=Menu 2 3=Menu 3
                4=Menu 4 0=Exit
>1
                  Change Menu 1
          1=Pass 2=Code 3=Date 4=Seq
                5=Baud 0=Exit
>1
1. Pass:1111 User ID:USER1 Sec:1
2. Pass:2222 User ID:USER2 Sec:2
3. Pass:3333 User ID:USER3 Sec:3
4. Pass:4444 User ID:USER4 Sec:4
5. Pass:5555 User ID:USER5 Sec:1
6. Pass:6666 User ID:USER6 Sec:1
7. Pass:7777 User ID:USER7 Sec:1
8. Pass:8888 User ID:USER8 Sec:1
9. Pass:7111 User ID:USER1 Sec:1
10. Pass:7222 User ID:USER2 Sec:1
Enter Password # To Change:1
Enter Password:1234
Enter User ID: John Doe
Enter Security level:1
1. Pass:1234 User ID:John Doe Sec:1
2. Pass:2222 User ID:USER2 Sec:2
3. Pass:3333 User ID:USER3 Sec:3
4. Pass:4444 User ID:USER4 Sec:4
5. Pass:5555 User ID:USER5 Sec:1
6. Pass:6666 User ID:USER6 Sec:1
7. Pass:7777 User ID:USER7 Sec:1
8. Pass:8888 User ID:USER8 Sec:1
9. Pass:7111 User ID:USER1 Sec:1
10. Pass:7222 User ID:USER2 Sec:1
Enter Password # To Change:
```

Change Code

The codes in the IF 610 systems are assigned to the input groups. When a device within that group alarms, that code would be sounded on the signal circuits that have been programmed as coded circuits. Each input group may be assigned an individual code that contains up to 6 digits. The digits are defined in hexadecimal and range from 0-9 and A-F. When selected each digits (1-6) of the code is entered individually.

After the code has been entered a sub-menu appears. This menu allows you to change the Timing, the number of Cycles and the output of the signal circuits after the code is complete, silence or March Time signal.

Change Menu 1
1=Pass 2=Code 3=Date 4=Seq
5=Baud 0=Exit

>2
Enter Input Ckt/Group Number:1
Current Code For Ckt/Group1=123456
Enter Digit 01:656565Re-enter Input :6
Enter Digit 02:5
Enter Digit 03:4
Enter Digit 04:3
Enter Digit 05:2
Enter Digit 06:1
New Code For Ckt/Group1=654321
Enter Input Ckt/Group Number:

Change Coded Signal's Parameters
1=Timing 2=Cycles 3=Signal
0=Exit

>1

Change Coded Signal's Timing
1=0.5 2=1.0 3=1.5 4=2.0
0=Exit

>2
Enter # of Cycles (1-8):

>3

Choose Signal
1=OFF 2=March Time
0=Exit

Change Date

To change the date and/or time in the IF 610 system, the Change Date Menu must be selected. This menu prompts the user with the information the system requires to enter a new time and date.

```
                    Change Menu 1
                1=Pass 2=Code 3=Date 4=Seq
                    5=Baud 0=Exit
>3
                    Date Menu
                1=Date 2=Time 3=Savings
>1
THR Date 09/30/99  Time 09:52:41
Enter Month:  :09
Enter Date:   :30
Enter Year:   :99
Enter Day: 1=SUN 2=MON 3=TUE 4=WED
           5=THR 6=FRI 7=SAT 0=EXIT   5
>Enter
                    Date Menu
                1=Date 2=Time 3=Savings
>2
Current Date/Time
THR Date 09/30/99  Time 09:54:21
Enter Hour   :10
Enter Minutes: 43
         New Date/Time
    Date 09/30/99  Time 10:43:00
    Press Enter Key To Continue
>Enter
                    Date Menu
                1=Date 2=Time 3=Savings
>3
Daylight Savings Time DISABLED
Enable Daylight Savings Time
1=Yes 2=No Enter=Exit
>Enter
```

Change Seq

The Change Sequence option allows the user to redefine the access levels associated with each of the sequence keys. Each of these keys is assigned an access level by default. The Acknowledge key is assigned to level 1 access. The Reset, Signal Silence and Drill keys are assigned to level 2. Also, the Function and Day keys are assigned to level 3.
Any of these keys may be reassigned by selecting this option, pressing the key to be reassigned and entering the access level desired. These keys may also be assigned to level 4 access (programming level). By assigning a key to level 4 access, that keys operation is inhibited.

```
                Change Menu 1
          1=Pass 2=Code 3=Date 4=Seq
          5=Baud 0=Exit
>4

     Change Sequence's Security
       Press A Sequence's Key
      Press Enter Key To Exit

  Acknowledge, Current:01 Enter New:01
```

Change Baud

The Change Baud selection will cause the system to output a printer test pattern to the RS-232 port. This continuous output allows the user to select the baud rate of the connected device without having to cause system abnormalities.

```
                Change Menu 1
          1=Pass 2=Code 3=Date 4=Seq
          5=Baud 6=Net Baud 7=Net Type 0=Exit
>5
Ready To Read Dip Switch and Set
Serial Port 1's Baud Rate.
Press Enter Key To Proceed...

0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdef
ghijklmnopqrstuvwxyz{|}~!"#$%&'()*+,./0123456789:;<=>?@ABCDEFG
HIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~!"#$
%&'()*+,./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\
]^_`abcdefghijklmnopqrstuvwxyz{|}~!"#$%&'()*+,./0123456789:;<=>?@A
BCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz
{|}~!"#$%&'()*+,./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUV
WXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~!"#$%&'()*+,./0123456789:;
<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqr
stuvwxyz{|}~!"#$%&'()*+,./0123456789:;<=>?@ABCDEFGHIJKLMNOP
QRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~!"#$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ{|}~
```

Baud Rate Switch Settings

The baud rate is changed by setting DIP switch SW1 on the CPU module to the desired speed (see below table). Select this option to read new setting.

SW1 - Settings		
S1	Open	Do Not Change
S2	Open	Do Not Change
S3	Always Closed	Do Not Change
S4	Open	Do Not Change
S5	Open	Do Not Change
S6	Open	Do Not Change
Note:	P2 baud rate of is selected via S7 and S8. **Auto Detect Baud rate is utilized for peripheral devices.**	
S7, S8 Open	*9600 Baud Rate*	
S7 Closed, S8 Open	*4800 Baud Rate*	
S7 Open, S8 Closed	*2400 Baud Rate*	
S7, S8 Closed	*1200 Baud Rate*	

Change Menu 2

```
Change Menu
1=Menu 1 2=Menu 2 3=Menu 3
4=Menu 4 0=Exit
>2
Change Menu 2
1=City 2=Ann 3=Trbl 4=BCKey
5=Day Enable 6=Day/Night 0=Exit
```

Change City

The City Tie Circuit is designed to operate in four modes of operation; Line Reversal, Master Box, Dialer, and Chicago mode. In the Line Reversal and Dailer modes all alarms and troubles are transmitted over the city tie circuit. In the Chicago mode the City Tie transmits all troubles and alarms with the exception of City Tie troubles. If the City Tie circuit detects a trouble condition the Spare relay will transfer for use with a local indicator which indicates that troubles and alarms can't be transmitted. In the Dailer mode AC loss troubles are delayed for 6 hours to prevent unnecessary telephone messages.

```
Change Menu
1=Menu 1 2=Menu 2 3=Menu 3
4=Menu 4 0=Exit
>2
Change Menu 2
1=City 2=Ann 3=Trbl 4=BCKey
5=Day Enable 6=Day/Night 0=Exit
>1
  City Tie Is In XXXXXXX Mode
     Press Enter Key To Exit
  Press Any Other Key To Select New Mode
```

Change Ann

The Change Ann option allows the user to enable and disable the supervision of the supervised devices connected to the RS-232 port.

```
Change Menu 2
1=City 2=Ann 3=Trbl 4=BCKey
5=Day Enable 6=Day/Night 0=Exit
>2
    Press Enter Key To Exit
  Press Any Other Key To Toggle
 Remote Annunciator is Detached
 Remote Annunciator is Attached
```

Change Trbl

The Change Trouble option should be in the “Troubles are Annunciated” Mode. This feature is used in Special Applications where a backup system is required. Special modules and wiring are required to utilize this option. Please consult your factory representative for applications requiring redundant system operation.

Change Menu 2
1=City 2=Ann 3=Trbl 4=BCKey
5=Day Enable 6=Day/Night 0=Exit

```
>3
      Press Enter Key To Exit
    Press Any Other Key To Toggle
   I/O Troubles Are Annunciated
   I/O Troubles Are Not Annunciated
```

Change Bldg. Control Switch Supervision

The change BC Key option allows the selection of supervision of the Building Control 3 position switches. When enabled, any BC switch that is off of the Auto (middle) position will show as a trouble. This option has no effect in an IF 610 system.

Change Menu 2
1=City 2=Ann 3=Trbl 4=BCKey
5=Day Enable 6=Day/Night 0=Exit

```
>4
BC Keys Are Not Supervised
Press Enter Key To Exit
Press Any Other Key To Toggle
```

Change Day Enable

The Change Day Enable option allows the selection of Positive Alarm Sequence. When enabled the Day key on the front panel is active and can select the mode of operation.

Change Menu 2
1=City 2=Ann 3=Trbl 4=BCKey
5=Day Enable 6=Day/Night 0=Exit

```
>5
Day Night Keys Are Not Enabled
Press Enter Key To Exit
Press Any Other Key To Toggle
```

Change Day Night Mode

The Change Day Night option allows the selection of manual or automatic termination of Positive Alarm Sequence.

```
Change Menu 2
1=City 2=Ann 3=Trbl 4=BCKey
5=Day Enable 6=Day/Night 0=Exit
>6
System In Manual Day Mode
Press Enter Key To Exit
Press Any Other Key To Toggle
>1
System Is In Auto Day Mode
>Enter
Day Mode Exit Time Is Currently : 17:00
Do You Want To Modify (Y/N)
>Y
Enter Time To Exit Day Mode:
Enter Hour: 18
Enter Minutes: 30
>Enter
Day Mode Exit Time Is Currently : 18:30
```

Change Menu 3

```
Change Menu
1=Menu 1 2=Menu 2 3=Menu 3
4=Menu 4 0=Exit
>3
Change Menu 3
1=Abort 2=Prefix 3=Config 4=Tally
5=Sil Inh 6=AutoSil 0=Exit
```

Change Abort Type

The Change Abort Type option allows the selection of different mode of Abort operation in a discharge application.

```
Change Menu 3
1=Abort 2=Prefix 3=Config 4=Tally
5=Sil Inh 6=AutoSil 0=Exit
>1
Abort Type Set To One Shot
Press Enter Key To Exit
Press Any Other Key To Changee
(Other Choices)
        Timer Expirey
        Immediate
        10 Sec Delay
        Reset Timer
```

Change Prefix

This option allows the user to change the Prefix for alarm events that occur. The default setting is FIRE Alarm. If the panel were monitoring Gas detectors, for example. The Prefix could be changed to GAS and therefore display GAS Alarm during alarm conditions.

```
Change Menu 3
1=Abort 2=Prefix 3=Config 4=Tally
5=Sil Inh 6=AutoSil 0=Exit
>2
Current Alarm Prefix is: Fire
Enter New Alarm Prefix: XXXX

Do you want to clear prefix Y/N? N

Alarm Prefix is set to! Fire
Press any key to continue
```

Change Configuration Name

The Change Config. name option allows a textual designation of the configuration file for archive identification..

```
Change Menu 3
1=Abort 2=Prefix 3=Config 4=Tally
5=Sil Inh 6=AutoSil 0=Exit
>3
Current Config String Is:
SmartStart Config
Enter New Config String:
New Name
>Enter
Do You Want To Clear String (Y/N)
>N
```

Change Tally Count

The Change Tally Count option allows the selection of the number of times a Verification detector can activate without a full alarm, in a 30 day period. If the number is exceeded the detector is put into “Verification Trouble” status..

```
Change Menu 3
1=Abort 2=Prefix 3=Config 4=Tally
5=Sil Inh 6=AutoSil 0=Exit
>4
Verification Count Is Set To: 2
Enter Verification Count (2-15)
```

Change Silence Inhibit Delay

The Change Sil Inh option allows the selection of the time period in which Silence is inhibited after an alarm signal.

Change Menu 3
1=Abort 2=Prefix 3=Config 4=Tally
5=Sil Inh 6=AutoSil 0=Exit
>5
Sil Inh Delay Is Set To: 0 Min
Enter New Signal Sil Delay (0-10)
Delay=Entry (0-10) X 30 sec

Change Auto Silence Delay

The Change Auto Sil Delay option allows the selection of the time period after an alarm which Silence automatically actuated.

Change Menu 3
1=Abort 2=Prefix 3=Config 4=Tally
5=Sil Inh 6=AutoSil 0=Exit
>6
Auto Sil Delay Is Set To: 10 Min
Enter New Signal Sil Delay (0-26)
Delay=2 min + Entry (0-26) X 30 sec

Change Menu 4

```
Change Menu
1=Menu 1 2=Menu 2 3=Menu 3
4=Menu 4 0=Exit
>4
Change Menu 4
1=Cfg 2=Water 3=Relse 4=Dump
5=Dict 6=Card 0=Exit
```

Change Config

Changing the system configuration requires a previously downloaded system configuration file. This option is only available when programming through a P. C. attached to the serial port, or from the Master in a network.

WARNING: It is necessary to perform a Smart Start on the panel before uploading a new configuration. Failure to do so will result in unpredictable operation of the panel

```
Change Menu 4
1=Cfg 2=Water 3=Relse 4=Dump
5=Dict 6=Card 0=Exit
>1
[If network, upload will start at this point]
Ready to Upload Configuration File.

    To Upload:
    1. Press PgUp
    2. Choose 7 (ASCII)
    3. Enter Filename
```

Change Water Flow Delay

The Change Water option allows the selection of the delay time before a Water flow alarm is activated..

```
Change Menu 4
1=Cfg 2=Water 3=Relse 4=Dump
5=Dict 6=Card 0=Exit
>2
Waterflow Zone Delay Is Set To: 30 sec
Enter Waterflow Delay (5-90 sec):
```

Change Releasing Delay

The Change Relse option allows the selection of the time delay from the ANDed releasing alarms to the Discharge command..

```
Change Menu 4
1=Cfg 2=Water 3=Relse 4=Dump
5=Dict 6=Card 0=Exit
>3
Releasing Delay Is Set To: 30 sec
Enter Releasing Delay (15-60 sec):
```

Change Discharge Delay

The Change Dump option allows the selection of the time delay from the Discharge command to the actual Discharge..

```
                Change Menu 4
        1=Cfg 2=Water 3=Relse 4=Dump
          5=Dict 6=Card 0=Exit
>4
Discharge Delay Is Set To: 0 sec
Enter Discharge Delay (0-30 sec):
```

Change Dictionary

Changing the dictionary entries can be achieved by two means, changing the words or uploading an entirely new dictionary. The upload function should only be accomplished throug a P. C. connected through the serial port, or from the Master in a network.

```
                Change Menu 4
        1=Cfg 2=Water 3=Relse 4=Dump
          5=Dict 6=Card 0=Exit
>5
              Change Dictionary Menu
            1=Words 2=Upload 0=Exit
```

Change Dict.Words

To change the Dictionary words, select 1 from the Change Dictionary Menu. The system will prompt you with the dictionary and word number to be changed. The existing word is then displayed. To change the word, type the desired text or press enter to leave the existing text and return to the word number prompt.

```
              Change Dictionary Menu
            1=Words 2=Upload 0=Exit
>1
Enter Dictionary #:1
Enter Word #:1
      Overwrite Current Word:
           Fire Alarm
Enter New Word:
Enter Word #:22
  Word Doesn't Exist, Append New Word
Enter New Word:
Enter Word #:
```

To select word options from the control panel:

Prompt	Description
<a1> =	first lower case letter of a word or key
<a2> =	second lower case letter of a word or key
<a3> =	third lower case letter of a word or key
<a#> =	etc. (sequential order)
<A1> =	First Upper Case letter of a word or key
<A2> =	Second Upper Case letter of a word or key
<A#>	etc. (sequential order)

1. Press the Letters/ Numbers key on the Keypad until the proper selection is displayed. The display indicates the selection by the following means.
2. When selecting the first letter on a key, <a1> should be displayed in the upper right hand corner of the display. To select the second letter on a key, press the Letters/ Numbers key until <a2> is displayed. <a3> should be displayed if the third letter is desired and <#> should be displayed if the number associated with that key is desired.
3. The case of the letters may be changed by pressing the Upper Case key. The case is indicated by the case setting of the <A> within the brackets shown on the display.
4. When the desired number or letter field is displayed press the key associated with it then go on to the next letter, number or punctuation mark.
5. When the text entry is complete press the "**Enter**" key and go on to the next text entry to change.
6. To exit the programming area, and save the changes made, press the "**Enter**" key a second time..

>>**NOTE: When changes are made to any dictionaries they are appended to the existing dictionary. Therefore the entire number of added text may change when you exit the programming area. For example, if dictionary 2 has twelve entries and you add an entry as number 15, when enter the word the dictionary is appended and your new entry becomes number 13.**

Upload Dictionary

Uploading is accessed by selecting 2 from the Change Dictionary Menu. In order to upload a new dictionary, a file containing the new dictionary entries must be created using an ASCII text editor. The SAN-RAN disk (P/N 30972) contains the AHED text editor that may be used to create the dictionary file. The dictionary file is comprised of a simple format that has very few restrictions (See Dictionary File Format).

Change Dictionary Menu
1=Words 2=Upload 0=Exit

>2
Ready to Receive Dictionary File.
[If network, upload will start at this point]
To Upload:
1. Press PgUp
2. Choose 7 (ASCII)
3. Enter Filename

Dictionary File

The dictionary file format consists of the five dictionaries, each separated by two fore slashes (//) as delimiters. The first line of the dictionary file would contain two fore slashes indicating that it is the beginning of the file and the next line received will be word #0 of dictionary #1. This line should be left blank since each device defaults to word #0 of each dictionary. The following lines would contain the desired text entries, in numerical order, for dictionary #1. When all of the entries for dictionary #1 have been entered two fore slashes should be inserted on the next line to signify the end of dictionary #1 and the start of dictionary #2. Again the next line, word #0 dictionary #2, should be left blank for default purposes. This format is followed throughout the five dictionaries. The end of dictionary five is also signified by two fore slashes.

Some important points to keep in mind when writing the file are as follows. Dictionary #1 through dictionary #4 may contain up to 128 entries (0-127). Dictionary #5 may contain up to 1024 entries (0-1023). If all of the entries in any one dictionary are not used, the file does not need to contain blank lines before terminating the dictionary with two fore slashes. Each dictionary entry may contain up to 40 characters. However, entries from dictionaries #1 and #2 are displayed on the third line of the alphanumeric display, and, entries from dictionaries #3, #4, and #5 are displayed on the fourth line of the alphanumeric display. The total characters of dictionary entries used in conjunction with each other should not exceed 40 characters.

The file below illustrates a simple dictionary file.

```
//

Fire Alarm
Supervisory Alarm
//

Smoke Detector
Heat Detector
//

First Floor
Second  Floor
Third Floor
//

Stairwell
Computer Room
Mechanical Room
//

Room 111
Room 112
Below Raised Floor
//
```

>> **NOTE: For Procomm only, the ASCII transfer setup must have the following parameters. Use the following table):**

ASCII Upload			**To Down Load**	
1) Echo locally	No		1) Press PgUp	
2) Expand blank lines	Yes		2) Choose 7	(ASCII)
3) Pace Character	0		3) Enter "Dict" (filename)	
4) Character Pacing	15			
5) Line pacing `	10		CR translation	none
6) CR translation	none		LF translation	none
7) LF translation	strip			

Change Card

IMPORTANT: THE ONLY CARD THAT CAN BE CHANGED IN THE IF 610 IS CARD #17 IN ORDER TO CHANGE THE NUMBER OF CIRCUITS.

The IF 600 system allow components to be added or deleted without disturbing the programming (Control By Event, etc.) of other system components. When the Change Card menu is selected, an Add or Delete option is then prompted. Select the desired option and enter the card number to be changed. (See system configuration in the installation section of this manual for card location information)

NOTE: When changing card types in a location, the existing card should be deleted before the new card is added. This will ensure that the control by event table is up to date.

```
                    Change Menu 4
                1=Cfg 2=Water 3=Relse 4=Dump
                5=Dict 6=Card 0=Exit
>6
                    Change Card Menu
                1=Add 2=Delete 0=Exit
>1
       Enter Card # To Add:
    Delete Existing Card First !
    Press Enter Key To Continue

         Change Card Menu
      1=Add 2=Delete 0=Exit
>2
      Enter Card # To Delete: 1
      Card Deleted From System
    Press Enter Key To Continue

         Change Card Menu
      1=Add 2=Delete 0=Exit

Enter Card # To Add: 1
       Card Added To System
    Press Enter Key To Continue
```

Test Menu

The test menu is a useful tool when testing and troubleshooting the IF 600 systems. The various options allow the testing of input and output devices, circuits, ground fault monitoring and system communications.

```
Test Menu
1=Input 2=Output 3=ID 4=Gnd
5=Lamp 6=Analog 0=Exit
```

Test Input IF 610

The Input Test does not function on IF 610 since there are no conventional inputs.

Test Input All other systems

The Input Test allows the user to test input circuit cards and monitor for circuit noise. This selection requires the input of the card location number (see installation section for card location numbers) to be tested. The card is continuously scanned and a "real time" value in hexadecimal format (base 16) is returned for each of the 8 circuits (0-7) for that card location.

EXAMPLE: The normal value for a CIM card to return would be approximately 0E hex. If the circuit is open, the value would drop to 00 hex. If a short circuit occurs the value returned would increase up to FF hex.

```
Test Menu
1=Input 2=Output 3=ID 4=Gnd
5=Lamp 6=Analog 0=Exit

>1

        Input Card Test
      Enter Input Card #:11
    Press Enter Key To Exit
0=0E 1=0E 2=0E 3=0E 4=0E 5=0E 6=0E 7=0E
0=0F 1=0E 2=0E 3=0E 4=0F 5=0F 6=0E 7=0F
```

Test Output IF 610

The Output Test only applies to the Card numers on the Bus Card (0-6). When card 0 (main display) is selected on the IF 610 system, no input card option is displayed. Pressing the front panel switches will toggle the LED's and display the switch number pressed**.**

Test Output All other systems

The Output Test is used to test the interaction between an input circuit and an output circuit. When selected, the user is prompted to enter the output card location number to be tested. Then the input card location that is to be used to control the output card is entered. When the input circuit is activated, the corresponding output card circuit will activate.

EXAMPLE1: If card location 12 (CIM display) is selected as the output card location and card location 12 is selected as the input card location, when a switch on card 12 is pressed the corresponding LED will light.

EXAMPLE2: If output card location 17 (USM-8) is selected and input card 21 (USM-8 display) is selected, the corresponding signal circuit will activate when the display switch is pressed.

NOTE : When card 0 (main display) is selected on the 630 and 650 systems, no input card option is displayed. Pressing the front panel switches will toggle the LED's and display the switch number pressed.

```
                    Test Menu
          1=Input 2=Output 3=ID 4=Gnd
          5=Lamp 6=Analog 0=Exit
>2
        Output Card Test
Enter Output Card #:0
Enter Input (Keys) Card #:0
     Press Enter Key To Exit
```

Test ID

Selecting the Test ID option will continuously display the "real time" card readings from the system card locations. The card locations (0-39) should always equal the card type installed in that location.

```
                    Test Menu
          1=Input 2=Output 3=ID 4=Gnd
          5=Lamp 6=Analog 0=Exit
>3
00=0C 01=FF 02=FF 03=FF 04=01 05=02
06=05 07=FF 08=FF 09=FF 10=FF 11=FF
12=FF 13=FF 14=FF 15=FF 16=FF 17=09
18=FF 19=FF 20=FF 21=FF 22=FF 23=FF
24=FF 25=FF 26=FF 27=FF 28=FF 29=FF
30=FF 31=FF 32=FF 33=FF 34=FF 35=FF
36=FF 37=FF 38=FF 39=FF

00=0C 01=FF 02=FF 03=FF 04=01 05=02
06=05 07=FF 08=FF 09=FF 10=FF 11=FF
12=FF 13=FF 14=FF 15=FF 16=FF 17=09
18=FF 19=FF 20=FF 21=FF 22=FF 23=FF
24=FF 25=FF 26=FF 27=FF 28=FF 29=FF
30=FF 31=FF 32=FF 33=FF 34=FF 35=FF
36=FF 37=FF 38=FF 39=FF
```

Test Gnd

The Gnd (Ground) test utilizes a unique method of ground detection. A measurement is taken from the +5 supply to earth ground and a value is displayed. Then a measurement from system common is taken and its value is displayed. The differential value between these two measurements must be greater than 142 but less than 255 for a reading of "Good".

NOTE: The values displayed are derived from an A/D conversion and not displayed in actual voltages.

```
                    Test Menu
          1=Input 2=Output 3=ID 4=Gnd
          5=Lamp 6=Analog 0=Exit
>4
        Ground Fault Test
      Press Enter Key To Exit
        142 < Diff < 255
     5V=216, Gnd=1, Diff=215 : Good
```

Test Lamps

The Lamp test feature will illuminate all of the system LEDs when selected. It will light one panel at a time while alternating the internal sounder with each panel lit.

```
                    Test Menu
          1=Input 2=Output 3=ID 4=Gnd
          5=Lamp 6=Analog ork 0=Exit
>5
Press enter to continue
```

Test Analog

The analog test is designed to allow the user to control and obtain "real time" information about individual analog addressable devices. When analog is selected from the Test Menu ,the system prompts the user to enter the channel of the card and device address. The "Data to Send" (0-7) prompt is expecting an entry from 0-7. This entry controls the analog device mode of operation. There are 3 bits of information that control the state of each analog device (see table below). The accumulated total of these bits for the desired state is the number that should be entered at the "Data to Send" prompt. When this information is entered, the system displays the "real time "information including CCT#, Address #, Device type and Counts for the device selected.

```
                    Test Menu
          1=Input 2=Output 3=ID 4=Gnd
          5=Lamp 6=Analog 0=Exit
>6
Enter Card # 17
Enter Channel to Poll (1-4):
Enter Address to Poll (0-127):
Enter Data to Send (0-7):

Ch:01   Add:26    D_Type:Mon.   Counts:17
Flags:x08   Bits:x08
```

	BIT1	BIT 2	BIT 4
XP95-P	Local LED	Test Mode	Remote LED
XP95-I	Local LED	Test Mode	Remote LED
XP95-T	Local LED	Test Mode	Remote LED
MS-95	Local LED	N/A	N/A
PID-95	Local LED	N/A	N/A
CZI-95	Local LED	Class "A" Relay	Zone Power Off
RCE-95	Local LED	N/A	Relay
SCE-95	Local LED	N/A	Signal Power

Figure 1: Output Control Bits

Display Panel	Description	Trouble / No Feedback	Background	Dirty	Pre-Alarm on 1st	Alarm / Shorted
Ion	Ionization Detector	0 - 9	10 - 40	41 - 44	Background + 26	Background + 36
Opt.	Photo Detector (non-comp.)	0 - 9	10 - 40	41 - 44	25 + (sensitivity * 6) + 8	25 + (sensitivity * 6) + 18
Opt.	Photo Detector (Compensated)	0 - 9	10 - 40	41 - 44	Background + (sensitivity * 6) + 8	Background + (sensitivity * 6) + 18
Heat	Thermal Detector	0 - 7	10 - Fixed Value	*NA*	*NA*	Above Fixed Value
CZI or CZII	CZI-95	0 - 16	17 - 54	*NA*	*NA*	55 - 122 2nd Alarm above 122
PID or MAN	PID - 95 or MS - 95	0 - 9	10 - 54	*N/A*	*N/A*	55 - 127
REL	RCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127
RSM	RSM-95	0 – 14	15 – 45	*NA*	*NA*	46 - 127
SCE or Snd.	SCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127

Figure 2: Device Count Threshold

COMPUTER/LAPTOP PROGRAMMING OVERVIEW

Overview of Computer Programming

This section describes the system communications via a computer. System monitoring, general control functions and system programming can be achieved from a computer terminal. All figures shown are displayed on the computer screen.

Interconnect

The 14 pin ribbon cable P/N 71332, is used to connect the computer to the CPU Module port P2. Use cable P/N 70703 to connect to the isolateded RS-232 port of the Bus module. Refer to (drawing # D-W1142).

Communication Protocol

The system communicates with a computer at baud rates of 1200,2400,4800 and 9IF 610 BPS (see baud rate settings in CPU installation section). The standard protocol is Xon/Xoff, No Parity, 8 Data Bits and 1 Stop Bit.

Û **NOTE: Most standard communication packages for computers will allow you to set the proper protocol for the communications port of your computer.**

PROCOMM SOFTWARE

Configuration

When using PROCOMM to communicate with your IF 610 system the following configuration should be used. Several areas of the Procomm setup menu and the line settings menu must be accessed to configure the protocol required.

Line Settings

The Line Settings option can be selected by pressing the ALT and P keys simultaneously. From this menu select the option that your RS-232 port is set for (e.g., 2400,N,8,1 would be selected if your port speed is set to 2400 baud). The protocol is Baud Rate (port speed setting), No Parity (N), 8 Data bits (8) and 1 Stop Bit (1).

Setup Menu

The Procomm SETUP MENU is accessed by pressing the ALT and S keys simultaneously. The following screen should appear:

```
1) MODEM SETUP
2) TERMINAL SETUP
3) KERMIT SETUP
4) GENERAL SETUP
5) HOST MODE SETUP
6) ASCII TRANSFER SETUP
S) SAVE TO DISK
```

Terminal Setup

Select option 2 from the Procomm SETUP MENU to display the TERMINAL SETUP menu. The following options should be displayed. To change the settings, select the desired number and use the up/down arrows to scroll through the selections. Press ESC to return to the SETUP MENU.

```
1) Terminal emulation... VT-100          10) Break Length (ms) .... 350

2) Duplex ............. Full            11) Inquiry (CTRL-E) ..... OFF

3) Flow control........ XON/XOFF

4) CR translation (in).. CR

5) CR translation (out). CR

6) BS translation ..... NON-DEST

7) BS key definition.... BS

8) Line wrap .......... ON

9) Scroll ............. ON
```

General Setup

From the Procomm SETUP MENU select option 4 to display the GENERAL SETUP menu. The following settings should be displayed.

```
1)  Editor name .........                12) Xlat pause character . ►
2)  Default d/l path .....               13) Xlat CR character .... !
                                         14) Xlat CTRL character .. ^
3)  Default log file ..... PROCOMM.LOG   15) Xlat ESC character ... ►
4)  Screen dump file ..... PROCOMM.IMG
                                         16) Aborted downloads .... KEEP
5)  Screen write method .. DIRECT
6)  Translate table ...... OFF           17) Transmit pacing (ms) . 25

7)  Sound effects ........ ON
8)  Alarm sound .......... ON
9)  Alarm time (secs)..... 5
10) Exploding windows .... YES

11) XMODEM mode .......... NORMAL
```

NOTE: **The Editor Name should be set to reflect the name of the text editor you are using. The Default D/L Path option should be set to the directory where you want to keep your downloaded Configuration and Dictionary files. With no directory specified downloaded files will be saved in the current directory.**

ASCII Transfer

From the ASCII TRANSFER SETUP menu select option 6 to display the ASCII TRANSFER SETUP menu. The following settings should be displayed.

```
         ASCII UPLOAD

1) Echo locally ......... NO
2) Expand Blank Lines ... NO

3) Pace character ....... 0    (ASCII)
4) Character pacing ..... 15   (1/1000 sec)
5) Line pacing .......... 10   ( 1/10 sec)

6) CR translation ....... NONE
7) LF translation ....... STRIP

         ASCII DOWNLOAD

8) CR translation ....... NONE
9) LF translation ....... NONE
```

SYSTEM MONITORING & CONTROL

Status Monitoring

The computer can be used to monitor the status of the system. All status changes are transmitted from the P1 port of the CPU, or the isolated ascii connectoin on bus card or Iso-232 card. The data transmitted can provide detailed information on alarm, trouble and system status changes. It can also aid in troubleshooting by providing detailed information of system faults.

Access Levels

System access levels may be entered via the computer. By transmitting a carriage return (**Enter**) to the system you will be prompted with " ENTER PASSWORD" . By entering the proper password you may set the system to it's various access levels.

Control Strings

Certain control strings may be transmitted to the system that provide remote control of the system from the computer. If the proper access level is enabled (see access levels) the system can be acknowledged, the signals can be silenced or the system can be reset from the computer. The following control strings provide these functions:

RESET = ^[Ox – F4
ACKNOWLEDGE = ^[OP – F1
SIGNAL SILENCE = ^[Or – F2

Most software communication packages will allow the function keys to be configured for transmission of these control strings.

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Section 4

IF 600 FIRMWARE VERSION R7

MANUAL SUPPLEMENT

Configuration File

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F-600 Configuration File Data Structure

Version R:7 and above

SAMPLE CONFIGURATION FILE

```
R:7 C: Smart Start Config.
P:Fire
A:1T:0 N:Node Name
I:256 O:256 S:0
B:0 L:20 A:0 S:0 P:1 C:3 M:0 I:16
A:0 R:1 S:1 D:2 B:2 W:2 F:2 C:0 T:2 Y:2
A:0 B:0 E:0 D:0 H:17 M:0 V:2 W:30 R:30 P:30
C:0 I:10
C:1 I:255
C:2 I:255
C:3 I:255
C:4 I:1
N:0 D:0 G:128 A:1 E:2 Q:0 S:1 R:1 L:0 B:0 1:0 2:0 3:0 4:0 5:0 P:0 I:0 Y:0
N:1 D:0 G:129 A:1 E:2 Q:0 S:1 R:1 L:0 B:0 1:0 2:0 3:0 4:0 5:0 P:0 I:0 Y:0
C:5 I:2
N:0 D:0 G:131 A:1 E:0 Q:0 S:0 R:1 L:0 B:0 1:0 2:0 3:0 4:0 5:0 P:0 I:0 Y:0
N:1 D:0 G:132 A:1 E:0 Q:0 S:0 R:1 L:0 B:0 1:0 2:0 3:0 4:0 5:0 P:0 I:0 Y:0
N:2 D:0 G:133 A:1 E:0 Q:0 S:0 R:1 L:0 B:0 1:0 2:0 3:0 4:0 5:0 P:0 I:0 Y:0
N:3 D:0 G:134 A:1 E:0 Q:0 S:0 R:1 L:0 B:0 1:0 2:0 3:0 4:0 5:0 P:0 I:0 Y:0
C:6 I:5
N:1 D:0 G:130 A:1 E:0 Q:0 S:1 R:1 L:0 B:0 1:0 2:0 3:0 4:0 5:0 P:0 I:0 Y:0
C:7 I:7
C:8 I:255
C:9 I:255
C:10 I:255
C:11 I:255
C:12 I:255
C:13 I:255
C:14 I:255
C:15 I:255
C:16 I:255
C:17 I:9
I:0
N:7 D:2 G:24 A:0 S:7 C:1 Z:15 B:0 1:0 2:0 3:0 4:0 5:0 Y:0
O:0
N:122 D:8 G:24 A:1 E:0 Q:0 S:0 R:0 L:0 B:0 1:0 2:0 3:0 4:0 5:0 P:0 I:0 Y:0
I:1
N:4 D:3 G:25 A:25 S:0 C:1 Z:15 B:0 1:0 2:0 3:0 4:0 5:0 Y:0
N:11 D:2 G:25 A:0 S:7 C:1 Z:15 B:0 1:0 2:0 3:0 4:0 5:0 Y:0
N:12 D:2 G:25 A:0 S:7 C:1 Z:15 B:0 1:0 2:0 3:0 4:0 5:0 Y:0
N:13 D:2 G:25 A:0 S:7 C:1 Z:15 B:0 1:0 2:0 3:0 4:0 5:0 Y:0
N:14 D:2 G:25 A:0 S:7 C:1 Z:15 B:0 1:0 2:0 3:0 4:0 5:0 Y:0
O:1
N:8 D:8 G:25 A:1 E:0 Q:0 S:0 R:0 L:0 B:0 1:0 2:0 3:0 4:0 5:0 P:0 I:0 Y:0
I:2
O:2
I:3
O:3
C:18 1:255
C:19 1:255
C:20 1:255
```

Sample Configuration File Cont.

```
//

Fire Alarm
Alarm
Gas
Sprinkler
Trouble
Acknowledge
Reset
Mechanical
Electrical
Boiler
Utility
Extinguishing
Fire
//

Smoke Detector
Heat Detector
Duct Detector
Waterflow
Tamper Switch
Manual Station
Pull Station
Beam Detector
Fire Station
Ionization Smoke Detector
Photo Smoke Detector
Tunnel Heat Detector
PIV Switch
Pressure Switch
Fire Pump
Generator
//

1st.
2nd.
3rd.
4th.
5th.
6th.
7th.
8th.
9th.
10th.
11th.
12th.
13th.
14th.
1 5th.
16th.
17th.
18th.
19th.
20th.
```

Sample Configuration File Cont.

```
//

Floor Room Number
Floor Corridor
Floor Elevator Lobby
Floor
AHU
Floor-Closet
Level
Floor-Service Elevator Lobby
Sub-level
Basement Level
Sub-basement Level
Basement
Parking Level
Garage Level
Wing
Floor Wing
Atrium
Mezzanine
Ballroom
Kitchen
//

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
//
S:01:1 2:1 3:1 4:1 U:USER1
S:11:2 2:2 3:2 4:2 U:USER2
S:21:3 2:3 3:3 4:3 U:USER3
S:31:4 2:4 3:4 4:4 U:USER4
S:01:5 2:5 3:5 4:5 U:USER5
S:01:6 2:6 3:6 4:6 U:USER6
S:01:7 2:7 3:7 4:7 U:USER7
S:01:8 2:3 3:8 4:8 U:USER8
S:01:7 2:1 3:1 4:1 U:USER1
S:01:7 2:2 3:2 4:2 U:USER2
```

Sample Configuration File Cont.

```
N:0
I:240000000030000000000000000000000000000000000000000000000000000000000000
I:250000000000000000000000000000000000070000000000000000000000000000000000
I:126000000030000000000000000000000000070000000000000000000000000000000000
C:24 1:2 2:2 3:2 4:2 5:2 6:2
C:25 1:1 2:1 3:1 4:1 5:1 6:1
T:24 1:1 2:1 3:1 4:4 5:0
T:25 1:2 2:0 3:2 4:3 5:0
O:7 1:2 2:1 3:4 4:0 5:0
B:1 1:0 2:0 3:1 4:4 5:0
000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000
```

—-End 0f file----

CONFIGURATION DATA DESCRIPTIONS

File Variable

R:7 C:Smart Start Config

R: Revision number of configuration file
C: User configuration name or description ("Smart Start Config" is default) 20 char. Max.

System Variables

P:xxxxxx
P = Alarm prefix - up to 6 characters ("Fire" is default)

A:1 T:0 N:
A = Node number (network firmware Only)
T = Node type (network firmware Only)
0 = Individual type network (default @ SmartStart)
1 = Monolith type network (Not currently available)

N = Node name - up to 20 characters (network firmware Only)

I:256 O:256
I:Total number of input groups
O:Total number of output groups

S:0
S: System type
0=F 650
1=F 630
2=F 632
3=F 610
4=not used

B:00 L:18 A:0 S:0 P:1 C:3 M:0 I:16

B: Total number of bypassed inputs & outputs in system
L: Address of last valid card in system
A: Remote Annunciator exists (1) or not (0)
S: Silence Inhibit delay (0=0 see, 1=30sec, 2=1 min. 3=1min 30 see, 4=2min, 5=2min-30sec, 6=3 min. 7=3min-30sec, 8=4min, 9=4min-30sec, 10=5min)
P: Coded Signal pulse period (0= 5sec, 1=1sec, 2=1.5sec, 3=2sec)
C: Number of Coded Signal Cycles (0=1, 1=2, 2=3, 3=4, 4=5, 5=6, 6=7,7=8)
M: Signal type after coded signals have been completed (0=Silence, 1 =March Time)
I: Auto Silence time (0=2min, 1=2min 30sec, 2=3min, up to 26=15min {default = 10min}.

A:0 R:1 D:2 S:1 B:2 W:2 F:2 C:0 T:2 Y:2

A: Acknowledge Security level
R: Reset Security level
S: Signal Silence Security level
D: Drill Security level
B: Bypass Security level
W: Walk Test Security level
F: Function Key Security Level (F610/F632/F650 systems only)
C: City Connection type (0=Line Reversal, 1=Local Energy Master Box 2=Chicago 3=Dialer)
T: Detector Test Security level (F610/F632/F650 systems only)
Y: Day/Night Security level

A:0 B:0 E:0 D:0 H:17 M:0 V:2 W:30 R:30 P:30

A = Abort key types
0 = *One Shot*. Abort stops timer while held, release after time out. Switch can be activated only once (default)
1 = *Time Expirey*. Abort prevents release while held, release after timer expires and Abort switch released. Multiple actuations allowed
2 = *Immediate*. Abort disables programmed timer, release immediately after switch deactivation
3 = *10 Sec Delay*. Abort disables programmed timer, release 10 to 18 sec after switch deactivation
4 = *Reset Timer*. (Not UL) Abort resets programmed timer while held, release when timer expires. Multiple actuations allowed

B = BC key Supervision control
0=BC keys are not supervised (default)
1=BC keys are supervised

E = Day/Night key enable control
0=Day/Night key not enabled (default @ SmartStart)
1=Day/Night key enabled

D = Day/Night operation control
0=Day/Night operation is Manual (default @ SmartStart)
1=Day/Night operation is Automatic

H = Day mode exit time hour
Valid entries 0-23 (17 default @ SmartStart)

M = Day mode exit time minutes
Valid entries 0-59 (0 default @ SmartStart)

V=Verification tally notification limit. Number of counts per last 30 days.
Valid enties 2-15 (2 default @ SmartStart)

W=Waterflow delay time seconds
Valid entries 5-90 (30 default @ SmartStart)

R=Releasing delay in seconds
Valid entries 15-60 (30 default @ SmartStart)

P=Discharge delay in seconds
Valid entries 0-30 (30 default @ SmartStart)

Card Variables

C:0 I:10

C:Card address, 0 through 39
I:Card ID

Input Card IDs
47=Class B Zone, 4 Circuits
46=Class B Zone, 8 Circuits
45=Ciass A Zone, 4 Circuits
40=Class A Zone, 8 Circuits

output Card IDs
1=CCP4: Signal Circuits, 2 Class A
2=CCP5: Relays, 4 Circuits
3=CCP5: No Relays installed
4=City Tie module
5=CCP6: OUT:City Tie 2 bits, Buzzer, Gnd. Fault,lN: Pwr. super.
14=Building Control, 8 Circuits
15=Building Control, 4 Circuits
48=Class A Signal, 8 Circuits
53=Class A Signal, 4 Circuits
54=Class B Signal, 8 Circuits
55=Class B Signal, 4 Circuits
94=8 Circuits Relays
95=4 Circuits Relays

Display Card IDs
10=CCP0 (F630tF650):A/N display card
11 =CCP0 (F630/F650): A/N with no keys
12=CCP0 (F610) A/N Display card with switches
16=BCD (F632)
18=CCP1 (F620):LED and 8 Tactile Switches
20=RCD (F632)
22=CCP0 (F620):LED and 8 Tactile Switches
24=Red, Green LED, 3 Position Rotary Switches and 8 tactile Switches
26=Red, Green LED and 8 Tactile Switches
28=SCD (F632)
30=Red, Yellow LED and 8 Tactile Switches

Addressable Interface Card IDs
9=Apollo Analog Addressable Interface
240=F500 Interface Class A
241=F500 Interface Class B

if I=9 {Apollo interface) then:

I:0

I: lnput devices on channel number
0=1st, 1=2nd, 2=3rd, 3=4th channel

O:0

O: Output devices on channel number
0=1 st, 1 =2nd, 2=3rd, 3=4th channel

if 1=240 or 241 (Flex500 interface) then:

I:0

I: lnput devices on channel number
0=1st, 1=2nd, 2=3rd, 3=4th, 4=5th, 5=6th, 6=7th, 7=8th channel

O:0

O: 0utput devices on channel number
0=1st, 1=2nd, 2=3rd, 3=4th, 4=5th, 5=6th, 6=7th, 7=8th channel

Miscellaneous Card IDs

7=CCP7: Card 7, Vacant
255=Empty card slot

Input Device Variables

N:115 D:11 G:26 A:26 S:0 C:1 Z:15 B:0 1:0 2:0 3:0 4:0 5:00 Y:0

N: Device address/number

D: Device type (F610/F632/F650 only)
0=Conventional Circuit
2=GW-Switch Monitor (PID-95)
3=Apollo-lonization 1
5=Apollo-optical 1
6=Apollo-Thermal 1
7=GW-MCP or Pull Box or PID
10=GW-CZI detector without interrupt
11 =Apolio-lonization 2
13=Apollo-optical 2
14=Apollo-Thermal 2
15=GW-CZI detector with interrupt
16=F500 Input Device
17=F500 Output Device
18=F500 Manual Device

G: lnput group number (F610/F632/F650 only)

A: Detector average (F610/F632/F650 Apollo Detectors only)
if D=6,14 ie Thermal detector then A=average temp
if D=3,5,11,13 ie Photo,lon then A=average count

S: Detector variables (F610/F632/F650 Apollo detectors only)
if D=6, 14 ie Thermal detector then S=alarm temp in °C ((S X 2) -10%)+32 = Alarm Temp in °F)
if D=3,5,11,13 ie Photo,lon then S=sensitivity (0= High , 3 = Low Sensitivity)

C: lnput device variable
if D=0 ie conventional zone
C=0 no end of line resistor
C=1 end of line resistor exists
if D=6, 14 ie Thermal detector then if
C=1 Rate of Rise ON
C=0 Rate of Rise OFF
If D=3, 5, 11, 13 ie Photo lon then if
C=1 Auto compensation is ON
C=0 Auto compensation is OFF

Z:Zone type
Supervisory zone
0=Supervisory zone
1 =Generic zone

Security zones
2=Passive Entry/Exit Security zone
3-Active Entry/Exit Security zone
4=Normal Security zone
5=Active Security zone

Switch zones
6=Activate/Deactivate Security zone
7=Acknowledge zone
8=Drill zone
9=Reset zone
10=Signal Silence zone
11=Abort zone
12=Dump zone

Fire zones.
13=Verification zone
14=Do not use
15=Automatic zone
16=Style zone
17=And zone
20=Water zone
21=Watr zone
23=Watrs zone

B:Device bypass state
0=Not bypassed
1 =Bypassed

1: Dictionary 1 word (0-126)
2: Dictionary 2 word (0-126)
3: Dictionary 3 word (0-126)
4: Dictionary 4 word (0-126)
5: Dictionary 5 word (0-1023)

Y: Bypass Group Assignment

Output Device Variables

N:115 D:11 G:26 A:2 S:0 R:1 L:1 B:0 1:0 2:0 3:0 4:0 5:00 P:0 I:0 Y:0

N: Device address/number
D: Device type (F610/F632/F650 only)
0=Conventional Circuit
1=GW-Signal Sounder Audio (SCE-95)
4=GW—City Tie (CTX-95)
8=GW-Relay SPDT (RCE-95)
9=GW-Signal (SCE-95)
12=GW-Building Control (BCE-95)
17=F500 output Device
G: Output group number (F610/F632/F650 only)
A: Alarm activation level (0-3)
E: Restoration type
0=Reset restore
1=Acknowledge restore
2=Signal Silence restore
Q: Variable for conventional Relay or BC circuit else 0
If I=14,15,94,95 ie card is conventional Relay or BC type then
0=lnstantaneous reset
1 =Sequentially reset

S: Output Variable (default=0)

If D=4 (CTX-95)

0=Normal
1= Common Alarm
2=Supervisory
3=System Trouble

if I=1,48,53,54,55 ie card is a conventional signal type then

1=Steady ON signal
2=60 pulses/min, .50 sec ON/OFF
3=120 pulses/min' .25 sec ON/OFF
4=Temporal signal
5=California signal
6=Coded signals
7=Releasing

R: Variable for Signal, BC conventional circuit else 0

if I=1.48.53.54.55 ie card is Signal type then

0=Signal ckt is not programmed for drill
1=Signal ckt is programmed for drill

if 1=14. 15 ie card is Relav or BC type then

0=OFF relay is programmed for open in auto mode
1=OFF relay is programmed for closure in auto mode

L: Variable for Signal, BC conventional circuit else 0

if 1=1.48 53.54.55 ie card is Signal type then

0=Signal ckt is not programmed for auto signal silence
1=Signal ckt is programmed for auto signal silence

If 1=14. 15 ie card is Relay or BC type then

0=ON relay is programmed for open in auto mode
1 =ONrelay is programmed for closure in auto mode

B: Bypass state

0=Device/ckt is not bypassed
1=Device/ckt is bypassed

1: Dictionary 1 word (0-126)
2: Dictionary 2 word (0-126)
3: Dictionary 3 word (0-126)
4: Dictionary 4 word (0-126)
5: Dictionary 5 word (0-1023)
P: Display Card number (12 - 15, 20 - 23, 28 - 31, 36 - 39) of associated BCE/BCD, RCE/RCD or SCE/SCD combinations.
I: Display Card switch and/or led position(0-7) of associated BCE/BCD, RCE/RCD or SCE/SCD combinations.
Y: Bypass Group Assignment

Control by Event Table

This table consists of up to 256 lines that represent each of the possible Input Groups. Each set of two characters in the line represents a Hexadecimal number. When these numbers are converted to Binary and configured in rows from LSB to MSB each row represents an output group from 1 to 256. In network systems, there will be separate CBE tables for each node in the network that will oprate ouput groups on this panel.

N:xxx

N:xxx A three digit number (0-250 leading 0s may be omited) identifying the node whos input groups will activate outputs on this panel. A zero (0) indicates this panel, other numbers indicate panel Node numbers of other panels connected to the network which are programmed to activate outputs on this panel. Multiple CBE tables will exist only in network systems.

I:xxx

I:xxx A three digit number (0-255 leading 0s may be omited) identifying the Input group number associated with the following Output group line

Dictionaries

The start and end of each of the 5 word libraries are delimited by two fore slash characters. Word dictionaries 1-4 may have up to 126 entries and dictionary 5 may have up to 1023 entries. Entry 0 in each dictionary should be left blank for default purposes.

```
//
Word dictionary 1, Entry 0
Word dictionary 1, Entry 1
          |
Word dictionary 1, Entry 126(maximum)
//
Word dictionary 2, Entry 0
Word dictionary 2, Entry 1
          |
Word dictionary 2, Entry 126(maximum)
//
Word dictionary 3, Entry 0
Word dictionary 3, Entry 1
          |
Word dictionary 3, Entry 126(maximum)
//
Word dictionary 4, Entry 0
Word dictionary 4, Entry 1
          |
Word dictionary 4, Entry 126(maximum)
//
```

Word dictionary 5, Entry 0
Word dictionary 5, Entry 1
|
Word dictionary 5, Entry 1023(maximum)
//

Passwords

S:0 1:X 2:X 3:X 4:X U:YYYYYYYY

Total 10 lines

S: 0 is the password security level (0-3)
X is a digit (1-9) of the associated password
Y is a character of the associated user's name (up to 10 characters)

Codes

Up to 256 lines that define the output coding

C:xxx 1:x 2:x 3:x 4:x 5:x 6:x

C:xxx A three digit number (0-255 leading 0s may be omited)identifying the Input Group associated with the designated coding

#:x =Represents a position(#) and a number (x) for the of the coded signal.

Input, output. & Bypass Group Descriptions

Up to 768 lines consisting of up to 256 lines each for Input groups, or output groups, and Bypass groups.

T:xxx 1:X 2:X 3:X 4:X 5:X
O:xxx 1:X 2:X 3:X 4:X 5:X
B:xxx 1:X 2:X 3:X 4:X 5:X

T:xxx A three digit number (0-255 leading 0s may be omited) identifying the Input Group associated with the designated description.

O:xxx A three digit number (0-255 leading 0s may be omited) identifying the Input Group associated with the designated description.

B:xxx A three digit number (0-255 leading 0s may be omited)identifying the Input Group associated with the designated coding

#:X =Represents a word selection X in dictionary #

Bypass Active Indicators

The next four lines are Bypass active indicators for Bypass Groups. The format of these lines is the same as the CBE table.

MANUAL ADDENDUM

Firmware Version 7.1

Supplement to the Installation and Operation Manuals
For
IF-610 (p/n 71810 issue 3 or higher),
IF-632 (p/n 71906 Release: 2 or higher),
IDENTIFLEX 600 Stand Alone Panel firmware version r7 manual supplement (p/n 71956 issue 1 or higher) for IF 630/650/650E.

The Gamewell Company
60 Pleasant Street
Ashland, MA 01721

Part No. 72118
Issue A
9/27/2001

PROPRIETARY MATERIAL

The information contained in this manual is proprietary to Gamewell. Such information and technical drawings may not be copied or reproduced in any manner, or disclosed to organizations that might be competitive to Gamewell, without the express prior written consent of Gamewell**.**

GENERAL INFORMATION

Gamewell. thanks you for choosing the IF 600 to serve your monitor and control signaling needs. As with all our products we have taken great care to insure that we have provided a quality Fire Alarm Control Panel. To receive maximum benefit and many years of reliable service we would like to make the following recommendations:

1. **Read this manual carefully** and in it's entirety before proceeding with the of the programming of the IF 600 control panel. The contents of this manual adds features and functions to the contents of your Identiflex 600 manual.

2. Gamewell spends many hours testing devices that are supplied by Gamewell. to be used with it's control panels to verify compatibility. **To maximize system performance, and minimize risk of damage to the equipment, we recommend using all Gamewell components.**

3. **There is no substitute for proper maintenance and testing** of this or any life safety product. Gamewell recommends testing and maintenance of your IF 600 system in accordance with the guidelines set forth by the National Fire Protection Association, be done on a regular basis, as a minimum.

4. **This addendum and the IF 600 manual should be stored with the IF 600 panel** for future reference to the operation and programming of the installed IF 600 System, and should not be removed.

Thank you again for choosing Gamewell. If you have any comments regarding your IF 600 Analog Addressable Control Panel, or other Gamewell products, please feel free to contact us at:

Gamewell
60 Pleasant St.
Ashland, MA 01721

Phone: (508) 231-1400
Fax: (508) 231-0900

E-Mail: gamewellco@aol.com
Web Site: http://www.gamewell.com

GENERAL

This addendum contains the information required to utilize new features and functions incorporated into Version 7.1 of the IF 600 operating firmware. When using these features, follow the instructions contained in this addendum.

All of the features and functions described in the manual that accompanied the system are unchanged and perform as described in the original manual(s).

NEW FEATURES

XP95-M Analog Addressable Multisensor Detector.

The Multisensor Detector includes both Photoelectric and Thermal sensing elements integrated into a single head. The obscurity information from the Photoelectric sensor is combined with the rate of rise information from the Thermal sensor, by a custom microprocessor, into the data count that is sent to the FACP for processing. The microprocessor also performs drift compensation for the photoelectric sensor as contaminants build up within the detection chamber. When the compensation reaches it's set limits, the microprocessor signals the FACP of the need to clean the detector. The microprocessor also monitors all of the internal functions of the detector and, if any problem arises, signals the FACP of a trouble.

Installation

The XP95-M installs in the standard Series 95 bases in the same manner as all of the other Series 95 Detectors.

Programming

The XP95-M has a nominal, fixed, sensitivity of 2.4%/ft., and compensation is accomplished within the detector itself. When programming inputs, any device detected or programmed as an XP95-M will have the word "**Multi**" in the *D_TYPE* location, and will not have the *SENS* or *COMP* selections available.

All other programming of the input is the same as other detectors.

Multisensor Detector (Cont.)

DEVICE TEST TABLE
Input Device

Display Panel	Description	Trouble / No Feedback	Background	Dirty	Pre-Alarm on 1st	Alarm / Shorted/ Active
Ion	Ionization Detector	0 - 9	10 - 40	41 - 44	Background + 26	Background + 36
Opt.	Photo Detector (non-comp.)	0 - 9	20 - 30	41 - 44	25 + (sensitivity x 6) + 8	25 + (sensitivity x 6) + 18
Opt.	Photo Detector (Compensated)	0 - 9	10 - 40	41 - 44	Background + (sensitivity x 6) + 8	Background + (sensitivity x 6) + 18
Heat	Thermal Detector	0 - 7	10 - Fixed Value (ºC)	*NA*	*NA*	Above Fixed Value
Multi	Multisensor Detector	0 - 9	18 - 32	33 - 44	45 - 54	55 - 127
CZI or CZII	CZI-95	0 - 16	17 - 54	*NA*	*NA*	55 - 122 2nd Alarm above 122
PID or MAN	PID - 95 or MS - 95	0 - 9	10 - 54	*N/A*	*N/A*	55 - 127
REL	RCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127
RSM	RSM-95	0 – 14	15 – 45	*NA*	*NA*	46 - 127
SCE or Snd.	SCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127

DEVICE TYPE TABLE - P3

Display Panel	Description
Ion.	Ionization Sensor
Opt .	Photo-Electric Sensor
Heat	Thermal Sensor
Multi	Multi sensor, combined Photo and Thermal sensing
Mon.	Point Identification Device (contact monitor)
Man.	Manual Station (or PID with priority interrupt set)
CZI	Collective Zone Interface
CZII	Collective Zone Interface (with priority interrupt set)

Programmable Sounder Bases

As in previous versions of the IF 600 firmware, when Analog addressable Sounder Bases (XP-95 B6SNDR) are used with analog addressable detectors, their default mode of operation is to follow the attached detector. If the detector goes into alarm, the sounder in it's base activates. When the detector is reset, the sounder silences.

The Ver. 7.1 firmware allows the sounders in the sounder bases to be programmed through the panel's CBE table, making them appear as normal output devices.

A typical application could be in hotels or dormitories, where the activation of a detector in any one of a group of rooms could sound an audible alarm in the entire group without the need for separate notification appliances.

Programming:

1. In the "Programming/Circuits/Inputs" menu; Select zone type **AutSB** (Automatic Detector with Sounder base) or zone type **AutSBS** (Automatic Detector with Sounder base, Silenceable) The **AutSBS** type can be silenced with the system's SIGNAL SILENCE commands.

2. Assign an input group number to the device with the sounder base.

3. The assigned input group number also functions as the output group number for the sounder in the detector base. Assign appropriate input group numbers to the system input devices and program the CBE tables to provide the desired operation.

4. The sounder in the base of any detector programmed for zone type **AutSB** or **AutSBS** will also sound when output group #254 is activated. This "all call" output group facilitates programming of applications that require all sounders to operate at one time.

Note:

While this feature was incorporated to allow independent control of the sounders in sounder bases, The same programming will provide control of the relays in relay bases, or the LEDs in standard bases.

Programmable Sounder Bases (Cont.)

ZONE TYPE TABLE - P2

Display Panel	Name	Description
Ver	Verification	Automatically verifies the device). (Default program, after a 45 sec. Min., 60 sec. Max Reset/Stabilization delay, monitors the device for 60 seconds to verify an alarm condition.
Auto	Automatic	Places the panel into General Alarm
AutSB	Automatic detector with Sounder Base	Places the panel into General Alarm. The Sounder in the base has the same group number as the detector, and is a CBE programmable output. Activating output group 254 will activate all Sounder Bases in the system.
AutSBS	Automatic detector with Sounder Base, Silenceable	Same as AutSB, plus the Sounder in the base can be silenced by SIGNAL SILENCE commands.
Gener	Generic	All the device control functions are active without placing the system in a general alarm condition at the panel.
And	And Initiating Zone	Two stage automatic detection.
Ack	Acknowledgment	Remote location acknowledgment
Drill	Drill	Remote drill system condition.
SigSil	Signal Silence	Remote location Signal Silence
Reset	Reset	Remote reset of the panel - resets system.
Abort	Abort	Delays or stops discharge cycle
Dump	Dump	Initiates discharge manually
Super	Supervisory	Sprinkler Supervisory signal input
Water	Water flow	Water flow, non silenceable
Watr	Water flow delayed	Water flow, delayed, non silenceable
Watrs	Water flow delayed	Water flow, delayed, silenceable

Multi protocol UDACT support

Panel firmware version 7.1 supports the UDACT 600/610 multi protocol UDACT.

For installation, programming and operation, refer to the manual which accompanies the UDACT 600/610.

XP95-M Analog Addressable Multisensor Detector

Supplement to the Installation and Operation Manuals

For

The IF-610 (p/n 71810 issue 3 or higher), IF-632 (p/n 71906 Release: 2 or higher), and the IDENTIFLEX 600 Stand Alone Panel firmware version r7 manual supplement (p/n 71956 issue 1 or higher).

XP95-M Analog Addressable Multisensor Detector.

The Multisensor Detector includes both Photoelectric and Thermal sensing elements integrated into a single head. The obscurity information from the Photoelectric sensor is combined with the rate of rise information from the Thermal sensor, by a custom microprocessor, into the data count that is sent to the FACP for processing. The microprocessor also performs drift compensation for the photoelectric sensor as contaminants build up within the detection chamber. When the compensation reaches it's set limits, the microprocessor signals the FACP of the need to clean the detector. The microprocessor also monitors the all of the internal functions of the detector and, if any problem arises, signals the FACP of a trouble.

Installation

The XP95-M installs in the standard Series 95 bases in the same manner as all of the other Series 95 Detectors.

Programming

The XP95-M has a nominal, fixed, sensitivity of 2.4%/ft., and compensation is accomplished within the detector itself. When programming inputs, any device detected or programmed as an XP95-M will have the word "**Multi**" in the *D_TYPE* location, and will not have the *SENS* or *COMP* selections available.

All other programming of the input is the same as other detectors.

Battery Calculations and Device Test

DEVICE TEST TABLE
Input Device

Display Panel	Description	Trouble / No Feedback	Background	Dirty	Pre-Alarm on 1st	Alarm / Shorted/ Active
Ion	Ionization Detector	0 - 9	10 - 40	41 - 44	Background + 26	Background + 36
Opt.	Photo Detector (non-comp.)	0 - 9	20 - 30	41 - 44	25 + (sensitivity * 6) + 8	25 + (sensitivity * 6) + 18
Opt.	Photo Detector (Compensated)	0 - 9	10 - 40	41 - 44	Background + (sensitivity * 6) + 8	Background + (sensitivity * 6) + 18
Heat	Thermal Detector	0 - 7	10 - Fixed Value	*NA*	*NA*	Above Fixed Value
Multi	Multisensor Detector	0 - 9	18 - 32	33 - 44	45 - 54	55 - 127
CZI or CZII	CZI-95	0 - 16	17 - 54	*NA*	*NA*	55 - 122 2nd Alarm above 122
PID or MAN	PID - 95 or MS - 95	0 - 9	10 - 54	*N/A*	*N/A*	55 - 127
REL	RCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127
RSM	RSM-95	0 – 14	15 – 45	*NA*	*NA*	46 - 127
SCE or Snd.	SCE - 95	0 - 14	15 - 45	*NA*	*NA*	46 - 127

XP95-M Multisensor Operating Specifications

Supply voltage	14 – 28 VDC
Idle current	.00050 A
Alarm current	.00385 A
Operating temperature	-20ºC to +60ºC
Humidity	0 to 95% w/o condensation