



NOTE: The eight monitor zones, two signal circuits, two auxiliary relay outputs, and the LED/Switch Controller (for local annunciation) that were provided on the original 4100 master controller are **NOT** provided in the 4100-7050 Upgrade Kit. If replacement for these features is necessary, order these features separately as motherboards and daughter cards, along with any harnesses required for installation of these features.

INTRODUCTION

The installation procedure given in this document upgrades an existing 4100 Fire Alarm panel to an enhanced 1000-point 4100 panel. Before you begin, be sure that you have the necessary motherboards and daughter cards for the features that you wish to include on this system.

Next, make certain that you have a *complete* upgrade kit. The 4100-7050 CPU Upgrade Kit should have all of the items listed in Table 1.

(continued)

**TABLE 1
CONTENTS OF THE 4100-7050 CPU UPGRADE KIT**

ITEM	PART NO.	DESCRIPTION	QUANTITY
1	636-241	CPU Sub Assembly	1
* 2	636-219	AC Power Distribution Block	1
* 3	426-047	Screw No. 6 Torx	2
4	574-034	Installation Instructions	1
5	841-845	Interconnection Diagram	1
6	841-782	Interconnection Diagram - Audio	1
7	841-731	4100 Field Wiring Diagram	1
8	733-676	Power Supply to Battery Block Harness	1
* 9	733-659	Power Supply to CPU Harness	1
10	733-663	Signal Power Harness	1
11	733-525	Power/Comm Harness	1
12	733-667	Signal Supervision Harness	1
* 13	733-672	Power/Comm Harness	1
14	733-660	PMSI/PMSO Harness	1

* Preassembled at factory to Assy. 636-241.

INSTALLATION PROCEDURE

1. Disconnect all power to the 4100 Fire Alarm system by first disconnecting the battery and then disconnecting the AC power.
2. Remove and label each harness and wire connection to the present Master Controller bay and Master Termination board.
3. Remove the Master Controller bay and the master motherboard (termination board) from the cabinet.
 - Remove the lower Master Controller bay screws and set them aside.
 - Carefully loosen the top Master Controller bay screws.
 - Lift the Master Controller bay free of the screws and the rack.
4. Install the upgrade Master Controller bay using the original Master Controller bay hardware (removed in step 3).
 - Move two top Master Controller bay mounting screws from their original holes and install them in the adjacent holes on the edge of the mounting rails.
 - Install the upgrade Master Controller bay over the mounting screws.
 - Install the lower bay mounting screws in the rack.
 - Securely tighten the top and bottom Master Controller bay mounting screws.

CAUTION: Make certain that no wires are pinched during the installation of the enhanced Master Controller bay.

5. Rewire the panel according to Steps a through n below. Use interconnection diagram 841-845 and field wiring diagram 841-731 as references.
 - a. Reconnect AC power to the "AC POWER DISTRIBUTION BLOCK" located on the right side of the Master Controller bay.
 - Incoming AC wires are coded as follows:
 - Black (BLK) equals 120AC
 - White (WHT) equals Neutral
 - Green (GRN) equals Ground.

CAUTION: Do NOT connect the green ground wire to the rack assembly.

- b. Connect the green ground wire from the "AC POWER DISTRIBUTION BLOCK" to the green ground screw on the backbox.
 - Connect other grounds where provided.

c. Remove the original 733-584 harness assembly from the "BATTERY DISTRIBUTION BLOCK" (635-852) and replace it with a 733-676 harness.

- Connect harness 733-676 to the "BATTERY" connector on the upgrade power supply.

d. Rewire 24V power from the power supply terminal block TB1 to the 24V power connection ("B" tap) on the upgrade power supply.

NOTE: While the original 4100 power supply provided two terminal block connections per tap output, the upgrade power supply provides only one terminal block connection per tap output. If more wires are present than terminal points, use wire nuts to reduce wire connection points.

e. A 733-659 pluggable harness transfers +8V/+24V from the upgrade power supply "+8/+24" connection ("A" tap) to P3 (top of plug) on the Master Controller motherboard (565-213).

- If more than one 8V/24V plug was used on the original 4100 panel, connect the additional plugs at the various card motherboards of the upgrade unit.

f. Signal power that came from P10, P11, P12, and P13 on the original 4100 power supply will now come from the "B" tap on the upgrade power supply. Use a 733-663 harness to connect the "B" tap on the upgrade power supply to "P2" on the Signal card.

- Rewire the second connection (if required) from the Signal card or the Auxiliary Relay card.

g. For 4100 systems with expansion power supplies, the PMSI/PMSO connection from P1 on the original 4100 power supply will now come from the "PMSI/COIL" connection on the upgrade power supply. Use a 733-660 harness to connect "PMSI/COIL" on the bottom of the upgrade power supply to P2 on the 4100 expansion power supply, battery charger, or 100W power supply. (Use P4 when connecting the harness to a dual 25W power supply.)

- If meters were used with the original power supply, remove and discard.

h. Remove the jumper from the "B SUPV" tap on the upgrade power supply.

i. Connect a 733-667 harness from "B SUPV" tap on the upgrade power supply to "P2" on the Signal card assembly (635-826) to provide a connection for signal supervision.

j. If there was a trouble output from terminal block TB1 on the original 4100 power supply, rewire this output to the TBL terminal (TB1-8) on the terminal block of the upgrade power supply.

NOTE: There is an additional 24V tap on the upgrade power supply labelled "C". Do not use this tap if batteries are used with the power supply, as the "C" tap is used as a battery charger.

k. Connect Comm/Power from the upgrade power supply "4100 COMM IN" connector to the Master Controller motherboard (P2, top of plug) using a 733-672 harness.

l. Connect Comm/Power from the Master Controller motherboard to subsequent motherboards using harness assembly 733-525.

m. Rewire City circuit and Trouble Relay connections to the corresponding connections on the Master Controller motherboard.

NOTE: Make certain that the Master Controller software installed on the Master Controller board is at Rev. 5.01 or higher.

n. Insert the Master Controller board into the Master Controller motherboard.

- Connect the ribbon cable 733-669 from the LCD display board to the Master Controller board.

NOTE: Make certain that spacer posts 202-051 are installed from the etch side of the Master Controller board to prevent it from shorting the daughter card in the adjacent socket.

This completes the CPU Upgrade portion of this installation. As previously noted, the eight monitor zones, two signal circuit, two auxiliary relay outputs, and the LED/Switch Controller (for local annunciation) that were provided on the original 4100 master controller are not provided in the 4100-7050 Upgrade Kit.

Install the various motherboards and daughter cards for the features needed by your system at this time.