



# UL LISTED EMERGENCY TELEPHONE COMMUNICATIONS SYSTEM

MT-400 and Related Products



MT-400

## APPLICATIONS

To provide emergency personnel and building authorities with a communications alternative when conditions preclude the use of standard radio or communications channels, Atlas Sound offers its Emergency Telephone Communications (ETC) System. The ETC System provides optimum protection of life and property by supplying dedicated two-way communication and signaling between a master control panel and remote telephone stations located throughout a building. Zone-to-zone communication is also possible through master station control.

## GENERAL DESCRIPTION

The ETC System provides communications between a master control panel and remote telephone stations in a building. Any number of remote stations can be accessed in one zone or any combination of zones (however, only six handsets may be off-hook at the same time). Specific features are discussed below.

This system is of modular design with each zone employing a plug-in module. Each zone module provides electronic supervision of the wiring to the remote telephone stations. Open (or short) circuits in the installation wiring activate both an audible and visual alarm at the master control panel. A remote alarm can also be activated.

System is listed under UL Standard 864. To maintain the UL Listing, all components must be installed in a listed equipment enclosure or a compatible emergency communications system enclosure. An optional UL Listed surface cabinet and a variety of Atlas Sound UL Listed equipment cabinets are also available to house the electronic control assemblies. Contact Atlas Sound for additional information.

## SYSTEM FEATURES

### • Modular Construction Allows Expansion Flexibility.

The master panel and zone modules are of plug-in design. This allows easy expendability and fast replacement in the event of a problem. The MT-400 master panel can accommodate up to four CM-1 zone modules. If additional zones are required, the EP-10 expander panel can be employed and an additional 10 zone modules added. Additional EP-10 panels can be installed if the system size dictates more zones. (As system size expands, additional power supplies are required. Refer to installation instructions shipped with product.)

### • Audible-Visual Alarm.

Any trouble or call-in condition (remote station call-in, open line, or shorted line) activates an audible and visual indicator. The audible alarm is cancelled by actuation of the alert button. The visual indicators remain lit until the remote station goes on-hook in the event of a call-in, or until wiring problems are resolved in the event of an open or shorted telephone line. The audible alarm level can be controlled over a limited range by means of a master panel volume control. This control cannot completely turn off the audible alarm, thus assuring no missed trouble calls.

### • Remote Alarm Provision.

A remote common alarm can be operated by the built-in relay. The relay contacts are DPDT-style and are actuated each time a trouble signal is received. The remote alarm can be by-passed by means of a front panel switch.

### • Call-In Assurance.

Upon lifting any remote telephone station handset or plugging in a portable handset at a jack station, the caller will hear a steady tone if the master panel handset is on-hook. A pulse tone is heard if the master panel handset is off-hook. In either case, the caller is assured the call has been annunciated and that the system is operational.

### • Zone-to-Zone Communications.

In addition to communications between remote stations and the master panel, the various zones can be connected together by depressing the "Operator Conn" button on the respective zones. This allows the master panel to control zone-to-zone communications.

### • Paging.

The master panel telephone handset, or the remote telephones, can be connected to a separately installed paging system. This is done via a line level output on the master panel. An electronic "level control" maintains a constant output signal should more than one handset be connected to the paging bus. Connection of the remote telephone to the external paging system is controlled by the master panel.

### • Choice of Telephone Station Types.

Choose from a variety of remote telephone stations with controlled access housings or telephone jack assemblies requiring portable handsets. Any combination of these items can be used in a typical system. (All items are ordered separately for configuration convenience.)

Specifications subject to change without notice



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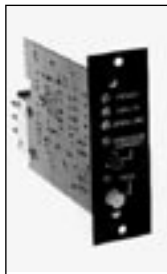
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**MT-400**  
with 4 CM-1 Modules



**EP-10**



**CM-1**



**BCF-1**



**FTS24**



**FTS24-RM**

### MASTER CONTROL PANEL FOR ETC SYSTEM

**MT-400.** Master control panel provides communication between an unlimited number of remote telephone stations in one or any combination of building or fire zones. Panel has provisions for installation of up to four CM-1 zone modules. Complete with handset, audible/visual tone alert, remote alarm button, and LED power and remote alarm indicator lamps. A constant level paging output is provided for integration into an existing paging system (paging amplifiers and loudspeakers are not part of this system). Paging is actuated with push-to-talk button on handset. Rugged steel housing mounts in optional UL Listed enclosure Model FTE-14 or UL Listed 19" E.I.A. standard enclosures. Unit requires 5 1/4" vertical panel space (3 rack units). Finished in black epoxy. (Note: A limit of six handsets may be off-hook at one time. Paging amp and loudspeakers not included.) For wiring information, request installation manual #246181.

MODEL	DIMENSIONS	IDLE CURRENT	OPERATING CURRENT
MT-400	5 1/4"H x 19"W x 6"D (130 x 483 x 152mm)	55 mA	175 mA

### ZONE EXPANSION PANEL FOR ETC SYSTEM

**EP-10.** Zone expansion panel is designed to increase basic system capacity beyond four zones of communication. EP-10 panels may be added in an unlimited quantity to meet zone requirements of large building complexes. Each unit has provisions for up to 10 CM-1 zone modules. Rugged steel housing will mount in enclosure Model FTE-14 or 19" E.I.A. standard enclosures. Dimensions: 5 1/4"H x 19"W x 6"D (130 x 483 x 152mm). Unit requires 5 1/4" vertical panel space (3 rack units). Finish is black epoxy.

### ZONE MODULE FOR ETC SYSTEM

**CM-1.** Zone card module installs into MT-400 and EP-10 zone card positions to provide the necessary circuitry for power distribution, communication functions, paging (from zone location) and line supervision. The P.C. board is attached to a steel panel with LED lamps which provide visual status indication of "Power", "Call-In", "Open Line", "Operator Connect", and "Page" functions. Pushbutton switches enable "Operator Connect" and "Page" functions. Steel assembly is finished in black epoxy.

MODEL	MOUNTS	IDLE CURRENT	OPERATING CURRENT
CM-1	Within MT-400 and EP-10 Zone Card Positions	36 mA	90 mA (with one phone connected or off hook)

### ZONE COVER FOR ETC SYSTEM

**BCF-1.** Blank cover installs over unused zone card locations in the MT-400 and the EP-10 to provide aesthetic continuity and protection from dust and indoor environmental hazards. Steel plate is finished in black epoxy.

### POWER SUPPLIES FOR ETC SYSTEM

**FTS24 / FTS24-RM.** Designed to power the ETC System, these 24 VDC supplies include protective steel housings. Model FTS24 is for shelf-mount installation. The FTS24-RM installs into enclosure Model FTE-14 or 19" E.I.A. standard cabinets and requires 3 1/2" vertical panel space (2 rack units). Finished in black epoxy.

MODEL	FTS24	
	Shelf Mount	Rack Mount
TYPE		
POWER INDICATION	Neon Pilot Lamp	
POWER INPUT	117 VAC, 60 Hz	
CONVENIENCE OUTLET	117 VAC, Not Switched	
POWER OUTPUT	24 VDC @ 2 Amps	
OUTPUT WATTS	48	
INPUT WATTS	64	
INPUT TERMINATION	6 ft. Power Cord, 2 Conductor Plus Ground	
OUTPUT TERMINALS	Screw-Type Barrier	
OUTPUT RIPPLE	8 mV @ Rated Load	
OUTPUT PROTECTION	2 Amp Fuse	
INPUT PROTECTION	Circuit Breaker	
DIMENSIONS	3 1/2"H x 100 3/4"W x 6"D (99 x 276 x 152 mm)	3 1/2"H x 19"W x 5 1/2"D (88 x 483 x 140 mm) (2 RU*)
FINISH	Black Epoxy	
WEIGHT	9 lbs. (4.08 kg)	9.2 lbs. (4.17 kg)

\* Rack Unit

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L22-310-FT



L22-320-FT



L22-340-FT



L22-330-FT



FTE-14

## TELEPHONE STATION AND JACK ASSEMBLIES

### HANDSET/HOOKSWITCH ASSEMBLIES FOR ETC SYSTEM

**L22 Series.** Assemblies are designed for proprietary use with the ETC System. Models consist of handset, chrome hanger hookswitch, steel mounting raceway with painted finish, sidetone network and 7-point barrier strip termination. Selection includes models with coiled cord or armored cable for installation in appropriate surface or recessed enclosures. Finished in textured red epoxy. *Listed under UL Standard 864.*

MODEL	CORD TYPE	MOUNTS ENCLOSURE	ENCLOSURE TYPE	FINISH
L22-300-FT	Coil Cord	L20-300-BX	Recessed	Textured Red Epoxy
L22-303-FT	22" Armored Cable	L20-300-BX	Recessed	
L22-310-FT	Coil Cord	L20-310-BX	Surface	
L22-313-FT	22" Armored Cable	L20-310-BX	Surface	

### TELEPHONE HANDSET FOR ETC SYSTEM

**L22-320-FT.** Handset is designed for exclusive application with the ETC System. Unit is complete with coiled cord and three-circuit plug for use with L22 Series receptacles only. Transmitter is high-quality carbon with impedance of 25-50 ohms. The receiver contains a magnetic, ring armature diaphragm with impedance of 150 ohms. Handset is red. (Convenient storage cabinets are also available refer to optional TCR and TCS Series enclosures on page 4.) *Listed under UL Standard 864.*

MODEL	CORD TYPE	MOUNTS RECEPTACLE MODELS	FINISH
L22-320-FT	Coil Cord	L22-330-FT, L22-340-FT	Red

### TELEPHONE RECEPTACLES FOR ETC SYSTEM

**L22 Series.** These single-gang wall-plate assemblies can be used in place of telephone handset/hookswitch stations. L22 Series receptacles are offered with an exposed jack for recessed and surface installation of handset Model L22-320-FT. Units consist of a three-circuit phone jack terminated on a three-point barrier strip. All components are mounted to a wall plate manufactured of 22-ga., non-magnetic stainless steel with #4 brushed finish. Lettering is stamped in Red "Fireman's Telephone". *Listed under UL Standard 864.*

MODEL	TYPE	DESCRIPTION	DIMENSIONS	FINISH
L22-330-FT	Recessed	Exposed Jack	2 $\frac{3}{4}$ " x 4 $\frac{5}{16}$ " (70 x 116 mm)	Stainless Steel
L22-340-FT	Surface	Exposed Jack	2 $\frac{3}{4}$ " x 4 $\frac{5}{16}$ " x 2 $\frac{1}{2}$ " (70 x 116 x 64 mm)	

## ENCLOSURES FOR ETC SYSTEM COMPONENTS & TELEPHONE ASSEMBLIES

### OPTIONAL SURFACE/WALL CABINET FOR ETC SYSTEM

**FTE-14.** Optional accessory enclosure for surface or wall installation of the ETC System provides 14 $\frac{1}{2}$ " vertical panel space to house (1) MT-400, (1) EP-10, and (1) FTS24-RM or variations thereof. Unit is constructed of 16-ga. CRS and utilizes standard E.I.A. 19" panel mounting dimensions. Cabinet also includes 11-ga. CRS mounting rails which swing out to provide convenient service access to rear of equipment. Front door is complete with smoked acrylic plexi front for visual monitoring, sturdy piano hinge, and lock to prevent unauthorized tampering. Finished in textured red epoxy. For installations that require additional panel space, a complete selection of UL listed cabinets with vertical panel space up to 77" are available. (Contact factory.)

MODEL	TYPE	VERT. PANEL SPACE	DIMENSIONS	FINISH
FTE-14	Surface/ Wall Cabinet	14-18" (8 Rack Units)	20 $\frac{5}{8}$ "H x 24 $\frac{1}{4}$ " W x 9"D (513 x 616 x 229 mm)	Textured Red Epoxy

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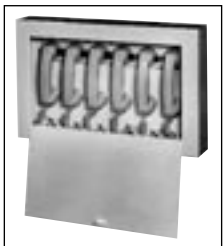
L20-310-BX



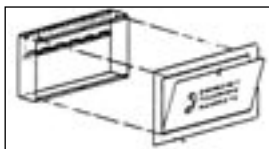
L20-300-FD with L20-300-BX



TCR-6



TCS-6  
(shown with 6 handsets)



## ENCLOSURES FOR ETC SYSTEM & GENERAL COMMUNICATIONS USE

**L20 Series.** Surface and recessed mounting enclosures provide protection for telephone handset hookswitch assemblies. Manufactured of heavy-gauge CRS and finished in textured red epoxy. *Listed under UL Standard 864.*

MODEL	ENCLOSURE TYPE	DIMENSIONS	FRAME SIZE	FINISH
L20-300-BX	Recessed	13 <sup>1</sup> / <sub>2</sub> " x 8" x 3 <sup>3</sup> / <sub>8</sub> " (344 x 203 x 92 mm)	15" x 9 <sup>5</sup> / <sub>8</sub> " (381 x 244 mm)	Textured Red Epoxy
L20-310-BX	Surface	15 <sup>1</sup> / <sub>8</sub> " x 9 <sup>1</sup> / <sub>8</sub> " x 3 <sup>1</sup> / <sub>8</sub> " (386 x 249 x 97mm)		

## ACCESSORY DOORS FOR SURFACE & RECESSED MOUNTING ENCLOSURES

**L20 Series.** Breakglass and solid CRS front doors include models with keylock or friction latch. Finished in textured red epoxy with white silkscreened lettering "EMERGENCY TELEPHONE". *Listed under UL Standard 864.*

MODEL	DESCRIPTION	MOUNTS ENCLOSURE
L20-300-FD	Breakglass with Lock	L20-300-BX, L20-310-BX
L20-301-FD	Two-Piece Solid CRS with Lock	
L20-302-FD	One-Piece Solid CRS with Friction Latch	
L20-300-BKG	Replacement Breakglass for L20-300-FD	
K-7	Replacement Key	

## OPTIONAL STORAGE CABINETS FOR MULTIPLE TELEPHONE HANDSETS

**TCR-6 / TCS-6.** Recessed and surface mounting cabinets, respectively, provide convenient storage of up to six Model L22-320-FT telephone handsets. Each unit is manufactured of 20-gauge CRS and includes six handset hangers (order handsets separately). Door assembly is constructed of 16-gauge CRS. The keylock assembly is spotwelded to the door frame for strength and security. Assembly is finished in textured red epoxy with white silkscreened nomenclature "Emergency Telephone Handsets."

*NOTE: TCR-6 and TCS-6 are not UL Listed.*

MODEL	MOUNTING TYPE	FINISH	DIMENSIONS				
			A	B	C	D	E
TCR-6	Recessed	Textured	4"	21 <sup>1</sup> / <sub>2</sub> "	13 <sup>1</sup> / <sub>2</sub> "	24"	15 <sup>3</sup> / <sub>8</sub> "
TCS-6	Surface	Red Epoxy	4"	24 <sup>1</sup> / <sub>8</sub> "	15 <sup>1</sup> / <sub>2</sub> "	24"	15 <sup>3</sup> / <sub>8</sub> "
K-7			Replacement Key				

## UL LISTED EQUIPMENT CABINETS

Atlas Sound offers a complete line of UL Listed equipment cabinets which may be used in conjunction with the Emergency Telephone Communication (ETC) System.

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