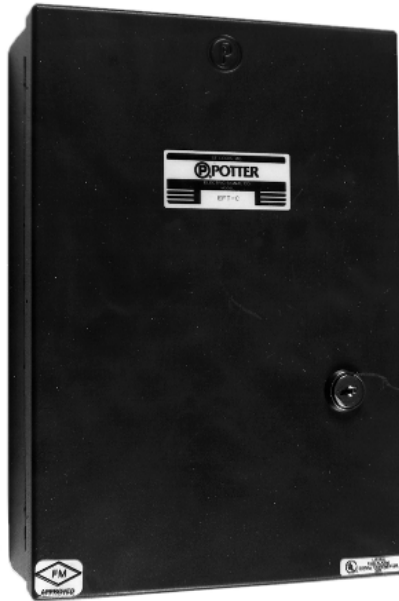




UL Listed and FM Approved

Dimensions: 12 5/16"H x 8 5/16"W x 3 5/8"D
31,2cm H x 21,1cm W x 9,2cm D

Weight: 9 lbs. (4,05 kg.)

Enclosure: 18GA CRS - Finish: Red enamel
All ferrous metal parts painted,
plated, or the equivalent to resist
corrosion.

Contact Ratings:

Alarm Relay - 3 Amps, 250V AC or 30VDC
Optional Trouble Relay - 3 Amps, 250V AC
or 30VDC

Switch Ratings:

McCulloh Contacts: Limited Energy
0.1Amp at 150V DC

Power Input:

Transformer - 12V AC, 10VA Min.
60Hz Listed Class II

Battery Requirements: 6V - 1.0AH

Options:

- 1) 60 second retard for waterflow alarm
initiating devices.
- 2) Trouble Relay Stock No. 5190147
- 3) Model ULT Stock No. 1000391 (if
required) by authority having
jurisdiction

The Model EFT-C is an electric motor driven transmitter for use on McCulloh type signal circuits.

The transmitter provides a Class A supervised detection circuit for connection of NORMALLY OPEN devices such as heat sensor thermostats, smoke and ionization detectors, waterflow alarm switches and manual pull stations. The EFT-C utilizes an external low voltage plug-in transformer. A built in battery charger maintains the battery which provides in excess of 72 hours of standby operation. A low battery sensing circuit insures battery integrity.

Dry SPDT alarm contacts are provided and an optional plug-in relay is available to provide SPDT trouble contacts. An electronic retard provides approximately 60 seconds delay on waterflow alarm transmission if desired (see Note 1, Fig. 2).

An adjustment on the circuit board provides transmitter motor speed adjustment from 1 to 4 code pulses per second.

TROUBLE: One round trouble signal indicates tamper, low battery or open detection circuit. Trouble condition indicated by yellow LED on circuit board.

Operate reset switch to restore from trouble condition to normal when cause of trouble condition has been corrected.

ALARM: Four round alarm signal when Class A detection circuit is shorted by detection device (three round alarm signal from trouble condition). Alarm condition indicated by red LED.

RESTORE: One round restore signal from alarm to normal is automatic when short is removed from Class A detection circuit.

INSTALLATION

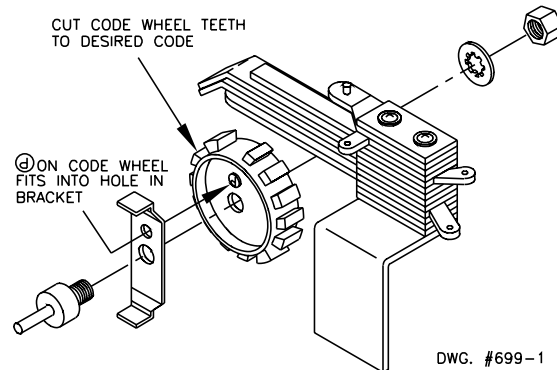
1. Mount EFT-C
2. Coding the Transmitter:

WARNING: Code wheel must be removed, code cut, and code wheel and bracket reinstalled before any power is applied to the transmitter.

 - a. Remove code wheel and metal bracket under code wheel.
 - b. Cut code wheel to desired code.
 - c. Place hole in bracket over "P" emblem on underside of code wheel (recessed area - see Fig. 1). Reinstall code wheel and bracket. The bracket tab must be centered in the slot in black opto device on the circuit board (see Fig. 2).
 - d. Hold code wheel and bracket in this position and tighten mounting nut.
3. Pull tamper switch plunger to deactivate tamper.
4. Connect POSITIVE (red) battery lead to terminal #21.
5. Connect NEGATIVE (black) battery lead to terminal #22. The transmitter will run and stop in TROUBLE condition. Yellow LED on.
6. Connect 12V AC from plug in transformer to terminals 7 and 8.

7. Connect detector loop.
8. Activate reset switch. Transmitter will run to normal condition. Red and yellow LED's off.
 - a. If transmitter will not run to the NORMAL condition, check for open or grounded detector loop. Check for low battery (battery must be at least 6 volts).
 - b. If transmitter runs and stops in ALARM condition (red LED on), check for short circuit between detector loops.
9. Connect central office line, earth ground and shunt per Fig. 2.

FIG. 1 CODE WHEEL REMOVAL AND CODING



TESTING

1. Activate tamper. Transmitter will transmit one round trouble signal. Yellow LED will come on indicating TROUBLE condition.
2. Activate a detector in the Class A detection circuit. The transmitter will transmit a three round alarm signal. Red LED will come on indicating ALARM condition.
3. Pull tamper switch plunger to deactivate tamper.
4. Restore detector in the Class A detection circuit. The transmitter will transmit one round restore signal. Red and yellow LED's both out, indicating NORMAL condition.
5. Activate a detector in the Class A detection circuit. The transmitter will transmit a 4 round alarm signal. Red LED will come on indicating ALARM condition.
6. Restore detector in the Class A detection circuit. The transmitter will transmit a 1 round restore signal. Red and yellow LED's both out, indicating NORMAL condition.
7. Verify that the central office receives clear and intelligible signals and that alarm and trouble audible devices are functioning properly.

ORDERING INFORMATION

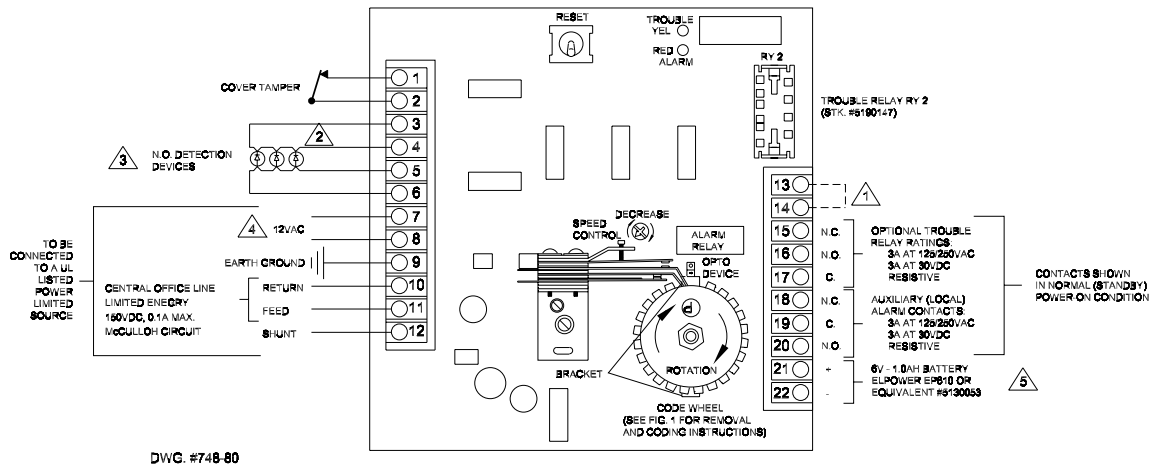
STOCK NO.	DESCRIPTION
1020119	EFT-C Electric Fire Transmitter (Battery and Transformer not included)
1029119	EFT-C Less Housing (P.C. Board only)
5130053	Battery 6V - 1.0AH

STOCK NO.	DESCRIPTION
5270080	Transformer 12V 20VA
5190147	Trouble Relay
1000391	ULT, 12V 15VA, Listed Class II, use when required by authority having jurisdiction

CODED ELECTRIC FIRE ALARM TRANSMITTER INSTALLATION

WARNING: Code wheel must be removed, code cut and code wheel and bracket reinstalled before any power is applied to transmitter.

FIG. 2



ALL CIRCUITS POWERED BY THIS CONTROL ARE "POWER LIMITED"

- 1 Add jumper to obtain approximate 60 second delay when EFT-C is used to supervise wet sprinkler system.
- 2 Supervised Loops: Limited Energy
Max. Loop Resistance: 200 Ohms per loop
400 Ohms total - both loops
- 3 Listed N.O. initiating devices such as Thermostats, Manual Station, Waterflow Switches, etc.
- 4 Listed Class 2 transformer rated 12V, 10VA.
For systems requiring a metal enclosed wiring system, use Model ULT (Stock No. 1000391).
- 5 Battery - Design life is 4 years. Mark date on battery and charge for 48 hours before placing unit in service.
6. Tamper - Closed with cover in place.
7. For additional installation and operating procedures, see pages 1 and 2 of this bulletin.

Service Use: National Fire Alarm Code NFPA-72

- Central Station*
- Proprietary*
- Remote Station*
- * Protected Premise Unit

FIG. 3 **INSTALLATION WIRING INSTRUCTIONS**

The EFT-C contains “Power Limited” fire protective signaling circuit conductors and Class 1 electric “Non-power Limited” circuit conductors.

The control unit enclosure provides multiple cable entry openings so that the “Power Limited” fire protective signaling conductors can be segregated from the Class 1 electric “Non-power Limited” conductors.

Enclosure cable entry opening in the top should be used for the Class 1 “Non-power Limited” conductors as the power inputs are located in this area.

The two bottom enclosure cable entries must be used for the “Power Limited” fire protective signaling conductors.

For specific wiring routing see Fig. 4.

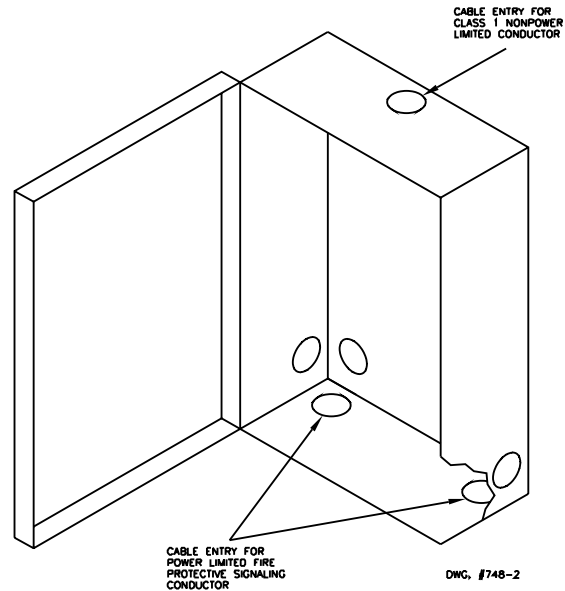
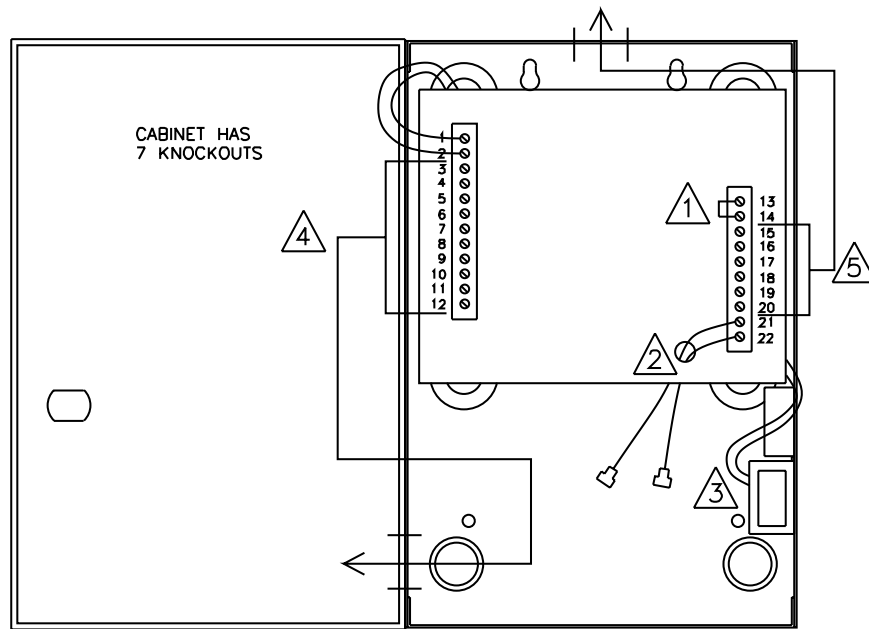


FIG. 4 **WIRE ROUTING**



- 1 Jumper must be installed from back side of terminal block.
- 2 Battery wire terminals 21 and 22 have spaghetti from terminal to hole in P.C. board.
- 3 Cover tamper wires are covered with spaghetti and run from terminals 1 and 2 under P.C. board around the lower right hand standoff to the tamper switch (this is factory installed wiring).
- 4 Wires from terminals 3 through 12 exit through lower left hand side knockout.
- 5 Wires from terminals 15 through 20 exit through the top center knockout.