

FEATURES

- UL. Listed, File #S405, Standard #864 under the MPC-2000 System Control Unit
- CSFM. Listed #7165-065:123 under the MPC-2000
- Leased line formats power limited
- Field configurable for up to (3) leased line city ties
- Field configurable for (1) local energy city tie
- Field configurable for (1) shunt type city tie
- Software accessible disconnect switch
- Individual amber trouble/disconnect LED on the module
- Allows the system to fully meet the requirements of NFPA. 72
- IBEW./USA. Crafted



GENERAL

In installations requiring that the fire alarm system be monitored by a municipal receiver the CT-1 city tie module is required. Generally there are (3) types of city ties: (1) local energy, (2) shunt (Note: both of these city ties require an external "city box" for transmission) and (3) reverse polarity (remote station/leased line). The CT-1 city tie module provides access to a software disconnect switch to allow testing of the system without summoning the fire department. An amber LED indicator is provided on the front of the module to indicate module trouble conditions and/or disconnected status.

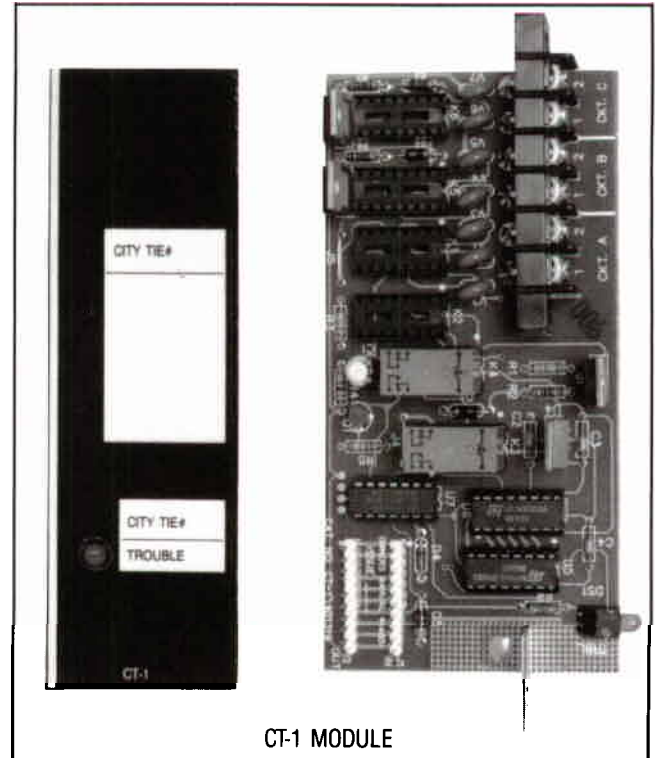
DESCRIPTION

The CT-1 module is field configurable to interface with a local energy or shunt type municipal transmitter. In the local energy mode, the CT-1 module will supervise the wiring to as well as the trip coil of the city box. (Note: the city box is a separate item and is mounted externally from the fire alarm control panel). Upon any alarm condition in the fire alarm system the CT-1 module will activate the municipal transmitter (city box) which in turn will transmit an alarm signal to the municipal receiver (central station/fire house). Refer to the MPC-2000 owner's manual for proper city box parameters. The CT-1 module allows for access to the software "cutoff" switch to allow for testing the system without tripping the city box. When the module is in the "cutoff" mode a system trouble condition will be shown on the MPC-2000 control unit along with an amber LED indication on the CT-1 module itself.

The CT-1 module is field configurable as a multiple reverse polarity type city tie transmitter. It can be programmed to send system alarm, system trouble and supervisory switch information to a municipal receiver via dedicated metallic leased phone lines. The municipal receiver will provide the supervision of the phone lines to the protected premises. It is necessary for the contractor to provide a non-amplified metallic pair free and clear of all voltages and grounds from the fire alarm control panel to the receiver. (Note: contact the local phone company for line information and verify with the municipal receiver for necessary voltage and current requirements). Upon any alarm conditions in the system the appropriate circuit(s) will reverse polarity thereby signaling an alarm condition to the municipal receiver. In the event that a circuit is programmed to send both alarm and trouble information on the same pair the alarm transmission will automatically override the trouble signal (no voltage). (Note: if the module has been programmed to transmit trouble, a trouble transmission will be sent when the module is in the "cutoff" mode. In addition a system trouble condition will be shown on the MPC-2000 control unit along with an amber LED indication on the CT-1 module itself. Any subsequent alarm condition will not be transmitted).

ORDERING INFORMATION

| Model # | Part # | Description |
|---------|--------|-----------------|
| CT-1 | 401319 | City Tie Module |



CT-1 MODULE

TECHNICAL DATA

Power Provision

- Ckt. "A":
Remote Station: .014 Amp. max. @ 16.5-26.4 VDC
Local Energy: Standby-.0014 Amp. max. @11-20mVDC
Alarm-.270 Amp. max. @18-26.4 VDC
- Ckt. "B":
Remote Station: .014 Amp. max. @16.5-26.4 VDC
- Ckt. "C":
Remote Station: .014 Amp. max. @ 16.5-26.4 VDC

Power Consumption

- By Circuit:
Shunt (ckt. "A"): Alarm .040 Amp./Standby .008 Amp.
Local Energy (ckt. "A"): Alarm .040 Amp./Standby .008 Amp.
Remote Station Alarm/Trouble (ckt. "A"): Alarm .070 Amp./Standby .020 Amp.
Remote Station Alarm (ckt. "A"): Alarm .070 Amp./Standby .020 Amp.
Remote Station Supervisory Fault (ckt. "B"): Alarm .045 Amp./Standby .020 Amp.
Remote Station Trouble (ckt. "C"): Alarm .045 Amp./Standby .020 Amp.

Space Provision

None

Space Consumption

(1) Module space

Channel Provision

None

Channel Consumption

(1) Module on the miscellaneous channel

FIRE ALARM CONTROL UNITS - MPC-2000

FARADAY MPC-2000 FIRE ALARM SYSTEM CONTROL UNIT — OPTION CT-1

MODULE POWER CONSUMPTION REQUIREMENTS:

FOR SHUNT TRANSMISSION (CKT A): ALARM - .040 AMP.
NORMAL - .008 AMP.

FOR LOCAL ENERGY TRANSMISSION (CKT A): ALARM - .040 AMP.
NORMAL - .008 AMP.

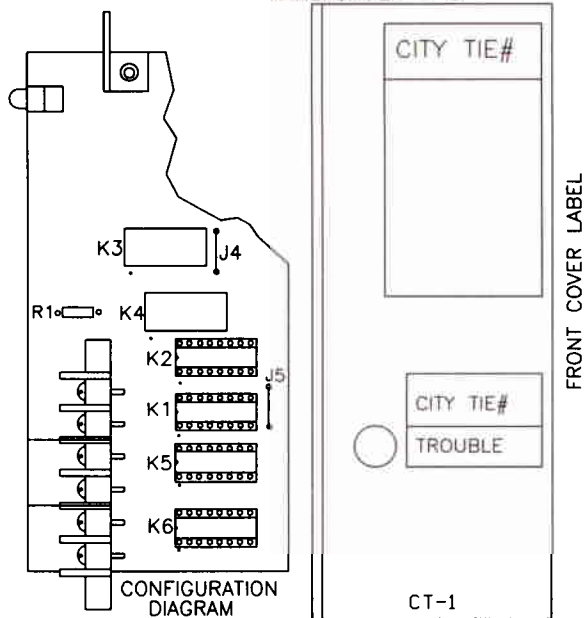
FOR ALARM/TROUBLE TRANSMISSION (CKT A): ALARM - .070 AMP.
NORMAL - .020 AMP.

FOR ALARM ONLY TRANSMISSION (CKT A): ALARM - .070 AMP.
NORMAL - .020 AMP.

FOR SUPERVISORY ONLY TRANSMISSION (CKT B): ALARM - .045 AMP.
NORMAL - .020 AMP.

FOR TROUBLE ONLY TRANSMISSION (CKT C): ALARM - .045 AMP.
NORMAL - .020 AMP.

SPACE REQUIREMENTS: MODULE - 1
TRANSFORMER - 0



CKT. C - TROUBLE ONLY (NFPA 72) - POWER LIMITED
INSTALL OPTIONAL RELAY K6 FOR DEDICATED
REMOTE STATION TROUBLE ONLY TRANSMISSION.
SEE NOTE 1

CKT. B - SUPERVISORY ONLY (NFPA 72) - POWER LIMITED
CUT OUT DIODE D7,
INSTALL OPTIONAL RELAY K5 FOR DEDICATED
REMOTE STATION SUPERVISORY ONLY TRANSMISSION.
SEE NOTE 1

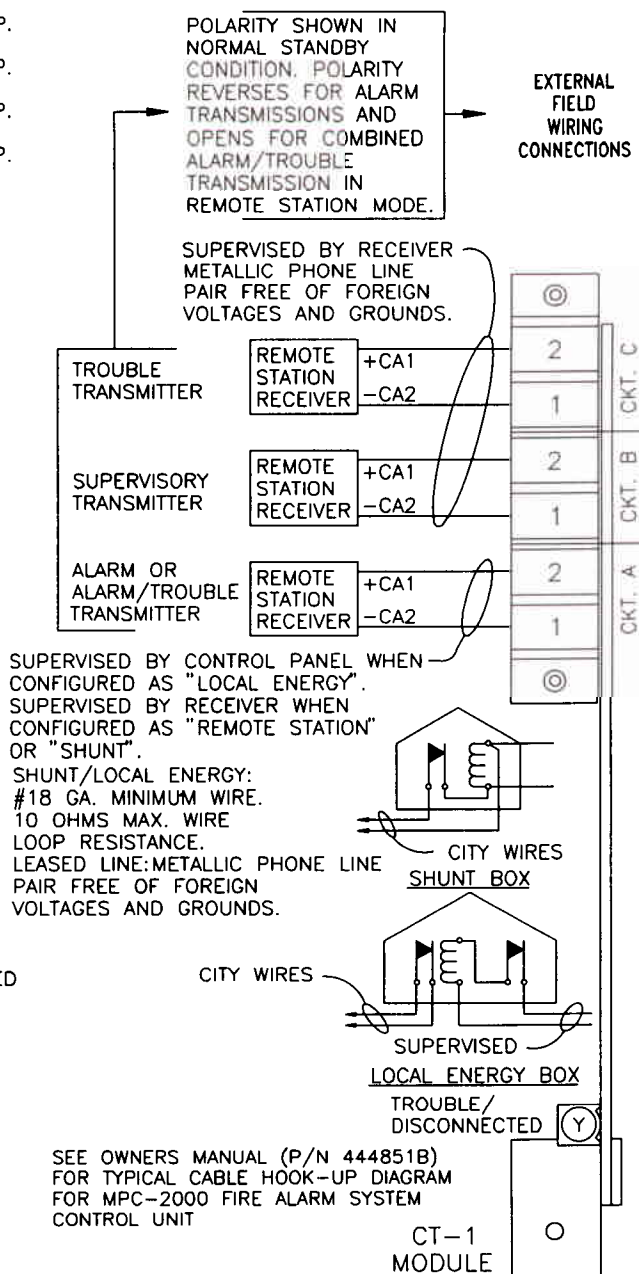
CKT. A - SEE OPTIONS
ALARM ONLY (NFPA 72) - POWER LIMITED
INSTALL RELAYS K3, K4 AND CUT RESISTOR R1 FOR
DEDICATED ALARM ONLY REMOTE STATION TRANSMISSION.

ALARM/TROUBLE (NFPA 72) - POWER LIMITED
INSTALL RELAYS K3, K4 AND CUT RESISTOR R1
AND JUMPER J4 FOR DEDICATED ALARM & TROUBLE
REMOTE STATION TRANSMISSION.
SEE NOTE 1

LOCAL ENERGY (NFPA 72) - REMOVE RELAYS K3 & K4,
INSTALL RELAY K1 AND CUT JUMPER J5
FOR LOCAL ENERGY TRANSMISSION.
(*NOT POWER LIMITED*)

SHUNT (NFPA 72) - REMOVE RELAYS K3 & K4,
INSTALL RELAY K2 AND CUT RESISTOR R1
FOR SHUNT TRANSMISSION. - SEE NOTE 2

TYPICAL WIRING FOR CAT. NO. CT-1 PART NO. 401319 CITY TIE



SUPERVISED BY CONTROL PANEL WHEN CONFIGURED AS "LOCAL ENERGY".
SUPERVISED BY RECEIVER WHEN CONFIGURED AS "REMOTE STATION" OR "SHUNT".
SHUNT/LOCAL ENERGY:
#18 GA. MINIMUM WIRE.
10 OHMS MAX. WIRE LOOP RESISTANCE.
LEASED LINE: METALLIC PHONE LINE PAIR FREE OF FOREIGN VOLTAGES AND GROUNDS.

SEE OWNERS MANUAL (P/N 444851B)
FOR TYPICAL CABLE HOOK-UP DIAGRAM
FOR MPC-2000 FIRE ALARM SYSTEM
CONTROL UNIT

- NOTES: 1.) COMPATIBLE REMOTE STATION RECEIVERS
KELTRON DMP701, DMP702, DMP703, OR
DMP704 ALARM MONITORING SYSTEM
WITH 75DM722-02 OR 75DM726
REVERSE POLARITY SUBSCRIBERS NEST
MAXIMUM LEASED LINE RESISTANCE - 4500 OHM
- 2.) THE SHUNT CONNECTION IS RECOGNIZED ONLY
AS A SUPPLEMENTARY SIGNALING UNIT AS PART
OF A LOCAL CONTROL UNIT AND IS NOT
RECOGNIZED AS AN AUXILIARY CONTROL
UNIT CONNECTION PER NFPA NO. 72.

WARNING - The information contained in this document is intended only as a summary and is subject to change without notice. The devices described in this document have specific instruction sheets which cover various technical, limitation and liability information. Copies of these instruction sheets and the General Product Warning and Limitations Document, which also contains important information, are provided with the product and are available from the Manufacturer. Information contained in these documents should be consulted before specifying or using the product. For further information or assistance concerning particular problems contact the Manufacturer.