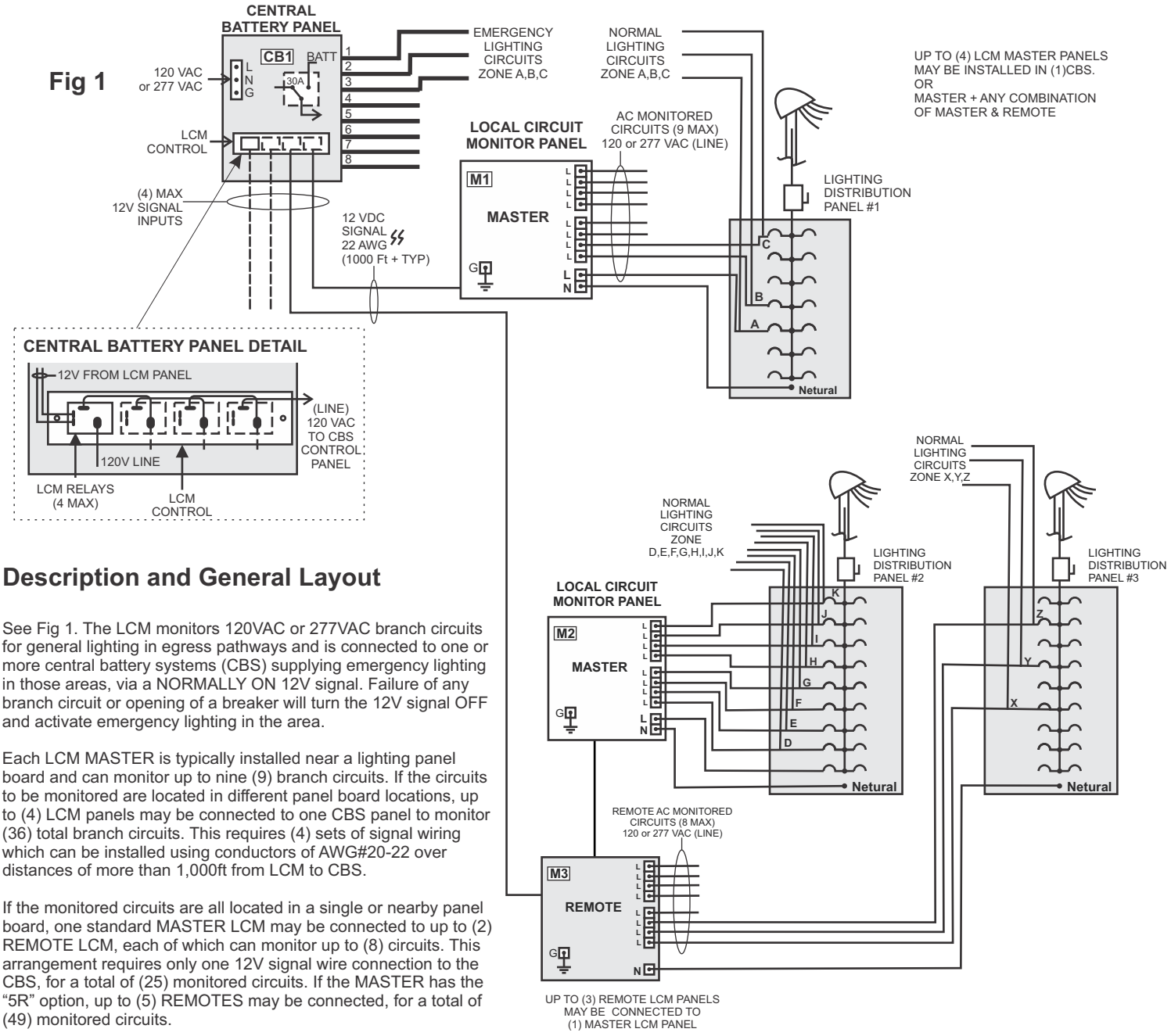
Installation Instructions & Users Manual

Local Circuit Branch Monitor Panel: 1Φ 120 or 277 VAC Circuits

Fig 1



Description and General Layout

See Fig 1. The LCM monitors 120VAC or 277VAC branch circuits for general lighting in egress pathways and is connected to one or more central battery systems (CBS) supplying emergency lighting in those areas, via a NORMALLY ON 12V signal. Failure of any branch circuit or opening of a breaker will turn the 12V signal OFF and activate emergency lighting in the area.

Each LCM MASTER is typically installed near a lighting panel board and can monitor up to nine (9) branch circuits. If the circuits to be monitored are located in different panel board locations, up to (4) LCM panels may be connected to one CBS panel to monitor (36) total branch circuits. This requires (4) sets of signal wiring which can be installed using conductors of AWG#20-22 over distances of more than 1,000ft from LCM to CBS.

If the monitored circuits are all located in a single or nearby panel board, one standard MASTER LCM may be connected to up to (2) REMOTE LCM, each of which can monitor up to (8) circuits. This arrangement requires only one 12V signal wire connection to the CBS, for a total of (25) monitored circuits. If the MASTER has the "5R" option, up to (5) REMOTES may be connected, for a total of (49) monitored circuits.

IMPORTANT SAFEGUARDS READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. Disconnect AC power before servicing.
2. Refer to wiring diagram for proper connections.
3. All servicing should be performed by qualified personnel.
4. Consult your local building code for approved wiring and installation.
5. Do not use outdoors.
6. Do not use this equipment for other than intended use.
7. Do not let power cords touch hot surfaces.
8. Mount and secure the fixture at a location and height to avoid ready access and tampering by unauthorized persons.
9. The use of accessory equipment is not recommended by the manufacturer and may cause an unsafe condition.

SAVE THESE INSTRUCTIONS

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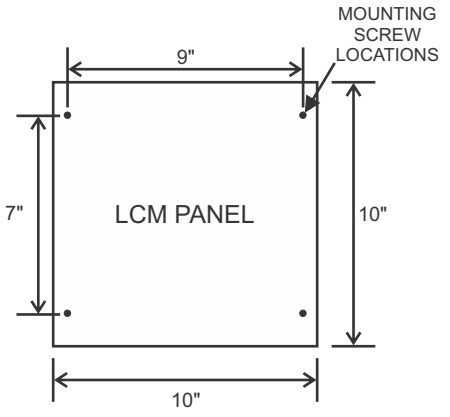
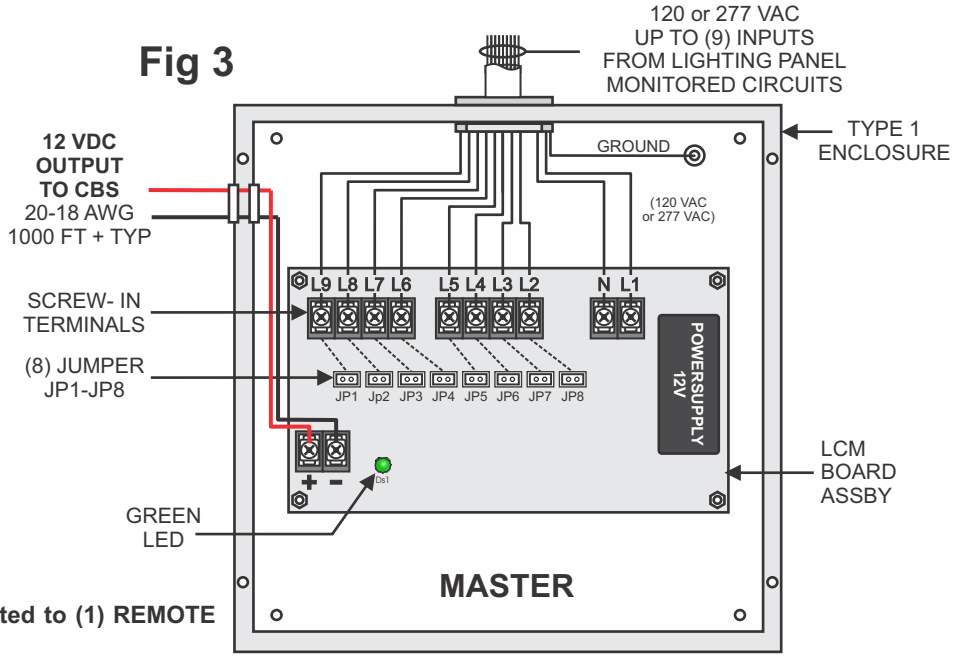


Fig 2

Fig 3



Installation and Wiring

Fig 4. Example shows (1) MASTER connected to (1) REMOTE LCM panel.

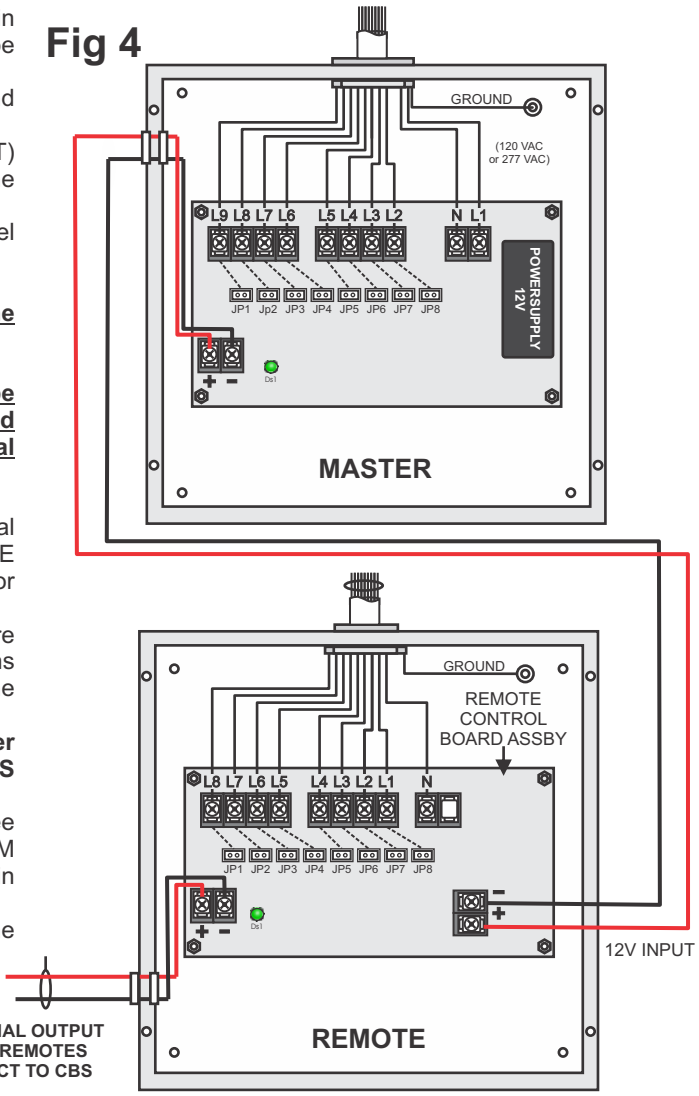
1. See Fig 2. Install anchors on 9“x 7” centers and mount the panel in a convenient location near the Distribution Panel (DP) to be monitored.
2. Route common Neutral from the DP to the marked terminal and connect a ground wire to the housing screw location provided.
3. Route up to (9) 120 or 277VAC LINE connections from the (HOT) breaker side of branch circuits to be monitored from the DP to the LCM panel using wire size appropriate for the circuit capacity.
NOTE1: Line 1 (L1) must be connected to power the LCM panel board.

NOTE2: Either 120VAC or 277VAC can be monitored on the same LCM panel. Do not connect both on the same panel.

NOTE3: Remove Jumpers (JP1-JP8) for each circuit to be monitored. A Jumper must remain in place for any unused branch circuit. Green LED on the panel Confirm the 12V Signal out put is ON.

4. Route two conductors for 12V signal wiring from the LCM terminal provided to the selected CBS panel OR as shown, to (1-2) REMOTE LCM panels. Wire size of #20-18 AWG may be used: see Table 1 for max circuit lengths.
5. At the CBS panel, connect the 12V signal wiring inputs to the 2-wire pigtail marked “LCM” input relay in the CBS panel. The connections are not polarity sensitive. Up to (4) LCM inputs may be provided in the CBS.
6. With all branch circuits ON, breakers closed and power supplied to the LCM, confirm the 12VDC signal is ON at the CBS panel LCM input.
7. Activate the CBS panel by connecting the 24V battery plug (see CBS Instructions) and turning AC supply ON. If the 12VDC LCM activation signal is ON the Central Battery System will remain in NORMAL mode (EMERGENCY OFF).
8. To test the system, open any of the monitored breakers; the connected CBS should immediately activate EMERGENCY mode.

Fig 4



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