



# CC2-MC-16-T

## Clinic-Call Master Control 16 Point Tone/Visual



The Tech Works **CC2-MC-16-T** is a 16-Light and 16 Button Intelligent Master Control panel. By pressing on each of the lighted squares the lights can be turned on and off. Made of white ABS plastic with a removable faceplate, each unit can be custom labeled to identify staff or locations. An integral tone sounds to draw attention to any change of status. A big window allows for large labels of call points. Labels are back-lit so the call point lights up when a station is active.

This is a digital communication device using Intelligent Control Modules for call point monitoring. Each **CC2-MC-16-T** corresponds to four **CC2-CM-4** Control Module or **CC2-RS-4** Room Status Stations by simply setting matching addresses. To have two or more **CC2-MC-16-T** talk to each other, simply place two **CC2-MC-16-T** annunciators where needed and set the address to match. The tone can be permanently disabled via a dipswitch.

Mechanical mounting is to an industry standard 4 gang electrical box. No special hardware or custom mounting box is required.

### BENEFITS

- Reliable Signaling
- No Maintenance
- Low Power
- Simple Wiring
- Easily Integrates to other Systems
- Attractive Station Hardware

### Associated Equipment

<b>CC2-RS-4</b>	Room Status Substation
<b>CC2-DL-44</b>	Smart Dome Light
<b>CC2-CM-4</b>	Control Module
<b>CC2-AN-84</b>	8-Column, 4-Color Annunciator
<b>CC2-MC-16</b>	Control Panel
<b>PS-2437A</b>	Power Supply

### Design Information

<b>Power</b>	11-25V DC
<b>Color</b>	White
<b>Mounting</b>	2 or 4 Gang Back Box
<b>Dimensions</b>	8.25" W x 0.75" D x 4.5" H
<b>Weight</b>	1.0 lbs.

### Architects' and Engineers' Specifications

The Clinic Call System Master Control shall be a standard four gang electrical box mounting device constructed of ABS plastic with a water resistant Lexan face plate. A minimum of four columns of four lights and 4 buttons shall be provided to allow both input and output from the system. . An electronic tone shall sound whenever a change occurs on the system and can be permanently disable by the installer if desired. The Annunciator shall be an addressable intelligent electronic device requiring no more than 264 mA at 12 Volts DC for full operation. The system shall operate on two twisted pair parallel wiring. Any system that requires more than two twisted pair wire and is not installer programmable will not be considered under this specification.

The Clinic Call Master Control panel shall be  
Tech Works Model CC2-MC-16-T



## Tech Works®

"Making Specialized Communication Easy"



## Quick Start Installation Instructions

W B B  
H L R L  
I A E A  
T C D C  
E K K

Wiring is four screw terminals to interface to the Tech Works Network. The Network is 2 twisted pair wires. One Pair of wires is Network Communication data and the other pair is power.

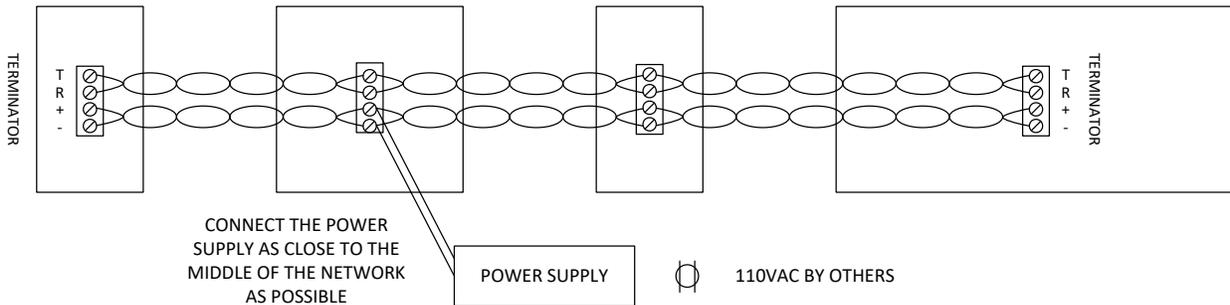
T R + -



Be sure to tighten the screw on the wire tightly. U.L. Torque Spec: 3.5 lb. / in.

The first pair is RS485 terminated bus topology, operating at 39K baud in a parallel connection plan. Because this is a distributed processor system, each intelligent device contains a micro controller, so there is "NO Central Processor". Each device is totally self-contained and can be used as a stand alone or in combination with any other intelligent device. The second pair is 11-25 VDC power in a parallel connection plan.

The system is designed to operate on unshielded twisted pair cable from 24 to 18 AWG. The twist of the cable is critical to the proper communication of data on the network to avoid noise interference. Any standard voice grade twist should provide adequate noise cancellation under normal operating conditions. All wiring is NEC Class 2.



**Due to the implementation of innovative data noise canceling circuits in all Tech Works RS485 microprocessor products, the data and power can now be run in any direction up to a total wire length of 3000 feet.**

**The last station on each end of all wire runs must employ a terminating resistor to make the network operate correctly. The terminator is built into each station and selected by turning "ON" the "T" dipswitch. If a terminator is placed in the middle, data will not flow to all devices in the system causing irregular operation.**

As with any RS485 communication system grounding is critical to the proper operation and life expectancy of the system. All **Tech Works** power supplies employ a floating ground designed to isolate the data communication from interference and destructive electro static discharges. The use of multiple power supplies on the same network will cause different floating ground references (ground loops) which may cause noise and destruction of the intelligent devices. If multiple power supplies are required, be sure to connect all "-" or common wires together between power supplies for a "common" reference.

**Connect the power supply as near the middle of the network loop as possible to assure the best possible power distribution.**



MASTER ADDRESS

Each Substation is equipped with dipswitches for installer programming of the system. A 16 position rotary switch selects the Master or group of Masters on which Substations will be displayed. Only switch positions 0-7 are currently used by Clinic-Call Stations. Dipswitches select the annunciator options. Any two Substations with the same address will be totally interactive. This means the push of a button on one sub will light its light, as well as the light on the other sub with the same address.

**For further system set up and adjustment please see the System Planning Guide.**

