16-Cell Call-in Board Model CIB-16

Specifications:

16 high current inputs for use in electrically noisy environments
- **Pushbutton open - 13 milliamperes (5 volts DC)**
- **Pushbutton closed (operated) - 16 milliamperes**
- **Inputs protected by semiconductor transient suppression**
- **Pushbutton closures as short as a tenth of a second are recognized**

Pluggable screw terminal blocks for connections to field wiring. Each consists of:
- **One input terminal for pushbutton**
- **One terminal for pushbutton ground wire**
- **One output terminal to drive an LED indicator co-located with the pushbutton**

255 inputs for single system of 16 interconnected boards.

Ribbon cables interconnect 3 boards to collect 48 outputs for connection to console annunciator LEDs. A 50-pin female TELCO connector may be plugged into a socket on the board to make the wiring easy.

Power Requirement
- **Approximately 300 milliamperes maximum from 24VDC (max 27.6 VDC) power supply with all 16 pushbuttons activated.**
- **Approximately 250 milliamperes with no pushbuttons activated.**

Communications between the Master board and the Slave boards is via 4-wire RS-485. A rotary switch on each board is used to select an address for the purpose of communications. The Master board is addressed "0" and the Slave boards use addresses "1" through "15".

All chips on the board are plugged into sockets for easy replacement in the field.

Each board is attached to an aluminum mounting plate via insulating standoffs for easy removal. The mounting plates may be drilled for attachment to a cabinet or subplate.

Operation:

The closing of the contacts (pushbutton pressed) of any call-in pushbutton is annunciated at the console by lighting an associated LED. On a first-in-first-out basis an Acknowledge pushbutton at the console selects the next input to be acknowledged. This causes the associated call-in LED to begin flashing. After appropriate measures have been taken to respond to the person who pressed the call-in pushbutton, a Reset pushbutton turns off the flashing LED and enables acknowledgment of the next input. This sequence continues until no more LEDs are lighted on the annunciator console.

The board includes a lamp test function for the console LEDs.

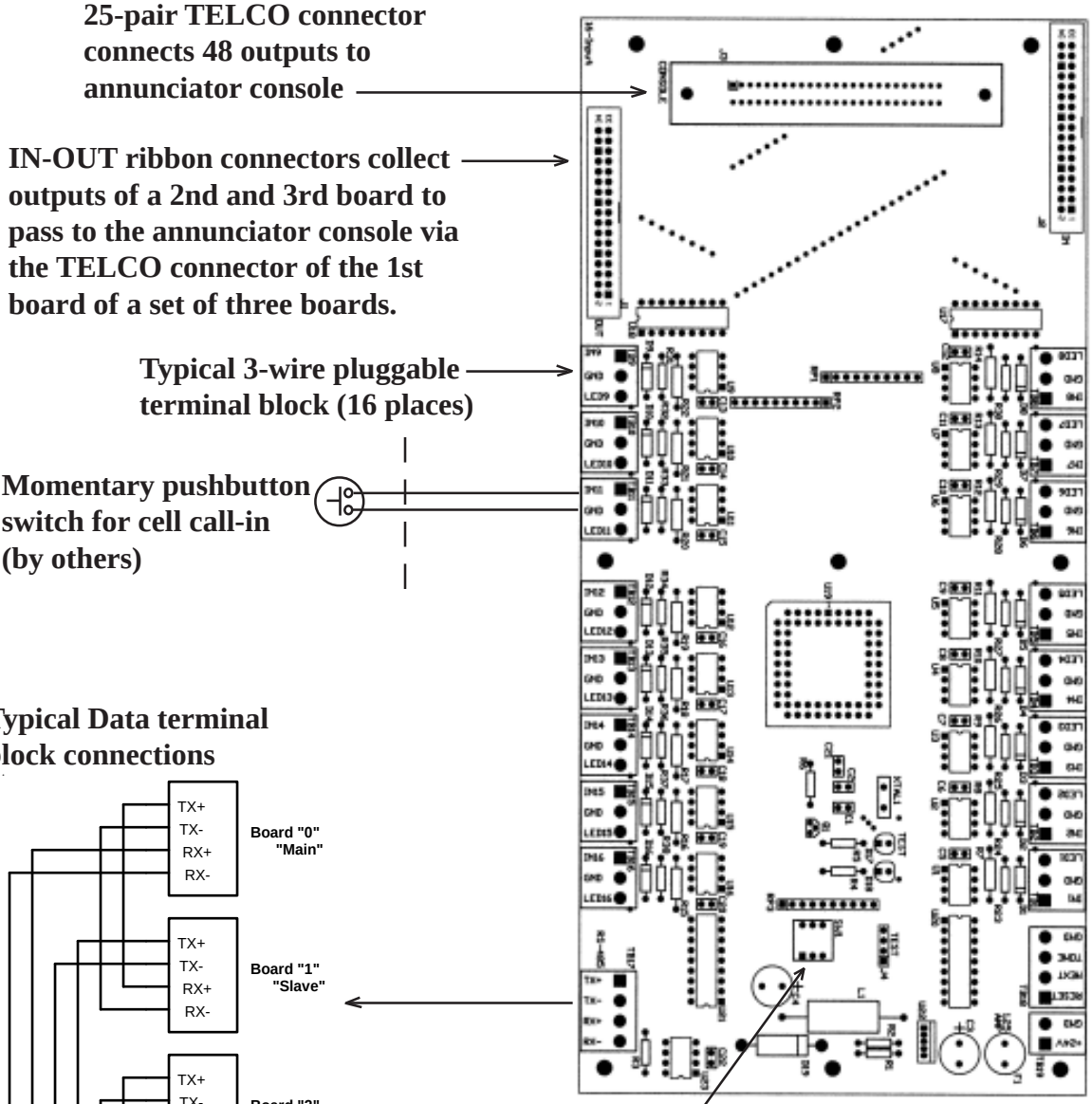
Connections

25-pair TELCO connector connects 48 outputs to annunciator console

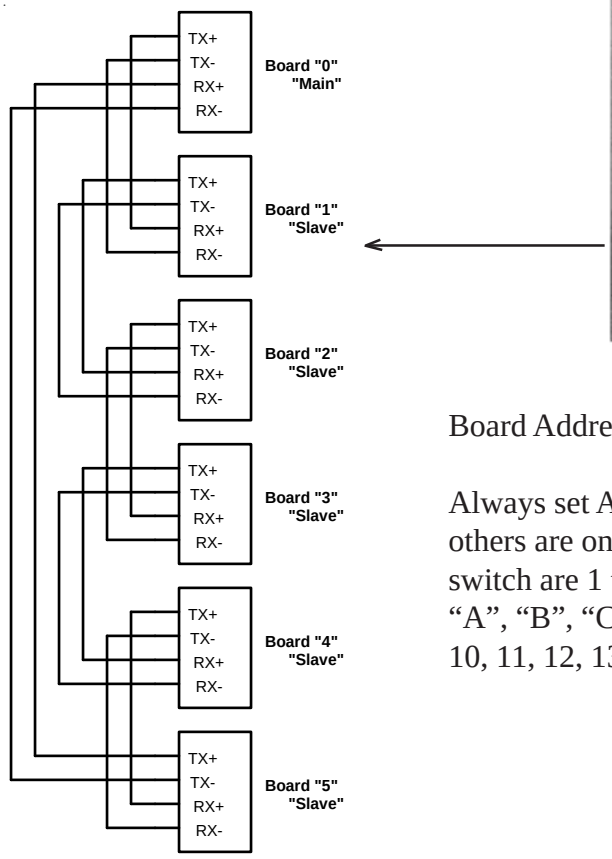
IN-OUT ribbon connectors collect outputs of a 2nd and 3rd board to pass to the annunciator console via the TELCO connector of the 1st board of a set of three boards.

Typical 3-wire pluggable terminal block (16 places)

Momentary pushbutton switch for cell call-in (by others)



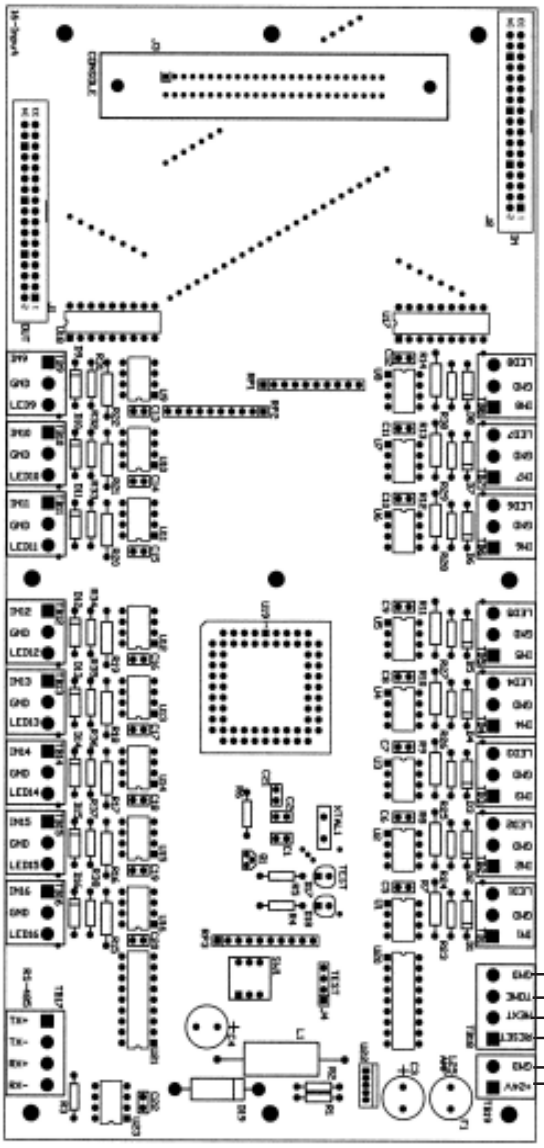
Typical Data terminal block connections



Board Address Switch

Always set Address = “0” for Main board. All others are one up from previous. Markings on the switch are 1 to 9 for Board Addresses 1 to 9 and “A”, “B”, “C”, “D”, “E”, “F” for Board Addresses 10, 11, 12, 13, 14, and 15 respectively.

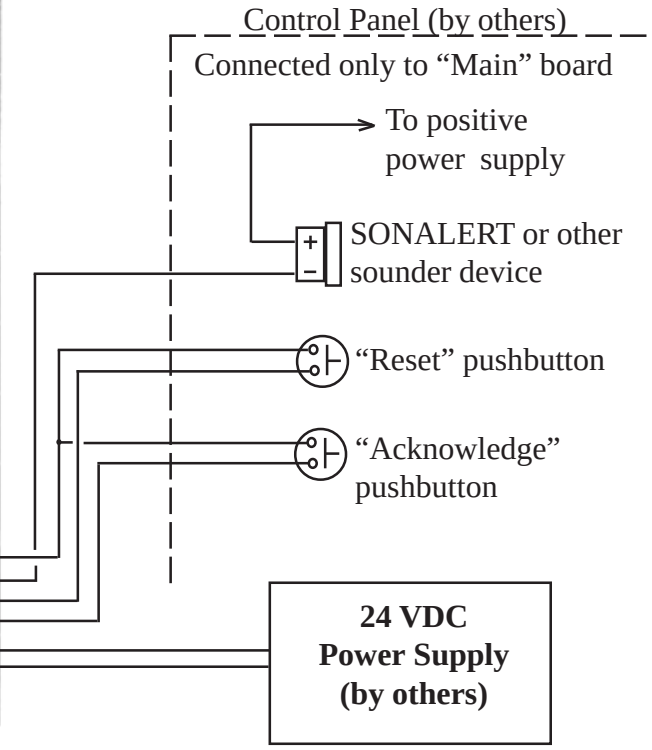
Connections



25-pair TELCO pin numbers go to LEDs:
1-16 from boards 0, 3, 6, 9, 12, 15
17-32 from boards 1, 4, 7, 10, 13
31-48 from boards 2, 5, 8, 11, 14

See table below.

Note: the 16th LED of board address 15 is not available for use. Only 255 total LEDs may be used in a system with one Main board.



3-Board LED Output Sets

TELCO cable connected to board:	LEDs	Outputs originate from Board:	TELCO cable connected to board:	LEDs	Outputs originate from Board:
0	1-16	0	9	145-160	9
	17-32	1		161-176	10
	33-48	2		177-192	11
3	49-64	3	12	193-208	12
	65-80	4		209-224	13
	81-96	5		225-240	14
6	97-112	6	15	241-255	15
	113-128	7			
	129-144	8			

Board to board interconnections