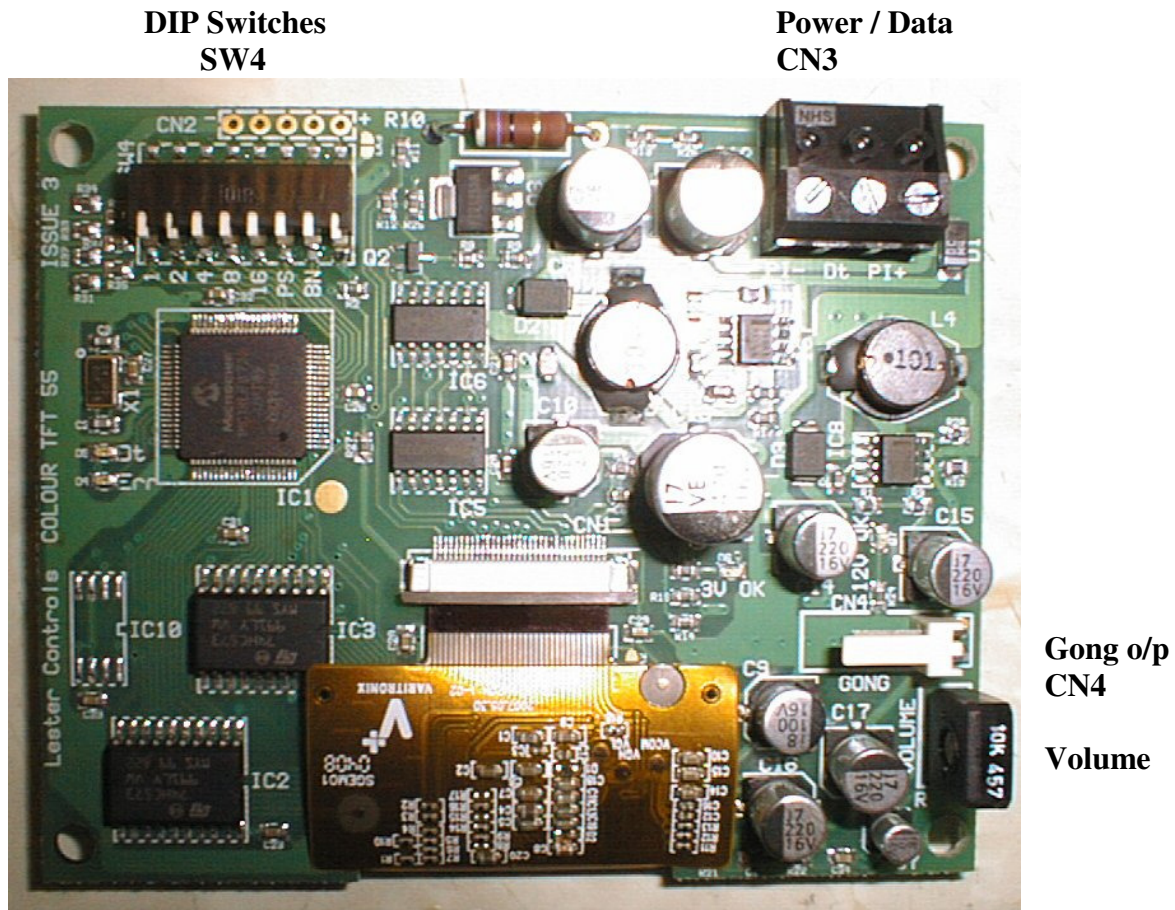


# Colour TFT 55 Indicator

## Basic Connection and Operation

This is by means of a three-wire control input generated from a display controller circuit. The power and signals are combined and fed in together on a three-way connector.



## Power Input

The indicator is supplied with a DC voltage either smoothed or full wave rectified via CN3. 0V is connected to B- and +V to B+. The supply should be between 8 and 30volts dc, the current drawn will be dependant on voltage but will drop as voltage rises so as to supply an almost constant 1.6Watt maximum; that is 130mA @12V and 65mA @24V.

## Normal Connection

Floor inputs are connected to the control board on floor inputs 1 to 6 and the direction arrow inputs are connected to the up and down arrow terminals of the control board. If binary input is being used then input 1 is the least significant bit up to input 5, which is the most significant bit. Input 6 is never used as a floor input in binary mode.

Message inputs are connected to the message inputs of the control board, there are four separate inputs which can be used to give ten different messages in a binary combination.

All input levels are between +7 and +24V dc positive or negative logic.

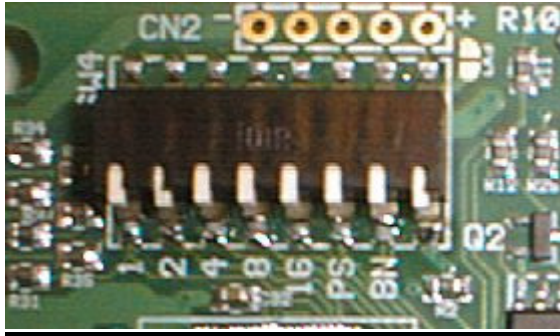
### **Three Wire Signal Input**

The data output line from the controller is connected to the Dt input on CN3. It is important to link the displays in a line from the controller by joining the power/data lines in a daisy chain type of arrangement from the controller. A separate branch may be used for the car display but both branches must be star connected at the controller.

### **DIP Switches**

There are eight DIP switches which are used to set various features of the display when they are pressed down they are in the on position and off in the up position.

## Hall Lantern Operation



The first five switches on SW4 activate a hall lantern and gong feature.

In **discrete mode** each switch corresponds to one floor input: -

Floor input	Switch
1	1
2	2
3	4
4	8
5	16

In **binary mode** each switch corresponds to the binary weighting of the input: -

Floor input	Switch weighting
1	1
2	2
3	4
4	8
5	16

See Appendix 1 for table of binary floor settings

If all switches are off then hall lantern is turned off and the gong will not sound.

When hall lantern is active the large arrow and gong will activate only when the floor number set on the switches matches the floor number at the inputs on the control board. Note that it will not matter if the display is in binary or discrete mode. However, input number 6 changes it's function and becomes a 'lift stopping' signal to cause activation of the gong and lanterns only when the lift stops. This limits the display to only five floors in discrete mode.

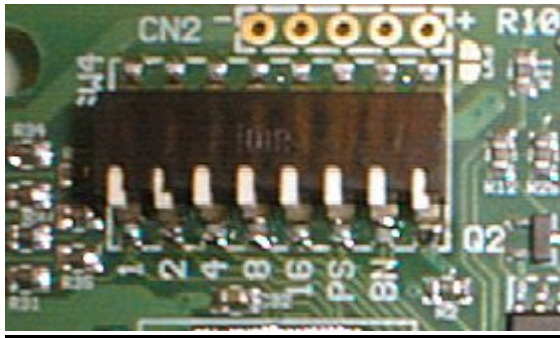
The direction of the large arrow and the gong sound played depends on the direction arrow inputs at the time the stopping signal is applied. No inputs for either arrow results in a double direction arrow and double gong sound.

The display has an output to drive an 8ohm speaker for the gong on CN4. The volume of the gong can be adjusted by RV1 and it can drive 8ohms at up to 0.325Watt.

## **Other Connections and Controls**

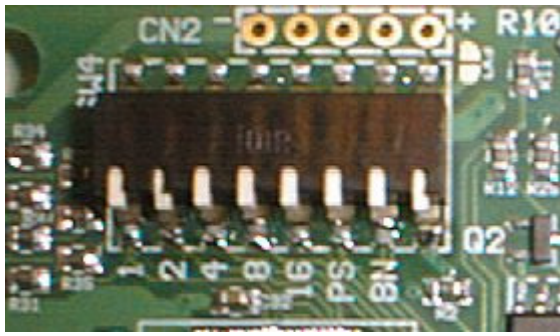
### **3 Wire Data**

The display receives data from a 3-wire controller and uses this data to replicate the inputs on the main input connectors. The 'Data' LED will flash when data is received.



### **Binary Mode**

This is activated when switch BN of SW4 is on. The floor input data from 3-wire system will be interpreted to read in binary. Up to thirty-one floors can then be displayed.



### **Power Save (Green mode)**

This is activated when switch PS of SW4 is on. After the display has been idle for a set time the back light brightness will be reduced to a lower level to save power and also lengthen the service life of the display. Once an input changes then the display will revert back to its former brightness level.

## **SW4 Switch 8**

This switch is only used for factory programming at all other times it should be left in the 'on' position.

## **Programming Header**

Connects to factory equipment for initial programming of the display CPU.

## **Rear LEDs**

### **LED 1 Err**

Lights permanently when display is in remote programming mode. Flashes to indicate faults on start up. Changes state when 3 wire data changes.

1. 1 flash Error reading from display controller (IC4).

### **LED 2 Dt**

Flashes when data is being sent or received via 3 wire control interface.

### **LED 3 3V OK**

Indicates 3.3-volt internal supply is working correctly.

### **LED 4 12V OK**

Indicates 12-volt internal supply is working correctly.

## **Technical Specifications**

1.	Display size	55 x 72mm (3.5" diagonal)
2.	Back light	LED with 256 brightness levels
3.	LCD type	TFT
4.	Colours	256 colours (8 bits per pixel)
5.	Resolution	320 X 240 pixels
6.	Refresh rate	75 Hz
7.	Supply voltage	+8V to +30V dc rectified nominal
8.	Viewing area size	52.5mm X 70mm
9.	Overall size	18mm X 75mm X 92mm
10.	Maximum floor positions	31
11.	Audio output	0.325W into 8 ohm
12.	Power consumption	1.6W maximum
13.	Main memory	128kbyte flash

## Appendix 1

### Binary floor settings

Logical floor number		Switch setting				
		1	2	4	8	16
0	(Car)	off	off	off	off	off
1		on	off	off	off	off
2		off	on	off	off	off
3		on	on	off	off	off
4		off	off	on	off	off
5		on	off	on	off	off
6		off	on	on	off	off
7		on	on	on	off	off
8		off	off	off	on	off
9		on	off	off	on	off
10		off	on	off	on	off
11		on	on	off	on	off
12		off	off	on	on	off
13		on	off	on	on	off
14		off	on	on	on	off
15		on	on	on	on	off
16		off	off	off	off	on
17		on	off	off	off	on
18		off	on	off	off	on
19		on	on	off	off	on
20		off	off	on	off	on
21		on	off	on	off	on
22		off	on	on	off	on
23		on	on	on	off	on
24		off	off	off	on	on
25		on	off	off	on	on
26		off	on	off	on	on
27		on	on	off	on	on
28		off	off	on	on	on
29		on	off	on	on	on
30		off	on	on	on	on
31		on	on	on	on	on