

# **Anytronics : Anylight Outstations**

## **4 Channel toggle Outstation**

### **1.0 Introduction**

The Anylight 4 Channel toggle outstation is one of a range of remote outstations manufactured by Anytronics which are compatible with their Anylight interface cards normally fitted inside a dimming pack. The outstations communicate with the interface card over a simple two wire interface and generate the command codes accepted by these interface cards in order to control Channel levels and recall stored Preset scenes.

#### **Key Features of 4 Channel toggle outstation**

- Four Channel control via toggle On / Off or Up / Down switches
- Channel addressing set on panel back
- Communication with Anylight interface card over two wire interface
- Address range 1-64
- Press and hold to ramp level up or down until released
- Press and release for slow fade up or down
- 'Double click' switch action for fast ramp up or down
- Dimming level memory feature converts from On/Off operation to Up/Down operation

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## **2.0 Installation**

The outstation can be installed in a standard UK single patress box. Only two low voltage data connections are required back to the A and B buss terminals on an Anylight interface card, and these connections can be made with either polarity. Multiple outstations may be wired in parallel across the A and B buss connections with either polarity. It is important to ensure that one A and one B connection is made from each outstation back to the interface card. Do not wire the outstations in series, or they will not work. A suitably wired outstation is shown in the photo overleaf.

**Do not earth or make any other connection to these outstations.**

### **Outstation Addressing**

Each outstation can address Channels 1-64. This is arranged by setting the Channel bcd switches and switches 1,2 of the adjacent four way DIL switch. There is potential confusion here between the outstation address setting on the bcd switch of 0-F and the resultant interpreted Channel addresses at the interface card of 1-16. To try to overcome this, a lookup table is shown below with address setting shown in the left column, and the resultant Channel addresses shown in the table.

rotary control address setting	Sw1 Off resultant address	Sw1 On resultant address	Sw1 Off resultant address	Sw1 On resultant address
0	1	17	33	49
1	2	18	34	50
2	3	19	35	51
3	4	20	36	52
4	5	21	37	53
5	6	22	38	54
6	7	23	39	55
7	8	24	40	56
8	9	25	41	57
9	10	26	42	58
A	11	27	43	59
B	12	28	44	60
C	13	29	45	61
D	14	30	46	62
E	15	31	47	63
F	16	32	48	64

Note the effect of positions 1 and 2 of the four way DIL switch beside each bcd address switch in adding 16 or 32 to the selected address. If the outstation is set to send commands with addresses in excess of 64, these addresses will be sent modulo 64, ie with 64 removed. This unit might be set to address Channels 63,64,65 and 66, but the commands would be in fact sent with addresses 63,64,1 and 2.

A further layer of address checking takes place at the interface card which might only have a valid Channel address range of 1-8, or 1-32. In this case, addresses are usually 'rolled over' so that an address of 9 is interpreted as an address of 1 in an eight channel interface (Anylight 8). This rollover feature can be disabled at the card however (see installation instructions).

Viewing the panel so that the 'up' arrow on the back points upwards (and so that the bcd switches are at the top), the buttons generate addresses so that addresses rise by one for each step right across the front of the outstation panel. With Channel address set to C and looking at the outstation from the front, the buttons command addresses thus :-

C	C+1
C+2	C+3

### **3.0 Operation**

Channel toggle buttons can be made to produce different results according to how they are operated, and this can take a little getting used to. At their simplest, they can be single clicked to alternately fade the channel on and off at the fade rate which is set by the four way DIL switch on the Anylight interface. A double click however will override this fade period setting and make the change happen at the fastest speed. Be aware though that a much slower double click might look like two single presses to the outstation, in which case the Channel may start to turn on, then turn off instead.

If the Channel toggle buttons are held down, (rather than pressed and released) the Channel level will be slowly ramped up or down on alternate presses, giving direct control of the Channel dimming level.

For Channels that are set to switching (rather than dimming) operation at the interface card, the Channel level cannot be faded or ramped up or down, and so the corresponding outstation Channel button will only behave like a toggle switch. As a result, whether it is single or double clicked, or held down to ramp the Channel levels, in practice the Channel will only toggle between full on and off.

#### **Channel Memory**

This feature of remembering the previous channel level is available on all outstation Channel buttons. It is selected by setting position 3 of the Channel DIL switch to ON. As the toggle button operation can be confusing enough on its own, the use of this feature with toggle buttons is not recommended for beginners.

With this feature engaged, a Channel's level can be ramped up or down to the desired illumination as explained above by holding down the outstation button until the required level is reached. Assuming that the user ramps up to the required level, a single click will now fade the level down to zero, but the previous level of illumination will be held in memory. A further single click on the button will reinstate the remembered level at the set fade rate, or a double click at the fastest fade rate. In this way the button can be used to toggle a Channel's level between zero and the memorised level (or else between full on and the memorised level), removing the need to hold down the button to obtain normal illumination levels.

This feature is obviously of no value for channels set to switching only.

#### **Checking outstation operation**

Assuming that the outstation is correctly wired and that the Channel addresses are correctly set, you should be able to control each channel in turn from the appropriate outstation buttons. When an outstation button is depressed, the blue TWIF data LED on the PCB should flash on to show that the command has been accepted. Suggestions for troubleshooting Anylight installations are also included in the Anylight interface installation notes.