

Anytronics : Anylight Outstations

2 Channel Outstation

1.0 Introduction

The Anylight 2 Channel 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 2 Channel outstation

- Compact fitting featuring two Channel control via Up and Down switches
- Channel addressing set on panel back
- Communication with Anylight interface card over two wire interface
- Channel address range 1-64
- Separate Up and Down level controls
- Press and hold to ramp level 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 phase 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 any Channel from 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 could be set to address Channels 64 and 65, but the commands would be in fact sent with addresses 64 and 1.

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), buttons generate addresses so that addresses rise by one for each step right across the front of the outstation panel. For this outstation, with Channel address set to C, when looking at the outstation from the front, the buttons command addresses thus

C up	C+1
C down	C+1

3.0 Operation

Channel up and down buttons can be made to produce different results according to how they are operated.

Channel buttons

The simplest way to use of the Channel up and down buttons is to press and release them (a ‘single click’) to fade the channel either full on or 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. A slow double click will have only the same result as a single click.

If the Channel buttons are held down, (rather than pressed and released) the Channel level will be slowly ramped either up or down, giving direct control of the Channel 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 an on or off switch. As a result, whether the button is single or double clicked, or else held down to ramp the Channel level, in practice the Channel will only switch full on or off.

Channel Memory

This memory feature retains the previously set channel dimming level and is available on all outstation Channel buttons. It is selected for all Channel buttons by setting position 3 of the Channel DIL switch to ON.

As explained above, a Channel’s level can be ramped up or down to a desired illumination level by holding down its up or down button on the outstation until the required level is reached. With the Channel memory feature selected, this intermediate dimming level can be stored in memory by single or double clicking either the Channel’s up or down buttons. This will also have the effect of fading the Channel level to the commanded full on or full off level.

Assuming that the user has faded up to full on, a single or double click on the Channel’s ‘down’ switch will now fade the level back down to the memorised level. A further single click on the down button would fade the Channel level off at the set fade rate, or a double click would fade at the fastest fade rate.

Starting from this zero level, the first click (or double click) on the up button will fade the Channel up to the memorised level. A second click (or second double click) will continue the fade up to full on instead, even if the first fade operation is not complete.

With this level memory in place, two or three clicks are required on the up button to go from full off to full on. The first click will start the Channel fading slowly up to the memorised level. A second click after a slight pause will make the fade continue to full on. Alternatively, a double click after a slight pause will cause the fade to full on to occur at the fastest rate.

This feature has no effect for channels set to switching only at the interface card.

ANYtronics : Anylight



Checking outstation operation

Assuming that the outstation is correctly wired and that the Channel address is correctly set, you should be able to control each channel in turn from the appropriate outstation buttons. When an outstation button is used, 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.