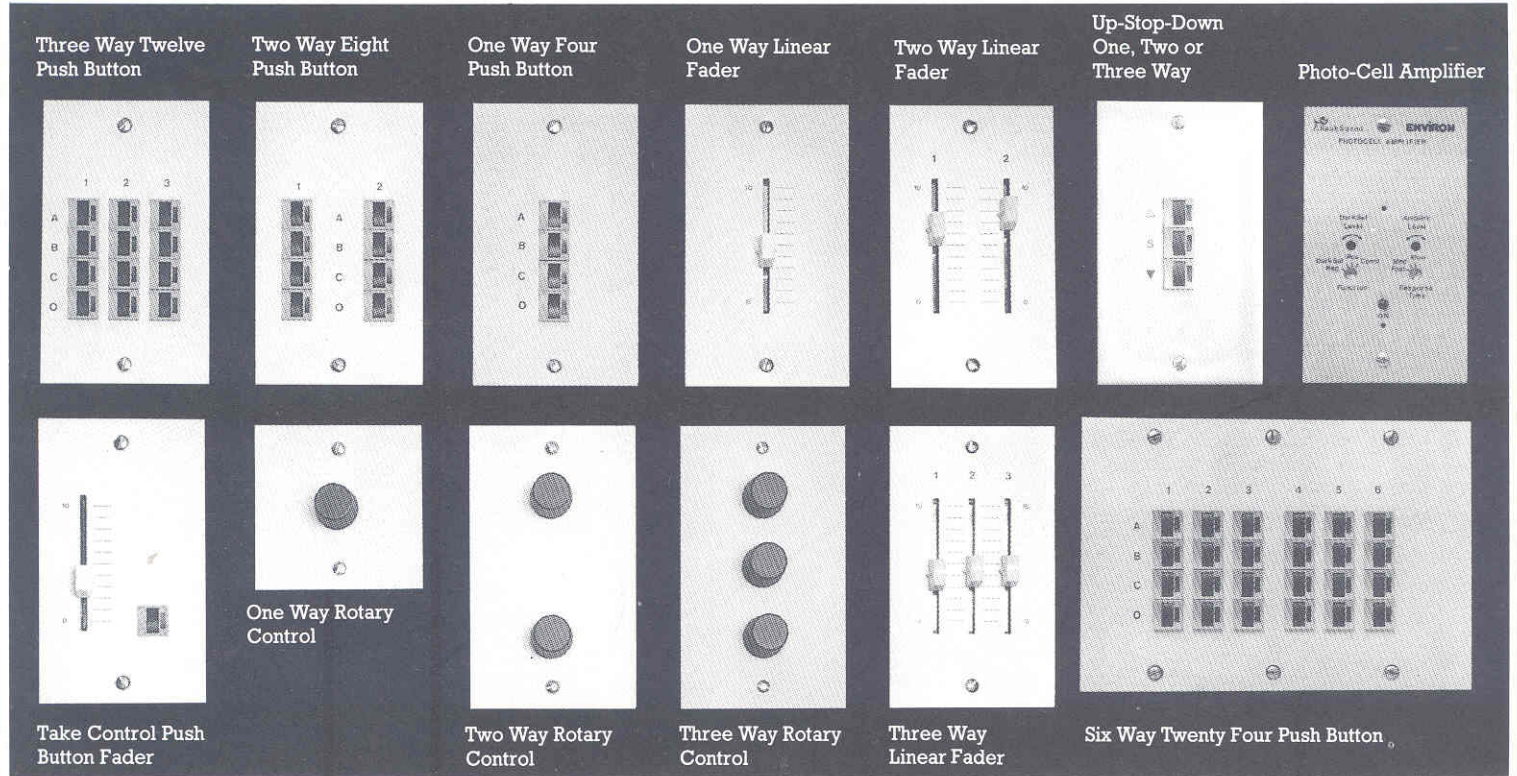


# ENVIRON



## Dimmer Control Outstations

# Rank Strand



A range of well designed controllers for the Environ range of single, multiple and rack mounted dimmers.

### Specification

#### Face Plates

Standard finish— matt satin anodised aluminium. Other finishes available to special order. Dimensions: For slider faders, push button pre-sets and two or three way rotary controls, face plates are 86mm x 145mm. For one way rotary controls face plates are 86mm x 86mm. For six way controls, face plates are 145mm x 205mm. Face plates are 3mm thick, and are supplied with standard flush wall boxes with knockouts and retaining screws.

#### Inscriptions

Pre-set button face plates are engraved in black capital letters, A B D and O for the pre-set positions. UP/STOP/DOWN symbols are engraved as necessary on three button controllers. Light level indication on slider faders is by 0-10 numerals with intermediate stages indicated by plain "bars". Special legends can be provided as required, e.g. "Breakfast" or "Dinner", "Morning" or "Evening".

#### Push Buttons

Standard push buttons, black in grey surrounds, with red L.E.D's. Wide choice of colours available in buttons and surrounds.

#### Slider Faders

Linear carbon track potentiometers, dust sealed, with grey knobs as standard. Colour knobs available to special order.

#### Rotary Knobs

Carbon track dust sealed rotary potentiometers. Black knobs standard.

#### 'Take Control' Outstation

Each outstation consists of slider fader and button set in a standard face plate, with red L.E.D. Touching the button gives instant control of the dimmer to the outstation being operated. Control can be taken at any time by any "Take Control" outstation connected. Immediately the

button is touched the L.E.D. illuminates to confirm control and the dimmer goes to the level selected on the incoming station, which then has full control of the dimmers, irrespective of levels set on any other "Take Control" outstations. Typical use would be in a lecture theatre, where the lecture room lighting could be controlled by separate "Take Control" outstations for lecturer and for projectionist.

#### 'Up-Stop-Down' Outstations (Environ 2 dimmers only)

These are one two or three way, three push button controllers. Pressing the top button increases the light up to maximum, pressing the bottom button decreases the light to off and pressing the middle button holds the light at the chosen level. The rate of increase and decrease is settable at the dimmer.

#### Printed Circuit Boards

Roller tinned glass fibre p.c.b's with screwed terminals. P.C.B's operate on 0 to -15 volts d.c.

#### Control Outstation Connecting Cables

Small multicore cable, conductors 16/0.20mm (440 volt rating if run with mains cables). In situations where other electrical equipment could cause large "spikes" on the mains, such as Xenon arcs or HMI equipment, dimmer control connecting cables should be routed through separate trunking.

#### True "Off"

The last section of the travel of slider faders or rotary controls gives true "off", thus ensuring that fluorescent tube heaters are inoperative. On pre-set push buttons and "Up/Stop/Down", "O" or "Down" gives true "Off".

#### Special Notes

Dimmable ballasts must be used with fluorescent fittings to be controlled. See separate data sheet describing Environ dimmable fluorescent ballasts. Proprietary brands of non-latching push buttons may be used to operate Environ dimmers. Environ outstations may be fitted in standard surface boxes. Different types of outstation can be

connected together in the same circuit.

#### Environ Photo-Electric Cells

These control the output from Environ dimmers when daylight sensitive dimming is specified. The total light in the area to be controlled is held constant irrespective of external daylight changes. The system consists of two parts, a photo-electric cell and amplifier setting panel which may be installed separately.

The system can also be set to operate in reverse mode. i.e. The greater the ambient light the higher the artificial light.



### Order Codes

#### Rotary Controls

One Way	09-010-05
Two Way	09-020-02
Three Way	09-030-0T

#### Slider Controls

Take Control Push Button Fader	09-100-02
One Way Linear Fader	09-110-18
Two Way Linear Fader	09-120-15
Three Way Linear Fader	09-130-12
Six Way Linear Fader	09-160-14

#### Pre-Set Controls

One Way Four Push Button	09-410-03
Two Way Eight Push Button	09-420-00
Three Way Twelve Push Button	09-430-08
Six Way Twenty Four Push Button	09-460-0T

#### Up/Stop/Down

(For use with Environ 2 dimmers only)

One Way	09-880-02
Two Way	09-881-08
Three Way	09-882-03

#### Photo-Electric Cell and Amplifier

Supplied in weather proof enclosure with wall mounting bracket	09-200-07
Amplifier for use with photo-cell	09-201-02

## Wiring Information

To be used in conjunction with the installation instructions in each controller.

DO NOT CONNECT MAINS VOLTAGE TO OUTSTATIONS

### General Note:

Controllers can be used in any combination as required.

## Manual Faders

Outstation Terminal Numbers	1 way linear fader control	2 way fader and rotary controls	3 way fader and rotary controls
Pin 1	0V	0V	0V
Pin 2		Dimmer 1 Control	Dimmer 1 Control
Pin 3	Dimmer Control		Dimmer 2 Control
Pin 4		Dimmer 2 Control	Dimmer 3 Control
Pin 5	-15V	-15V	-15V

Note: For wiring purposes the six way fader control consists of two three way units combined.

1 way rotary control	
Pin 1	0V
Pin 2	Dimmer Control
Pin 3	-15V

Take Control pushbutton fader		Note: The Dimmer Control outputs (pin 2) from all of the Take Control pushbutton fader outstations in circuit must be connected together and linked to the control input terminal of the dimmer. Similarly the Interlock terminals (pin 3) must be linked together, but in this case no connection is made to the dimmer.
Pin 1	0V	
Pin 2	Dimmer Control	
Pin 3	Interlock	
Pin 4	-15V switched output	
Pin 5	-15V	

## Pushbutton Controls

Terminal Numbers	1 way preset pushbutton control	2 way preset pushbutton control	3 way preset pushbutton control	1 way UP/STOP/DOWN	2 way UP/STOP/DOWN	3 way UP/STOP/DOWN
Pin 1		0V	0V		0V	0V
Pin 2		Ch 1 Pr A	Ch 1 Pr A		Ch 1 UP	Ch 1 UP
Pin 3		Pr B	Pr B		STOP	STOP
Pin 4		Pr C	Pr C		DOWN	DOWN
Pin 5		Off	Off		NOT USED	NOT USED
Pin 6		Ch 2 Pr A	Ch 3 Pr A		Ch 2 UP	Ch 3UP
Pin 7		Pr B	Pr B		STOP	STOP
Pin 8		Pr C	Pr C		DOWN	DOWN
Pin 9		Off	Off		NOT USED	NOT USED
Pin 10		-15V	-15V		-15V	-15V
Pin 11	0V		0V	0V		0V
Pin 12	Pr A		Ch 2 Pr A	UP		Ch 2 UP
Pin 13	Pr B		Pr B	STOP		STOP
Pin 14	Pr C		Pr C	DOWN		DOWN
Pin 15	Off		Off	NOT USED		NOT USED
Pin 16	-15V		-15V	-15V		-15V

For wiring purposes, the six way preset pushbutton control consists of two 3 way units combined.

## Photo-Cell Control

Amplifier Panel Terminal Numbers	
Pin 1	0V (Common)
Pin 2	Photocell
Pin 3	Photocell
Pin 4	Slave unit input
Pin 5	Slave unit output
Pin 6	Dimmer control output
Pin 7	Direct output
Pin 8	-15 Volts d.c.

The photocell connects to pins 2 and 3 of the amplifier via a two wire link. Access to the connections in the photocell are made by twisting and pulling free the photocell head from the base. The two exposed screws in the base should be removed, and the connector lifted out. Connections should be made to terminals "N" and "LO". The cork gaskets must be replaced on reassembly.

ON NO ACCOUNT SHOULD MAINS POWER BE CONNECTED TO ANY PART OF THE AMPLIFIER UNIT OR PHOTOCCELL.

The Company reserves the right to make any variation in design or construction to the equipment described



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