

Environ Programmable Lighting Control

Environ Programmable Control represents the latest advance in Architectural Dimming. With locally programmable lighting scenes, adjustable fade rates and automatic time-of-day fades, just about every requirement for complete lighting control is met. Customised facilities are available without need for customised components - each system is configured exactly to requirement by use of a simple plug-in cartridge.

As an Energy Management System, Environ Programmable Control can be used to switch lighting on and off to predetermined schedules.

The Control System works in conjunction with dimmers for tungsten, low voltage or fluorescent lighting loads. Attractive panels (Control Stations) are mounted in the areas to be lit, whilst dimmers can be remotely sited. No mains wiring to the control positions is required as all Control Stations operate on low-voltage multiplexed signals.

Appropriate Control Stations are selected to provide exactly the facilities required for each area.

A complete range of Control Stations is available to suit all requirements. The standard Control Stations can be divided into three basic types: Slider Fader, Slider Fader with Pushbuttons, and Pushbuttons only. The benefit of pushbutton types is the ability to build up a lighting 'scene' from the panel itself and then record it, so that subsequent operation of the pushbutton activates a timed fade to the recorded condition, with the balance of lighting returning exactly the same each time the button is pressed. Each pre-recorded scene is called a 'Preset'; and the required number of available Presets along with the required number of control channels will determine the type of Control Station selected.

Where a Master Station is included, the capabilities of the system are considerably expanded. Particular Presets in specified rooms can, for instance, be automatically activated at required times on required days. Each Preset can have its own allocated fade-time. Configured in this way, the Master Station will 'oversee' the operation of the complete system, including the performance of many complex functions.

Dimensions:

Control Stations:

Panel Size 'A': 11.8cm height x 11.8cm width
Panel Size 'B': 11.8cm height x 16.5cm width
Panel Size 'C': 11.8cm height x 21cm width
Panel Size 'D': 11.8cm height x 25.4cm width

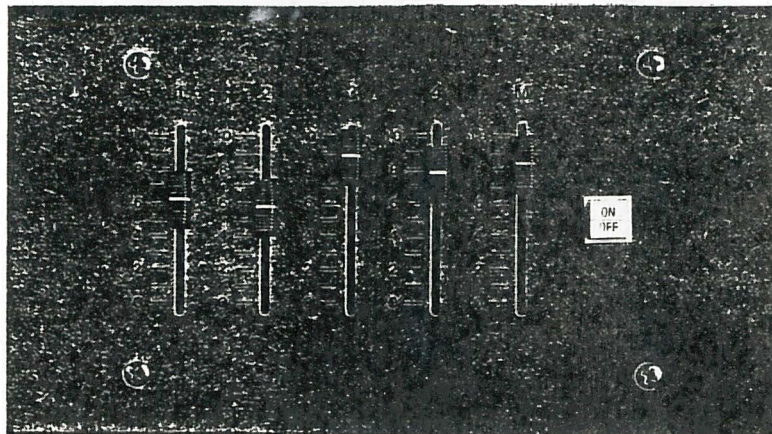
Programme Module:

500cm height x 500cm width x 200cm depth

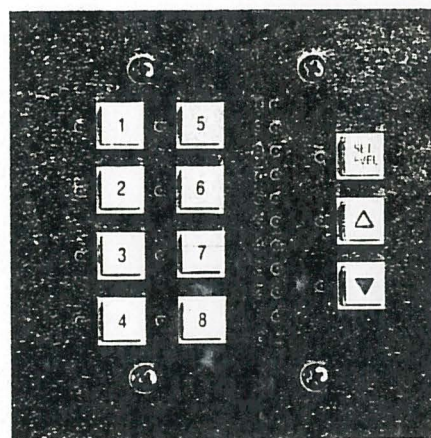


Strand Lighting

78 070 04



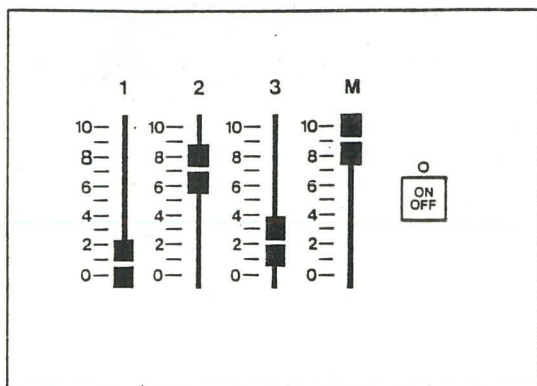
78 073 08



78 074 01



Slider Control Stations

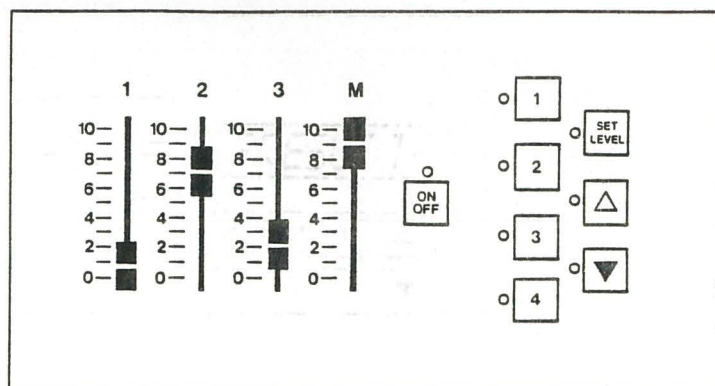


78 070 03

- Available in versions for 1-12 control channels.
- Dual function LED indicator - half brightness helps locate station in darkened room; full brightness shows the active station.
- Full 'Take Control' capability - control an area from a number of alternate positions (ON/OFF pushbutton facilities); or delegate *partial* control to a remote station by use of 'Take Control' stations.
- Master fader is provided on versions with three or more channels.

Item Number	Type	Panel Size
78 070 01	1 Channel	A
78 070 02	2 Channel	A
78 070 03	3 Channel	B
78 070 04	4 Channel	C
78 070 05	5 Channel	C
78 070 06	6 Channel	D
78 070 07	7 Channel	
78 070 08	8 Channel	
78 070 09	9 Channel	
78 070 10	10 Channel	
78 070 31	11 Channel	
78 070 32	12 Channel	

Slider Stations with Preset



78 072 03

These Stations combine the simplicity of manual sliders with the alternative of pushbutton control of recorded Presets. Four programmable Presets and an additional 'Clean-up' state are available. Lighting channels are controlled from the sliders or by pushbuttons and the result recorded as a Preset. Subsequent operation of the appropriate pushbutton initiates a timed fade to the recorded levels. Blackout (▼) fades all channels to zero. The 'Clean Up' pushbutton (△) can be programmed to provide all channels at full or as an extra Preset.

- Available in versions for 1-6 control channels.
- Master fader provided on versions with 3 or more channels.
- Selection and control of channels either by sliders or by pushbuttons alone.

Item Number	Type	Panel Size
78 072 01	1 Channel	B
78 072 02	2 Channel	B
78 072 03	3 Channel	C
78 072 04	4 Channel	C
78 072 05	5 Channel	D
78 072 06	6 Channel	D

Other Stations and Facilities

Entrance Station (78 079 63)

A simple 3 pushbutton Station that provides OFF, ON, or a single PRESET. The Preset pushbutton can select either a particular (specified) Preset or the last non-zero Preset used.

Photocell Control Station. (78 079 66)

Photocell control provides automatic adjustment of light levels according to available daylight. The control panel contains ON, OFF pushbutton, and a fader to enable setting of the required ambient light level.

Take Control

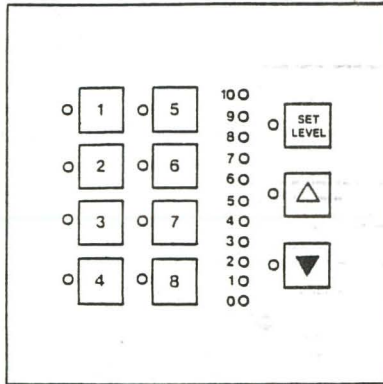
Used in conjunction with Slider Stations where it is required to transfer control of a sub-group of channels to another (smaller) remote Slider Station. Versions available as follows:-

- 78 079 71 : Single pushbutton (Application: one remote Station)
- 78 079 72 : Two pushbuttons (Application: two remote Stations)
- 78 079 73 : Three pushbuttons (Application: three remote Stations)

Partition Switches

Where removable partitions are used in multipurpose rooms, switches can be installed adjacent to the partitions. The switches are programmed so that Control Stations gain control of the required areas within the room.

Pushbutton Stations with Preset



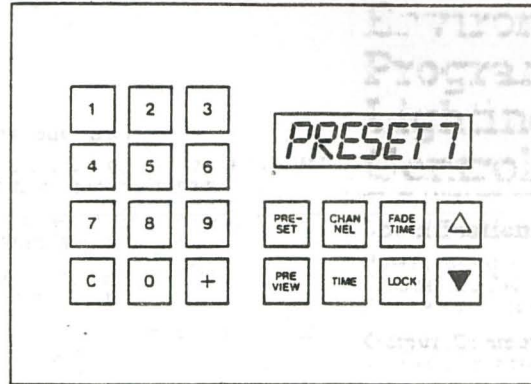
78 073 08

Incorporate full presetting capability in two compact all-pushbutton versions: 4 Channel/4 Preset, or 8 Channel/8 Preset.

- Lighting channels are selected on numbered pushbuttons then adjusted using Raise (Δ) and lower (▼) controls.
- The chosen 'scene' is recorded as a Preset. Subsequent operation of the pushbutton initiates a timed fade to the recorded levels; adjacent LEDs indicate active Preset status.
- Additional 'Blackout' and programmable 'Clean up' presets.
- 8 channel version has an illuminated linear display indicating the level of the selected channel.

Item Number	Type	Panel Size
78 073 04	4 Channel 4 Preset	A
78 073 08	8 Channel 8 Preset	A

Master Station



78 074 01

The Master Station is the key to the flexibility of the Environ Programmable Control System. The Station can be configured either as a sophisticated local control panel, or as a System-wide Master to address and control the complete system.

- Timeclock: 7-day operation provides individual programs for each day of the week. Activates selected Presets in required rooms at specified times of day. (Clock operation maintained for 30 hours in event of loss of power).
- Sets up fade rates: Allows allocation of different fade rates (up to 998 seconds) for each Preset. Long fade rates can be overridden on the local panels if required.
- Preview: Presets for any room can be previewed and adjusted without affecting the current lighting in the room.
- Electronic Lock-Out: Any Control Station(s) in the system can be partially locked (Preset select only) or fully locked to prevent tampering.
- Auto-cycle: A facility to provide continuous cycling between Presets, e.g. for special display effects.
- Alphanumeric Display: indicates time of day, operational status etc., including user prompts.
- As a local station: will control up to 99 channels and provide 9 presets plus Cleanup and Blackout.
- Available in permanently mounted or hand-held (plug-in) versions.

Item Number	Type	Panel Size
78 074 01	(Wall mounted)	B
78 074 11	Plug-in *	B

* Use with Receptacle Station 78 079 51

Program Module Enclosure

All Control Stations in a system are connected by low voltage cables (maximum 6 conductors) to a central Program Module. The Module is configured to fit the installation by use of a plug-in (non-volatile) memory cartridge. A control for manual fade time adjustment is provided on the Module and an override 'panic' switch. A steel enclosure houses Program Module and associated back-up hardware.

Dimmers

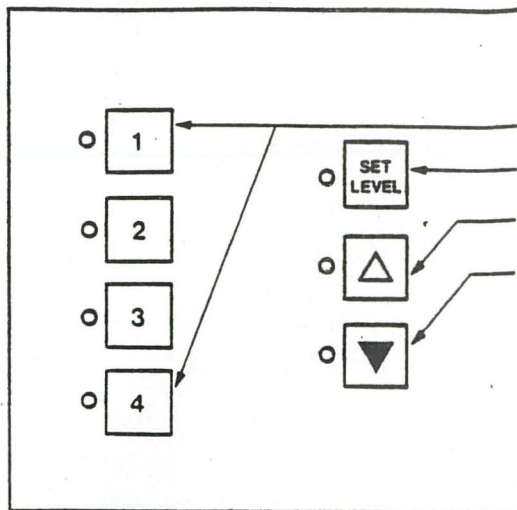
Environ Programmable Control Systems are installed in conjunction with suitable Tungsten or Fluorescent dimmer modules according to circuit requirement. These are normally Rack mounted and controlled through a 'Permux' demultiplex card.

Switching Applications

In energy management applications where circuits may require straight ON/OFF switching, these are connected to Non-Dim contactors in the rack. The control system is configured to recognise the modules as Non-Dims, switching circuits in accordance with schedules programmed via the Master Station.

Operation of Control Stations

Similar principles of operation apply to all pushbutton types of Control Station. The example below (4 Channel/4 Preset Station) is shown as an illustration.



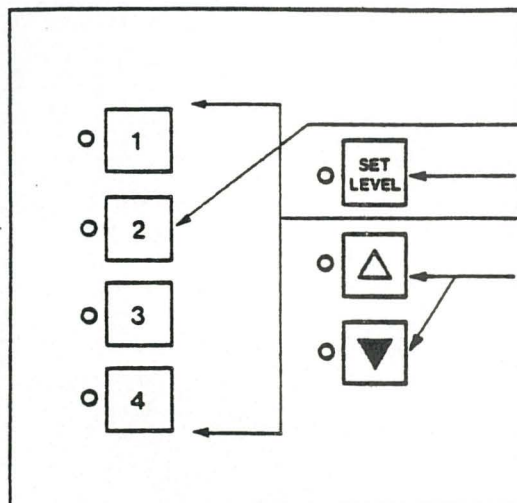
Pushbutton operation

Four pushbuttons activate 4 different lighting 'scenes' (Presets).

'Set Level': Used when recording Presets (see below)

'Clean up' Preset, or simple 'lights on' pushbutton.

'Blackout': Lights off pushbutton (all channels to zero).



To Record the Presets

1. Press the selected Preset button to be programmed.
2. Press 'Set Level' to enter Record mode.
3. Pushbuttons now select lighting channels
4. Pushbuttons now perform 'Raise' and 'Lower' functions on the selected channel(s). Adjust channels to build up required scene.
5. Again press 'Set Level' to record this as the Preset.

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



Strand Lighting

Environ Programmable Lighting Control

Specifications

Power Input:

Voltage: 220-240V or 110-120V
Frequency: 50 or 60 Hz.

Output (Dimmer drive):

4-wire multiplexed analogue.

Temperature:

Max ambient 35°C. Program Unit fan cooled with integral over-temperature sensor.

Blackout Protection:

72 hours memory retention and 30 hours clock operation in the event of loss of external power.

Processor:

Z80B, 8 bit data, 16 bit address.

Emergency Override:

Selected dimmer circuits to full by Normal/Panic switch. Operation independent of demultiplexer and Program Module.

Mains Isolation:

MCB. Mains LED indicator on Module.

Control Stations:

Brushed bronze anodised aluminium faceplate. Supplied with custom backbox.

Enclosure:

Wall mounting steel cabinet with lockable hinged door.

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