

PBC60

series

PUSH BUTTON CONTROL

TECHNICAL & SERVICE DETAILS

ABBERFIELD INDUSTRIES PTY LTD

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GENERAL DESCRIPTION

Although this control device was developed to monitor hot showers and minimise excess use of this facility it can be applied to barbecues or other applications. Control is achieved by requiring the user to press a touch panel, allowing hot water to flow for a predetermined period. After that period the shower will disconnect and cannot be restarted for another pre-determined period. Warning of water disconnection can be given by a buzzer 30 seconds before end of period. An additional warning can be implemented whereby the hot water will disconnect for 1 second, 1 minute before the end of the timed period.



Model PBC60 Push Button Controller



Both shower "on" and "off" times are fully adjustable at time of installation and a small light on the front panel is illuminated during the preset "on" period. During the "off" period the light flashes.

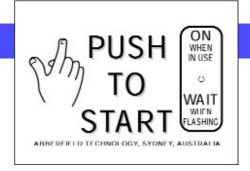
The equipment comprises a control unit, incorporating the touch panel, electronics and setting adjusters. Additionally a solenoid valve must be used, fitted into the hot water line to turn the flow of hot water on, under push button control. An optional device is a remote **vandal proof** touch panel. This item is mounted near the shower with wires carried to the control unit, mounted in some other safe location.

INSTALLATION

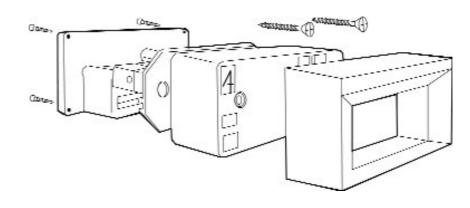
The control unit has been designed so that the outside cover can be removed for adjustment of the time ranges. It is expected that the cover of the vandal resistant touch panel will never need to be removed, after installation has been completed. The control unit has an engaging barb on the

centre line, at each end, positioned near the base. To remove the cover a wide blade screw driver is fitted into a cut out each end of the cover and twisted.

Mounting of the control unit is with 2 long stainless steel screws, through the unit, into wall mounting fasteners provided.



General purpose label



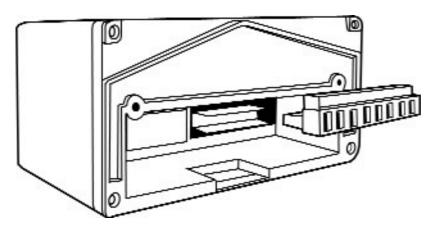
Mounting of the vandal proof touch panel is by 6 stainless steel screws provided into the wall mounting fasteners also provided.

When installing the vandal proof touch panel silicon sealer should be placed over the electrical connection area, plus the edges of the circuit board and over the rear of the plastic moulding, before screwing to the wall. This will minimise ingress of water and provide long trouble free operation.

When fitting the cover after installation it will need to be tapped or firmly pressed on, as it is intended to be a very tight fit. To ensure the cover can never be removed by vandals, the engaging pins can be glued on as well as relying on the interface fit.

<u>NOTE</u>: Although the system is well protected from moisture the timer and the optional vandal proof touch pads should be mounted outside of the "wet area".

ELECTRICAL CONNECTIONS

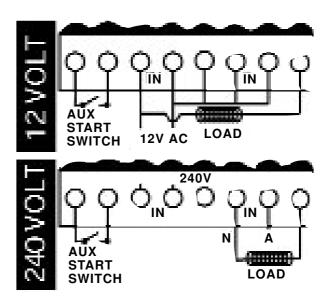


Terminal connections are detailed on a label next to the terminal block. Wires are screwed into a plug that disconnects from the main control unit by simply pulling backwards. Wiring connections are as shown.

<u>NOTE</u>: If the light on the remote vandal proof panel (if used) does not operate, then reverse the connecting leads

at the control unit terminal block. No earth connection is included as this item is a double insulated device.

The control unit can operate on a nominal 220/240 mains voltage. They can also operate on 12 Volts A.C. or D.C., plus or minus an appreciable safety margin. D.C. operation is not recommended below 10 Volts. Cable entry is expected to be through the wall behind the control unit or vandal proof panel, but can be surface mounted by entering cables from the bottom. The outer housing of these units have a knock out panel for this purpose. If wiring on to a wall mounted junction box, more room is available for incoming and outgoing electrical leads and therefore this system is preferred. The 2 control unit mounting holes or 4 of the 6 vandal proof touch panel mounting holes should be lined up with holes in the metal wall mounting box. If operating the equipment on low voltage it is recommended that a large conductor size be used (1.0mm) to minimise voltage drops around the circuit.



LOW VOLTAGE CONTROL

Low voltage supplies are available from Abberfield Industries. These are housed in a weather proof case with a lead and plug for fitting to a power point. Alternatively they can be wired directly to the mains. Each supply can operate up to 10 push button controllers and solenoid valves. Two output voltages are provided, nominal 12 Volts and nominal 15 Volts. The 15 Volts supply is used where the distance from the power supply to the showers is considerable and some voltage drop occurs.

INSTALLATION OPTIONS

NORMAL INSTALLATION

A push button timer operates a solenoid valve fitted to the hot water pipe for each shower

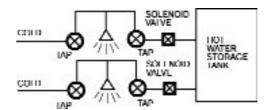
SIMPLE METHOD

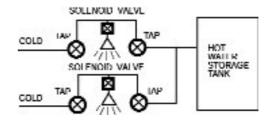
The simple method operates one solenoid valve to turn off hot and cold together, usually by removing the shower rose, fitting a solenoid valve and re-installing the shower rose.

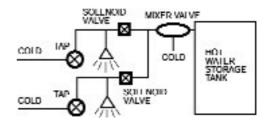
SUITABLE FOR LOW VOLTAGE ONLY

SAFEST METHOD

This system permits warm water connection direct to the shower rose, into a T-junction and usually by exposed chrome piping running over the tile surface. The use of a mixer valve ensures that scalding can never occur and this system is therefore usually used in municipal swimming pool shower installations.







TIMING ADJUSTMENT

Both the "on" and "off" period for the shower can be fully controlled. The outer cover of the control unit is removed to expose a label where all of the instructions become visible.

Normally the 1 to 10 minute range is used and can be set by a small screw driver rotating the direct reading switches. The use of the range change sliding switches marked A & B will permit ranges of 1 to 100 minutes and 1 to 50 minutes.

<u>NOTE</u>: Set the "off" time to the lowest period that gives effective control. This may be 30 seconds. (Divide by 2 and an "off" setting of 1).

PRE-WARNING

A pre-warning is available by interrupting the shower for one second, one minute before the end of the time period (switch C). An in-built buzzer can sound briefly 30 seconds before the end of the time period, if the "alarm" switch is in the "on" position switch D.

MAINTENANCE

The equipment is effectively maintenance free during its operating life. If service should ever be needed contact Abberfield Industries or its service agents.