

Standard Control Unit

Installation and Maintenance Instructions.

THESE INSTRUCTIONS MUST BE READ FULLY BEFORE COMMENCING INSTALLATION.

Owner / installer: The life of this apparatus and its efficiency will be increased if its use and maintenance is carried out in accordance with these instructions and current statutory requirements. The installation and initial adjustments should be carried out by a qualified and competent technician. Hydor Limited should be consulted before substituting or fitting parts from another manufacturer. It is the responsibility of the installer to verify that the installation is in accordance with all current statutory requirements and the owner is given the current User's Manual.

Any modifications to the unit or its installation, even the smallest modification, change or elimination of security components or pieces that influence the efficiency or loss of the system, will result in the CE and Hydor's warranty being cancelled.

Please take note of the following symbols used within this document:



Warning: Hazards associated with electric current and high voltages



Important: Important information

Hydor's policy is one of continual improvement and the right to change a specification at any time without notice is reserved. Whilst every care has been taken to ensure that the contents of this document are correct at time of publication, Hydor shall be under no liability whatsoever in respect of such contents.

Hydor cannot guarantee the operation of any equipment unless all documented instructions are complied with, without variation.

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Introduction


This Manual is intended as a guide to the engineering and commissioning principles of Hydor Standard control units and covers the system hardware information only.

Due to the complexity and inherent importance of a system covering animal welfare with electricity, training on this equipment is essential and commissioning should only be carried out by competent and approved persons.

System Design

This document does not cover Electrical system design and you should contact a qualified person for assistance with electrical installation.


IMPORTANT: A knowledge of BS 7671:2018 is essential

 It is strongly recommended that a suitably qualified and competent person is consulted in connection with the electrical system design and that the entire system is commissioned in accordance with the current national standards and specifications.

IMPORTANT: Equipment Guarantee

The life of this apparatus and its efficiency will be increased if its use and maintenance is carried out in accordance with these instructions and current statutory requirements.

The installation and initial adjustments should be carried out by a qualified and competent technician.

 Hydor Limited should be consulted before substituting or fitting parts from another manufacturer. It is the responsibility of the installer to verify that the installation is in accordance with the following standards and the owner/operator is given the current User's Manual.

Any modifications to the panel or its installation, even the smallest modification, change or elimination of security components or pieces that influence the efficiency will result Hydor's warranty being cancelled.

WARNING: Do not attempt to install this equipment until you have fully read and understood this manual.



Failure to do so may result in damage to the equipment and could invalidate the warranty.

1 General

- 1.1 It is important this Installation and Maintenance is fully adhered to.
- 1.2 Full details of the control panel supplied are shown on the circuit diagrams forwarded with the panel. If in doubt about any detail contact Hydor or its agents for clarification.
- 1.3 All electrical installations must be carried out by qualified and competent personnel in accordance with all current statutory requirements.
- 1.4 These instructions cover only the Hydor product and do not include the supply or installation of any safety equipment that may be required, e.g. proper electrical isolation.
- 1.5 All declarations made by Hydor about the product installation and safety, are dependent on the control panel being used within installations which themselves meet the requirements of the relevant Standards and Directives of the region.
- 1.6 The control panel is designed for use in an ambient temperature of up to 50°C and 95% relative humidity. The control panel is NOT suitable for corrosive or explosive atmospheres unless stated.
- 1.7 It is the Installer's responsibility to provide easy access to the control panel to facilitate future maintenance.
- 1.8 This product is not intended for the use of young children or infirm persons unless they have been adequately supervised by a responsible person to ensure they can use the product safely. Young children should be supervised to ensure they do not play with the appliance.

Mounting the Control Panel

First identify the proposed location for the control panel. Ensure that the control panel will be easily accessible and that account is taken of any subsequent work that may affect access.

The control panel should be mounted on a flat, vertical wall at a height where the indicators may be seen without difficulty and any screens or controls are fully accessible.

The panel is heavy. Use the appropriate fixing hardware to secure the panel to the wall. Observe recommended lifting practices to guard against spinal injury.

WARNING: Do not locate the control panel at high level where stepladders or other access equipment may be required, in spaces with restricted access, or in a position that may require access panels to be removed.



Do not locate the control panel where extremes of temperature or humidity may occur, or where there is any possibility of condensation or water ingress.

Like all electronic equipment, the control panel may be affected by extreme environmental conditions. The position selected for its installation should therefore be clean and dry, not subjected to high levels of vibration or shock and at least 2 metres away from any pager or radio transmitting equipment. Ambient temperatures should be within the range given within the Technical Data section, e.g. not directly over a radiator or heater.

In common with all microprocessor-controlled panels, the control panel may operate erratically or may be damaged if subjected to lightning induced transients. Proper earth/ground connections will greatly reduce susceptibility to this problem.

- 1.9 Upon receipt, the control panel should be visually inspected to check for any damage during transportation. Ensure that all switches are free to move.
- 1.10 If there are any queries concerning the control panel, Hydor should be contacted prior to installation.
- 1.11 A minimum of 200 millimetres air space is required, on top, below and to the sides of the panel.
- 1.12 Care should be taken when handling units with multiple attached enclosures as the joining glands are not weight bearing and rely on finished wall fixings for stability.
- 1.13 Please ensure that each unit of your control panel has at least 4 fixings attaching it to the wall.
- 1.14 The control panel should be mounted on a vertical wall of the building, ensuring that the access to the terminals and panel is available.
- 1.15 Ensure that all voltages are correct as any incorrect supplies can cause electrical damage to internal components.
- 1.16 Means for electrical current protection and disconnection must be incorporated in the wiring installation in accordance with the relevant wiring and electrical regulations.
- 1.17 Ensure that all electrical connections are made and secure.
- 1.18 All external cabling should be the correct sizing, as required by BS 7671:2018 or as required by local regulations.
- 1.19 Cable entry must NOT be made through the top plate of the control panel due to the possibility of water ingress and subsequent equipment failure. Top panel cable entry will invalidate the warranty.

Commissioning

Commissioning your Hydor Standard Control Panel system involves testing the system for correct operation.

It is essential that every device is tested in every mode of operation, and that all programmed actions are observed for correct operation.

If your panel contains a controller, please refer to the controller manual for operation instructions.

- 1.20 Before power is supplied to the panel, check that the wiring is correct as per the particular panel connection diagram and the control instructions, as supplied with the control panel.
- 1.21 Switch the panel ON. Check the operation of the various circuits, one at a time, calibrating any equipment that may be necessary, carefully following the instructions, appertaining to the equipment.
- 1.22 Check for any deviations in operation or amperage.

Operation

The Hydor Standard Control unit can operated in the following ways:

Manually

Using the green button to select each fan and the adjacent red button to stop each fan.

Red light: Fan is not selected.

No light: Fan is selected but not activated by automatic control (where applicable).

Green light: Fan is selected and activated.

Timeclock

Using the (optional) timeclock to select when the fans should be started and stopped throughout the day. See the enclosed timeclock instructions for how to program. 24hr timeclock with 30 minute segments.

Thermostat with the optional HP11 Controller

The temperature probe should be located centrally in the building at animal height.

Using the HP11 Controller to activate the fans with a set temperature point. See the enclosed Pola instructions for how to program.

When the fans are activated, the fans will come on in stages.

For single phase fans, the first fan will activate immediately, followed by additional fans one at a time with a delay between each fan.

For three phase fans, the first 2 fans will activate immediately, followed by additional pairs of fans one at a time with a delay between each pair.

Humidity with the optional HP58 Controller

The humidity sensor should be located centrally in the building at animal height.

Using the HP58 Controller to activate the fans with a set humidity point.

See the enclosed Pola instructions for how to program.

When the fans are activated, the fans will come on in stages.

For single phase fans, the first fan will activate immediately, followed by

additional fans one at a time with a delay between each fan.

For three phase fans, the first 2 fans will activate immediately, followed by additional pairs of fans one at a time with a delay between each pair.

Thermostat and Humidity with the optional HP57 Controller

Using the HP57 Controller to activate the fans with a set temperature and humidity point. See the enclosed Pola instructions for how to program.

The temperature and humidity sensors should be located centrally in the building at animal height.

Using the HP58 Controller to activate the fans with a set humidity point. See the enclosed Pola instructions for how to program.

When the fans are activated, the fans will come on in stages.

For single phase fans, the first fan will activate immediately, followed by additional fans one at a time with a delay between each fan.

For three phase fans, the first 2 fans will activate immediately, followed by additional pairs of fans one at a time with a delay between each pair.

When the unit is first switched on, all red lights will be lit to show all fans are off.

Select each fan needed by pressing the Green button. Its Red light will extinguish.

If the unit is manual operation only, the Green light for that fan will come on and the fan will run.

If the unit is automatically controlled, the green light will come on when the automatic control activates it.

If a fan is no longer needed, press the Red button and the Red light will come on. The fan is no longer selected.

End User Training

A Hydor control panel is of little use if the end user and/or the responsible persons who will be present on site, do not know how to operate and respond to the system. It is therefore essential that commissioning includes training for the users of the system and responsible persons.

The Hydor control panel installation and maintenance document should be explained and left with the responsible person on site, for storage in an accessible and known location, in order that the responsible person and the service engineer may keep information records up to date.

Maintenance

1.23 Inspection of the control panel after 6 months initially, with 12 month intervals after is recommended to ensure that the panel is clean externally as well as internally. Any build-up of dust deposits should be removed using a non-abrasive cleaner externally and a vacuum cleaner internally.

1.24 All fastenings should be checked for tightness and any signs of overheating should be investigated.

Warranty

Hydor or its agents will, within a period of 3 year from the date of dispatch from their works, repair or, at its option, replace any goods, which are proven to have defects as a result of defective materials or workmanship. The goods MUST be returned to Hydor, carriage paid, for examination. A Hydor Engineer or appointed person should attend to carry out any work, unless otherwise agreed. Hydor will not accept accounts for workmanship by others.

Technical Support

Contact your distributor for technical support on this product.

Do not call the Hydor technical support department unless your distributor has first given their advice and attempted to rectify the issue.

Technical support will not be available if the instruction manual has not been read and understood. Please have this instruction manual available whenever you call for technical support.

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