



TO FUNCTION PROPERLY THIS PRODUCT MUST BE EARTHED (See Overleaf)

Advanced Hydro Ltd

www.advancedHYD.com

Advanced Crystallisation Process (ACP)™
Installation Instructions: - ACP 15, ACP 20, ACP 25

The Water

1. The ACP is suitable for all UK mains water. A water analysis should be undertaken and submitted when using the ACP for borehole or well water. The use of the ACP with water at a temperature over 60°C may affect performance. Once installed the water quality or conditions should not vary. The water treated by an ACP unit is not suitable for use with Koi Carp.

The Advanced Crystallisation Process (ACP)™

2. The ACP is a physical device for inline installations only and must be kept wet and free from air contact once in use. Note the direction of flow through the ACP as shown by the label. The model and size of the ACP unit required should match the mains inlet pipe to the property, an ACP 15 for a ½" mains pipe and an ACP 20 for a ¾" mains pipe.

Installation

3. Installation should be made by a competent individual and should only be carried out after reading the installation instructions. Failure to comply with the installation instructions may invalidate the warranty, prevent the ACP working and could cause personal injury.

Electrical Earth Bonding

4. The system must be earthed in accordance with BS7671. The ACP body must have an earth connection, this is essential to the operation of the device. An earth bonding strap is supplied with each unit. The earth bonding strap should be fitted to the body of the ACP and an earth cable connected to it. The earth cable should then be connected to a suitable earthing point.

5. Ensure the pipework has continuity earth bonding across the installed ACP to the pipework each side of the unit. Without continuity earth bonding injury may occur. Should the ACP be installed into plastic pipework no continuity earth bonding is required. **HOWEVER, IN ALL INSTANCES THE BODY OF THE ACP UNIT MUST BE EARTHED.** Please refer to the schematic shown in Fig 1.

Fitting Notes

9. During installation, the ACP must not be exposed to heat from soldering or welding. Wrenches or spanners should only be used on the couplings and ACP spanner flats and never on the ACP body. The flow through the ACP must be in the direction of the arrow on the label.

10. The ACP must be installed with zero potential (good earth grounding). If heating equipment to be protected by the ACP contains a warm water circulation loop an additional ACP incorporated in the circulation loop will provide added protection against scale and corrosion.

For a successful installation of the ACP

- a. If in doubt use a qualified installer (check with your local ACP distributor).
- b. Install with the correct connectors and jointing materials for the particular installation.
- c. Care must be taken to ensure that where connecting joints require applied heat (welding/soldering) this must not be undertaken in the vicinity of the ACP as the conducted heat will damage the unit's interior, causing possible failure.
- d. The water pressure must not exceed 10 Bar.
- e. The temperature of the water should not exceed 60°C (140°F) for optimum performance.
- f. Always earth/earth bridge across the ACP making sure a good earth (ground) connection is achieved (see schematic at Fig 1).
- g. Always run a separate earth from the ACP body to a secure local earth point. (see schematic at Fig 1).

Fig1. Earth and Cross Bonding Schematic

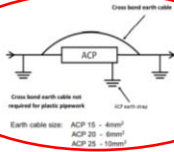
In is essential that the ACP body is earthed.

This document shows the installation instruction compressed with highlighted areas where earthing the unit is referred to.

Fitting

6. The ACP unit should be fitted to the rising main of the property. A section of pipe should be removed commensurate with the length and model of the ACP. Two end BSP connectors should be fitted to the pipework to match the female BSP connections of the ACP. Ensure flow through the ACP is in the direction of the arrow shown on the unit label. The ACP should be installed no more than 2m before any inline water heating device.

8. To ensure the correct installation use only standard BSP connectors. The ACP should not be directly exposed against the screw joint ends (for the ACP 20 & 25 Units). The water joint end cap and/or end seal should be damaged. It will invalidate the warranty. Under no circumstances should the ACP be taken apart or in any way broken down to assist in the fitting process.



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EARTHING THE ACP BODY

When fitting the ACP it is essential that the body is earthed (using the earth strap provided) as shown in the following photograph.

Note: Failure to earth the ACP in accordance with these instructions will prevent the ACP from functioning, damage the unit and void the warranty.



Earth cable size: ACP 15 - 4mm²
ACP 20 - 6mm²
ACP 25 - 10mm²