

CONTHERM SCIENTIFIC LTD

TECHNICAL MEMORANDAM

PRODUCT : PLCS

No : 0003

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FROM : Russell Kirkwood

DATE : 18/9/90

TO : All Agents

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SUBJECT : Upgrading from 2764 to 27128 eproms

In some cases it has been necessary to upgrade from an early program version (ie Vers104,Vers105) to a newer version (Vers300,Vers400). This upgrade requires a change in the size of the EPROM fitted to the PLCS controller from a 2764 EPROM to a 27128 EPROM, the larger size eprom being necessary to accomodate the program changes. The following describes the basic method of upgrading, it is further recommended that this upgrade ONLY be carried out at Contherm's Factory.

Parts required:

- a) New eprom version of firmware (Vers206 or later).  
This eprom must also be suitable for the type of cabinet.
- b) 1 x IN914 diode (IN4148 is also suitable)
- c) Fine wire and scalpel blade or similar.
- d) Soldering iron.

Method:

With all power removed from the controller. (Disconnect battery as well)

- 1) Open up controller and turn upside down to expose solder side of pcb.
- 2) CUT track between pins 27 & 26 of EPROM (leave track joining pins 27 & 28.
- 3) Run a fine piece of wire from pin 26 of the EPROM to pin 24 of the 6802 CPU IC.
- 4) Run a second wire also from pin 26 of the EPROM with the IN914 diode at the other end joining onto the diode (Cathode to Cathode) adjacent to resistor R19 (1K Ohm) near the centre of the controller PCB. - This connection supplies additional address decoding for the larger eprom.
- 5) Insert new eprom into the controller and test.

NB: If the A/D convertor ic is NOT of type ADC3711CCN the controller will require EXTENSIVE modification beyond the scope of this technical memo.

