4. Installation

4.1. Mechanical

All units are panel mounted in the same manner as shown in Figure 1. The recorder is slid into the panel cut-out from the front and is held in place by means of two mounting clamps that are pressed against the rear of the panel by two M4 x 16 mm Pan-head screws.

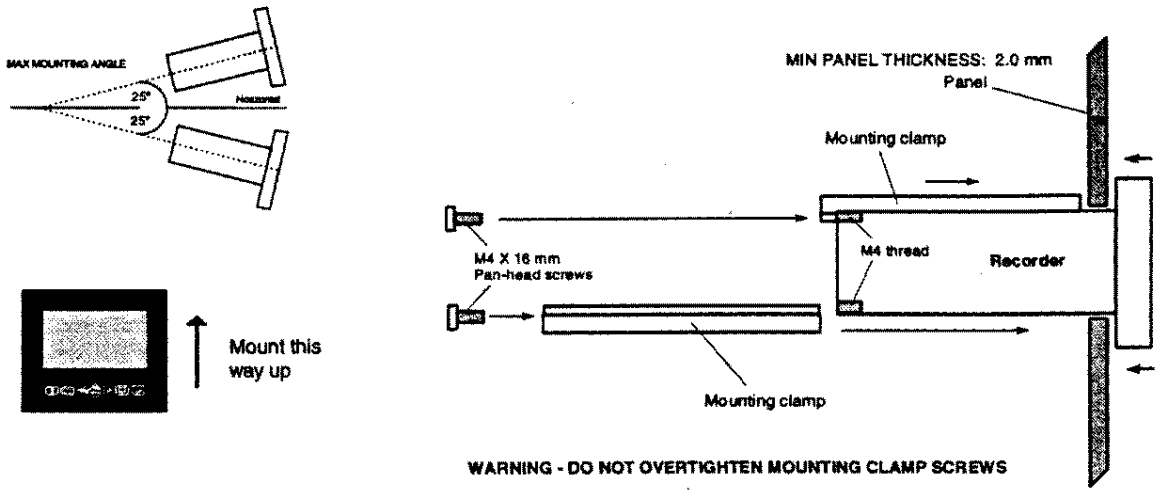


Figure 1

4.2. Electrical

All connections to the unit are made via the rear panel, the layout of which is shown in Figure 2 below:-

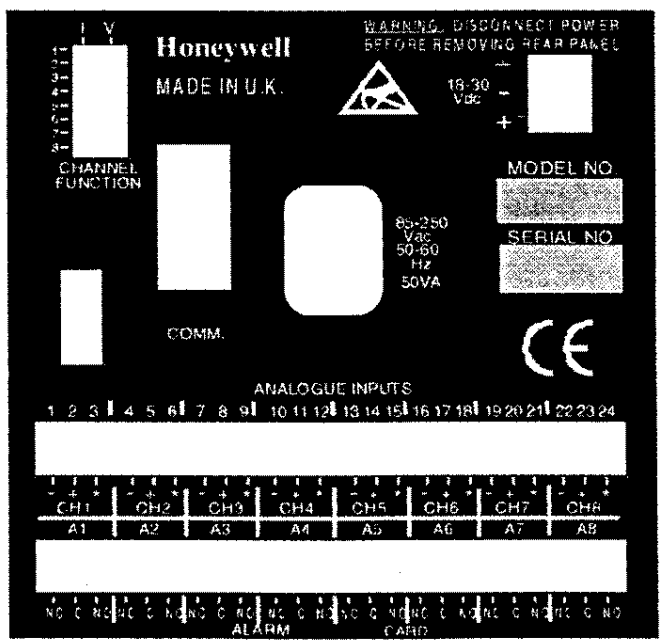


Figure 2

4.2.1. Power AC supply is connected via the standard configuration IEC chassis plug on the rear panel, labelled *85-250 Vac 50-60 Hz.*

WARNING!!! ALWAYS ENSURE THAT A 3-WAY EARTHED MAINS LEAD IS USED WITH A DGR UNIT WHEN CONNECTING TO AN A.C. SUPPLY.

NOTE :The Honeywell DGR range is intended for panel-mount use and as such should be considered as permanently connected. Disconnection from the supply MUST be made possible by means of a switch, circuit breaker or other means of supply isolation. The disconnection device must be included in the panel installation, clearly marked, in close proximity to the DGR equipment, and within easy reach of the operator.

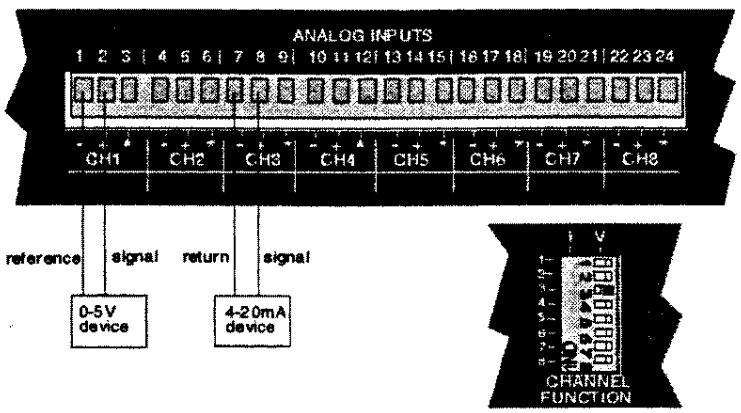
4.2.2. Analog Inputs These should be connected to the 24-way screw terminal plug which fits into the PCB header labelled *Analog Inputs* on the rear panel. Terminals are marked + (positive), - (negative), and * (function). The function connections provide the Transmitter Power Supply option (see below). This facility is not available on the Universal Analog Card, which should be fitted to units with inputs other than the standard 0-5 volt, 1-5 volt, 0-20 mA or 4-20 mA signals.

The switch labelled *CHANNEL FUNCTION* is used for selecting the input type (current or voltage) for each channel. The input type must also be selected in the set-up procedure (see **Section 6.3.3.**).

The number of channels that can be used depends on the model and the customer specification. Available channels start at channel 1 (*CH1*) and continue up to the number of channels specified.

An example of how to connect analog inputs is shown below.

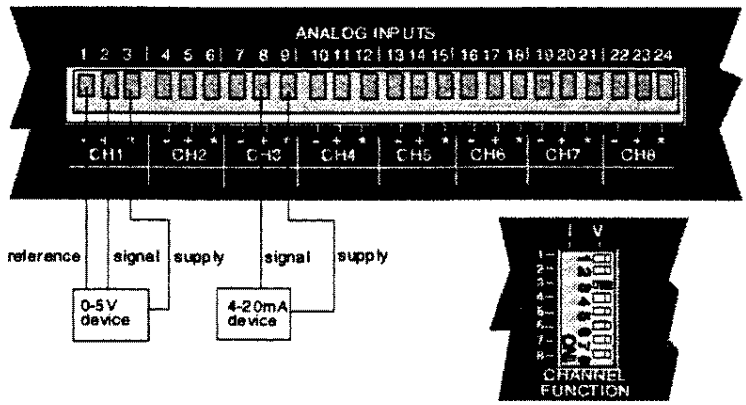
4.2.2.1. Standard Analog Card



The above example shows a 0-5 Volt device connected to channel 1 and a 4-20 mA device connected to channel 3. Notice the channel function switch positions - switch 3 is to the left thus selecting channel 3 as a current signal input.

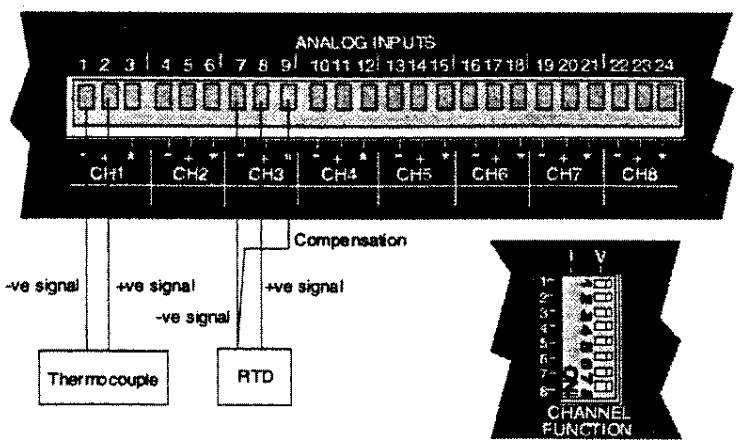
4.2.2. Analog Inputs (cont.)

Transmitter Power Supply - Units fitted with the standard analog card are equipped with a Transmitter Power Supply. This means that the supply for sensor equipment can be taken from the DGR unit. An example is shown below.



For more information on connecting sensor equipment to Transmitter Power supplies see Appendix B.

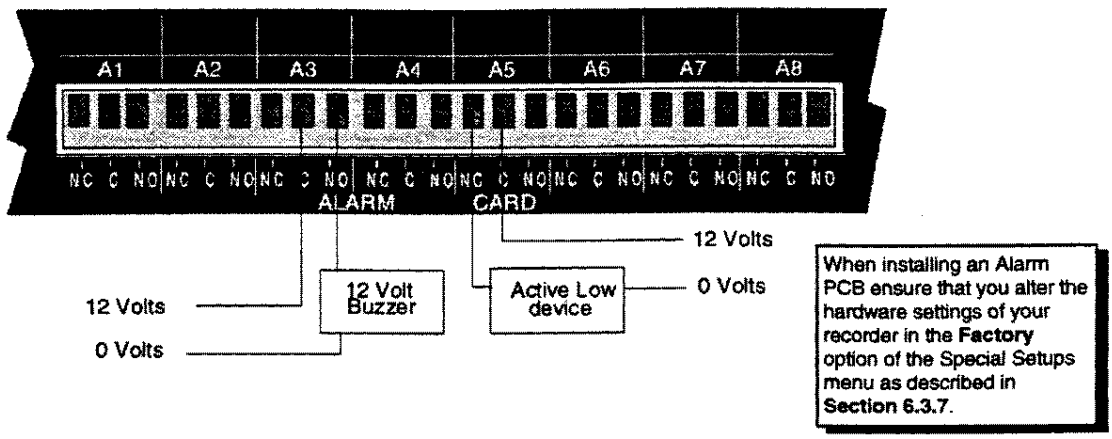
4.2.2.2. Universal Analog Card



The Universal Analog Card is used for connecting non-standard input signals to a unit, typically thermocouples or resistance thermometers. These are connected as shown in the above example. The thermocouple is connected for internal compensation - details on how to connect thermocouples using other forms of compensation are given in Appendix H.

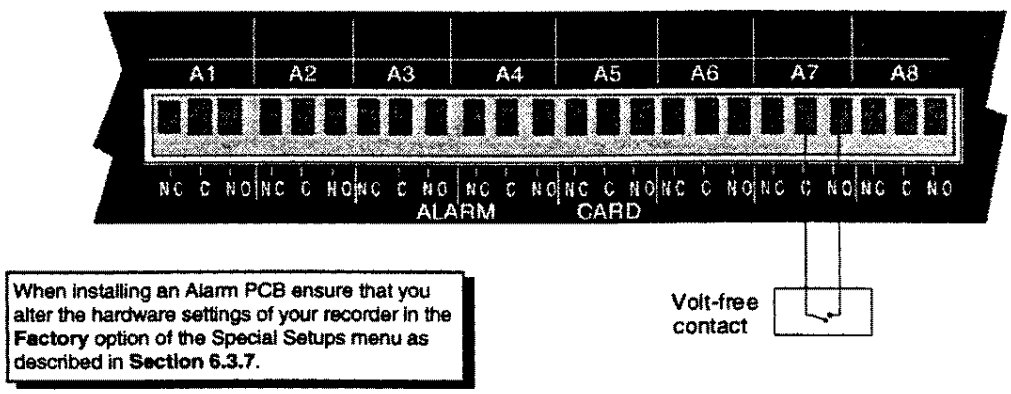
4.2.3. Alarm Outputs The 24-way PCB header on the rear panel labelled *Alarm Card* connects to 3A, 240 Vac SPCO relays. The pin-outs are labelled *NO* (normally open), *C* (common), and *NC* (normally closed). Devices driven by the relays are connected to a 24-way screw terminal plug as for the analog inputs. Available alarm outputs start from alarm channel 1 (*A1*) up to the maximum number of alarms allocated. *(NOTE: For a 4-channel Alarm card only Channels 1, 2, 3, and 4 are available.)*

An example of connecting devices to alarm relays is shown below.



Where a device simply requires a voltage to operate it, such as a 12 volt buzzer, connect it to the normally open *NO* contacts. Other devices may require a low signal to operate them, and should be connected as shown for Alarm 5. The maximum voltage that can be used with the alarm relays is shown in the specifications table in **Section 3.**

4.2.4. Digital Inputs On a standard 8-channel Alarm card, channels 7 and 8 may be used as digital inputs if they are not in use as alarm outputs. A digital input is provided by a volt-free contact between the normally open *NO* and common *C* terminals of an output relay as shown below.



NOTE: Alarm Relay output 1 corresponds to Digital Input 8, Alarm Relay output 2 to Digital Input 7, and so on.

4.2.5. Serial interface All serial communications are made via the 9-way D-type plug labelled *COMM.* on the rear panel of the unit. Selection between RS232C and RS485 is factory set according to customer specification. Pin-outs for the different types of serial interface connections are shown at Appendix F of this manual.