

## Terminal Connections

'Alarms'	1	—	} Alarms (option)	
	2	—		
	3	—		
	4	—		
	5	—		
'LSD'	C	—	Signal Common	
	C	—	Signal Common	
	1	—	} LSD Decade (corresponds to range switch SW4)	
	2	—		
	4	—		
	8	—		
	1	—	} Decade 2 (corresponds to range switch SW3)	
	2	—		
	4	—		
	8	—		
	'MSD'	1	—	} Decade 3 (corresponds to range switch SW2)
		2	—	
4		—		
8		—		
1		—	} MSD Decade (corresponds to range switch SW1)	
2		—		
4		—		
8		—		
H		—	Hold (hold signal for encoder)	
5V		—	5 volts (signal reference only)	
'O/P'	+	—	} NB for voltage O/P link mA O/P (+) to (-)	
	-	—		mA Output (+)
	+	—		mA Output (-)
	-	—		Voltage Output (+)
'Charger'	C	—	} Battery charging	
	V	—		+12V
	I	—		10mA
'Supply'	E	—	Earth	
	N	—	Neutral	
	L	—	Line	

Continuous development may necessitate changes in these details without notice.

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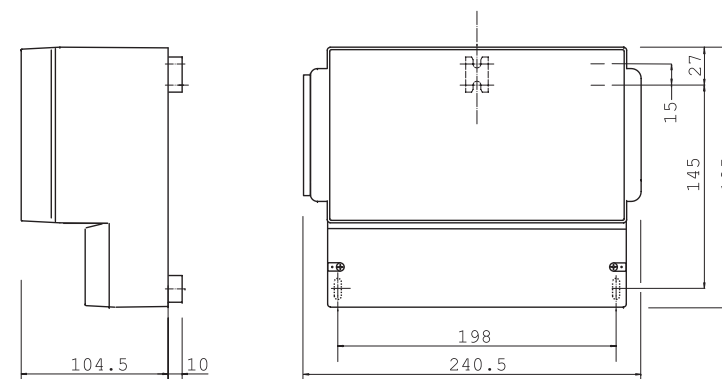
## BCD to ANALOGUE CONVERTER TYPE 116-24A Installation and Set-up Procedure

### Installation

5mm diameter wall mounting holes are provided for fixing the unit to a suitable structure in a dry environment (enclosure to IP65). These are located in the lower terminal compartment and on the rear of the enclosure. Knock-out gland holes are provided in both the rear and bottom of the terminal compartment of the unit.

Input and output signals and power supply lines are terminated on the edge of the printed circuit board with unpluggable two-part screw terminal connectors. Terminal connections are given on the backpage.

Good instrumentation practice should be observed when wiring to the unit to ensure segregation of supply and signal wiring, and the use of suitably screened signal cabling.



### Range Selection

The input range for full scale output is set by four switches (SW1 - 4; see Fig 1.). The maximum range is 9999. Switch SW4 corresponds to the least significant decade (LSD) and switch SW1 the most significant decade (MSD). These switches may be set as required by the user. No other adjustment is normally required.

*NB Ranges set to less than 100 are not recommended as accuracy will be reduced to approximately 1%.*

## On-site Re-ranging of Output Signal

### IMPORTANT NOTICE

We recommend that equipment requiring re calibration is returned to SIL in order that our quality standards, product specifications and safety precautions are not compromised. This information is supplied on the understanding that suitable test equipment and trained personnel are available to conduct the work. Stroud Instruments Ltd. will not be held liable for any non-conformance to our specifications, damage to the instrument or injury resulting from the reworking of this product by others.

This procedure requires a digital voltmeter (and a standard resistor for current outputs) suitable resolution and accuracy for the application.

**WARNING** This unit contains circuits which can be damaged by static electricity and normal precautions should be taken when handling printed circuit boards etc.

**MAINTENANCE** There are no user serviceable parts and all repair work will require the return of the unit to Stroud Instruments Ltd.

### Re-ranging Procedure

The Output Signal Span may be set to either 10mA, 20mA, 1V, 5V or 10V and the Output Zero to raised zero or true zero. These combinations will generate the following outputs:- 0-10mA, 0-20mA, 2-10mA, 4-20mA, 0-1V, 0-5V, 0-10V, 0.2-1V, 1-5V and 2-10V. These outputs are selected by the positioning of programming links on the Output Board. See Fig 1 for the link positions.

NB When a voltage output is required, the current output terminals must be shorted with a wire link. *This link must be removed when changing from voltage to current !*

1. Isolate all supplies to the unit before changing links and other settings.
2. Connect equipment to monitor the output signal.

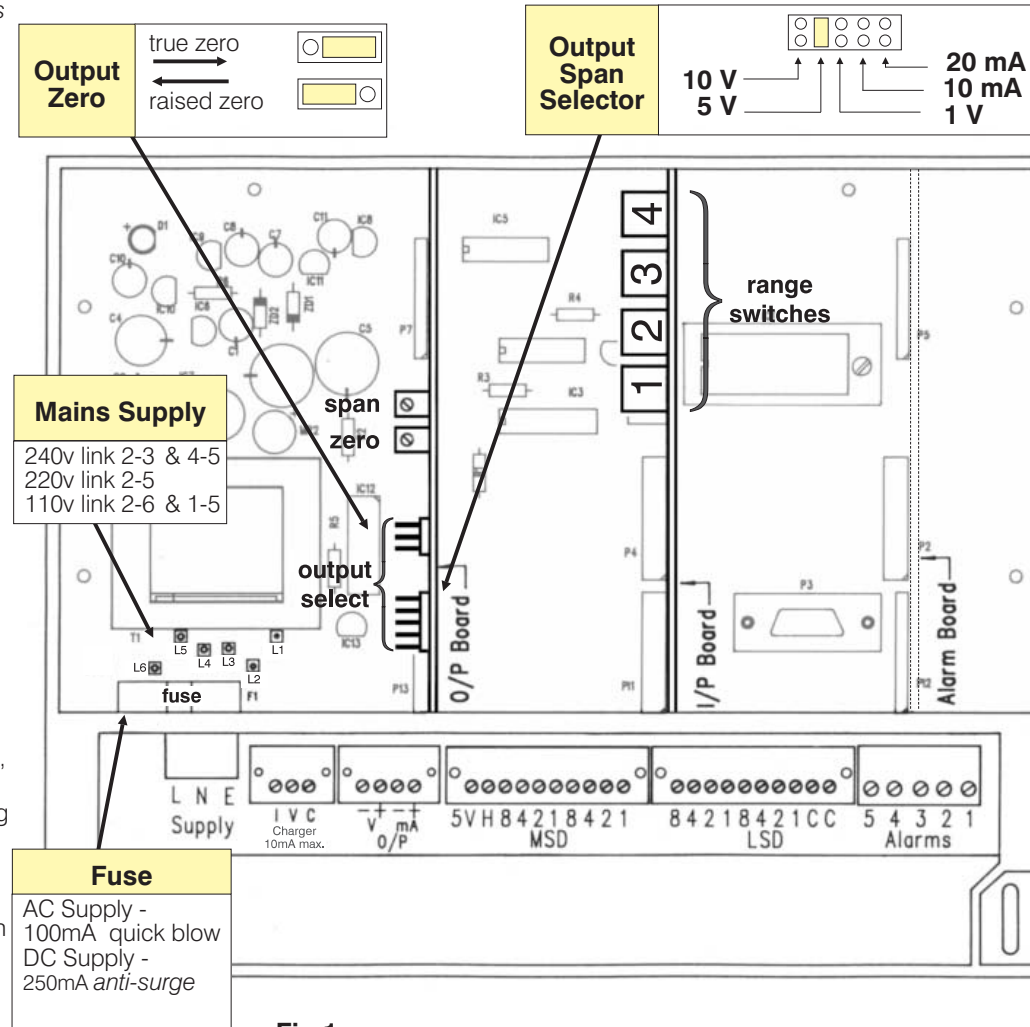


Fig 1

3. Set the links on the output board as required (see Fig1)
4. Set the range switches to '0000'
5. Switch on the supply to the unit.
6. Trim the Output Board Zero potentiometer for the required output signal zero reading (NB if true output zero setting has been selected, set the trim pot. to give a 'live' reading i.e. approximately 0.02% above zero).
7. Set the range switches to '0005'
8. Trim the Output Board Span potentiometer to set the required FSD output signal reading.
9. Set the range switches to '0000' and repeat steps 6 to 9 until span and zero are trimmed to required settings.
10. Switch off the supply to the unit and set the range switches to the required setting for the application (see page 1) - the unit is now ready for use.

### Mains Supply

To change mains tapplings the motherboard must be removed from the case as follows:

1. Noting their locations, unplug and remove the Output Board and the Input Board.
2. Unplug the screw terminal connectors.
3. Remove six motherboard securing screws and withdraw the unit from the plastic enclosure. The unit can be adapted for 110v, 220v or 240v mains operation. Fig 1 provides details of the link settings which are effected by soldered tinned copper wire links. **IMPORTANT** - links for 110v operation must be insulated with silicon rubber sleeving.
4. Check your link selections and replace the motherboard and secure.
5. Replace the Input and Output boards in their correct locations.