MANUAL PROGRAMMING

For

SCALE RANGE, DECIMAL POINT POSITION & OFFSET ADJUSTMENT

FOR ALL PROCESS INPUTS

0-5V, 1-5V, 0-10V, 0-20mA, 4-20mA

Thermocouple & PT100

These procedures allow your display to be re-scaled and the decimal point re-positioned to suit existing and future applications where <u>NO FACTORY</u> pre-set values have been entered, in particular to Voltage and Current input applications.

All Temperature Displays are factory scaled, but you may still change the original scale range by following the procedures below.

Three buttons are located on the rear, bottom or side of the case (the location of which is made clear in your GENERAL INSTRUCTION MANUAL) These buttons enable you to carry out the functions of re-scaling and decimal point positioning, the buttons are labelled,

FUN – SEL – ADJ

All button action is ' PUSH & RELEASE ' as they are momentary action only. <u>DO NOT HOLD THE BUTTONS DOWN</u> as no function will be initiated.

FUN   This button selects the parameter you want to change as shown in the **MANUAL PROGRAMMING SHEET**   below

 PULSE FUN to scroll to the parameter you require. The scrolling is only ' forward '.

SEL   -   This button selects the digit you want to adjust within the parameter and will STEP across the display LEFT to RIGHT when ' SEL ' is pulsed

ADJ   -   This button allows the selected digit to be adjusted. The figures move UP only,   i.e. 1, 2, 3, 4 ~ 9   9, 0, 1, 2, 3……..etc.

Note : The left hand digit when at ' 9 ',   will move   9, ' – ' (minus symbol),   -1, 0, 1, 2, 3,……9

PROCEED AS FOLLOWS -

1. Apply power to the display, no sensor needs to be connected

2. Press and hold for approximately 3 seconds the **' FUN '** button until **' HS '** **appears** and a previously entered figure **XXX, XXXX or XXXXX** and they will flash alternately.   This is the **HIGH SCALE** range limit setting.

If you only want to change the Scale Range,   you will need to <u>*follow the instruction*</u> <u>*immediately ABOVE STEP 3*</u> *below,   <u>THEN</u> follow steps   3 to 6.*

For any other PARAMETER CHANGES you want to make follow steps 7 onwards.

NOTE :   Whatever changes you want to make,   YOU HAVE TO ' VISIT ' EACH PARAMETER IN THE CHART, AND SCROLL ON - otherwise your changes will NOT be entered.

Press **' SEL '** once and the extreme left digit will flash while the remaining digits will be static, the flashing digit can now be adjusted by ' pulsing ' the **' ADJ '** button.

3. When the number required is reached, press **' SEL '** and the digit will be frozen and the next digit will start to flash.

   Repeat step 3 above for the remaining digits to set your new **HIGH SCALE** limit.   *You **must** ' visit ' each digit across the display to complete the changes you have made regardless of whether all the digits need to be changed.*

4. When all digits have been set (visited), press **' SEL '** and the display moves to **' LS '** and   **' 000's '** appear **(or a previously set value),** this is the **LOW SCALE** range limit setting.

5. To get a ' – '   (minus) value use the left hand digit and with the ' **ADJ** ' **pulse press the button to see a   ' MINUS ' symbol appear,   press ' SEL ' and move across the reading to create a - xxx figure**

6. Repeat steps, 3, 4, 5 in the same way to set the **LOW SCALE** value. REMEMBER, *all digits must be ' visited ' whether they need changing or not to complete this programming function.*

7. When this is complete press **' SEL '** and the display will alternate with
   FOR ALARM MODE ONLY

	FUN	HH	0000	(ignore)
	FUN	HI	0000	(ignore)
Press	FUN	LO	0000	(ignore)
	FUN	LL	0000	(ignore)

8. When this is complete press **' SEL '** and the display will alternate with
4~20mA retransmission out Mode

Press   **FUN**   **OH**   **0000**   **(ignore)**
               FUN   **OL**   **0000**   **(ignore)**

9. When this is complete press **' SEL '** and the display will alternate with
Decimal Point setting

Press   **FUN**   **dP**   **0000**   **decimal point positioning**

To select the decimal point position

Press **SEL**   **000 '0'**   **end digit will be flashing**
Press **ADJ**   **000 1**   **1 = no decimal point**
                    000 2   **2 = 1 decimal point**
                    000 3   **3 = 2 decimal points**
                    000 4   **4 = 3 decimal points**
                    000 5   **5 = 4 decimal points**
                                           (5 digit model only)

10. When this is complete press **' SEL'** and the display will alternate with
UPDATE TIME setting

Press **SEL**   **dt**   **0000**   **(ignore)**
Press **ADJ**   **1~9Sec**   **as per request to set**

11. When this is complete press **' SEL '** and the display will alternate with
OFFSET the error

Press **FUN**   **oF**   **0000**   **Offset adjustment**
Press **SEL**   **' 0 ' 000**   **Left digit flashing**
Press **ADJ**   **increase or decrease flashing digit to adjust display reading. Step across the display by press ' SEL' and adjust relevant digit with ' ADJ ' button**

12. When this is complete press **' SEL '** and the display will alternate with
Communication mode only
Press **SEL**   **bU**   **0000**   **(ignore)**
Press **FUN**   **Id**   **0000**   **(ignore)**

PEAK HOLD mode only
Press **FUN**   **Hd**   **0000**   **(ignore)**
Press **FUN**   **Ht**   **0000**   **(ignore)**

ALARM mode use only
Press **FUN**   **br**   **0000**   **(no flash)**
                              0001   **(flash)**

Press **FUN** dn   002~5   as per display digits to set
Press **FUN** CI   0000   no leading zero (0.0)
Press **FUN** CS   0001   (ignore)
Press **FUN** PC   0002   (ignore)
Press **FUN** PA   0000   (ignore)

Press FUN The display reverts to ZERO (no sensor attached)
OR, the new LO SCALE value if this was changed.

PROGRAMMING A NEW parameter value or function
IS NOW COMPLETE