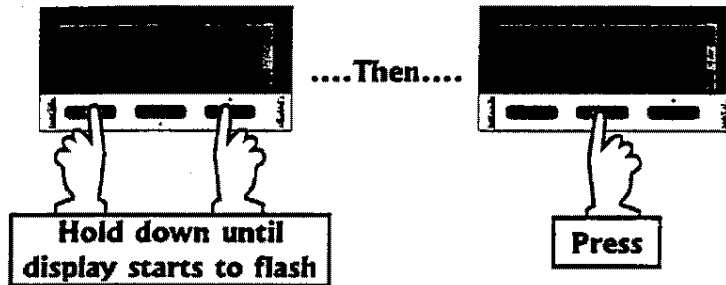


# INSTRUMENT CONFIGURATION

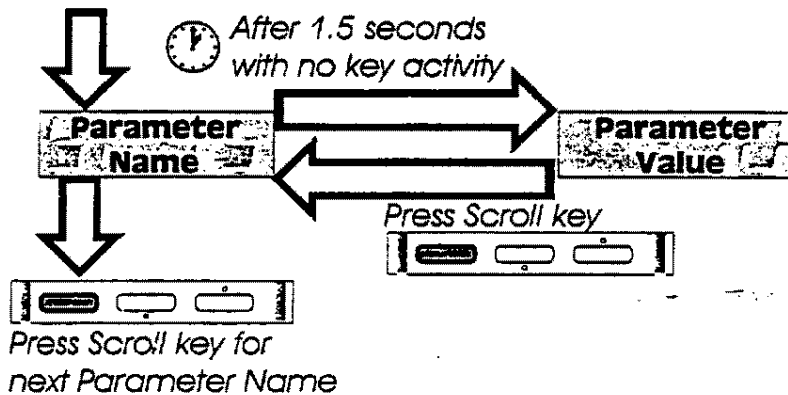
## ENTRY

To enter Instrument Configuration mode, use the key sequence shown on the right.



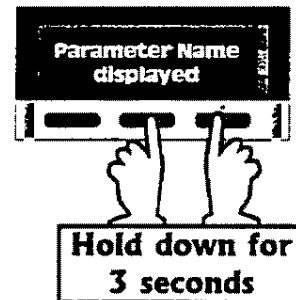
## PARAMETER SEQUENCE

Use the Scroll key to step through the parameters, as shown on the right. Use the Up/Down keys to adjust the displayed value. The parameter sequence is shown in Figure 4-1. Adjustment ranges are shown in Table 4-1 and default values are shown in Table 4-4.



## EXIT

To exit from Instrument Configuration mode, select display of a parameter name, then hold down the Up and Down keys for three seconds (see right). The instrument will then return to Normal Operation Mode via an instrument reset and self-test sequence.



NOTE: If there is no key activity for five minutes in Instrument Configuration Mode, an automatic return is made to Normal Operation Mode (via an instrument reset and self-test sequence).

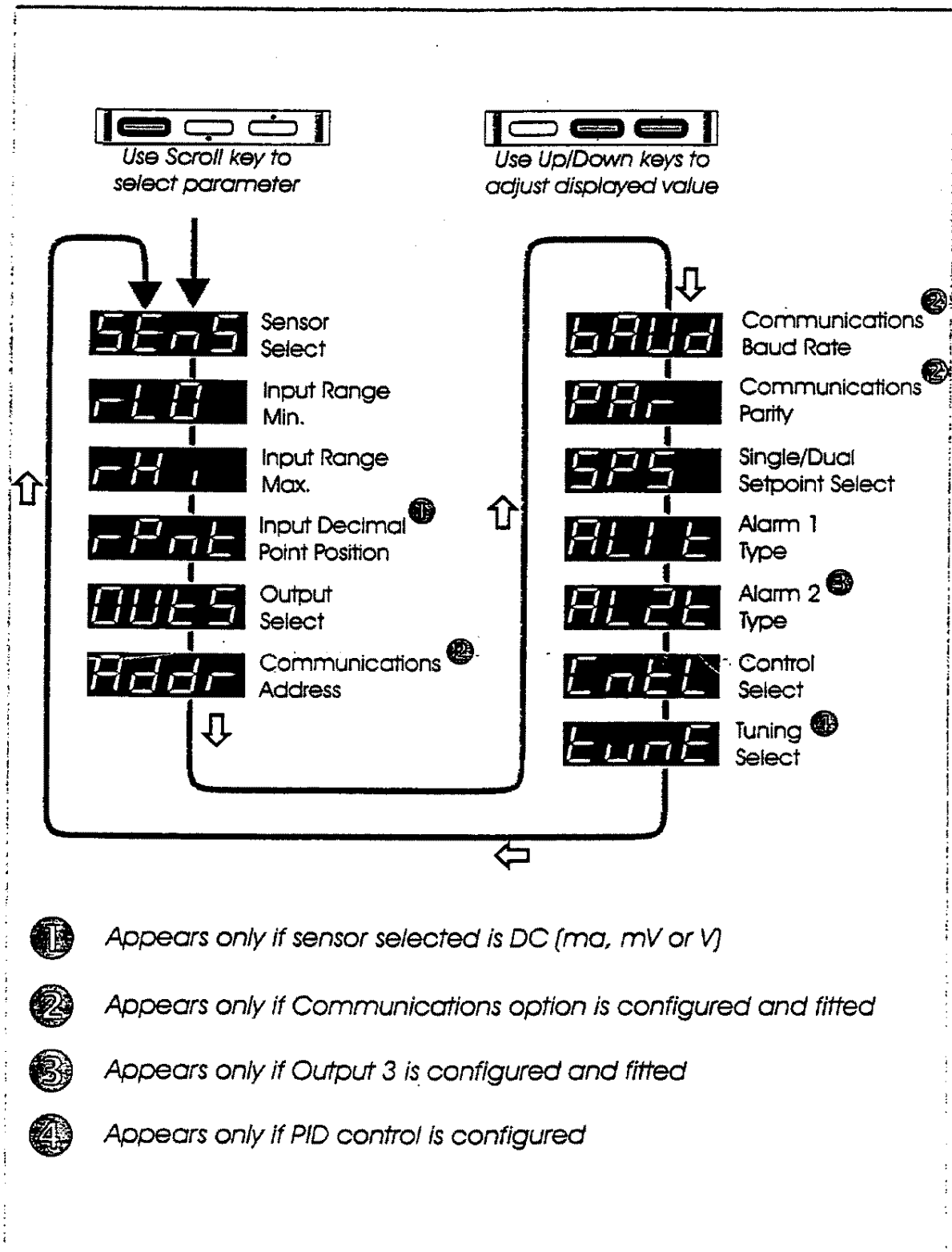


Figure 4-1 Instrument Configuration Parameter Sequence

Table 4-1 Parameter Functions and Adjustment Ranges










Parameter	Function	Adjustment Range
Sensor Select	Selects input sensor type, resolution and input units (°F or °C) by means of a code number.	See Table 4-2.
Input Range Min.	Defines minimum value of input range	Thermocouple/RTD inputs: Range Min. Value for selected sensor (see Table 4-2) to 100 LSDs less than current Input Range Max. setting. DC Inputs: -1999 to 9999 with decimal point set according to <i>Input Range Decimal Point Position</i> parameter.
Input Range Max.	Defines maximum value of input range	Thermocouple/RTD inputs: 100 LSDs greater than current Input Range Min. Setting to Range Max. For selected sensor (see Table 4-2). DC Inputs: -1999 to 9999 with decimal point set according to <i>Input Range Decimal Point Position</i> parameter.
Input Range Decimal Point Position	For DC inputs only, determines decimal point position.	0 (xxxx), 1 (xxx.x), 2 (xx.xx) or 3 (x.xxx)
Output Selection	Links outputs to required functions by a 3-digit code (see Figure 4-2).	See Figure 4-2.
Comms. Address	Defines unique communications address of controller	1 to 128.
Comms. Baud Rate	Selects Baud rate for serial communications	 1200  2400  4800  9600
Comms. Parity	Defines parity for serial communications	 Odd  Even  None
Single/Dual Setpoint Select	Selects Single Setpoint or Dual Setpoint operation	 Single  Dual

Table 4-1 (Cont.) Parameter Functions and Adjustment Ranges

Parameter	Function	Adjustment Range
Alarm 1 Type	Selects type of alarm for Alarm 1.	<p><b>PHd</b> Process High, direct-acting</p> <p><b>PLd</b> Process Low, direct-acting</p> <p><b>dEd</b> Deviation, direct-acting</p> <p><b>bAd</b> Band, direct-acting</p> <p><b>PHr</b> Process High, reverse-acting</p> <p><b>PLr</b> Process Low, reverse-acting</p> <p><b>dEr</b> Deviation, reverse-acting</p> <p><b>bAr</b> Band, reverse-acting</p>
Alarm 2 Type	Selects type of alarm for Alarm 2.	As for Alarm 1 Type.
Control Select	Selects the control action and algorithm	<p><b>r_P</b> Reverse-acting PID</p> <p><b>d_P</b> Direct-acting PID</p> <p><b>r_o</b> Reverse-acting ON/OFF</p> <p><b>d_o</b> Direct-acting ON/OFF</p>
Tuning Select	Selects Manual Tuning or Hands-Off Tuning (Easy Tune)	<p><b>EASY</b> Easy Tune</p> <p><b>MAN</b> Manual Tuning (with Pre-Tune)</p>

Table 4-2 Sensor Selection Codes

Input Type	Code	Range Min.	Range Max.
<b>Thermocouple</b>			
Type J	100 (°C) 101 (°F) 110 (°C) 111 (°F)	-200°C -328°F -128.0°C -198.4°F	1200°C 2191°F 537.0°C 998.5°F
Type T	200 (°C) 201 (°F) 210 (°C) 211 (°F)	-240°C -400°F -128.0°C -198.4°F	401°C 753°F 400.6°C 753.0°F
Type K	300 (°C) 301 (°F) 310 (°C) 311 (°F)	-240°C -400°F -128.0°C -198.4°F	1371°C 2499°F 536.7°C 998.0°F
Type N	400 (°C) 401 (°F)	0°C 32°F	1399°C 2550°F
Type B	500 (°C) 501 (°F)	100°C 211°F	1824°C 3315°F
Type R	600 (°C) 601 (°F)	0°C 32°F	1759°C 3198°F
Type S	700 (°C) 701 (°F)	0°C 32°F	1770°C 3217°F
<b>RTD (Pt100)</b>			
	800 (°C) 801 (°F) 810 (°C) 811 (°F)	-199°C -327°F -127.9°C -198.3°F	802°C 1475°F 537.0°C 998.5°F
<b>DC Linear</b>			
0 - 20mA	900	-1999	9999
4 - 20mA	1000	-1999	9999
0 - 50mV	2000	-1999	9999
10 - 50mV	3000	-1999	9999

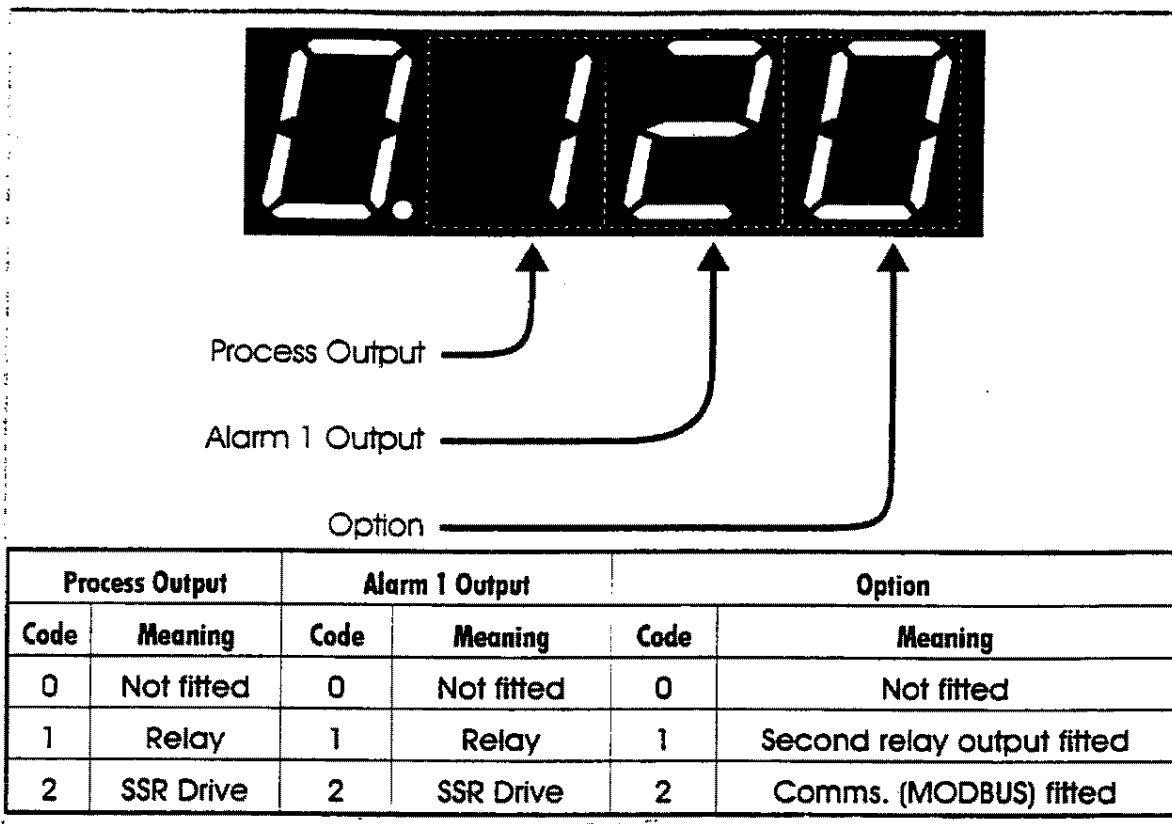


Figure 4-2 Display of Output Selection Code

Table 4-3 Parameter Default Values

Parameter	Default Value
Sensor Select	100 - Thermocouple "J" (-200°C to 1200°C)
Input Range Min.	Thermocouple/RTD - Input Range Min.; DC Linear - 0
Input Range Max.	Thermocouple/RTD - Input Range Max.; DC Linear - 1000
Decimal Point Posn.	0
Output Selection	1200 - Relay control output, SSR Drive, no option
Comms. Address	1
Comms. Baud Rate	4800
Comms. Parity	None
Single/Dual SP Select	1 - Single Setpoint operation
Alarm 1 Type	Process High Alarm
Alarm 2 Type	Process Low Alarm
Control Select	Reverse-acting PID control
Tuning Select	Easy Tune