RANGE COMMANDS

R1 - 200mV D.C.	R12 - 200mV A.C.
R2 - 2V D.C.	R13 - 2V A.C.
R3 - 20V D.C.	R14 - 20V A.C.
R4 - 200V D.C.	R15 - 200V A.C.
R5 - 1kV D.C.	R16 - 1kV A.C.
R6 - 200uA D.C.	R17 - 200uA A.C.
R7 - 2mA D.C.	R18 - 2mA A.C.
R8 - 20mA D.C.	R19 - 20mA A.C.
R9 - 200mA D.C.	R20 - 200mA A.C.
R10 - 2A D.C.	R21 - 2A A.C.
R11 - 20A D.C.	R22 - 20A A.C.

R23 - 0 Ohms
R24 - 0.1 Ohms
R25 - 1 Ohms

R26 - 10 Ohms	R34 - 1nF
R27 - 100 Ohms	R35 - 10nF
R28 - 1k Ohms	R36 - 20nF
R29 - 10k Ohms	R37 - 50nF
R30 - 100k Ohms	R38 - 100nF
R31 - 1M Ohms	R39 - 1uF
R32 - 10M Ohms	R40 - 10uF
R33 - 100M Ohms	R41 – 100uF (SIMRC option only)

R42 - 1mH	(IND Option only)
R43 - 10mH	(IND Option only)
R44 - 19mH	(IND Option only)
R45 - 29mH	(IND Option only)
R46 - 50mH	(IND Option only)
R47 - 100mH	(IND Option only)
R48 - 1H	(IND Option only)
R49 - 10H	(IND Option only)

R50 - PRT -100'C	(PRT option only)
R51 - PRT - 0'C	(PRT option only)
R52 --PRT 30'C	(PRT option only)
R53 - PRT - 60'C	(PRT option only)
R54 - PRT - 100'C	(PRT option only)
R55 - PRT - 200'C	(PRT option only)
R56 - PRT - 400'C	(PRT option only)
R57 - PRT - 800'C	(PRT option only)

R58 – FREQUENCY
R59 - PWM
R60 – THERMOCOUPLE

R61 – TIMEBASE	(SCOPE Option only)
R62 – BANDWIDTH	(SCOPE Option only)
R63 – BANDWIDTH REFERENCE	(SCOPE Option only)

R64 - RPM
R65 - 1G Ohm
R66 - FAST RISE

R67 – 1mH	(SIMRC option only)
R68 – 10mH	(SIMRC option only)

GENERAL COMMANDS

O - OUTPUT

R2/O1.5/S0 sets 1.5V output on 2V DC range
R19/O12/F600/S0 SETS 12mA 600Hz on 20mA AC range
R32/S0 sets 10Mohms

F - FREQUENCY F10 – F5000000

F1000 sets 1kHz

S - STANDBY S1- Output in standby S0 – Output ON

I - 2/4 Wire or Simulated Ohms I0 = 2 wire I1 = 4 wire I2 = Simulated

R29/I0/S0 SETS 10Kohms 2 wire
R29/I1/S0 SETS 10Kohms 4 wire
R29/I2/00.7/S0 SETS 7Kohms 2 wire

J - -VE to Ground Relay

J0 -ve terminal connected to ground
J1 -ve terminal floating.

L - THERMOCOUPLE TYPE (For thermocouple option)

L1=K L2=J L3=T L4=R L5=S L6=E L7=N L8=B

K - AUTO/MANUAL Cold Junction (For thermocouple option)

K0=MANUAL K1=AUTO

D - kV AMPLIFIER (kV amplifier option only)

D0-off D1 – ON
To set 7000V DC. D1/R5/O700/S0 To set 3500V AC. D1/R16/F50/O350/S0

H - SUB- RANGE

IF PWM IS SELECTED	H0 - 10%	H1 - 20%	H2 - 30%	……..	H8 - 90%
IF FREQ IS SELECTED	H0 - 1Hz	H1 - 10Hz	H2 - 100Hz	H3 - 1kHz	H4 - 10kHz
	H5 - 20kHz	H6 - 50kHz	H7 - 100kHz	H8 - 1MHz	H9 - 10MHz
Scope - Amplitude	H0 - 2mV/div	H1 - 5mV	H2 - 10mV	H3 - 20mV	H4 - 50mV
	H5 - 100mV	H6 - 200mV	H7 - 500mV	H8 - 1V	H9 - 2V
	H10 - 5V	H11 - 10V	H12 - 20V	H13 - 50V	
Scope - Time markers	H0 - 5s/div	H1 - 2s	H2 - 1s	H3 - 500mS	H4 - 200ms
	H5 - 100ms	H6 - 50ms	H7 - 20ms	H8 - 10ms	H9 - 5ms
	H10 - 2ms	H11 - 1ms	H12 - 500us	H13 - 200us	H14 - 100us
	H15 - 50us	H16 - 20us	H17 - 10us	H18 - 5us	H19 - 2us
	H20 - 1us	H21 - 500ns	H22 - 200ns	H23 - 100ns	H24 - 50ns
	H25 - 20ns	*H26 - 10ns*	*H27 - 5ns*		

l - Go to local mode

a - CAL a0 = ABORT a1 START CAL a2 = STORE CAL FACTORS
N – Negative cal factor
P – Positive cal factor
Z - Zero cal factor

r - Read A/D channel. Result returned in mV r0 to r7

p - Set pod relay –

v - Transmit pod voltage in mV (0-5000) 5 chrs followed by *0

- Clears screen and writes string after # chr to display. 16 characters max.

POD

Pod	Relay	Command
1	1	p1
1	2	p2
1	3	p4
1	4	p8
1	5	p16
1	6	p32
1	7	p64
1	8	p128
2	1	p256
2	2	p512
2	3	p1024
2	4	p2048
2	5	p4096
2	6	p8192
2	7	p16384
2	8	p32768
3	1	p65536
3	2	p131072
3	3	p262144
3	4	p524288
3	5	p1048576
3	6	p2097152
3	7	p4194304
3	8	p8388608
all off		p0

READBACK COMMANDS

X – Transmit resistance, capacitance or inductance reading.
Example. With the output set to 99.99821 ohms, sending the X command will cause the calibrator to transmit 99.99821.

OSCILLOSCOPE OPTION COMMANDS

R63 - Scope - Bandwidth 50kHz ref.
R62 - Scope – Bandwidth R62/O102 Sets 102Mhz bandwidth
G - SCOPE MODE G0 - SQUARE WAVE G1 – DC

A1 - Scope – Amplitude	H0 - 2mV/div	H1 - 5mV	H2 - 10mV	H3 - 20mV	H4 - 50mV
	H5 - 100mV	H6 - 200mV	H7 - 500mV	H8 - 1V	H9 - 2V
	H10 - 5V	H11 - 10V	H12 - 20V	H13 - 50V	
R61 - Scope Timebase					
Scope - Time markers	H0 - 5s/div	H1 - 2s	H2 - 1s	H3 - 500mS	H4 - 200ms
	H5 - 100ms	H6 - 50ms	H7 - 20ms	H8 - 10ms	H9 - 5ms
	H10 - 2ms	H11 - 1ms	H12 - 500us	H13 - 200us	H14 - 100us
	H15 - 50us	H16 - 20us	H17 - 10us	H18 - 5us	H19 - 2us
	H20 - 1us	H21 - 500ns	H22 - 200ns	H23 - 100ns	H24 - 50ns
	H25 - 20ns	H26 - 10ns	H27 - 5ns		

POWER OPTION COMMANDS

B1 -AC POWER B5 - DC POWER
R13 to R16 selects a.c. voltage ranges
M0 to M359.9 for phase
C2.002 to C30.000 for current with 2mA resolution from 30A terminals
C0.2000 to C2.0000 for current with0.2mA resolution from I terminals
F40 to F400 for Frequency

Measurement (Mode) Operation

R70 to R79 selects function

R70 – Voltage 1 R71 – Voltage 2 R72 – Current
R73 – Pressure 1 R74 – Pressure 2 R75 – Pressure 3
R76 – Torque 1 R77 – Torque 2 R78 – Resistance
R79 – Capacitance

Calibration - P2684355 for full scale
Z0 for zero
Nxxxx selects number of D.P. and unit.
Bits 0,1,2 selects number of D.P. (0 TO 7)
Bits 3,4,5,6 selects unit
0- mBAR4 8 – BAR 16 – mV 24 – V
32 – mA 40 – A 48 – nM 56 – ohms
64 – kOHMS 72 – Mohms 80 deg C 88 – deg F
96 – PSI 104 – uA 112 – nA 120 – uV
128 – uF 136 – Nf 144 – Blank
Example : Set to read 10V with 10V input and 4 DP, send N28, Z0 , P2684355

For a PSU adaptor, send a1, N28, Z0, P16919393, a2 which will give a reading of 60.0000VFS
For a 10 BAR pressure transducer send R73, a1, N11, Z0, P536871, a2 which will give a reading of 10.000BAR
For a 10 BAR pressure transducer in PSI (145.03768 PSI) send R74, a1, N98, Z0, P778665, a2 which will give a reading of 145.04 PSI

Sending N255 disables operation on the range selected. Range can still be selected from Computer, but will be skipped on front panel. Range 70 must always be enabled otherwise program will get stuck in an infinite loop.