35 Panther

Jumpers and Switch Settings

Controller PCB

W1—Load Cell Select:
Shorted = 2 mV/V
Closed = 3 mV/V

SW 1—DIP Switch Assignments:
1 - ON = Setup Entry Enabled
OFF = Setup Entry Disabled
2 - ON = Display Comma
OFF = Display Decimal Point
3 - NOT USED (OFF)
4 - ON = Factory Test Only
OFF = NORMAL

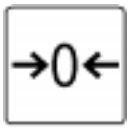
TB1 Power Input Connector: 1 - AC Neutral
2 - 100 VAC Input
3 - 120 VAC Input
4 - 220/240 VAC Input

TB2 (Com 1): 1- TXD (RS-232)
2 - RXD (RS-232)
3 - GND (RS-232)

TB2 (PAR 1): 4 - +5 VDC , current limited to
5 - OUT 1
6 - OUT 2
7 - OUT 3
8 - GND
9 - IN 1

TB3 (Load Cell Termination)**:** 1 - +Excitation
2 - +Sense
3 - +Signal
4 - Shield
5 - –Signal
6 - –Sense
7 - –Excitation

Keyboard Functions



The following keys are used to configure the the program blocks.

ZERO Backup to the previous step.

TARE Moves the blinking edit cursor left one digit.

CLEAR resets a numeric data entry value to zero and/or allows programmer to skip to the end of setup.

MEMORY moves the blinking edit cursor right one digit.

SELECT increments the numeric data entry digit and/or allows the programmer to view the next in a selection list.

ENTER Accepts/terminates a data entry.

Program Block Access

Note: the setup switch can remain closed if terminal security is not required.

In order to configure the program blocks the programmer must enter the setup mode. Open the Panther terminal as described in chapter two of this manual and close SW1 - 1. Close the terminal and press the ENTER and ZERO keys simultaneously.

General Programming Procedure

After accessing the setup mode, each program block and sub-block can be configured according to the procedure outlined in the following pages. If the Panther terminal is being configured for the first time it is recommended that the programmer configure each program block to assure the terminal is setup correctly as the application and/or environment dictates.

Once the F1 prompt is displayed the SELECT key will skip to the next block and the ENTER key will enter the block.

Once Enter is pressed the Panther advances to the first parameter in the block. The display shows the sub-block number and the current value setting. Press ENTER to accept the value and advance to the next sub-block or press the SELECT key to toggle through the choices until the desired selection is displayed. After the desired selection is displayed press the ENTER key to accept the value. Continue this procedure throughout the setup routine until all changes required have been made.

Softswitch Settings

Step Description

F1 SCALE INTERFACE
- Select to Skip
- Enter to Continue

F1.1 SCALE TYPE (DigiTOL Version Only)

F1.2 CAL.UNITS
- 1 = lb
- 2 = kg
- 3 = g
- 4 = oz
- 5 = lb-oz
- 6 = ozt
- 7 = dwt
- 8 = t
- 9 = ton (metric)

F1.3 CAPACITY
- enter valid capacity

F1.4 INCREMENT
- select to toggle
- print to accept

CAL X
- 0 = skip
- 1 = enter cal. procedure

F1.6 ZERO ADJUST
- 0 = skip
- 1 = set zero

F1.7 SPAN ADJUST
- 0 = skip
- 1 = set span

F1.8 GRAVITY ADJUST
- 0 = skip
- 1 = set gravity

Step Description

F2 APPLICATION ENVIRONMENT
- Select to Skip
- Enter to Continue

F2.1 ALTERNATE UNITS
- 0 = none
- 1 = lb
- 2 = kg
- 3 = g
- 4 = oz
- 5 = lb-oz
- 6 = ozt
- 7 = dwt
- 8 = t
- 9 = ton

F2.3 TARE OPERATIONS
- Select to skip
- Enter to continue

F2.3.1 ENABLE TARE
- 0 = disabled
- 1 = enabled

F2.3.2 TARE INTERLOCK
- 0 = disabled
- 1 = enabled

F2.3.3 AUTO TARE
- 0 = disabled
- 1 = enabled

F2.3.4 AUTO CLEAR TARE
- 0 = disabled
- 1 = enabled

F2.4 ZERO OPERATIONS
- Select to skip
- Enter to continue

Step Description

F2.4.1 PB ZERO ENABLE
0 = disabled
1 = enable PB zero and AZM within ±2% FS range
2 = enable PB zero and AZM within ±20% FS range

F2.4.2 AZM
0 = no AZM or zero capture at power up
1 = AZM within 0.5 d window and power up zero capture ±2%
2 = AZM within 1d window and power up zero capture ±2%
3 = AZM within 3d window and power up zero capture ±2%.

F2.4.3 AZM IN NET MODE
0 = disabled
1 = enabled

F2.4.4 ZERO CURSOR
0 = disabled
1 = enabled

F2.5 MOTION SENSITIVITY
0 = disabled
1 = 1.0 d motion sensitivity
2 = 3.0 d motion sensitivity

F2.6 LOW PASS CORNER FREQ.
x.x is the numeric data entry for the lowpass corner frequency (0.5 - 9.9 Hz.)

F2.6.1 NOISE FILTER ENABLE
0 = disabled
1 = enabled

F3 CONFIGURE SERIAL
Select to Skip
Enter to Continue

F3.1 SELECT SERIAL PORT
1 = COM1
2 = COM2(NA)

Step Description

F3.1.1 DATA RATE
XXXX = 300 - 9600

F3.1.2 DATA BITS
7 = 7 DATA BITS
8 = 8 DATABITS

F3.1.3 STOP BITS
1 = 1
2 = 2

F3.1.4 PARITY
0 = none
1 = odd
2 = even

F3.1.5 CHECKSUM
0 = disabled
1 = enabled

F3.2 SERIAL DATA OUT
0 = continuous
1 = demand
2 = SICS

F3.2.1 DATA FORMAT(com1 demand mode only)
0 = single line displayed weight
1 = single line GTN
2 = multiple line GTN

F3.2.2 EXPANDED PRINT (com1 demand mode output only.)
0 = normal print
1 = expanded print

F4 CONFIGURE DISCRETE
Select to Skip
Enter to Continue

F4.1 CONFIGURE INPUT
0 = none
1 = print
2 = tare
3 = zero
4 = select (switches units)

Step Description

F5 WEIGH MODE

Select to Skip
Enter to Continue

F5.1ENTER WEIGH MODE
0 = Indicator (Setpoints and Targets disabled) If true, skip to F6
1 = setpoint
2 = Over/Under.

F5.2 MEMORY KEY EDITING
0 = none
1 = setpoint and targets only
2 = setpoints targets, preacts and zones
3 = ALL

F5.4 SELECT SETPOINT / ZERO TOLERANCE RANGE
0 = none
1 = 1 increment
5 = 5 increments

F5.5 AUTO PRINT AT SP1
0 = disabled
1 = enabled

F5.6 AUTO PRINT AT SP2
0 = disabled
1 = enabled

F5.7 ENABLE STORED TARGET WEIGHTS
0 = disabled
1 = enabled

F5.7.1 ZONE WIDTH ENTRY MODE
0 = entered in increments
1 = entered in percent of target

F5.7.2 ENABLE PERCENT WEIGHT DISPLAY
0 = display in weight units. 1 = display in percent of target.

F5.7.3 ENABLE WEIGHT DIFFERNCE FROM TARGET DISPLAY MODE
0 = disabled
1 = enabled

Step Description

F5.8 ZONE INCREMENT SIZE
Select to skip
Enter to continue

F5.8.1 EDIT HIGH ZONE
0 to 4% of target or 0-15 d increments

F5.8.2 EDIT EDIT HIGH ACCEPT ZONE
0 to 4% of target or 0-15 d increments

F5.8.3 EDIT LOW ACCEPT ZONE
0 to 4% of target or 0-15 d increments

F5.8.4 EDIT LOW ZONE
0 to 4% of target or 0-15 d increments

F5.9 DISPLAY ENABLE
0 = status lights only
1 = weight display and status lights

F6 DIAGNOSTICS
Select to Skip
Enter to Continue

F6.1 EXPANDED DISPLAY
0 = normal
1 = expanded

F6.2 EDIT CALIBRATION FACTORS
0 = skip
1 = edit cal factors.

F6.4 PRINT SETUP REPORT
0 = skip
1 = print setup

F6.5 RESET TO DEFAULTS
0 = skip
1 = set to default values

[LOAD 0]
Are you sure? prompt.
Toggle to 1 for yes, 0 to abort.
If yes soft switches are set to the factory default values.

Step Description

F7 ANALOG OUTPUT OPTION
Select to Skip
Enter to Continue

F7.2 ANALOG OUTPUT ZERO CALIBRATION WITH TEST WEIGHTS

0 = skip
1 = continue

[0 Ld]
press enter key to acknowledge empty scale

F7.2.1 ANALOG OUTPUT ZERO CALIBRATION VIA KEYBOARD
0 = skip
1 = numeric data entry of the previous application zero offset value.

F7.3 ANALOG OUTPUT SPAN CALIBRATION WITH TEST WEIGHTS
0 = skip
1 = delay while zero reading for span determination is made.

[ADD Ld]
press enter to acknowledge addition of span weight to the platform.

F7.3.1 ANALOG OUTPUT SPAN CALIBRATION VIA KEYBOARD
0 = skip
1 = numeric data entry of the previous application zero offset value.

Step Description

F7.4 ANALOG OUTPUT TRIM ADJUSTMENT
0 = skip
1 = continue calibration using constant zero and full scale values. 2 = continue calibration using active load cell weight. Empty the scale when calibrating zero and load scale when adjusting span.

F8.1 PLC Weight Data Type? (Weight in display increments)

F8.2 RACK ADDRESS?

F8.3 START QUARTER?

F8.4 LAST RACK?

F8.5 DATA RATE? (115.2 Kb)

[0 FAS]
decrease zero reading analog output with select key or increase using zero key.

[0 SLO]
press memory key to alter zero reading as above at a slower rate. finish entry with enter key.

[S FAS]
decrease span reading with select key, or increase with zero key

[S SLO]
press memory key to toggle to slow mode and repeat above procedure to adjust at a slower rate.

[CALOFF]
press zero to return to previous block. press enter to exit setup.

Error Codes

Error	Description	Corrective Measures
E1	Program Memory Error	1. Check Power Supply Voltages 2. Replace Main Logic PCB
E2	Internal RAM Error	1. Check Power Supply Voltages 2. Replace Main Logic PCB
E3	EEPROM Memory Error	1. Check Power Supply Voltages 2. Reprogram, Recalibrate 3. Replace Main Logic PCB
E4	External RAM Error	1. Replace Main Logic PCB
E7	A/D Circuit Malfunction or No Analog Load Cell Connected	1. Program for correct load cell t ype 2. Check load cells and cables 3. Check Power Supply Voltages 4. Replace Main Logic PCB
E8	DigiTOL Load Cell Communication Error	1. Cycle Power 2. Check Load Cells and cables. 3. Check Power Supply voltages 4. Replace Main Logic PCB
E9	DigiTOL Load Cell Out of Range	1. Recalibrate 2. Replace Load Cell
E10	DigiTOL Load Cell RAM Error	1. Cycle Power 2. Check Power Supply voltages 3. Replace Load Cell
E13	DigiTOL Load Cell ROM Error	1. Cycle Power 2. Check Power Supply voltages 3. Replace Main Logic PCB
E16	Internal math error	1. Press Clear to acknowledge, unit will reset.
E20	Preact Value Is Greater Than Setpoint Value	Clear preact value, then re-enter setpoint value
E32	Insufficient test weight used for Calibration	Recalibrate using more test weight
E34	Test Weight Exceeds105% Of Capacity	Use less than 105% of capacity. Press CLEAR and re-enter
E35	Span calibration error	Recalibrate. If error persists, check programming or replace load cell.
E36	Analog Load Cell Outof Range	1. Recalibrate 2. Replace Load Cell
E40	Analog Output EEPROM Block Error	May display after installing an option kit when first powered up. Reset to Factory in setup.
E50	Weight can not be displayed in alternate units	Some alternate units combinations are illegal. Choose another scale build or disable alternate units.

Error	Description	Corrective Measures
EEE	Positive more than zero capture limit of 2% of scale	1. Remove Material from scale base

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E36	Analog Load Cell Outof Range	1. Recalibrate 2. Replace Load Cell
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Error	Description	Corrective Measures
	capacity	2. Disable AZM in Setup 3. Cycle Power
-EEE	Negative More Than Zero Capture Limit of 2% Of Scale Capacity	1. Disable AZM in Setup 2. Calibrate Scale 3. Cycle Power

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E36	Analog Load Cell Outof Range	1. Recalibrate 2. Replace Load Cell
E40	Analog Output EEPROM Block Error	May display after installing an option kit when first powered up. Reset to Factory in setup.
E50	Weight can not be displayed in alternate units	Some alternate units combinations are illegal. Choose another scale build or disable alternate units.

Error	Description	Corrective Measures
------	No Analog Load Cell Detected	1. Check Load Cell wiring 2. Replace Load Cell 3. Replace Main PCB