1734 Quick Reference Guide

The Programmer's Quick Reference guide is intended to be a helpful and efficient reference tool for power users and technical personnel when interfacing with this Hardy product. It is not designed to replace the User's Guide.

On the POINT I/O System:

Add an AENT module.

Add the 1734-WS on the tree.

If it will be named after the AENT module, then the number of the module on the bus. E.G. HI_AENT1:1:I

LEDs:

Module Status

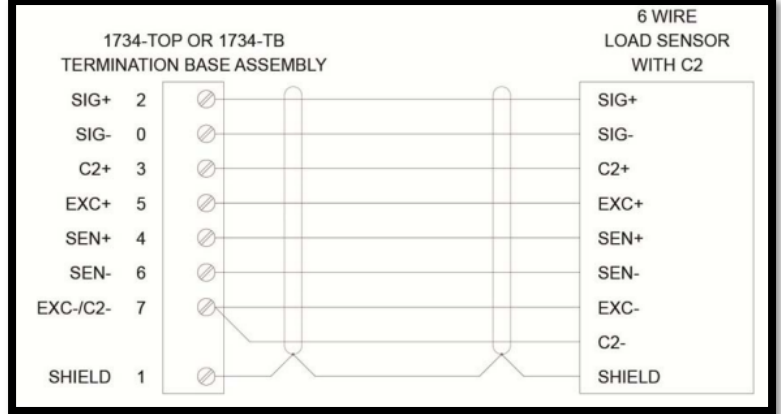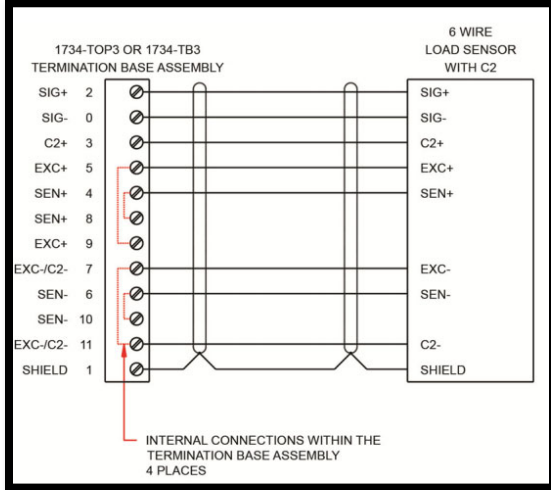| LED Light	Status
Solid Green	Normal (Running)
Flashing Green	Device on standby (needs commissioning)
Solid Red	Unrecoverable Fault
Flashing Red	Minor Fault
Flashing Red/Green	Device Self testing
Dark - Off	No power to the module

Network Status

LED Light	Status
solid Green	On-line, connected
Flashing Green	On-line, not connected
Solid Red	Critical Link Failure
Flashing Red	Connection time-out
Flashing Red/Green	A specific communication faulted device
Dark - Off	Not Powered/Not Online

Scale Status

LED Light	Status
Steady Green	Running (Normal)
Flashing Green	Error No Calibration
Steady Red	Error Read Failure or Error Eeprom Write
Flashing Red	Read Convert Error

HI_AENT1:1:I	{...}		HI:1734
HI_AENT1:1:I.ConnectionFaulted	0	Decimal	BOOL
HI_AENT1:1:I.CMD_Echo	16#0000	Hex	INT
HI_AENT1:1:I.CMD_Status	16#0000	Hex	INT
HI_AENT1:1:I.ParameterValue	16#0000_0000	Hex	DINT
HI_AENT1:1:I.ParameterID	16#0000	Hex	INT
HI_AENT1:1:I.InstrumentStatus	2#0000_0000_0000_0000	Binary	INT
HI_AENT1:1:I.ADConvertError	0	Decimal	BOOL
HI_AENT1:1:I.ADFailure	0	Decimal	BOOL
HI_AENT1:1:I.InMotion	0	Decimal	BOOL
HI_AENT1:1:I.EEPROMWriteError	0	Decimal	BOOL
HI_AENT1:1:I.CenterOfZero	0	Decimal	BOOL
HI_AENT1:1:I.SavingToNVM	0	Decimal	BOOL
HI_AENT1:1:I.CalibrationInProgress	0	Decimal	BOOL
HI_AENT1:1:I.ErrorNotFound	0	Decimal	BOOL
HI_AENT1:1:I.NetWeight	76.0	Float	REAL
HI_AENT1:1:I.GrossWeight	76.0	Float	REAL
HI_AENT1:1:I.ParameterRD1	16#0000_0000	Hex	DINT
HI_AENT1:1:I.ParameterRD2	16#0000_0000	Hex	DINT

Pinouts:

Instrument Status:

Status Word Bits
- Bit 0 = A/D converter error - bad input from the load sensor.
- Bit 1 = A/D converter failure - no output from the converter to the processor.
- Bit 2 = Motion - indicates weight is in motion (changing).
- Bit 3 = EEPROM Write error - problem writing to the non-volatile memory in the unit.
- Bit 4 = Center of Zero
- Bit 5 = Saving to Non Volatile Memory.
- Bit 6 = Calibration in Progress
- Bit 7 = Error parameter ID Not Found
- Bit 8-15 = counter - The upper 8 bits are constantly incrementing. This constantly changing value can be used as confirmation of communications.

Commands:

Command Number	Command
0	Read Parameter
1	Zero Cmd
2	Tare Cmd
(0x64) 100 dec	Cal Low Cmd
(0x65) 101 dec	Cal High Cmd
(0x66) 102 dec	C2 Cal Cmd
(0x80) 128 dec	IT Test
(0x94) 148	Set Default Parameters
(0x0100) 256 dec	IT Test Reduce
(0x0200) 512 dec	Stability Test
(0x1000) 4096 dec	Write Cmd
(0x10F0) 4336 dec	C2 Search

Each command can have different status returns. Individual status returns are in the manual on page 24.

Command Status:

HI 1734-WS Command Status Bits

Command Status Return Value
- 0 = Success
- 1 = Fail
- 2 = Fail - ADC error
- 3 = Fail - out of tolerance
- 4 = Fail - motion
- 5 = Fail - no C2 load cells found
- 6 = Fail - C2 capacities not equal
- 7 = Fail - non Hardy C2 load sensor
- 8 = Fail - not enough counts between Cal low and Cal high weights
- 11 = Fail - value too high
- 12 = Fail – Value too low
- 13 = Fail – not allowed
- 128 = Fail – Parameter ID not found

Bits:

0-7 – Lower word (Combined, they create the Command Status Return Value)

8-13 – Unused

14 – Status.14 for ParameterRD2_ID (Individual bit for the parameter read command.)

15 – Status.15 for ParameterRD1_ID (Individual bit for the parameter read command.)

Reading Individual Parameters

Parameter IDs can be entered in the output table using the codes listed below:

Configuration Parameters:	
Units	0x2881
Waversaver	0x2081
NumAverages	0x2082
ZeroTolerance	0x2886
AutoZeroTolerance	0x6302
AutoZeroState	0x6301
MotionTolerance	0x2887
SpanWeight	0x4182
RefWeight	0x4101
Gravity Correction	0x4102
Tare Weight	0x6183
Cal Year	0x4202
Cal Month	0x4203
Cal Day	0x4204

⊞ HI_AENT1:1:O.ParameterRD1_ID	16#2082	Hex
⊞ HI_AENT1:1:O.Reserved4	16#0000	Hex
⊞ HI_AENT1:1:O.ParameterRD2_ID	16#2081	Hex

To be read in the input table:

⊞ HI_AENT1:1:I.ParameterRD1	16#0000_0005	Hex
⊞ HI_AENT1:1:I.ParameterRD2	16#0000_0003	Hex

An incorrect parameter ID or value of 0 will change the status bits to a 1:

HI_AENT1:1:I.CMD_Status.14	0	De
HI_AENT1:1:I.CMD_Status.15	1	De

14 – Status.14 for ParameterRD2_ID
15 – Status.15 for ParameterRD1_ID
Giving you a 0xc000, 0x4000, 0x8000 in the CMD Status word