HI 6600 series Quick Start Guide

HI 6600 series is a modular system of weight processors that can deliver up to 30 channels of fast, stable, high-resolution weight values to PLCs, PACs and DSCs over a single fieldbus network.

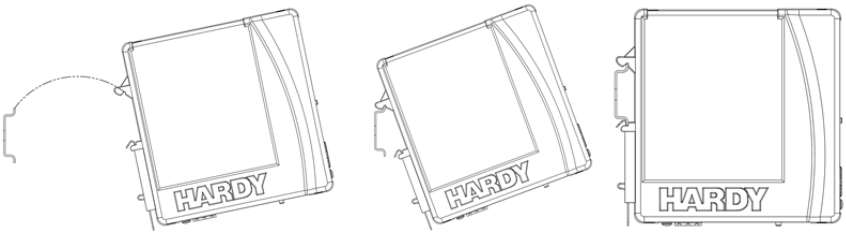
This Quick Start Guide is intended for users that are already familiar with setting up Hardy Process Solutions weighing instruments.

A complete User's Guide can be found under Documents and Programs online: www.hardysolutions.com

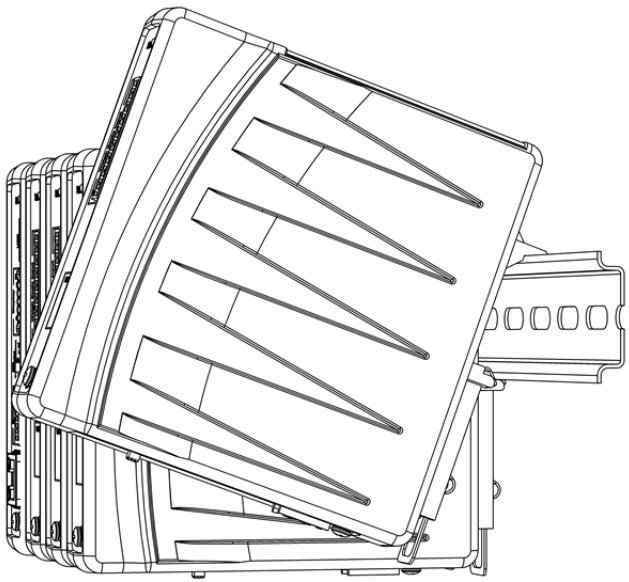
Navigate to the **Product** menu> **Weighing Instruments** > **Weight Processors** > **HI 6600** > Docs & Programs

DIN Rail Installation:

1. Place the top slot of the instrument onto the DIN rail first.
2. Rotate the instrument down until the bottom tab of the instrument enguges with the DIN rail, then press firmly on the bottom on the instrument until it snaps in place.
   Note: Heavy Gage DIN rail recommended.
3. Check for proper DIN rail engagement by gently lifting up on the bottom and making sure the instrument is securly in place.



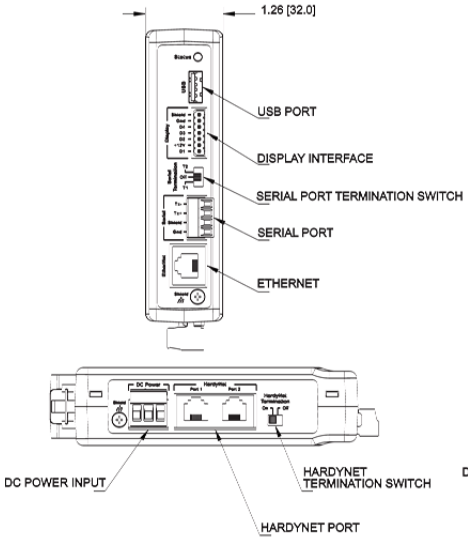
4. Repeat with additional units as required for your system.
5. To remove an instrument from a DIN rail, disconnect wiring then lift up on the bottom-front corner of the module until it snaps off.



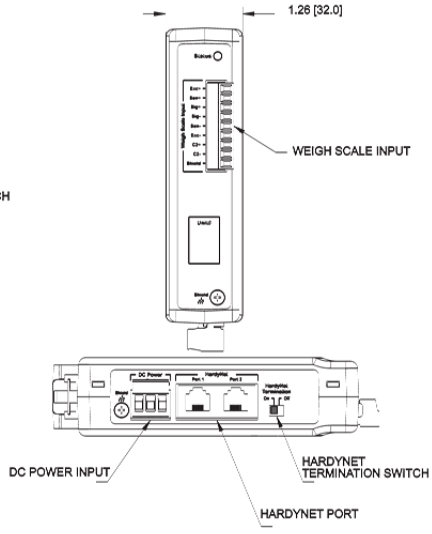
Note: The maximum distance between the first and the last module in the system is 500 feet (150 meters). The Gateway should placed at the end of a system

Wiring:

1. After units are securely mounted on DIN rail, remove terminal connectors making note of the wiring markings found on the connector labels located on the instruments.



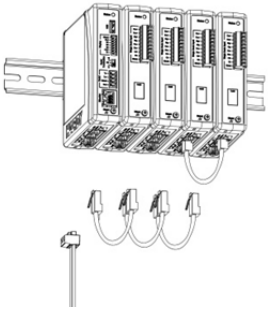
Hardy Gateway Module



Weight Processing Module

2. Cable HardyNet Ports located on the bottom of the units in series using Cat5e cable with RJ-45 connectors.

3. Cable the DC power located on the bottom of the units using the Module I-I Diagram and by following the notes for Power Input terminations.



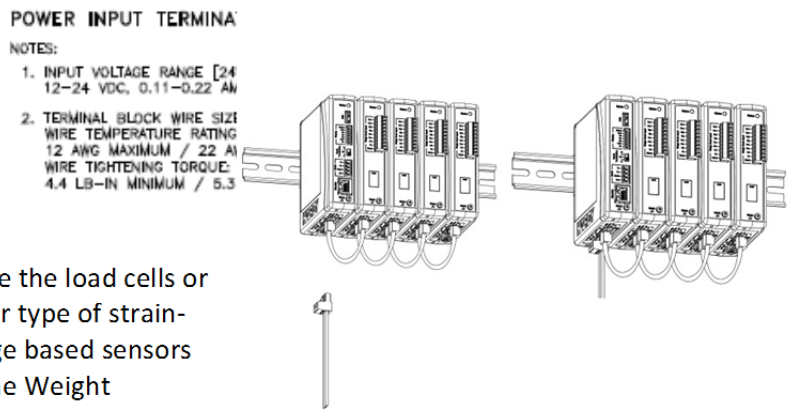
Power Input Termination Notes:

a) It is NOT necessary to provide power to every module. Power is distributed from the Gateway Module to other modules on the system via the HardyNet Port and the Cat5e cabling.

b) You must use a power-limited 12-24 VDC power supply (Class 2) on the DC input wiring. DC power should be supplied by a clean primary line, directly from the DC power source.

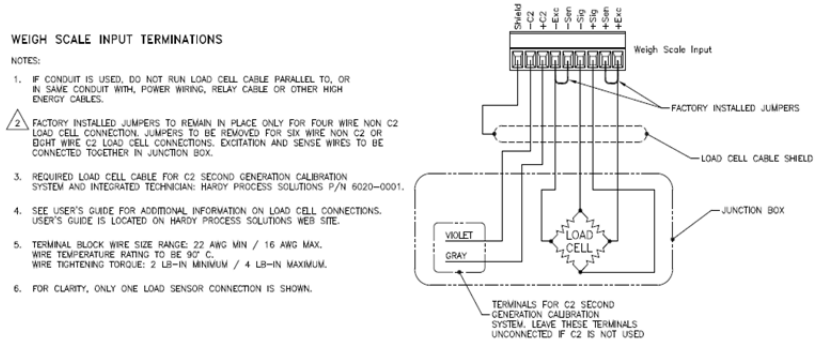
c) Make sure the VDC source is off before connecting any wires to the module and before plugging in the terminal connectors.

d) Connect the 24 VDC voltage wire, ground wire and shield wire to the connector that plugs into the DC voltage socket located on the bottom of the Gateway module. The factory installed jumper connects the Earth ground and the internal ground making them common, and should remain in place.



4. Cable the load cells or other type of strain-gauge based sensors to the Weight

Processing Modules using the I-I diagram and by following the notes for Weight Scale Input Termination:



5. Cable the communication ports on located on the Gateway terminal according to the protocol used and by following the I-I diagram for Hardy Gateway Module available on the Hardy website.

6. Connect the optional display to the display port located on the Hardy Gateway module.

7. Power up system.

Initial Set-Up:

Set Up may be performed through an optional front panel display or through the integrated Webserver. If setting up using the Webserver, connect an Ethernet cable between the Hardy Gateway Module and follow the **Communications>Ethernet TCP/IP** instructions shown below before proceeding.

Discovering Weight Processing Modules present on the system:

The system requires a process of discovery that allows the Gateway Module to identify and test communications with all Weight Processor Modules connected on the HardyNet. The discovery process is automatically initated upon power up of the system; verify all modules on the system have be registered by the Gateway by checking the

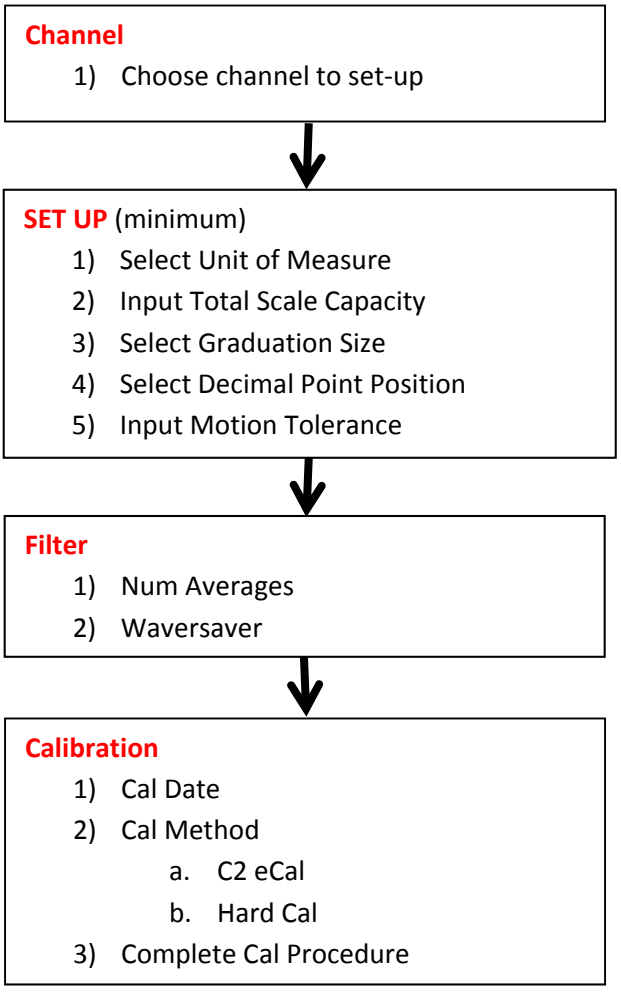
channel number count located in the HardyNet sub-menu of the Gateway module menu structure.

The Channel Identification and channel order number may also be modifed in the HardyNet sub-menu section during system set up.

Once the discovery process is completed, proceed to setting up each individual channel by following the basic SET UP instructions for each channel outlined below.

Suggested steps when setting up the instrument for the first time:

Choose a specific Weight Processor Module to set up by selecting a channel either from the front panel display or on the webserver.



Calibration: Section used to calibrate the instrument to the sensor(s) used.

C2 eCAL – Electronic Calibration

1) Remove all weight from the scale.
2) Set gravity correction for location of weighing system
3) Press Do C2 Cal.
4) Place a verification weight on the scale to ensure calibration is successful.

Hard Cal- Traditional Calibration

1) Input the **Span Weight.** The span weight should be about 80% of the scale capacity.
2) Input **Cal Low Weight**. With nothing on the scale, the Cal Low Weight is 0, with 5 lbs on the scale, the Cal Low Weight would be 5.
3) Press **Do Cal Low** to set the low point on the calibration curve.
4) Place the Span Weight onto the scale.
5) Press **Do Cal Hi.**

Refer to User's Guide if adjustments to other calibration-related parameters are required.

Communication: Section used for setting up communications to the instrument.

Ethernet TCP/IP

1) Connect an Ethernet cable between the instrument's RJ45 connector and a PC, then power up the instrument. A cross-over cable is not required, but can be used.
2) The instrument will auto-negotiate settings suitable for a variety of operating systems and network configurations. Wait approximately 15 seconds and check to see if the green light of the Ethernet port is on and blinking – if so, skip to step 8 – you are connected.
3) If the green light on the Ethernet port does not light up, check that the unit's **Enable DHCP** is turned off and follow steps 4 through 9.

4) Using the unit's Fixed IP address (the default is 192.168.000.100), the PC must now be assigned a ***unique*** IP address (for example, 192.168.000.101)

There are two simple rules for the IP Address:

- It must have the same network identifier as the computer.
- It must have a ***different node identifier*** than the computer.

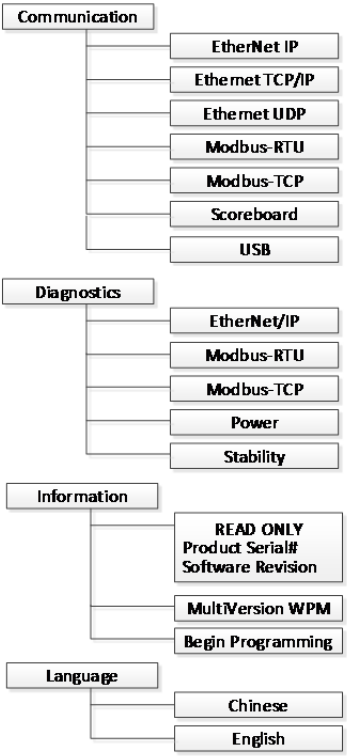
5) On a PC running windows, open Internet Properties (TCP/IP).
6) Click in the 'Use the Following IP Address' checkbox; then enter the following into the TCP/IP Properties dialog.
   IP Address = 192.168.0.101
   Subnet Mask = 255.255.255.000
7) Select OK on the TCP/IP Properties dialog box. The computer is now fully configured. To return the computer to the original network settings, return to the 'Internet Properties (TCP/IP) dialog, select 'Obtain an IP address automatically,' and click OK.

8) The HI 6500 series instrument is now configured to communicate with the PC. Enter the HI 6500 series instrument IP address into the Windows PC Web browser to access the embedded web browser. For example: http://192.168.000.100

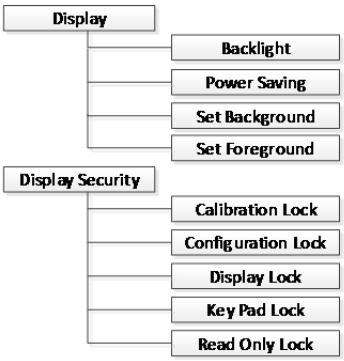
See the HI 6600 User's Guide for setting up EtherNet/IP, Ethernet-UDP and Modbus-RTU communication protocols.

MENU TREE

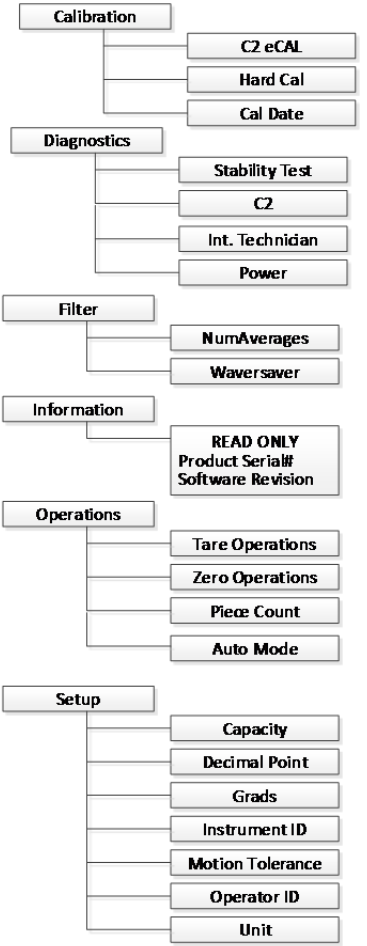
Hardy HI 6600 Gateway Module



Optional HI 6110 Front Panel Display



Hardy HI 6610 Weight Processing Modules



Diagnostics: Section used for diagnostics of system. Refer to User's Guide if troubleshooting and use of diagnostics menu is required.

Display: Section used for adjusting various aspects of the display, including contrast, brightness, and split screen feature.

Filter: Section used to stabilize weigh readings in an unstable environment.

WAVERSAVER: *Press the enter button and use the arrow keys to select the appropriate setting. WAVERSAVER eliminates unwanted noise and is typically set at 1.0 Hz.*

NumAverages: *Set the number of readings to average to provide a stable weight.*

Information: Section used for checking instrument serial number, and firmware revision.

Language: Section used for changing language.

Operations: Section used for setting up parameters related to Tare, Count and Zero of scale.

Security: It is highly recommended to see the User's Guide for setting up security functions on the instrument. Improper set up of the security settings could cause a user to be locked out from using the device.

Setup: Section used for setting up operation parameters of the instrument.

Capacity: Sets the normal operating capacity of scale.

Decimal Point: Sets to decimal point for the weight resolution.

Grads: Sets the graduation size of the display increments.

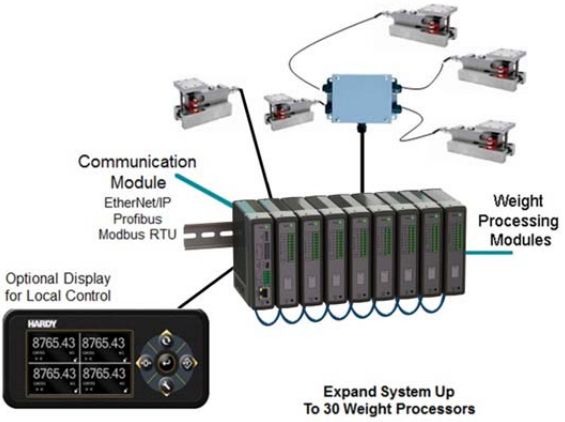
Instrument ID: Allows the instrument to be named.

Motion Tol: Choose the level of acceptable scale instability.

Operator ID: Optional area for entering an operator ID.

Unit: Choose the units such as lbs or kg that is desired to show on the scale.

Notes



Hardy Process Solutions sincerely appreciates your business. We encourage input about the performance and operation of our products from our customers. Should you not understand any information in this guide or experience any problems with this product, please contact our Technical Support Dept. at:

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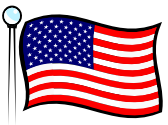

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