



**Conveyor Belt Scale**

**Product Handbook**

# **Belt-Way Scales, Inc. Product Handbook**

Belt-Way Scales, Inc.  
1 Beltway Rd.  
Rock Falls, IL 61071



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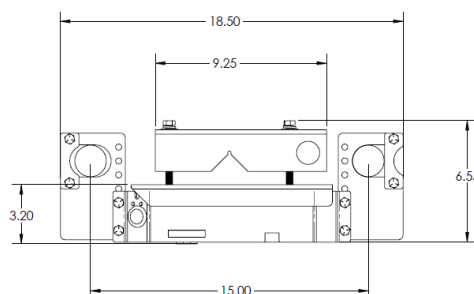
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## Load Cell Assemblies

**Type: Single Point Load Cell**  
**Excitation: 9 VDC from Integrator**  
**Output: 2 mv / V**

**Aluminum load cells include  
30 ft. of cable.**

**Stainless Steel load cells  
include 10 ft. of cable.**



### Aluminum Load Cell Color Code

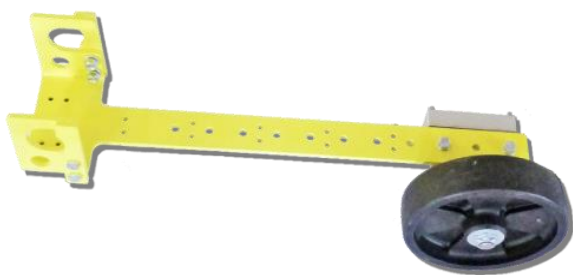
**-SUP – BLACK**  
**+SUP – RED**  
**-SIG - WHITE**  
**+SIG – GREEN**

### Stainless Steel Load Cell Color Code

**-SUP – BLACK**  
**+SUP – GREEN**  
**-SIG - WHITE**  
**+SIG – RED**

| Material:              | Aluminum                     | Stainless Steel       |
|------------------------|------------------------------|-----------------------|
| Capacity (kg):         | 45, 100, 200, 350, 500, 1000 | 50, 100, 150          |
| Zero Balance:          | .002                         | -.0338                |
| Non Linearity:         | < 0.02% R.O.                 | <0.0150% R.O.         |
| Hysteresis:            | <0.02% R.O.                  | <0.0150% R.O.         |
| Insulation Resistance: | > 5000 MegOhms               | > 2000 MegOhms        |
| Input Impedance:       | 350 Ohms                     | 350 Ohms              |
| Output Impedance:      | 420 Ohms                     | 383 Ohms              |
| Safe Overload:         | 150% F.S.                    | 200% F.S.             |
| Temp effect on Zero:   | <0.15% F.S. / 100 F          | .0055% R.O. / Deg. C  |
| Temp effect on Span:   | <0.08% F.S. / 100 F          | 0.0008% Load / Deg. C |

## Speed Sensor



**Type: Optical Encoder**  
**Power: 5 VDC from Integrator**  
**Output: 0-5 VDC Square Wave Pulse**  
**Pulses / Revolution: 100**  
**Enclosure: Anodized Aluminum**

Wheel speed sensors include 30 ft. and magnetic sensors include 60 ft. of shielded, twisted pair cable.

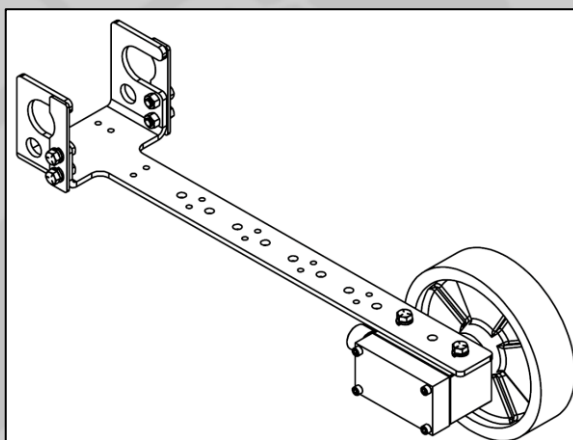
### Speed Sensor Wire Color Code.

**SIGA – GREEN**

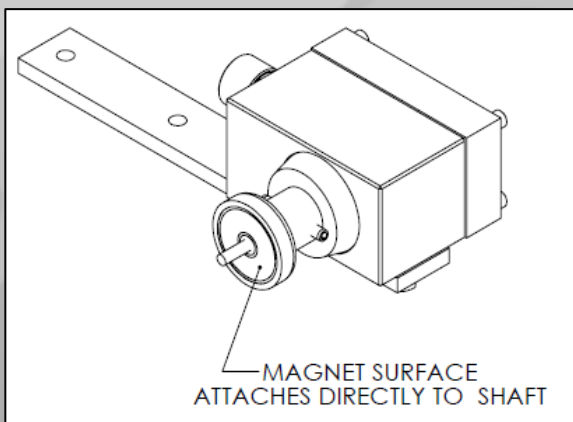
**+5V – RED**

**GND – BLACK & WHITE**

**Wheel Assembly w/ Mounting Arm**



**Magnetic Mount Speed Sensor**



## Angle Sensor

Type: Solid State Accelerometer  
Power: 5 VDC from Integrator  
Output: 0-4.096 VDC Analog  
Range: 0-30 degrees  
Enclosure: Potted Aluminum

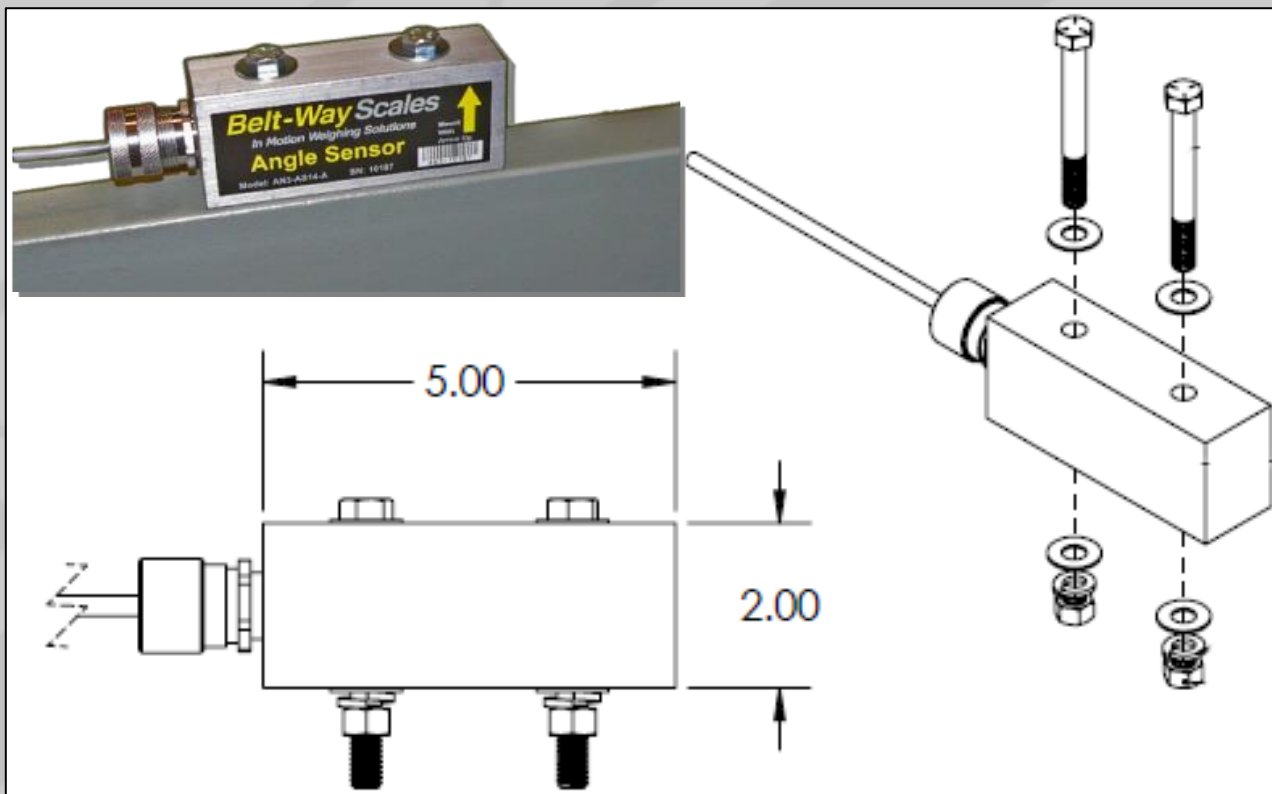
All angle sensors include 50 ft. cable  
Angle Sensor Wire Color Code:

**SIG – GREEN**

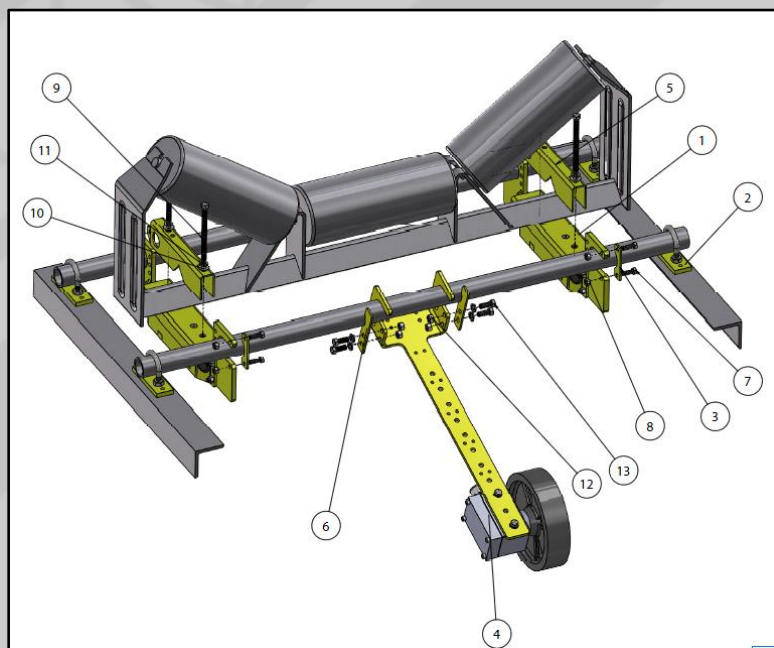
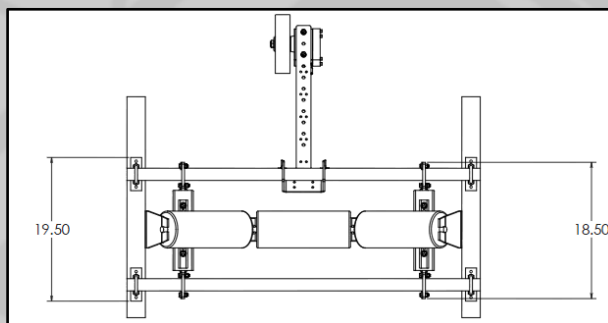
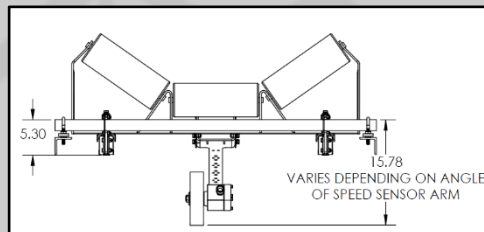
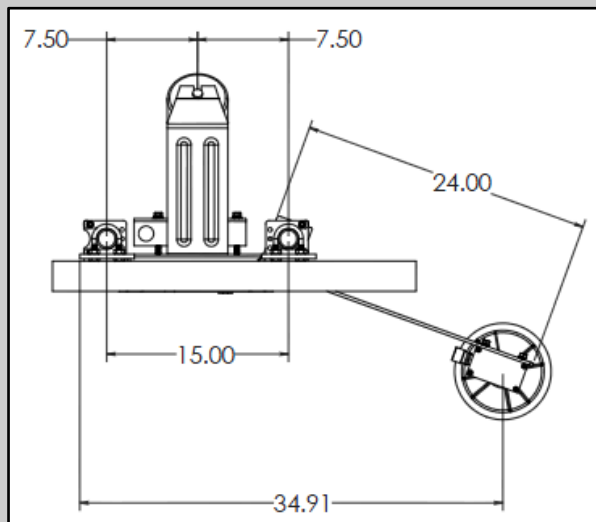
**GND - WHITE**

**+5V – RED**

**GND - BLACK**



## Mechanical Installation Drawings



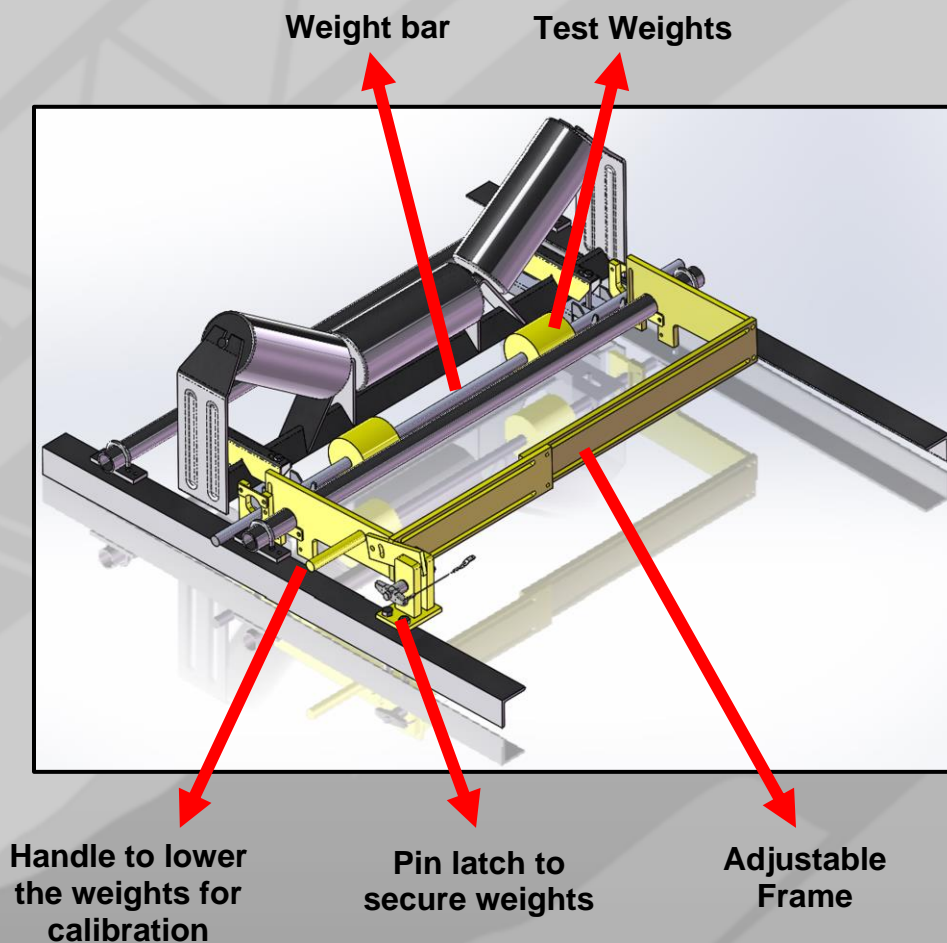
|    | Description                      | Qty. |
|----|----------------------------------|------|
| 1  | Load Cell Assembly               | 2    |
| 2  | Leveling Plate                   | 4    |
| 3  | Universal Strap                  | 4    |
| 4  | Speed Sensor with Arm            | 1    |
| 5  | V-Block                          | 2    |
| 6  | Speed Sensor Strap               | 2    |
| 7  | Steel Cap Screw 5/16"-18 x 1"    | 8    |
| 8  | Steel Nut & Lock Washer 5/16"-18 | 8    |
| 9  | Steel Cap Screw 3/8"-16 x 5"     | 4    |
| 10 | Flat Washer 3/8" 316SS           | 4    |
| 11 | Lock Washer 3/8" 316SS           | 8    |
| 12 | Hex Nut 3/8"-16                  | 4    |
| 13 | Steel Cap Screw 3/8"-16 x 1"     | 4    |

## Self Storing Test Weight Kit

The Self Storing Test Weight Kit keeps test weights permanently on the conveyor. The weights are dropped on the load cells to calibrate and raised to the storage position during normal operations. The weight kit is flexible and fits on most conveyors. It makes calibration safe and easy on scales that are high up in the air or when the conveyor is not accessible from both sides. Each kit includes a test bar and the appropriate test weights for a specific model scale.

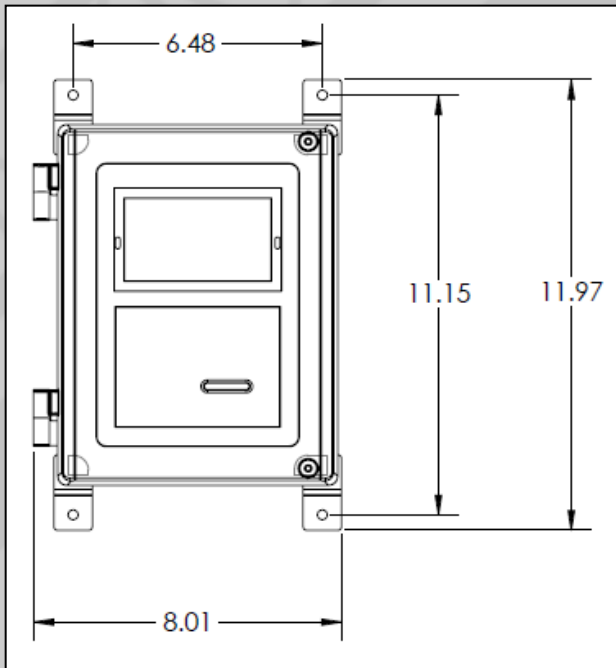
Each test weight is 13.05 lbs.

Model 45 = 2 weights total of 26.1 lbs    Model 100 = 4 weights total of 52.2 lbs  
Model 200 = 6 weights total of 78.3 lbs    Model 350 = 8 weights total of 104.4 lbs

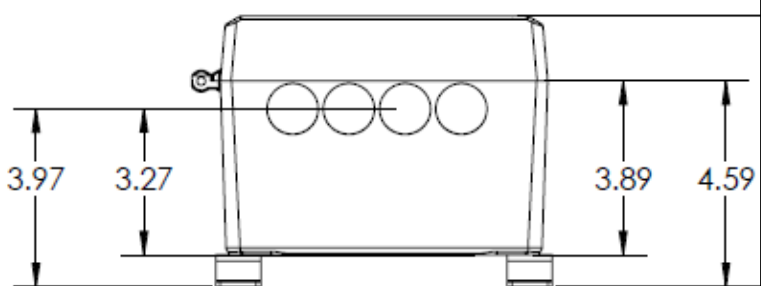




## Belt-Way Integrator



**Display:** 4.3" Color LCD  
**Enclosure:** Cast Aluminum  
**Operating Temperature:** -20°C to 45°C  
**Required Power:** 12-24 VDC, 55 Watts  
 optional 110/240 AC power adapter  
**Inputs:** 8 Load Cells (millivolts)  
           1 Speed Sensor (0-5 VDC Pulse)  
           1 Angle Sensor (0- 4 VDC)  
**Outputs:** 1 RS232 (Printer Port)  
           1 RS232 (Display Port)  
           1 Ethernet Port (Modbus TCP)  
           1 USB 2.0 Client  
**Optional IO Outputs:**  
           4-20 mA outputs (Tons Per Hour)  
           Digital Pulsed Output (Total Weight)  
           Min / Max Speed  
           Min / Max Tons Per Hour  
           Zero Calibration  
           Loadout  
**Optional IO Inputs:**  
           Clear Weight  
           Print Ticket  
           Zero Calibration



## Integrator Components

### Integrator Board

USB Flash Drive Installed on  
Integrator Board

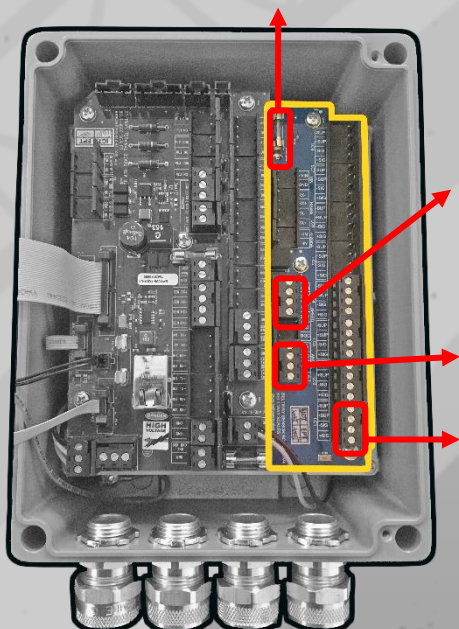
The Integrator board contains the memory and processor of the integrator. The scale firmware and programmable settings are stored in the integrator board.

1.25 Amp Fuse



### Sensor Board

1.25 Amp Fuse



#### Speed Sensor Wiring

**SIGA – GREEN**  
**+5V – RED**  
**GND – BLACK & WHITE**

#### Angle Sensor Wiring

**SIG – GREEN**  
**GND – WHITE**  
**+5V – RED**  
**GND – BLACK**

#### Load Cell Wiring

**-SUP – BLACK**  
**+SUP – RED**  
**-SIG – WHITE**  
**+SIG – GREEN**

#### Shield Wire

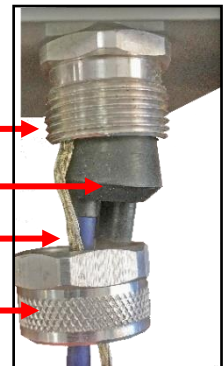
The shield wire from each cable must be grounded to prevent noise from entering the integrator. Route the cable through the rubber grommet and loop the shield wire back out so it touches the aluminum connector.

**Cord Connector**

**Rubber Grommet**

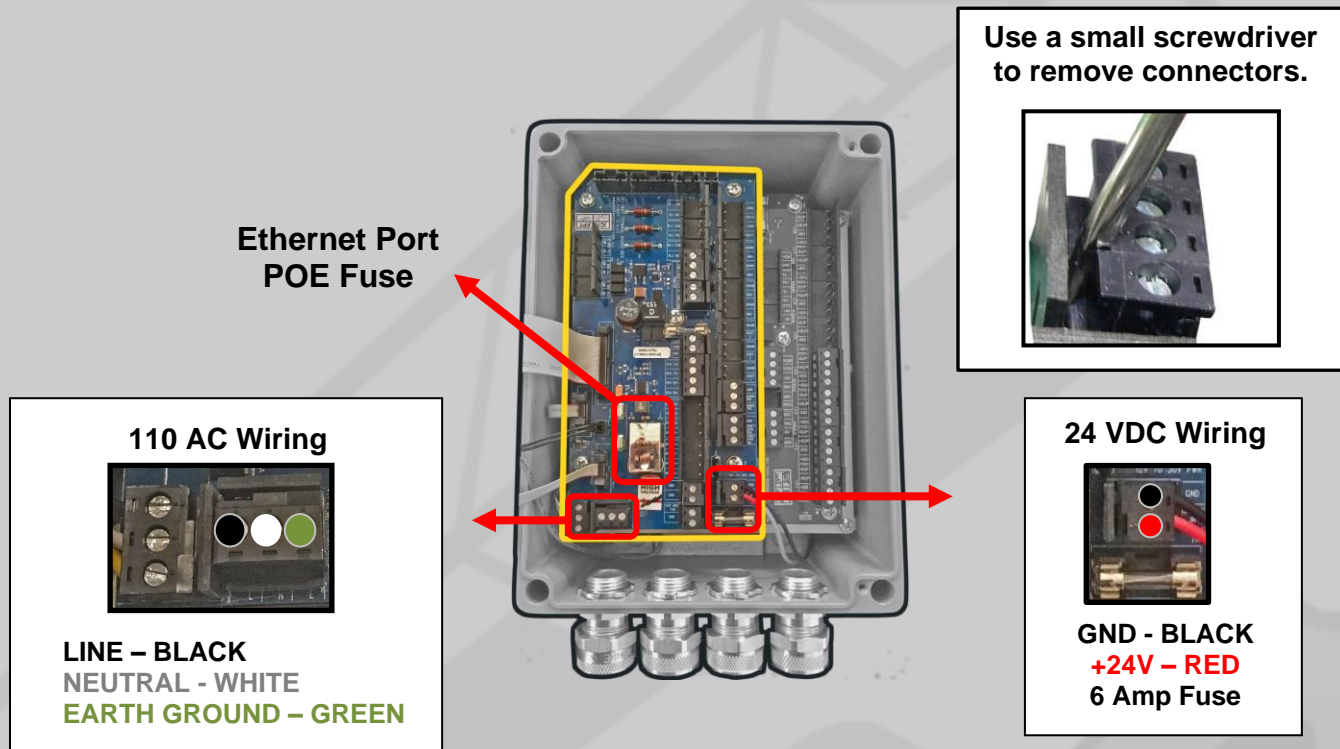
**Shield Wire**

**Connector Cap**

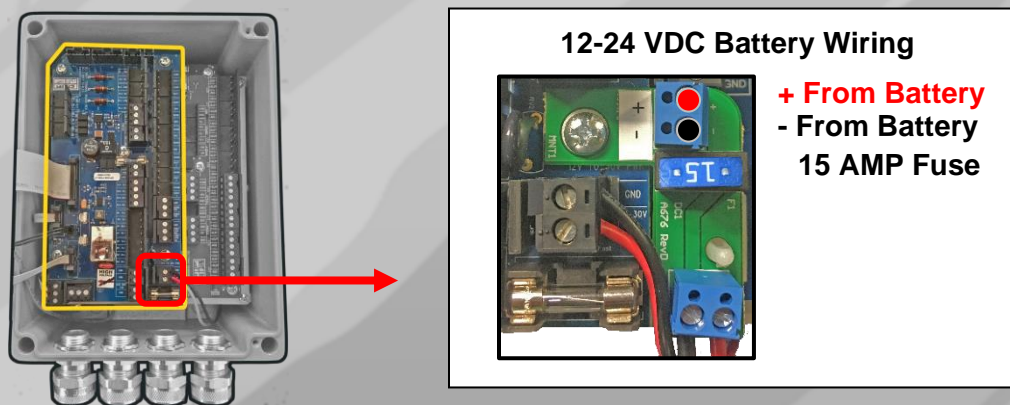


## Terminal Board with AC Power Supply

**Always disconnect power before servicing the integrator!**

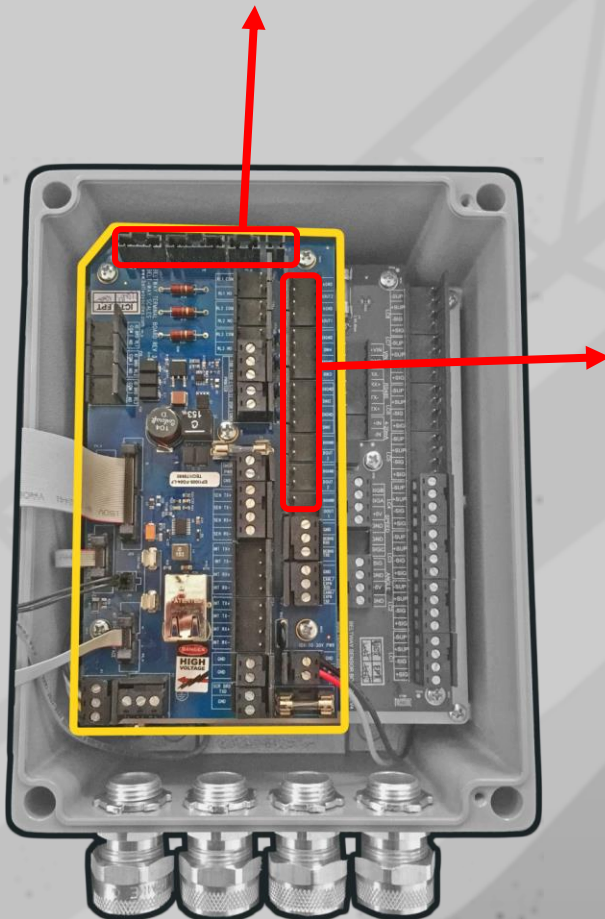


## Terminal Board with DC Power Supply



## Terminal Board with IO Board installed

The IO Board is installed below the terminal board and connects at the top of the terminal board (No wires = No IO board)



### **Isolated Analog Outputs - 24VDC sourced** **Monitor Rate or automatically control a VFD**

- Function – Select 0-20mA or 4-20mA Output
- PID control can be assigned to 1 of 2 channels

### **4 - Isolated Digital Inputs, Sink 12-24VDC, 50mA Max.** **4 functions from a PLC or remote Push Button**

- Clear Weight
- Print Ticket
- Enter Load (for batch / loadout control)
- Zero Calibration

### **3 - Isolated Digital Output, Sink 30VDC, 100mA Max.** **3 signals to PLC or other remote device**

- Pulsed Output (Weight counter)
- Min / Max Speed Alarm
- Min / Max Rate Alarm
- Batch / Loadout control (Indicates Batch Complete)



## Junction Box

A junction box is required if the integrator must be installed farther than 30 ft. from the scale. The junction box consolidates all the analog component cables into a digital RS485 signal. A single 6 wire cable is required to connect the junction box and integrator.

Junction Box



Load Cells, Speed Sensor, and Angle sensor all connect to the junction box.

Up to 1000 ft. 6 pair RS485 cable connect the junction box to integrator. The shield wire of the cable must be grounded on both ends to prevent interference from electrical noise.

Integrator



Junction Box  
Sensor Board

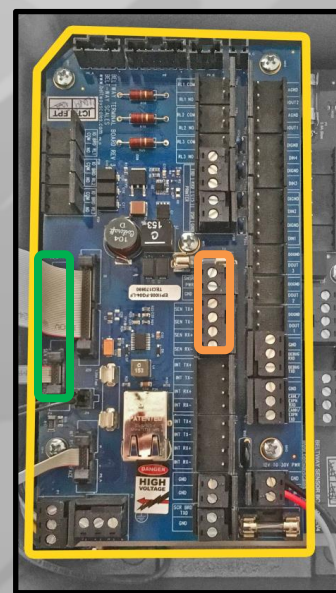


+ VIN  
GND  
RX-  
RX+  
TX-  
TX+

SNR PWR  
GND  
SEN TX+  
SEN TX-  
SEN RX+  
SEN RX-

The SENSOR POWER and  
SEN RS485 INTERFACE  
ribbon cables must be  
disconnected from the  
terminal board.

Integrator  
Terminal Board





## Integrator Interface Navigation



**HOME:** Returns to the Run Screen



**MAIN MENU:** Displays the Main Menu



**BACK:** Moves to previous screen



**ZERO CALIBRATION:** Initiate the **Zero Calibration** process



**PRINT TICKET:** Print ticket or save a screenshot to USB when no printer is installed.



**CLEAR WEIGHT:** Press **TWICE** to reset the accumulated weight to 0.



**ENTER KEY (Middle Arrow):** Press to select menu options or accept value changes.



**ARROW KEYS:** Use to navigate menus.

### Entering Alphanumeric values on Virtual Keypads:

Press **ENTER** on the keypad after highlighting each character. Select **ENTER** on the virtual keypad to save the new values.

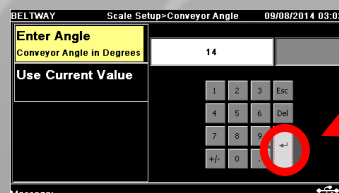
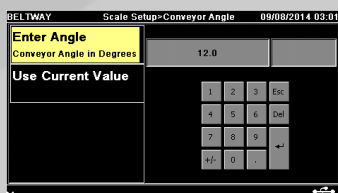
|     |   |   |     |   |   |   |   |   |   |   |   |   |   |     |
|-----|---|---|-----|---|---|---|---|---|---|---|---|---|---|-----|
| 1   | 2 | 3 | esc | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | Esc |
| 4   | 5 | 6 | del | A | B | C | D | E | F | G | H | I | J | Del |
| 7   | 8 | 9 | ←   | K | L | M | N | O | P | Q | R | S | T | ↵   |
| +/- | 0 | . |     | U | V | W | X | Y | Z | , | - | . | @ | &   |

**Data Entry Example:** Enter an angle when no angle sensor is installed:

1. Choose Enter Angle.

2. The cursor moves to the keypad.  
Enter "14".

3. Move the cursor to the Arrow.



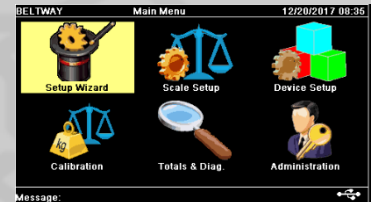
Press Enter on the keypad to save

## Setup Wizard

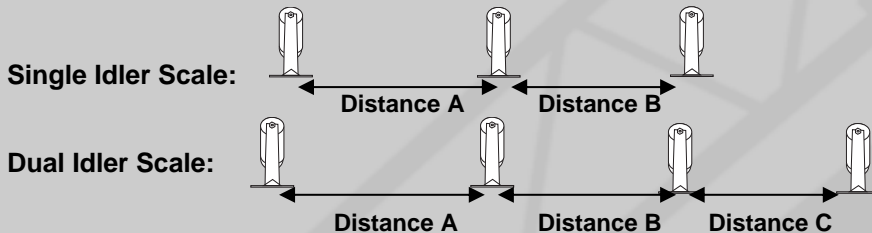
Several measurements are required to complete the wizard.

Record the following values before starting the wizard.

1. Number of weigh idlers (1 for single idler scale, 2 for dual idler scale, etc)
2. Load cell capacity found on Load cell assembly label (45 kg, 100 kg, 200kg, etc)



3. Idler spacing distance (Measure as shown below:)



4. Conveyor Angle (if an automatic angle sensor is not used)

Note: If the conveyor angle is not known, leave the angle at the default of 12 degrees.

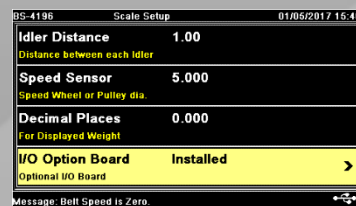
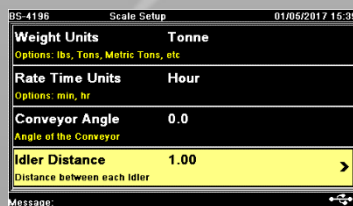
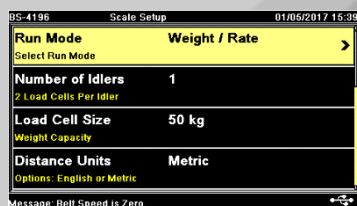
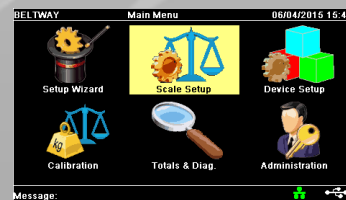
5. Head or Tail pulley diameter if shaft mount speed sensor is used instead of the wheel speed sensor.

The Setup Wizard proceeds through the following parameters:

- 1) Select Run Mode
- 2) Select Number of Weigh Idlers
- 3) Select Load Cell Size
- 4) Select Distance Units
- 5) Select Weight Units
- 6) Select Decimal Places
- 7) Select Rate Time Units
- 8) Select Angle Sensor ON / OFF
- 9) Enter Angle
- 10) Enter Idler Spacing
- 11) Speed Wheel Diameter
- 12) Select IO Installed YES / NO
- 13) Belt Length Entry or Calibration
- 14) Zero Calibration Static or Dynamic
- 15) Calibration - Test Weight or Material Test

## Scale Setup

Scale parameters can be viewed and edited under the Scale Setup menu.



## Scale Calibration

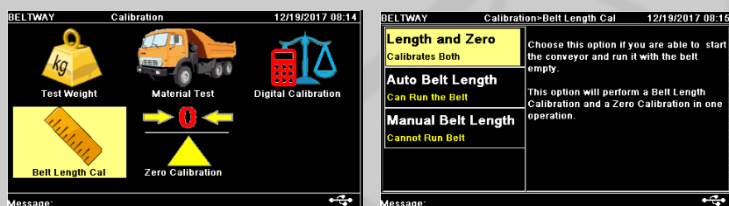
**All Calibration options are available under the calibration menu icon.**



### 1. Perform Length and Zero (if not completed during the setup wizard)

The Length and Zero establishes the belt length and initial zero weight of the belt. It must be run once at startup and whenever the belt length changes significantly.

Navigate to **Calibration > Belt Length Cal > Length and Zero** and follow instructions.



### 2. Perform Zero Calibration

The Zero calibration weighs at least one revolution the empty belt and calculates a new zero weight.

**The Zero Calibration should be performed at least once per day!**

Start the belt running empty and press the Zero Calibration button on the keypad.

Follow the instructions on the screen. Repeat as needed until the accumulated weight

hovers up and down slightly with the belt running empty.



### 3. Perform Test Weight Calibration

The **Test Weight Calibration** changes the **Trim Number** properly calibrate the scale.

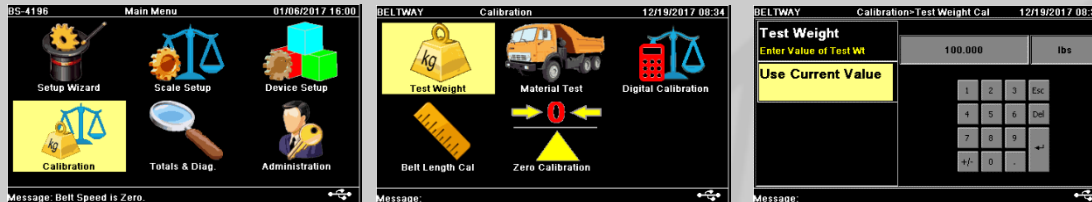
The calibration should be performed at startup and several times per year on a stationary conveyor. A portable conveyor should be calibrated each time it is moved.

| Suggested test weight amounts by scale model: |                        |             |              |           |            |
|---|------------------------|-------------|--------------|-----------|------------|
| Model 45 or Model 50                          | Model 100 or Model 150 | Model 200   | Model 350    | Model 500 | Model 1000 |
| 25-50 lbs.                                    | 50-100 lbs.            | 75-100 lbs. | 100-200 lbs. | 200+ lbs. | 200+ lbs.  |

The test weight amount must include the bar or other hardware used to hang the weights on the load cells. If the bar weight is unknown, install the bar on the scale and perform the zero calibration. Then use the exact test weight value.

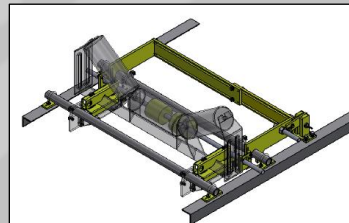


Navigate to **Calibration > Test Weight**. Enter the test weight amount.

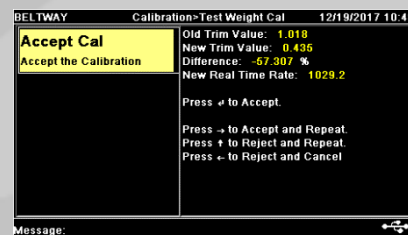


Hang the weights on the load cells or drop the weights if using the Belt-Way test weight system.

**Make sure the weights hang freely from the load cell assemblies!**



Start the belt running empty and follow the instructions. Pay close attention to the **Accept Cal** screen. The **New Trim Value** will typically be between **.90 and 1.10**. If it is not in that range check all setup parameters including model number, idler distance, speed sensor, angle and test weight amount.



Navigate to **Totals & Diagnostics > Live Weight**



If the **Live Weight** is close to the test weight value, then repeat the calibration. If the trim is still out of range then refer to the troubleshooting section and contact Belt-Way tech support for further assistance.

#### Calibration Verification:

If the Trim number is close to 1.000, use the following formula to verify the calibration.  

$$((\text{Test Weight Amount} / \text{Idler Distance}) * \text{Belt Speed} * 60) / 2000 = \text{Tons Per Hour}$$

Example:  $((100 \text{ lbs.} / 4 \text{ ft.}) * 400 \text{ feet per minute} * 60) / 2000 = 300 \text{ Tons Per Hour}$

#### 4. Perform Material Test Calibration

The **Material Test Calibration** adjusts the Trim Number to make the belt scale match another scale. The calibration is typically performed with a certified truck scale or rail scale.

**Run the belt empty and perform a Zero Calibration prior to each material test load!**

Weigh the truck **EMPTY** to get an accurate tare weight.

Clear the weight on the belt scale or record the starting weight.

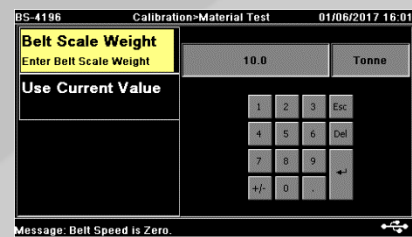
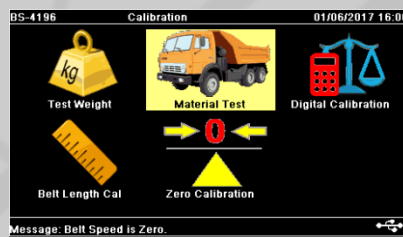
Run the material to start test. Make sure all material is caught in the truck.

Larger tests are better. A minimum of 15 tons per test is recommended.

Complete 2-3 tests in a row without changing anything on the scale.

Compare the results to prove the scale is repeatable before continuing the calibration.

Navigate to **Calibration > Material Test**



Proceed by entering the belt scale weight.

**If the tests are reasonably close, use the sum of all the tests.**

Choose the correct certified scale units then enter the certified weight.

Follow the instructions and press **Enter** several times until you reach the Accept Cal screen.

Pay close attention to the **Accept Cal** screen.

The **New Trim Value** will typically be **.90 to 1.10**. If the trim is out of range make sure the correct weights and units were used.

**Reject and Repeat** the calibration if incorrect values were entered.

If multiple material loads vary greatly stop and review troubleshooting procedures or contact tech support.

#### 5. Digital Calibration

The digital calibration resets the **Trim Factor** to the default of 1.000.

Navigate to **Calibration > Digital Calibration** and follow the instructions .

## Totals and Diagnostics

**Totals & Diagnostics** contains all other scale totals and diagnostic information.

### 1. Scale Totals

Navigate to **Totals & Diagnostics > Totals**

**Job Total:** Accumulates until it is manually reset.  
Press **Clear Weight** twice to reset the Job Total to 0.

**Daily Total:** Automatically resets each day.

**Weekly Total:** Automatically resets each week.

**Monthly Total:** Automatically resets each month.

**Yearly Total:** Automatically resets each year.

**Master Total:** Does NOT reset.

### 2. Diagnostics and Troubleshooting

Navigate to **Totals & Diagnostics > Diagnostics**

### Calibration Parameters

Navigate to **Totals & Diagnostics > Diagnostics > Calibration**

#### 1. Trim Factor (Calibration Multiplier)

Should be very close to 1.000

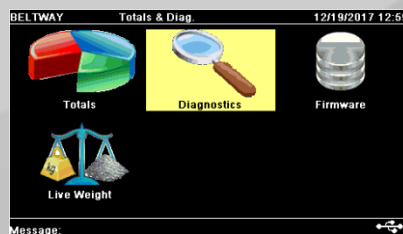
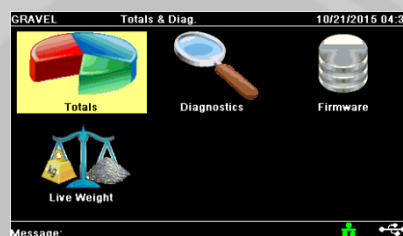
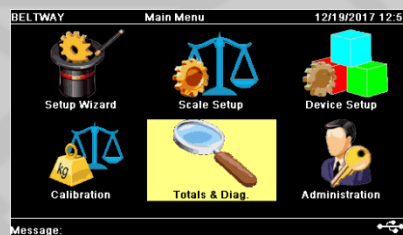
#### 2. Zero Value (Empty Belt Weight)

Typically 75 – 150 pounds Varies based on belt width, idler spacing, idler weight, etc.

#### 3. Belt Length

The belt length should be manually increased 2 or 3 times on short, fast moving belts.

For example: less than 60 feet going faster than 400 fpm.



| BELTWAY Totals & Diag->Calibration 08/03/2016 09:44 |          |
|---|----------|
| Trim Factor   | 1.000    |
| Current Setting                                     |          |
| Zero Value  | 1.0 lbs  |
| Current Setting                                     |          |
| Belt Length   | 1.0 Feet |
| Current Setting                                     |          |

Message: Belt Speed is Zero

## Voltage Readings

Navigate to **Totals & Diagnostics > Diagnostics > Voltages**

1. Load Cell Supply - Typically 9 - 9.10VDC
2. +5v - Typically is between 4.95 - 5.10VDC

|  |      |
|--|------|
| BELTWAY Totals & Diag->Voltages 08/03/2015 09:45   |      |
| Load Cell Supply                                   | 9.14 |
| Live Data in Volts                                 |      |
| +5V  | 5.03 |
| Live Data in Volts                                 |      |
| Message: There is a problem with the Angle Sensor. |      |

## Sensors

Navigate to **Totals & Diagnostics > Diagnostics > Voltages**

1. Load cells 1-8
2. Speed Sensor
3. Angle Sensor

|   |      |
|---|------|
| BELTWAY Totals & Diag->Sensors 08/03/2015 09:46 |      |
| Load Cell 1                                     | 5.2  |
| Live Data in mV                                 |      |
| Load Cell 2                                     | 1.8  |
| Live Data in mV                                 |      |
| Load Cell 3                                     | -5.4 |
| Live Data in mV                                 |      |
| Load Cell 4                                     | -8.3 |
| Live Data in mV                                 |      |
| Message: Belt Speed is Zero.                    |      |

## Load Cell mV signal diagnostics.

Each load cell should show **1.0 - 7.0 mV** when the belt is empty.

The mV reading varies based on the zero value. Review the mechanical installation if there is more than **2.0 mV** difference between load cells.

**31 mV** is the maximum and is usually caused by a wiring error.

**Negative values mean the load cell could be damaged.**

## Testing the Load Cells

If mV readings are out of range use a volt meter to manually check the load cells.

**Measure Actual Excitation Voltage at the Sensor Board**

+Sup and -Sup should be **9 - 9.10VDC**

## Measure Actual Load Cell mV Signal

Set your meter to DC mV (or DC Volts on auto ranging meter)

Place the **Black** Lead on **White Wire (-SIG)** and **Red** lead on **Green Wire (+SIG)**

The reading should match the integrator.

## Measure Load Cell Resistance (Ohms)

Disconnect the load cell from the sensor board.

Set your meter to  $\Omega$  (OHMS)

Test Supply wires - **Black** and **Red** should measure approximately 420  $\Omega$

Test Signal wires - **White** and **Green** should measure approximately 350  $\Omega$



## Belt Speed Problems

### If there is no belt speed:

1. Check if the belt is stopped.
2. Check to confirm the speed sensor wheel is touching the belt and turning.
3. Confirm the wheel is not excessively worn or bouncing.
4. Shaft Mount – Check the shaft for pulley shaft damage.

### Check Speed Sensor Supply Voltage

Set Meter to VDC and measure between +5V and (GND) Ground

### Check for damaged wires

#### Most speed sensor problems are caused by damaged cable.

Set Meter to  $\Omega$  (OHMS) or Ringer

Remove cover from the speed wheel

Perform checks for an open circuit or broken wire.

If the cable is not damaged then the encoder board may be damaged.

Contact tech support for further assistance.

## Angle Sensor Problems

Compare the angle reading to an external angle finder.

Manually move the angle sensor up and down to see if the angle changes.

### Check Angle Sensor Signal on Diagnostics Screen

If angle sensor is connected make sure it is "Installed" in Scale Setup menu.

Make sure the Arrow on the angle sensor is Pointing UP

### Check Angle Sensor Supply Voltage

Supply voltage should be about 5 VDC.

Set Meter to VDC and measure between +5V and (GND) on the sensor board.

### Check Signal Voltage

Set Meter to VDC and measure between SIG A and (GND) on the sensor board.

The reading should be between 0.01VDC and 4VDC depending on the angle of the conveyor.

**-45Deg = 0VDC, 0DEG = 2VDC, +45DEG = 4VDC**





## Power Problems

The integrator requires a minimum of 12 VDC to operate properly.

Underpowered AC transformers will not work.

We strongly suggest use of the Belt-Way AC power supply.

### AC Power Supply Spec:

- Input: 100-240 VAC 50/60 Hz.
- Output: 24VDC, 2.25A Max.

## DC Power Source:

A 12 VDC battery may be used to power the scale but it must be in good condition.

The alternator must function properly to avoid damage to the integrator.

Low power will cause the integrator screen to blink or go white.

A toggle switch should be installed so integrator can be turned off prior to startup and shut down.

## Error Messages

### No Comms with sensor Board

Check supply voltage. Sensor board drops out below 12 VDC.

Unplug small ribbon cables if using a junction box.

Check the cable running from integrator to the junction box.

Test for 24 VDC on SNSR PWR and GND.

Check fuses.

### No belt speed

Follow speed sensor trouble shooting procedure.

### No IO Board

IO board is not installed. Change setting in Scale Setup menu.

Check ribbon cable from integrator board to IO board.

### Bad Load Cell

Check wiring

Follow Load Cell testing procedure

## Thermal Printer



The Thermal Printer allows the user to print a production ticket on demand. Each display includes 10 ft. of cable. 110 / 220 VAC and 12-24 VDC models are available.

Wire Color Code:

**GREEN - PRINTER TXD**

**WHITE - GND**

### SAMPLE TICKET:

Belt-Way Scales Inc.  
1 Beltway Rd.  
Rock Falls IL, 61071  
PHONE: 8156255573  
SCALE # 1  
Ticket # 9  
TIME 9:56:18  
DATE 7/31/2015  
WEIGHT 6817.481



Printer RS-232 Port

Scoreboard RS-232 Port

+

## Scoreboard Display



The Scoreboard Display shows the scale weight or tons per hour. 2", 4" and 6" sizes are available. Each display includes 30 ft. of cable. 110 VAC and 12 VDC models are available.

Wire Color Code:

**GREEN - SCR BRD TXD**

**WHITE - GND**

## Remote Display Options

### Touch Screen Remote Display

Monitor multiple scales from a central location. Connection from integrators can be hardwired or wireless. User can perform zero calibrations and reset weights on all scales.

4" display supports 1-2 Scales  
7" display supports 1-6 Scales



| Belt-Way Scales Inc. |        |            |                   | 05/22/2015 00:17 |            |
|----------------------|--------|------------|-------------------|------------------|------------|
|                      | WEIGHT | RATE       | SPEED             | ZERO CAL         | RESET TONS |
| CV-3 PRIMARY         | 517.73 | 905        | 333               | ZERO CAL         | RESET TONS |
| CV-7 CONE            | 373.57 | 218        | 221               | ZERO CAL         | RESET TONS |
| CV-12 1/2 IN         | 390.07 | 835        | 333               | ZERO CAL         | RESET TONS |
| CV-14 3/4 IN         | 194.34 | 415        | 300               | ZERO CAL         | RESET TONS |
| CV-18 1 IN           | 28.31  | 212        | 360               | ZERO CAL         | RESET TONS |
| CV-21 FINES          | 361.22 | 188        | 222               | ZERO CAL         | RESET TONS |
| MENU                 | HELP   | SCREENSHOT | DECIMAL PLACES: 2 | ZERO ALL         | RESET ALL  |



|              | WEIGHT | RATE | SPEED | ZERO CAL | RESET TONS |
|--------------|--------|------|-------|----------|------------|
| S1 OVERLAND  | 522.1  | 2382 | 600   | ZERO CAL | RESET TONS |
| S2 CONE      | 99.1   | 463  | 555   | ZERO CAL | RESET TONS |
| S3 REFEED    | 118.9  | 526  | 629   | ZERO CAL | RESET TONS |
| S4 SURGE     | 266.0  | 1179 | 700   | ZERO CAL | RESET TONS |
| S5 JAW       | 278.3  | 1231 | 552   | ZERO CAL | RESET TONS |
| S6 SCREEN    | 47.0   | 208  | 258   | ZERO CAL | RESET TONS |
| S7 ASPHALT   | 205.8  | 910  | 111   | ZERO CAL | RESET TONS |
| S8 CONCRETE  | 12.8   | 57   | 110   | ZERO CAL | RESET TONS |
| S9 DUST      | 14.3   | 64   | 350   | ZERO CAL | RESET TONS |
| S10 ROADROCK | 58.5   | 259  | 225   | ZERO CAL | RESET TONS |
| S11 1/2 IN   | 110.1  | 488  | 150   | ZERO CAL | RESET TONS |
| S12 3/4 IN   | 41.7   | 185  | 152   | ZERO CAL | RESET TONS |

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Multiple Scale Functions

ZERO CAL ALL SCALES RESET ALL WEIGHTS

Display Functions

DECIMAL PLACES 1 USB BACKUP

MENU HELP SCREENSHOT

### TV Module

Monitor multiple scales from a central location on any HDMI TV. Connection to integrators can be hardwired or wireless. User can perform zero calibrations and reset weights on all scales.

The module supports 1-12 scales

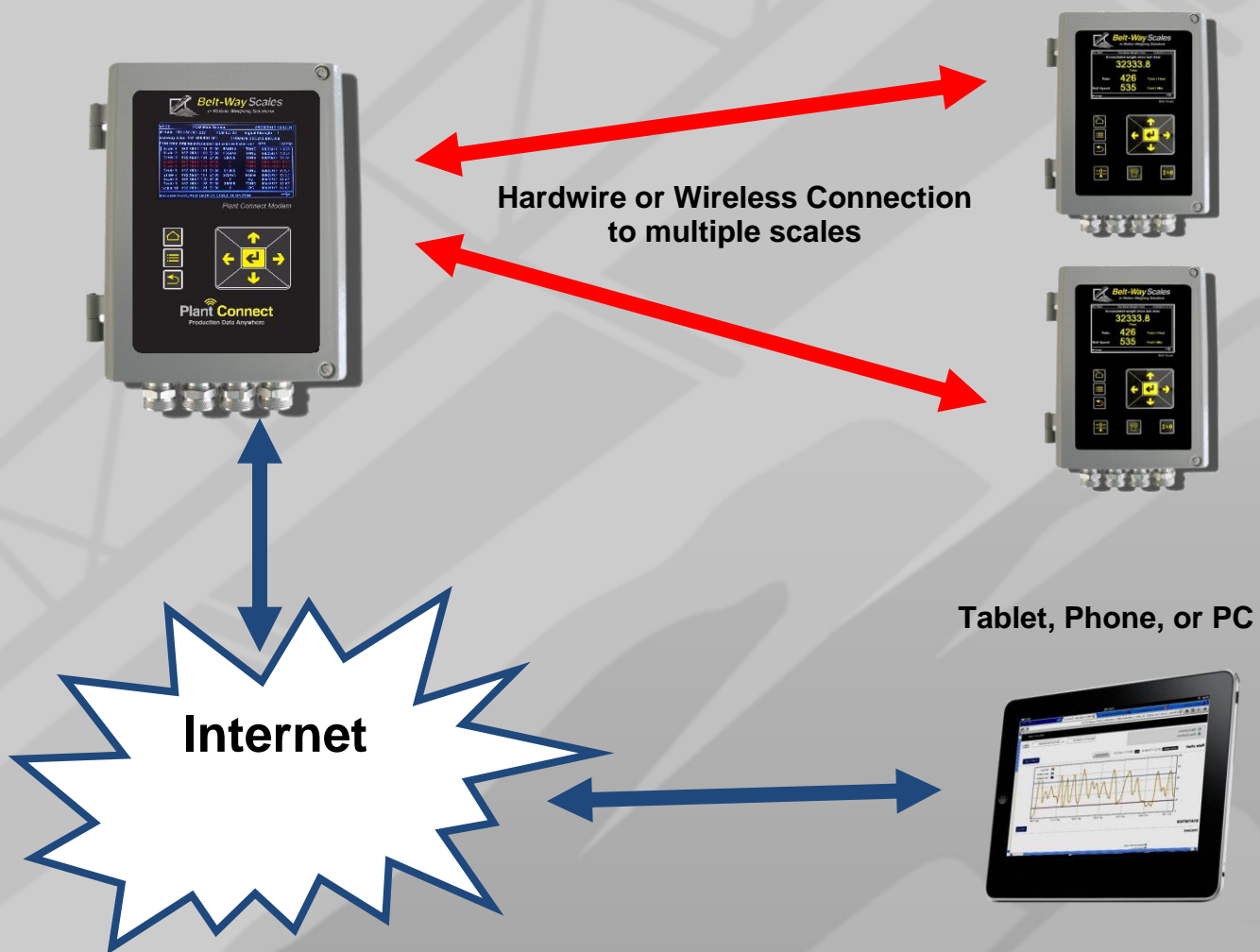
\*Belt-Way does not provide the TV\*



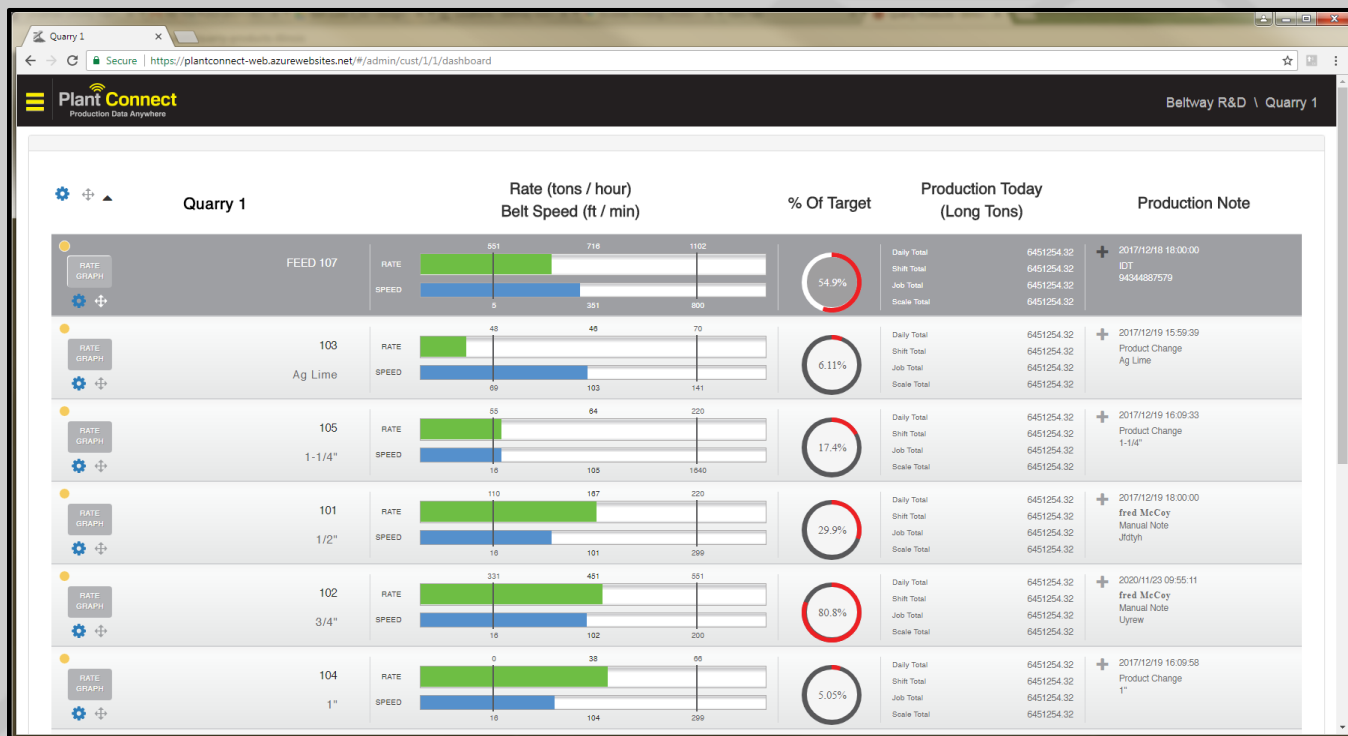
## Plant Connect

### Remote Monitoring and Production Analysis

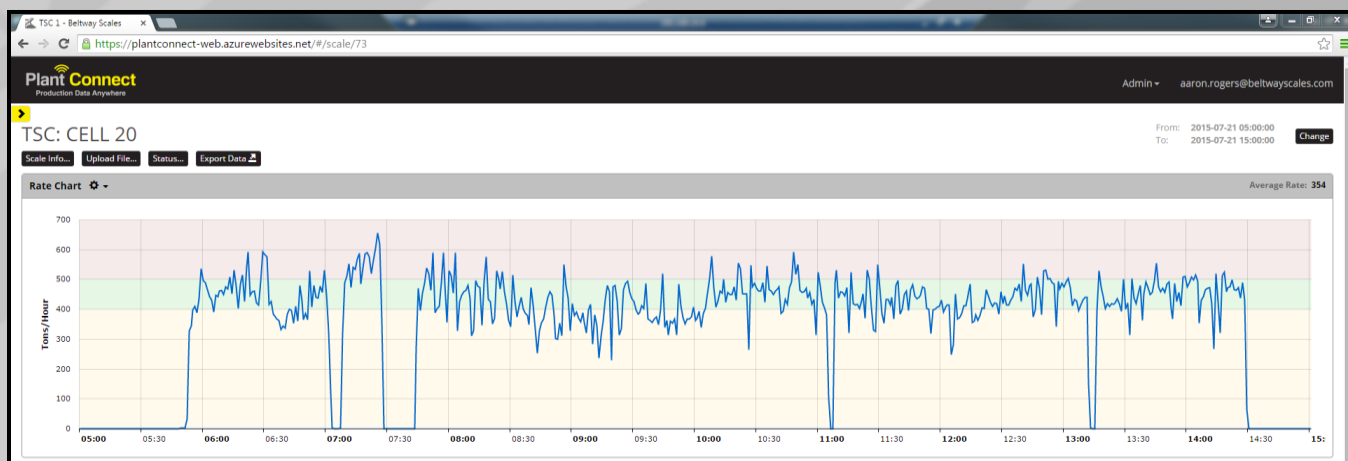
The Plant Connect system allows production information to be accessed over the Internet. Multiple scales can be connected to single modem. The Internet connection can be Cellular or via broadband Local Area Network. The website can be accessed from a web browser, Iphone, Ipad, or Android app.



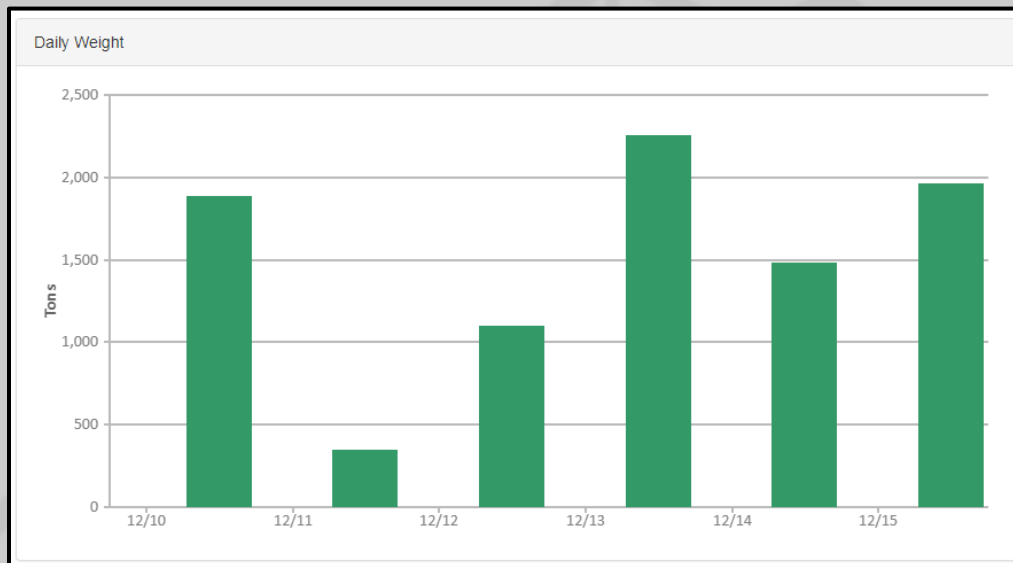
## Plant Connect Dashboard Complete Plant View



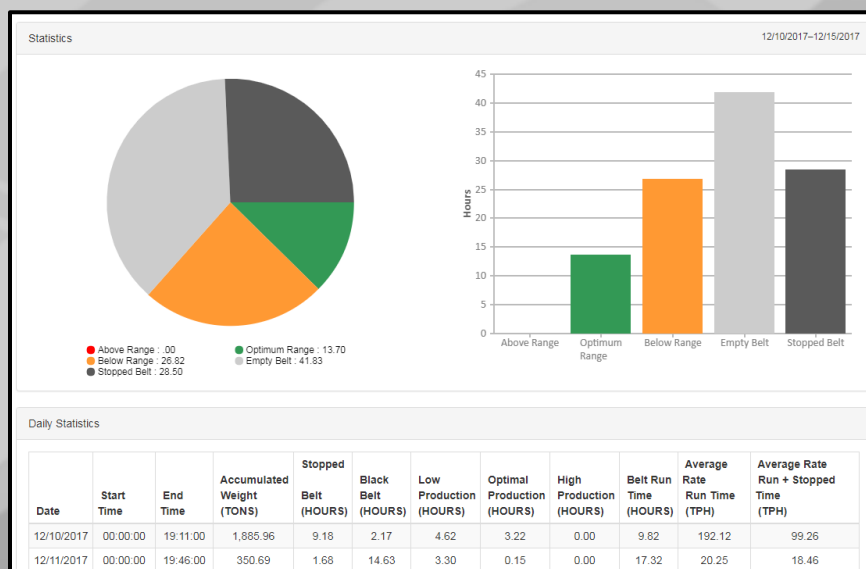
## Plant Connect Rate Graph Production Detail for a Single Scale



The Daily Weight section shows the total accumulated weight for each day in the selected date range.



The Statistics section displays critical performance metrics so the user can analyze overall plant efficiency.





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