QUICK START GUIDE

THE TENSION CONTROL SPECIALISTS

TRUEVIEW™ 1100 TENSION INDICATOR

(603) 332-6150

5 Year Warranty

www.dfe.com

SAFETY

This label indicates: “Read the Manual”

Make sure you read and understand all instructions and safety precautions listed in this manual before installing or operating your True View™ Tension Indicator. If you have any questions concerning the operation of your device or the information in this manual, please contact us.

Email: techsupport@dfe.com
Telephone: (603) 332-6150

- **Observe all warning labels.**
- **Never remove warning labels.**

⚠ **WARNING:** If this equipment is not connected or operated in the manner specified, the operating safety of this unit or of connected equipment cannot be guaranteed.

⚠ **WARNING:** During installation, care should be taken not to drop the True View 1100. Handle the True View 1100 with care. Sudden jolts or drops can damage its components.

1. Din Rail Mount

2. Panel Mount

3. Pole Mount

There are three mounting choices:

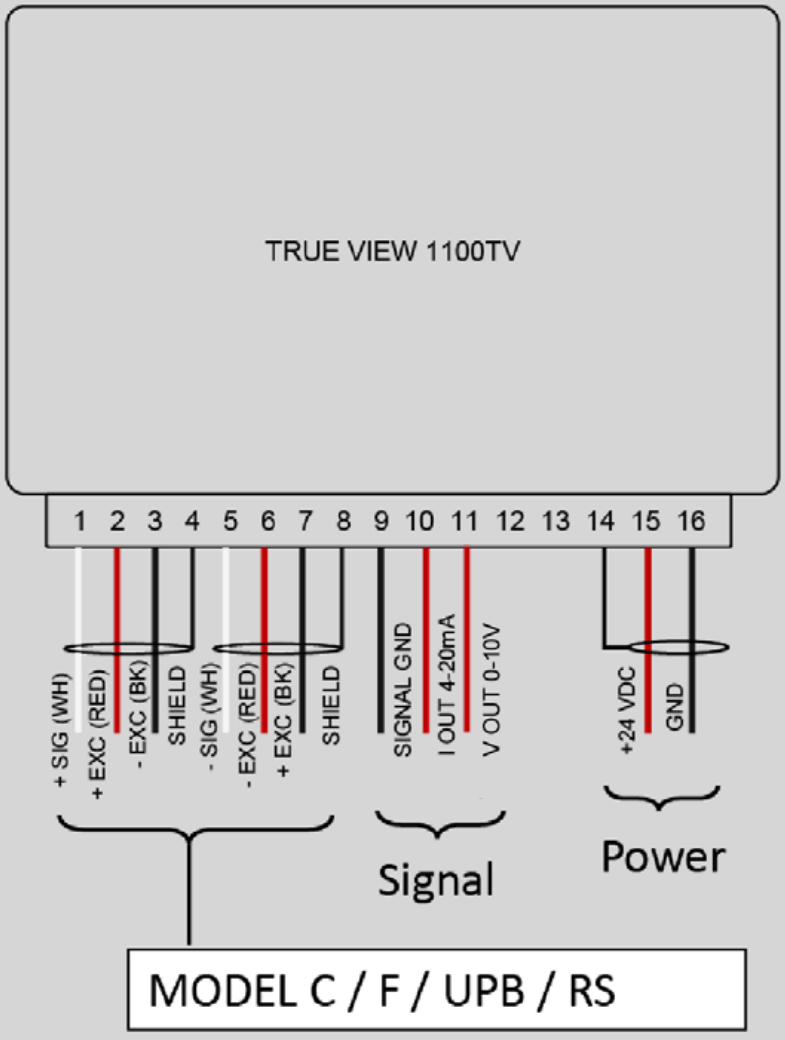
1. Din Rail Mount: Compatible with 35mm DIN rail. Screw DIN rail clip to back of unit with provided mounting screws. Clip the top of the DIN rail clip onto the top of the DIN rail and pull down while pushing forward slightly to snap the unit onto the rail. To remove from the DIN rail, push the device down while pulling its bottom forward, then pull up when bottom is free.

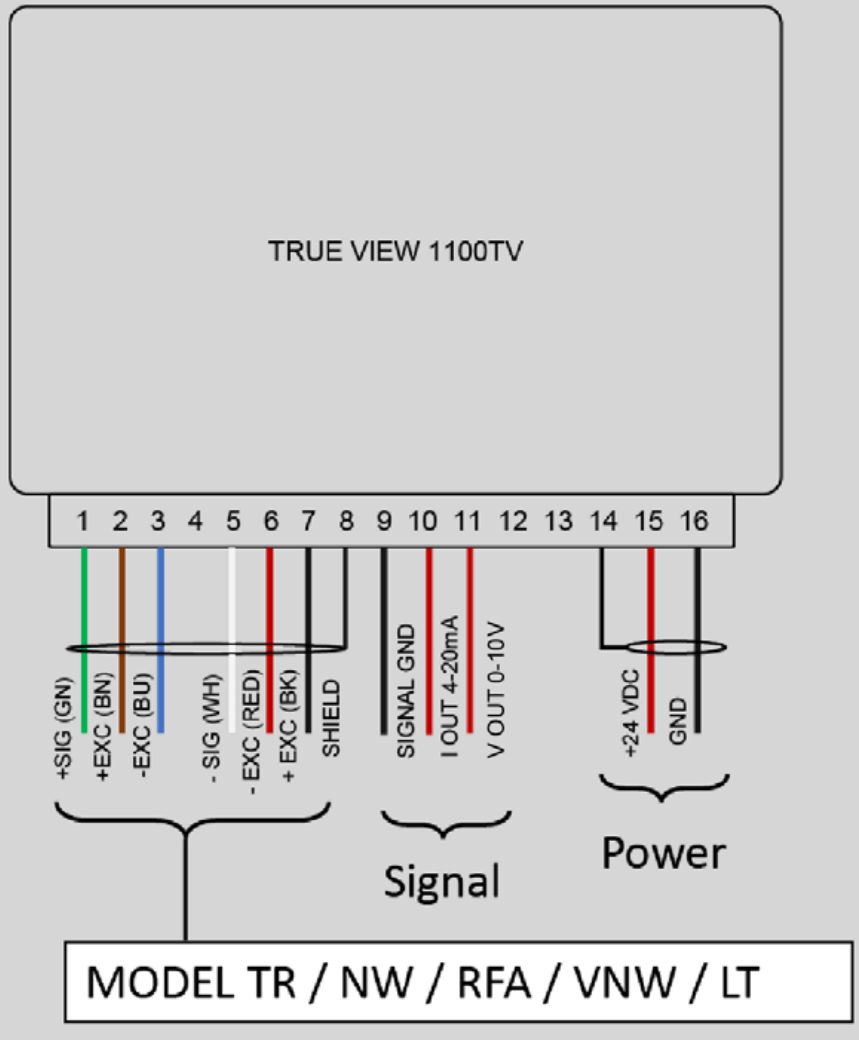
2. Panel Mount: Slide panel-mount bezel over the unit from the back. Insert into panel cut-out from the front. Attach panel-mount brackets to the back of the indicator with the provided mounting screws and tighten the assembly against the mounting panel.

3. Pole Mount: Unscrew a hose clamp (not provided) with a 1/2" or smaller width and the appropriate diameter for the mounting surface. Pass the tail end (without the nut) through one of the pockets in the Pole Mount Adapter and out of the other, ensuring the recess faces outwards from the pole (towards the unit). Screw Pole Mount Adapter to unit with provided mounting screws, wrap clamp around pole or railing and secure unit by tightening clamp.

STANDARD ELECTRICAL CONNECTIONS

1. **Power Input:** Power should be sourced to the 1100TV on Pins 16 (GND) and 15 (+24 VDC)
2. **Tension Output (optional):** The tension output signal is provided in two options:
   - 0-10 VDC is available on Pins 9 (Return) and 11 (0-10 VDC)
   - 4-20 mA is available on Pins 9 (Return) and 10 (4-20 mA)
3. **Transducers / Load Cells:** Use the appropriate color connections for the type of tension transducer being connected.





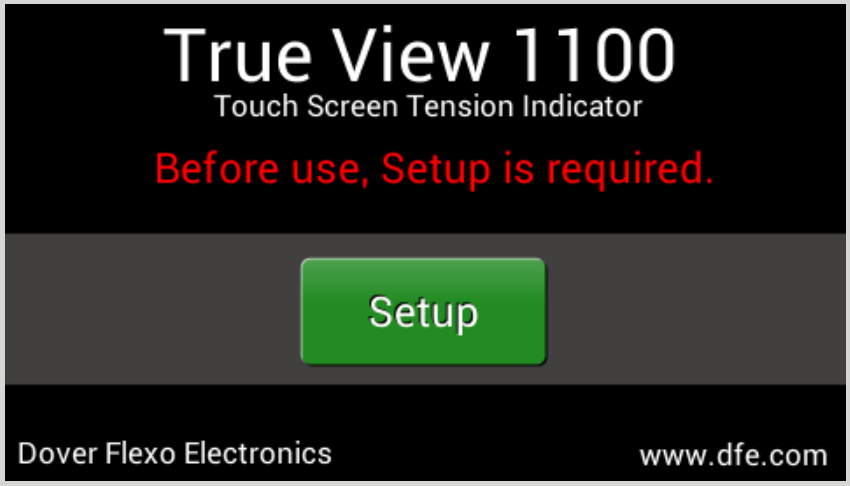


Figure 1 - INITIAL POWER-ON SCREEN

Figure 2 - TENSION DISPLAY SCREEN

MENU DISPLAY AND NAVIGATION

The first screen that will appear upon powering up will be the one in **Fig. 1** reminding you that setup must be performed before operating the unit.

From the tension display screen (**Fig. 2**), the Menu button will deliver the operator to the Main Menu (**Fig. 3**) where subordinate menus appear for further navigation. Note that the names of all menu screens are consistently displayed at the center of the top line.

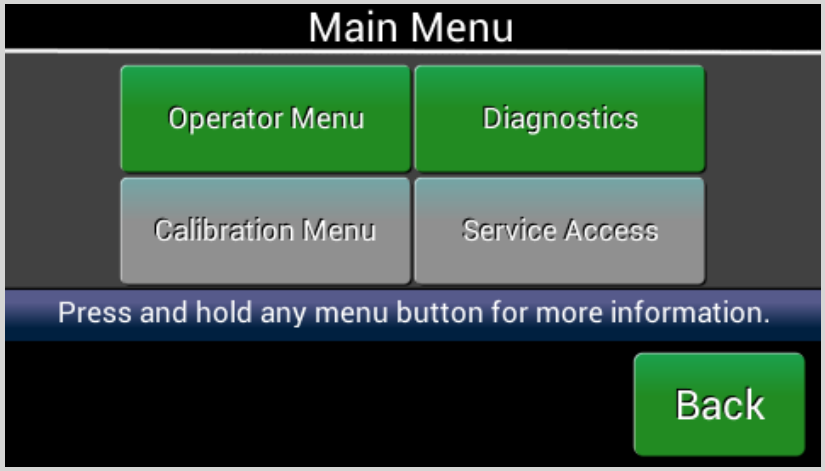


Figure 3 - **MAIN MENU**

1. OPERATOR MENU - Under the Operator Menu, the following choices are available:

▪ **Display Configuration** – Save settings for Tension Update, Plot Update Time, and Display Brightness

▪ **Tension Update** - Choose 0.2, 0.5, 1.0, 2.0 or 5.0 seconds and press SAVE to adjust the time it takes for the display to update with new information. Longer updates produce fewer changes in displayed information over time, at the expense of rapid visual response to changes in tension.

▪ **Display Brightness** - Adjust between 10% and 100% and press SAVE to control the brightness of the display.

▪ **Plot Update Time** - Choose 30 sec or 1, 2, 5, 10 or 30 min and press SAVE to adjust time that tension displays before dropping off the trend-line graph screen.

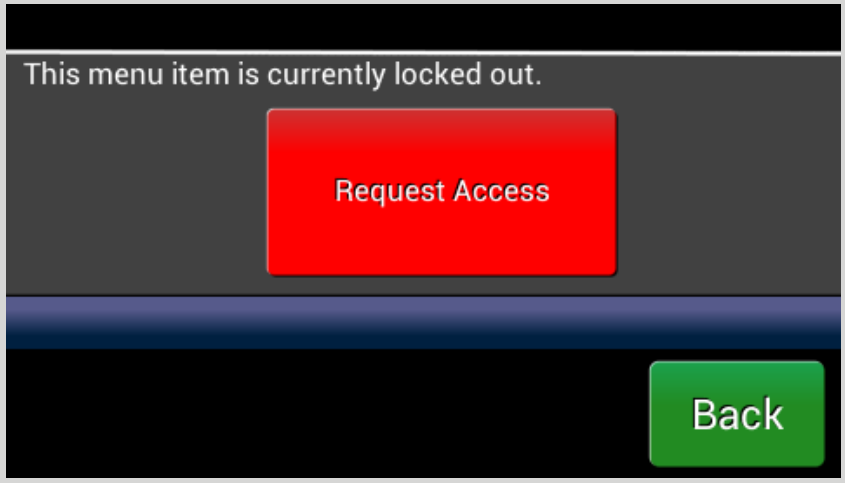


Figure 4 - REQUEST ACCESS SCREEN

2. DIAGNOSTICS - This menu is for discussions with DFE Tech Support if needed.

3. CALIBRATION MENU and SERVICE ACCESS - When selecting either of these menus, a screen (**Fig. 4**) requiring permission-based access will display. Touch Request Access and enter **Code 6150**. You will see the Access Enabled screen and will be directed back to the menu where the Calibration and Service Access will now be available for selection.

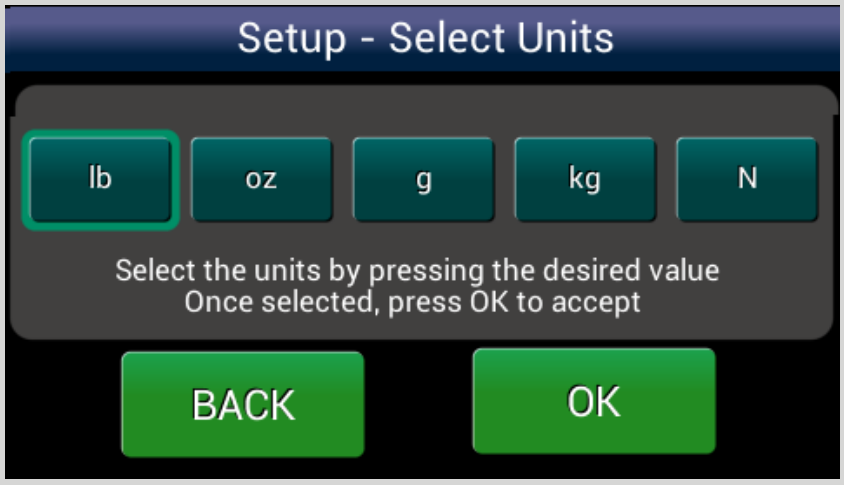


Figure 5 - SELECTION OF TENSION UNITS

Figure 6 - SELECTION OF TENSION RANGE

A calibration process must be performed before your indicator is ready to indicate tension.

1. SETUP

In the lower right corner of the main display, tap the green **Menu** tab. Now tap the **Calibration Menu** tab. You may be prompted to press the **Request Access** tab, if this occurs enter **6 1 5 0** on the number pad. After gaining access, tap **Calibration Menu** again to proceed.

Next, tap **Calibrate**. Select the units of measure for display (**Fig. 5**). The choices are lb, oz, g, Kg or N. After selection, press **OK.**

You will now need to select a measurement range or scale (**Fig. 6**). Swipe left or right to view all available options. Press **OK**.

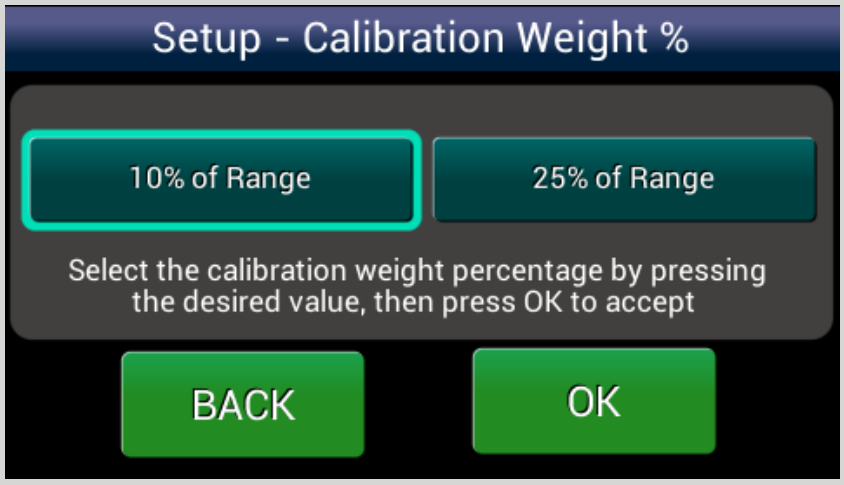


Figure 7 - SELECTION OF CALIBRATION WEIGHT

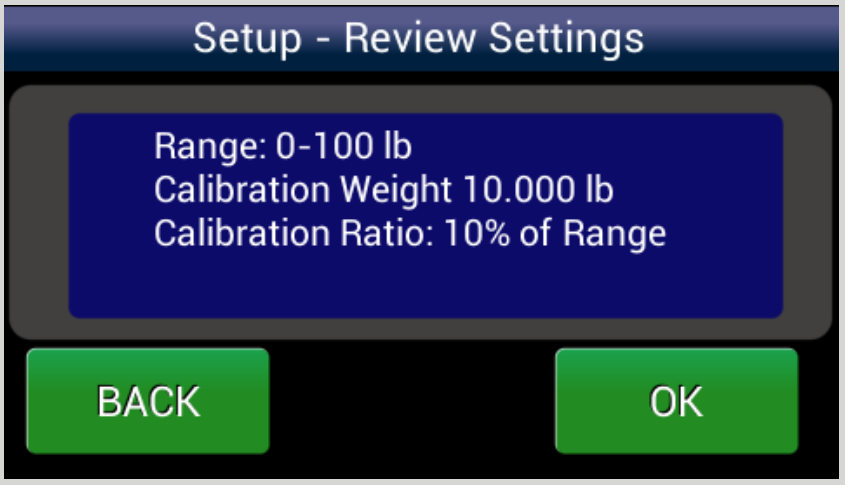


Figure 8 - REVIEW OF CALIBRATION SETTINGS

Next, select the percentage of your tension range for calibration (**Fig. 7**).

Note: The 10% calibration weight ratio is recommended for high tension applications, or any time it may be a challenge to handle a heavy calibration weight. The 25% calibration ratio is recommended for maximum accuracy and is especially useful in calibrating for low tension applications.

Make your selection and press **OK**.

Review your selections (**Fig 8.**) and press **OK** to accept them or **BACK** to return to prior screens and makes changes.

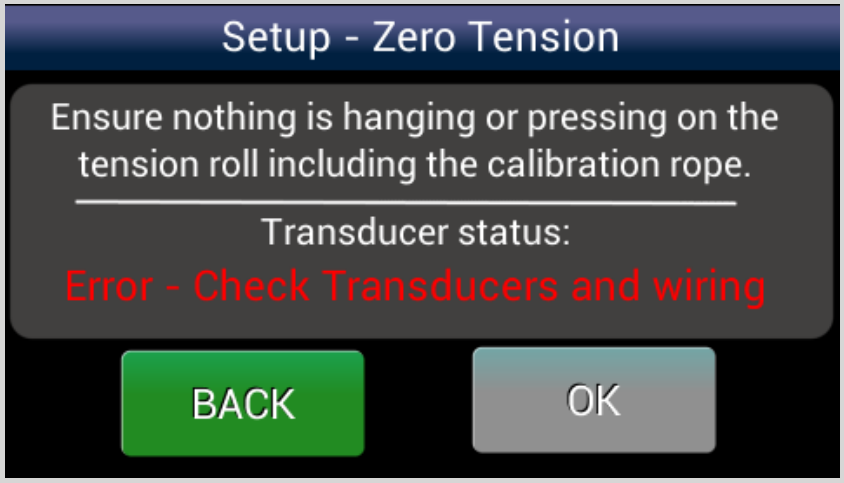


Figure 9 - ZERO TENSION SCREEN

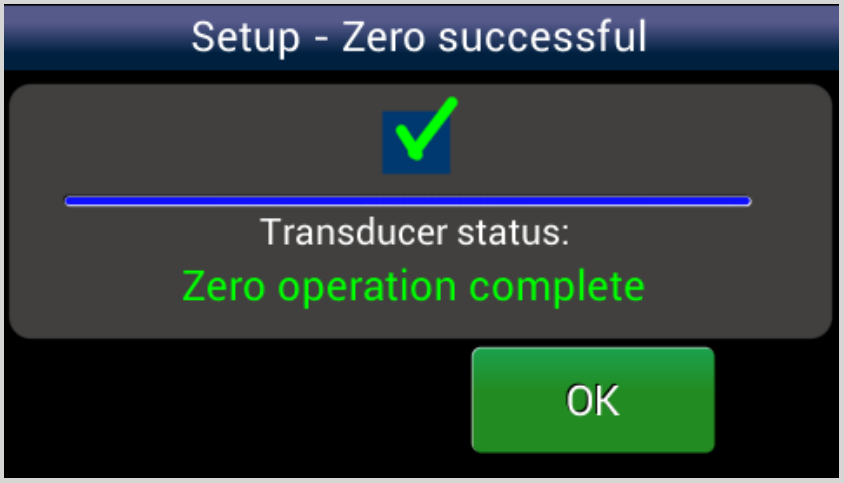


Figure 10 - ZERO OPERATION COMPLETE

2. ZEROING INDICATOR

The first step of any calibration is Zeroing out the amplifier. Per the **Zero Tension** screen (**Fig. 9**), check the transducer roll to make sure that nothing is hanging from, resting on, or leaning against it, including the calibration rope or cord. Press **OK** when the roll is unloaded and ready to zero, or **BACK** to return to the prior screen.

After pressing **OK**, the 1100TV zeros out the roll weight and a progress bar moves across the screen, after which the message "**Zero operation complete**" comes up in green characters, as shown on the **Zero successful** screen (**Fig. 10**). Press **OK** to accept or Re-Zero if anything occurred which made the zero-operation suspect.

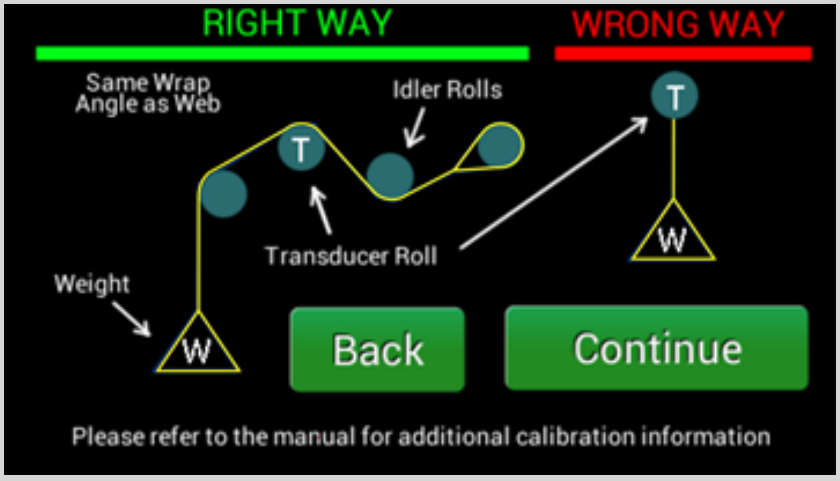


Figure 11 - WEB PATH FOR CALIBRATION

Figure 12 - CAL NOT READY

At the center of the web path (located with a tape measure), secure one end of the inelastic cord to a fixed point at least two rolls beyond the transducer roll, and thread it around the transducer roll and both adjacent idler rolls, following the exact same path as the web which will be measured. See the **Right Way / Wrong Way** illustration (**Fig. 11**) for guidance. Be sure that the cord does not wrap around any driven rolls, drag bars or other obstacles that might affect tension.

Hang the total calibration weight on the free end of the cord and wait for it to stop swinging. It is important that the cord wraps around one idler roll on either side of the transducer roll, and that the weight hangs freely, without touching anything. When these conditions are satisfied, press **Continue** to proceed.

Fig. 12 shows the **Cal Not Ready** screen where the **Calibrate** button is gray, accompanied by an error message in red characters. This error message appears if the transducers are not properly wired to the indicator, if the calibration weight is insufficient for the application, or if the weight is not properly loading the transducer roll.

Figure 13 - CAL READY

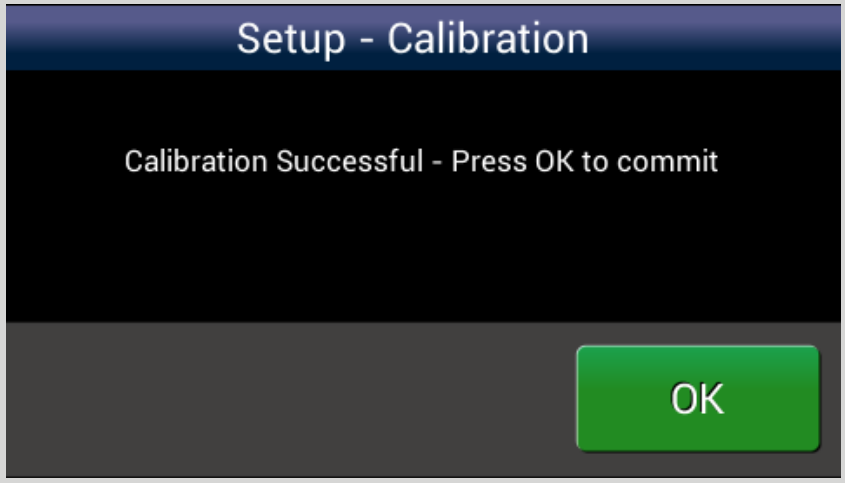


Figure 14 - CALIBRATION SUCCESSFUL

The **Calibrate** button will turn green and the red text will disappear when the conditions required for calibration have been met (**Fig. 13**).

When ready, press the **Calibrate** button and the screen will indicate that the calibration was successful (**Fig. 14**). Press **BACK** to return to the prior screen; Re-Calibrate if something occurred which made the calibration suspect, or **OK**, after which the indicator will very briefly flash a Calibration Successful screen, and then progress to the **Display** Screen.

Remove the weight and observe the output. It should read 0 VDC or 4 mA with nothing touching the tension sensing roller.

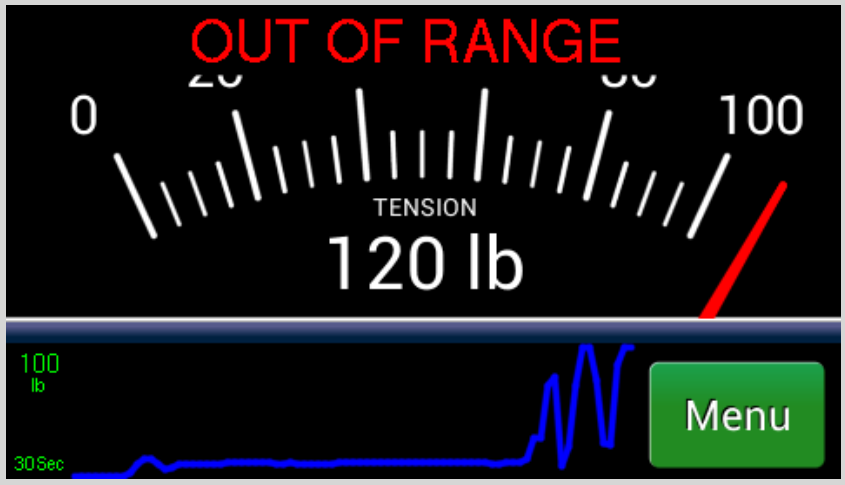


Figure 15 - ALARM MESSAGE LOCATION SCREEN

The True View™ 1100 is running normally when no alarm message is present on the screen. If an alarm appears, perform the action below to resolve the issue. Contact Technical Support if you need additional help.

Alarm Messages:

▪ **OUT OF RANGE:** Once calibrated the model 1100 will indicate an over range or under range condition by setting the alarm. The error will remain active if -20% or 120% of calibrated tension is exceeded.

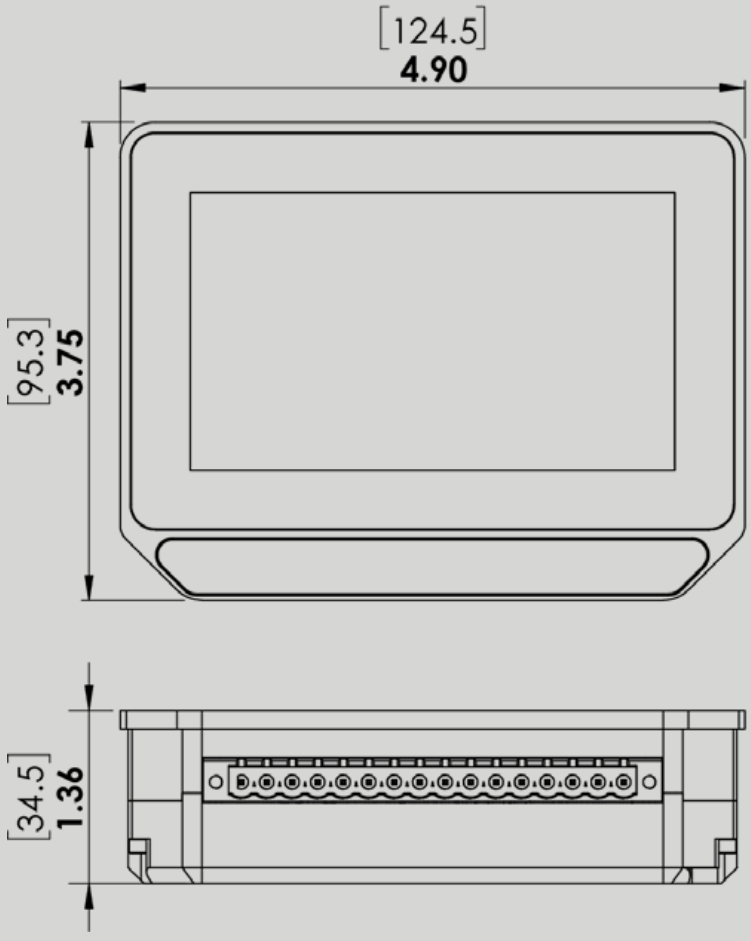
Action Required: *To clear this error the tension must be brought back into range. Or a new calibration will need to be established to increase the measurement range and prevent future alarms.*

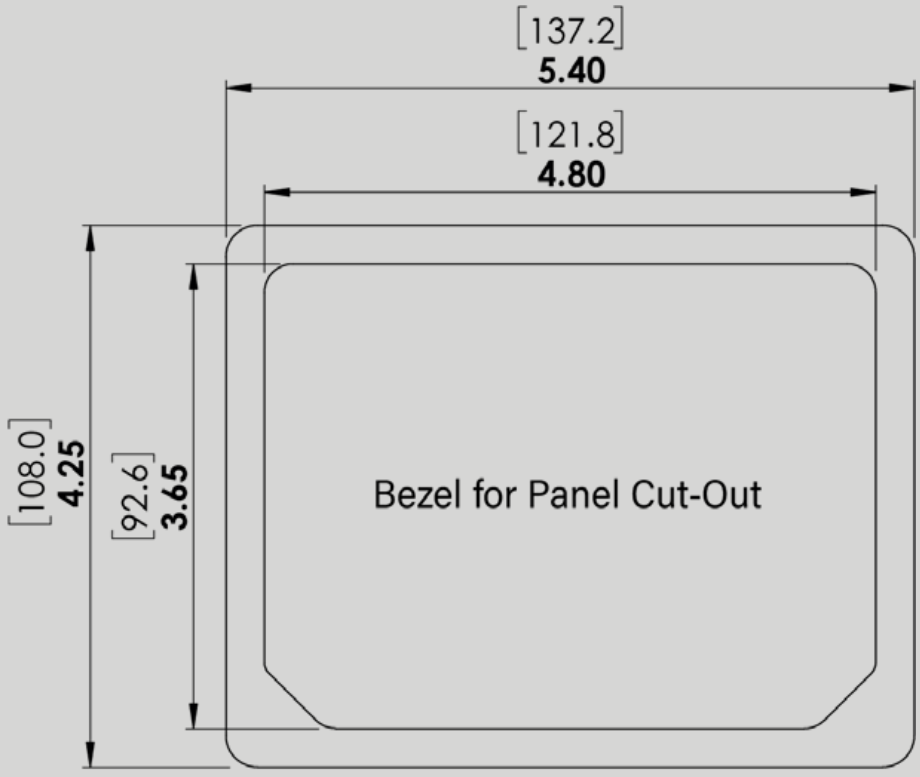
TROUBLESHOOTING continued...

- **WIRING ERROR:** Will alert until the load cells are wired correctly.
Action Required: *Check wiring and retry. Refer to page 3 to check for loose wires at the terminal blocks, wiring shorts and ensure load cells are connected on the opposite end of the cable. If the transducers need trouble shooting – contact tech support for assistance.*

- **LT Transducer: A WIRING ERROR indicated with an LT transducer** could also be caused by an overload condition.
Action Required: *Check that the tension range does not exceed the transducer load rating. Reduce wrap angle to reduce effective net force exerted on load cell.*

- **EXCITATION SHORT:** Wiring or load cell failure.
Action Required: *Check for shorts in the transducer (load cell) wiring. If the transducers need troubleshooting – contact tech support for assistance.*
Action Required: *Contact DFE for load cell replacement.*





Cut-Out Dimensions:
5.0" W x 4.0" H (Panel-Mount)

DOVER FLEXO ELECTRONICS, INC.

THE TENSION CONTROL SPECIALISTS

307 Pickering Rd, Rochester, NH 03867 USA
Phone: (603) 332-6150 ▪ FAX: (603) 332-3758 ▪ Email: info@dfe.com ▪ Website: www.dfe.com

To view or download the **1100TV Instruction Manual** go to:

https://dfe.com/products/true-view-1100-indicator/

Please call Technical Support if you need assistance.

E-mail: techsupport@dfe.com

0628 Doc 801-2574 R1

Engineered ▪ Supported ▪ Made in the USA