2017 TigerStop, LLC®

USA BUILT

TigerStop®

fast and accurate...every time

TigerGauge

Installation Guide

February 2017 Mk1

Serial Number	

☐ TigerGauge Calipers

☐ Antenna

☐ Power Supply

☐ Wireless Receiver

☐ 9 Volt Power Supply

☐ Serial Cable

Safety First!

IMPORTANT SAFETY INFORMATION. READ ALL WARNINGS BEFORE OPERATING THIS PRODUCT.

GENERAL WARNINGS

WARNING: Installation of your TigerStop Product must be done by a person trained in the safe design and installation of automation products, and in the safe operation of power equipment. Ensure that such installation meets all legally required safety requirements and guidelines, and that proper guarding and safety devices are provided on all sides of the equipment to preclude unintended access during operation. Consult with and follow the recommendations of a qualified safety engineer.

WARNING: TigerStop Products are components intended for use in conjunction with potentially dangerous machinery. The use of TigerStop Products does not make other machinery safe. TigerStop Products are not intended to substitute, in any manner, for safe operating practices in general, or for safety features present in other machines designed to make those machines as safe as possible. **TIGERSTOP PRODUCTS, IF USED OR INSTALLED IMPROPERLY, MAY CAUSE PERSONAL INJURY OR DEATH AND SHOULD ONLY BE OPERATED BY PERSONS TRAINED IN THEIR SAFE OPERATING PROCEDURES.** Illustrations of TigerStop Products in use do not show, and are not intended to show, all safety features and practices necessary for their safe operation.

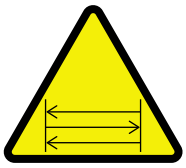
INSTALLATION WARNINGS

WARNING: TigerStop Products must be installed in accordance with all local, state, and federal regulations. Only personnel properly trained in the safe design and installation of automation machinery and related power equipment should install TigerStop Products onto other equipment, to ensure a safe and proper work station. TigerStop Products should not be operated without proper training, both in the operation of TigerStop Products, and in the operation of related equipment.

IMPORTANT CAUTION:
The motor box (compartment) contains DC voltage with potentially FATAL amperage. NEVER attempt any unauthorized actions inside the motor box.

INTERCONNECTS

WARNING: Using a TigerStop interconnect does not relieve you of the responsibility for making sure that your saw or other tool has all the necessary safety equipment in place. All installations must meet all legally required safety requirements and guidelines. Installation and training should be done following the recommendations of a qualified safety engineer.



OPERATION

DANGER: This machine can start, move and stop automatically. Keep hands and loose clothing clear of moving parts while operating. Moving parts can crush and cut. When used with a saw or other cutting equipment, bodily injury and death may result if operated without safety guards on all machines. Do not operate with guards removed. Operators must wear adequate eye and ear protection.

DANGER! Don't get pinched by the push feeder. Keep your hands away when in motion!

IMPORTANT SAFETY INFORMATION. READ ALL WARNINGS BEFORE OPERATING THIS PRODUCT.

Keep the work area clean and well lighted to avoid accidental injury.

Do not use TigerStop machines in a dangerous environment. Using power tools in damp or wet locations or in rain can cause shock or electrocution.

Do not operate near flammable liquids or in gaseous or explosive atmospheres!

Wear proper apparel, no loose clothes, long hair or jewelry which could get pulled into moving machinery or materials.
Wear non slip footwear, safety glasses, ear protection and a dust mask.

Use only 3- wire extension cords that have 3-prong grounding type plugs and 3-pole receptacles that accept the tools plug for 120VAC. Use only 5-wire cords and plugs when using 3 phase.

Do not open motor compartment or controller keypad. DC Voltage with potentially FATAL amperage! Disconnect power before servicing. No user-serviceable parts inside.

DO NOT operate this or any machine under the influence of drugs or alcohol!

No one should operate this machine except for fully qualified personnel.

Read the manual!

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TigerGauge Installation

TigerGauge Calipers

I/O Panel

TigerGauge comes fully assembled from the TigerStop factory.

Connect I/O Panel to TigerStop

WARNING! Read all instructions before performing any parts installation! **NEVER** power up system while motor box is open! **ALWAYS** lock out/tag out TigerStop machinery before installing parts!

The I/O Panel will provide TigerStop with extra I/O points. It will come with an extra controller cable and will need to be connected between the TigerStop controller and the motor box, as shown below.

Note: Make sure the cable orientation is connected as shown in the picture. If the controller cables are connected backwards, the cable shielding will not work properly.

Installing TigerGauge Wireless Receiver

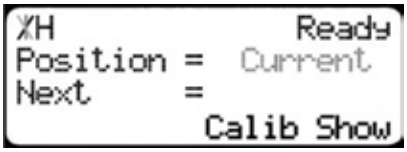
WARNING! Read all instructions before performing any parts installation! **NEVER** power up system while motor box is open! **ALWAYS** lock out/tag out TigerStop machinery before installing parts!

1. Connect the supplied 9 volt power supply from your 110VAC wall outlet to the TigerGauge wireless receiver power port.

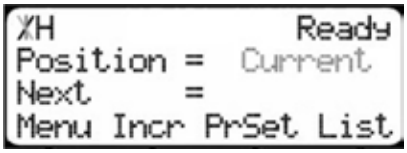
2. Connect the supplied RS232 serial cable from the wireless receiver to the port marked "Laser" on the I/O Panel.

Change I/O Panel Baud Rate

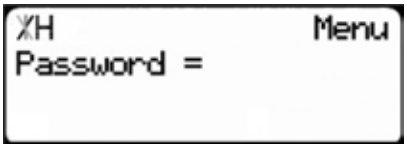
Next, we must change the communication speed setting of the TigerStop I/O Panel to match TigerGauge.



1. From the Ready Screen, press the [Show] soft key to show the menu options.

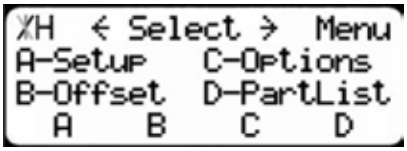


2. Press the [Menu] soft key to display the Menu Select screen.

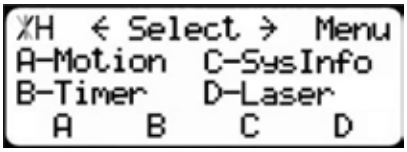


3. TigerStop requires a password to access all menu options. Enter your TigerStop password and press =.

Note: By default, the TigerStop password is set to the serial number.



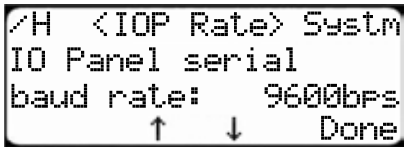
4. At the Menu Select screen, press → one time.



5. Press the [SysInfo] soft key to access the System Information menu.

6. Press → to scroll through the settings. Stop when you see "IOP Rate".

To change I/O Panel Baud Rate...



1. Enter the password and press =.

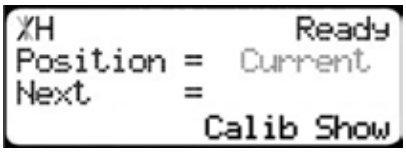
Note: By default, the TigerStop password is set to the serial number.

2. Press [B] or [C] to toggle the I/O Panel Baud Rate until it is set to 38400 bps.
3. Press the [Done] soft key to save the parameter.

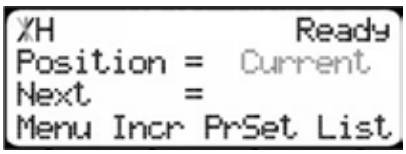
Update Enable Code

If you are adding TigerGauge to a TigerStop product already in the field, you will need to update the Enable Code. The Enable Code unlocks TigerStop functionality so you can upgrade in the field.

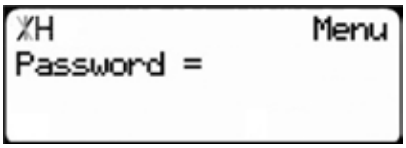
If you received TigerGauge as part of a new TigerStop system, skip this step!



1. From the Ready Screen, press the [Show] soft key to show the menu options.

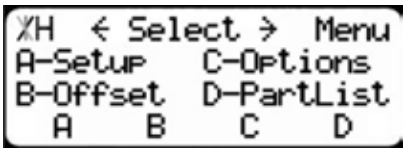


2. Press the [Menu] soft key to display the Menu Select screen.

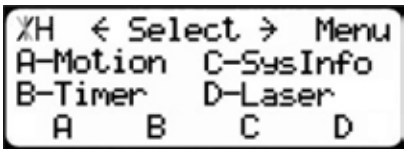


3. TigerStop requires a password to access all menu options. Enter your TigerStop password and press =.

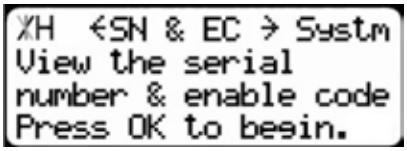
Note: By default, the TigerStop password is set to the serial number.



4. At the Menu Select screen, press ⇨.



5. Press the [SysInfo] soft key to access the System Information menu.



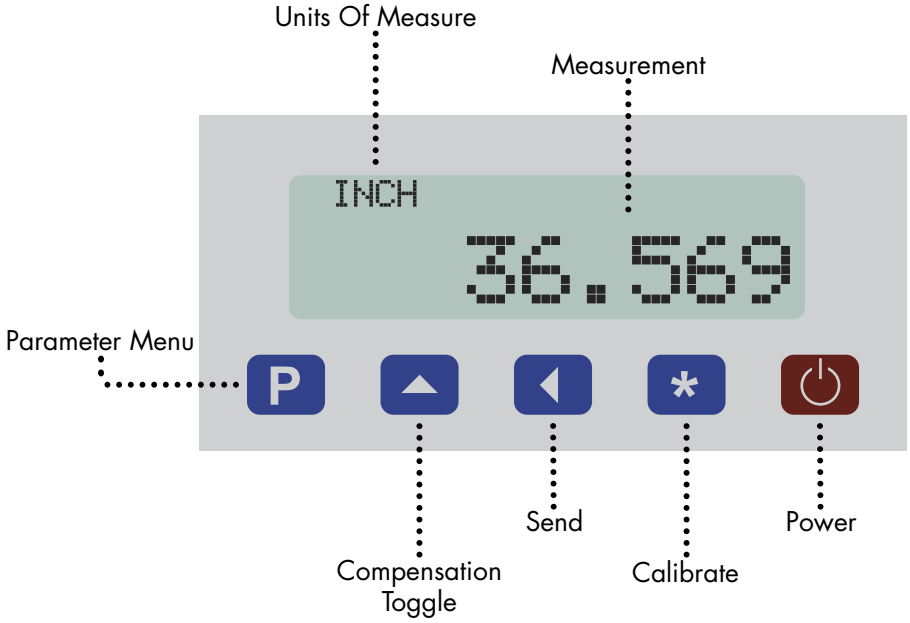
6. Press OK to view your serial number and enable code.
7. Press [A], [B], [C] and [D] one after the other.
8. Press OK to erase the enable code when prompted.
9. Press STOP to return to the Ready Screen.
10. Power down TigerStop for 20 seconds.
11. Power up.
12. TigerStop will now ask you to enter your enable code. Enter the supplied code and press =.

Note: If you were not supplied a new enable code, contact TigerStop Customer Service.

TigerStop is now upgraded for TigerGauge.

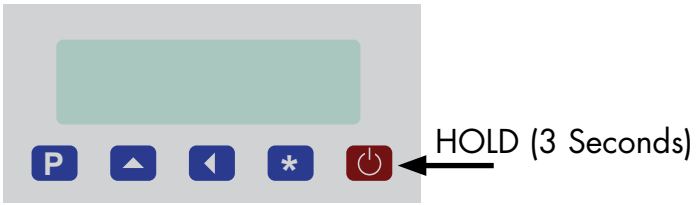
Basic TigerGauge Functions

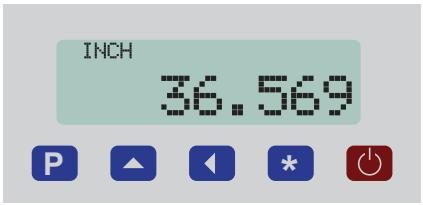
Control Pad Overview



Power ON/OFF

Hold the power button for 3 seconds. The TigerGauge screen will show a count down and will power up after 3 seconds. Hold the power button again for 3 seconds to power down.





Zeroing

1. Close TigerGauge jaws.

2. Hold the Calibrate button for 3 seconds.

3. The measurement display will change to 0.000.

Note: If you are using the Reference Value setting, the display will show the reference you have set.

Measuring

1. Open TigerGauge jaws.
2. Place the part to be measured in the jaws.

Note: For maximum accuracy, ensure the part is lying flat and the ends are held securely.

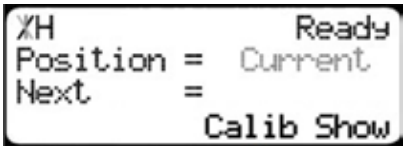
3. Gently close the jaws.
4. The measurement will display on the TigerGauge screen.

Transmitting Data

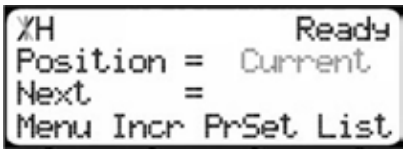
Press when measuring a part to transmit part length data.

Building a Part List Using TigerGauge

If you use the List functionality on your TigerStop, you can use TigerGauge to enter lengths instead of entering them by hand.



1. Start at the Ready Screen.

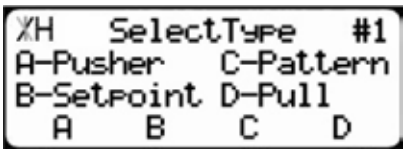


2. Press the [Show] soft key.

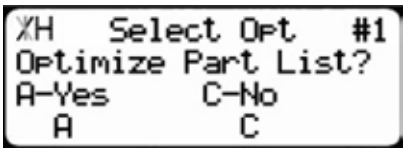
3. Press the [List] soft key to access the list interface.

4. At the List interface, enter the list number you wish to program and press the [Edit] soft key.

Note: The list number is a memory slot that houses the list. You can choose numbers 1 - 100.

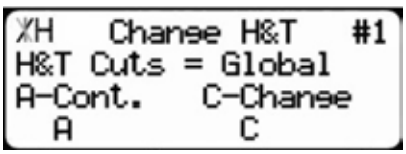


5. Select the type of list you would like to program.



6. TigerStop will ask you if you want to optimize the list for material yield. If you choose no, TigerStop will process the list exactly as entered and will NOT optimize for material yield.

Note: You will only see this prompt if you have the Dynamic Optimization Upgrade.

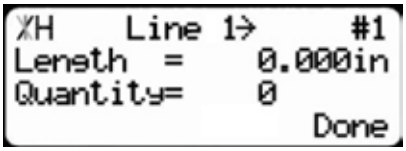


7. Select if you want to use a global or a local head and tail cut.

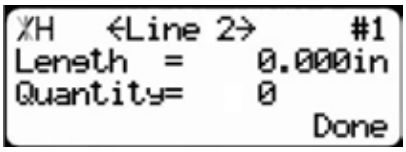
Note: Head and tail cuts are trim cuts at the ends of your material.

Global - Uses the head and tail cut setting from the Part List menu

Local - Allows you to set a head and tail cut that is used for this list only.



8. You will now be taken to the programming screen for line 1. Take a measurement with TigerGauge and press the transmit button.



9. TigerStop will enter the measurement and continue to line 2. Transmit all of your part sizes in this manner.

10. Press the [Done] soft key when all the part sizes are entered.

Advanced Settings

TigerGauge programming mode allows the user to change TigerGauge settings.

1. Hold P for 3 seconds.
Note: TigerGauge will display a countdown. Hold until countdown is over.

2. TigerGauge is now in programming mode.

When in Programing Mode

P Used to scroll through parameters

Used to change numeric values

Scrolls through values on a parameter

* Save parameter change

Resolution

The resolution setting is used to set TigerGauge's measurement type from Inches to Metric. It is also used to configure how many decimal places you want TigerGauge to display.

Press to scroll through the setting options.

Options

Inch .01 - Measures inches up to two decimal places.

Inch .001 - Measures inches up to three decimal places.

Inch 1/16 - Measures fractional inches in increments of 1/16th of an inch.

Inch 1/32 - Measures fractional inches in increments of 1/32nd of an inch.

Inch 1/64 - Measures fractional inches in increments of 1/64th of an inch.

Millimeter 1 - Measures millimeters in whole numbers.

Millimeter .01 - Measures millimeters up to two decimal places.

Millimeter .05 - Measures millimeters up to two decimal places in increments of .05 millimeters.

Millimeter .001 - Measures millimeters up to three decimal places.

Reference Value

The Reference Value is the distance displayed on TigerGauge when the jaws are closed.

Press ◀ to select a number.

Press ▲ to change the selected number.

Offset Value

Offsets the displayed measurement by the value entered.

Press ◀ to select a number.

Press ▲ to change the selected number.

Direction

Direction toggles the measuring direction. Uses this setting if you are measuring inside dimensions.

Press ▲ to toggle the setting.

Options
Down - Measuring outside dimensions
Up - Measuring inside dimensions

Auto Power Off

Turns on or off the automatic power down function. TigerGauge will power down after a set amount of time. This setting works with the Period setting to set the time period before power down.

Press ▲ to toggle the setting.

Options
ON
OFF

Period

The time period before TigerGauge will power down when using the Auto Power Off feature.

Press ▲ to scroll through the time period options.

Options

0.2h - Will power down in 12 minutes
0.5h - Will power down in 30 minutes
1h - Will power down in 1 hour
2h - Will power down in 2 hours
4h - Will power down in 4 hours
8h - Will power down in 8 hours

Restore Screen

Restore Screen affects how TigerGauge powers up. When Restore Screen is turned on, TigerGauge will display the last position on the screen. When turned off, TigerGauge will need to be re-calibrated after power up.

Press ▲ to scroll through the options.

Options

ON - TigerGauge displays it's last position on powered up.
OFF - TigerGauge will need to be re-calibrated on power up.

4 Second Off Delay

Sets a 4 second delay before TigerGauge will power off. This requires the user to hold the power button until the screen countdown is complete to power off.

Press ▲ to scroll through the options.

Options

ON - TigerGauge powers off by holding ⏻ for 4 seconds.

OFF - TigerGauge powers off immediately when you press ⏻.

4 Second Calibration Delay

Sets a 4 second delay before TigerGauge will zero. This requires the user to hold the calibrate button until the screen countdown is complete to be zeroed.

Press ▲ to scroll through the options.

Options

ON - TigerGauge zeros by holding * for 4 seconds.

OFF - TigerGauge zeros immediately when you press *.

Reset Reference

Reset Reference will tell TigerGauge to use the calibrate button to reset the Reference setting, instead of zeroing. When in this mode, TigerGauge cannot be zeroed.

Press ▲ to scroll through the options.

Options

ON - Resets the Reference setting when * is pressed.
Note: TigerGauge cannot be zeroed in this mode.

OFF - TigerGauge will zero when you press *.

Incremental Measurement

Turns on TigerGauge's incremental measurement mode. This allows the user to set a second zero point while measuring to see how far one measurement is from another.

Press ▲ to scroll through the options.

Options

ON - Puts TigerGauge in incremental measurement mode.
OFF - Turns off incremental measurement mode.

Using Incremental Measurement Mode

1. Measure a part normally.
2. Press ▲ ◀ at the same time to toggle to incremental mode. TigerGauge will display 0.
Note: The screen will display ◀◀◀ when in Incremental Measurement mode.
3. Make your second measurement and record the value.
4. Press ▲ ◀ to return to your original calibration.

Access Reference Value

Creates a quick toggle from the measurement screen to the Reference value.

Press ▲ to scroll through the options.

Options
ON - Allows the user to use a quick toggle to access the reference.
OFF - Turns off the reference quick toggle.

Using the Reference Quick Toggle

1. At the measurement screen, press P ▲ at the same time.
2. TigerGauge will display the Reference value.
3. Press ◀ to select a number.
4. Press ▲ to change the selected number.

Access Offset Value

Creates a quick toggle from the measurement screen to the Offset value.

Press ▲ to scroll through the options.

Options
ON - Allows the user to use a quick toggle to access the Offset.
OFF - Turns off the Offset quick toggle.

Using the Reference Quick Toggle

1. At the measurement screen, press P ◀ at the same time.
2. TigerGauge will display the Offset value.
3.
4. Press ◀ to select a number.
5. Press ▲ to change the selected number.

Language

Changes the language of all text displays.

Press ▲ to scroll through the options.

Options

d - Turns on the German language.
E - Turns on the English language.
Note: English is the default value.

TigerGauge Maintenance

WARNING! NEVER charge TigerGauge if cover is off! **NEVER** attempt to change TigerGauge batteries while charger is plugged in!

Charging TigerGauge

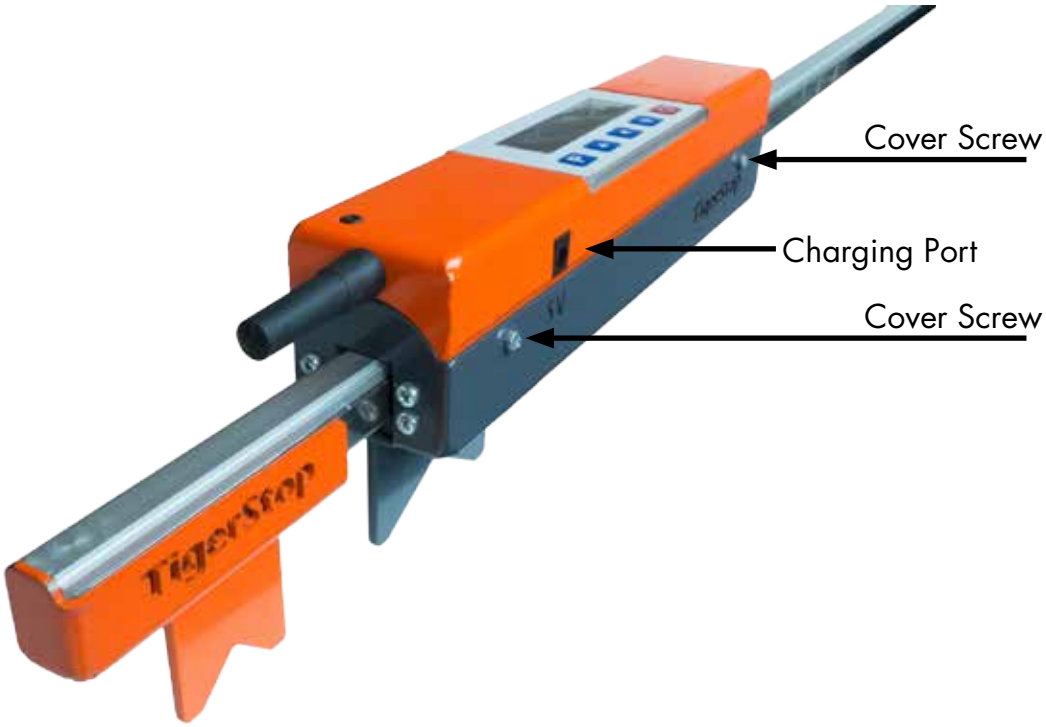
TigerGauge is comes with an AC power supply for recharging the batteries. TigerGauge will display a battery icon on screen when it needs to be recharged.

1. Connect the AC power supply to a 110VAC power outlet.
2. Connect the power jack to the TigerGauge charging port.

Replacing TigerGauge Batteries

1. TigerGauge has four screws holding the cover in place. Remove these screws.
2. Remove the TigerGauge cover. You will see the batteries mounted inside the cover.
3. Replace the batteries.

Note: TigerGauge uses two AA rechargeable batteries.



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