Master Data Table

Operations and technical manual

Version 1.1

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Cubing and weighing systems

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Master Data Table operations and technical manual

CAUTION

The Master Data Table should only be serviced by qualified personnel.
Observe precautions for handling electrostatic sensitive devices when setting up or operating the Master Data Table.

WARNING

Disconnect all power to the Master Data Table before servicing or making any connections.

LIMITED WARRANTY

QUANTRONIX NEW PRODUCT

Statement of Warranty. Quantronix, Inc.'s, warranty obligations are limited to the terms set forth below: Quantronix (hereinafter referred to as the "Seller") warrants that its new product is in accordance with Seller's published specifications (or those agreed upon with Buyer in writing) at the time of sale or lease and that it is free from non-cosmetic defects in materials and workmanship under normal use for a period of one (1) year from the date of sale or the commencement date under a written equipment lease or rental agreement (the "Warranty Period"). If a hardware defect arises and a valid claim is received within the Warranty Period, at its option, Seller will either (i) repair the hardware defect at no charge, using new or refurbished replacement parts, or (ii) exchange the product or defective part(s) with a product or part(s) that are new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product or part, or (iii) refund the purchase price of the product after Buyer has returned the product to Seller. For purposes of this warranty agreement, "Buyer" shall mean and refer to (i) the party which originally – whether from Seller directly, or from an authorized distributor, agent or reseller who is authorized by Seller – purchases, or leases under a written equipment lease or rental agreement, the Seller's product which is the subject of this warranty, or (ii) any subsequent purchaser or transferee that acquires valid title to the equipment within the Warranty Period.

In the event of the occurrence of a claim under this warranty, the Buyer shall have thirty (30) days to notify Seller in writing of the nature and specifics of the claimed defect; provided, however, that any and all claims must be received before the expiration of the Warranty Period. Failure to notify Seller within such time period shall void this warranty. Any claim of a warrantied defect is subject to inspection and analysis by Seller, prior to and/or after Buyer ships the product to Seller, to conclusively identify or confirm the nature and cause of failure and application of this warranty. In the event that the defect or damage is excluded from warranty the Seller may at its option either (i) provide Buyer with a quote to make any such repairs or replacements which are not covered under this warranty, or (ii) give Buyer twenty (20) days to pay for return shipping and upon receipt return the product to Buyer. If Buyer fails to pay for return shipping after twenty (20) days' notice and after repairs are made or warranty coverage is determined not applicable, Seller may dispose of or scrap the product.

This is a factory warranty and any defective components, mechanical or electrical, will be repaired or replaced, at the discretion and authorization of Seller, at Seller's facilities in Utah. It shall be the Buyer's responsibility to return the faulty equipment or components to Seller at Buyer's expense as well as pay for all return shipping. This warranty does not include the cost, reasonable expenses to travel, and labor at Buyers or others facility. All replaced or exchanged parts becomes property of Seller. Buyer shall first receive written confirmation to ship the product before sending it. Written confirmation to ship is not a guarantee that the defect or damage to the product is covered by this warranty. Seller is not obligated to pay for labor, material, reasonable travel expenses, or service charges involved in the removal, return, or installation of equipment or components. Seller reserves the right to incorporate improvements in material and design of its products without notice and is not obligated to incorporate the same improvements in equipment previously manufactured.

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This warranty shall not apply to equipment or components which has/have:

1. Been the subject of an accident, or repairs or modifications attempted or made and not authorized by Seller.

2. Been used with incompatible products.

3. Been operated under abnormal conditions, excessive heat or cold, highly corrosive environments, or in an unintended manner.

4. Not been operated or maintained in accordance with Seller's instructions.

5. Been subject to misuse or abuse, negligent handling, improper installation, accident, damage by fire, flood, snow, ice, water or other liquid damage, lightning, abnormal electrical condition and/or power surge, earthquake, or other act of God or events outside of Sellers control.

6. Had serial numbers altered, defaced or removed.

7. Been operated beyond capacity.

8. Not been manufactured by Seller including parts, accessories, or components which have been integrated into, used alongside of, or in conjunction with a product manufactured by Seller.

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, STATUTORY, EXPRESS OR IMPLIED. TO THE MAXIMUM EXTENT ALLOWED BY LAW, SELLER SPECIFICALLY DISCLAIMS ANY AND ALL STATUTORY OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS. IF SELLER CANNOT LAWFULLY DISCLAIM STATUTORY OR IMPLIED WARRANTIES THEN TO THE EXTENT PERMITTED BY LAW, ALL SUCH WARRANTIES SHALL BE LIMITED IN DURATION TO THE DURATION OF THIS EXPRESS WARRANTY AND TO REPAIR OR REPLACEMENT SERVICE AS DETERMINED BY SELLER IN ITS SOLE DISCRETION. This statement sets forth the full extent of Seller's liability for breach of any warranty or deficiency in connection with the sale or use of the product. No employee, representative or reseller of Seller is authorized to change this warranty in any way or grant any other warranty.

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CONSUMER PROTECTION LAWS. FOR CONSUMERS WHO ARE COVERED BY CONSUMER PROTECTION LAWS OR REGULATIONS IN THEIR COUNTRY OF PURCHASE OR, IF DIFFERENT, THEIR COUNTRY OF RESIDENCE, THE BENEFITS CONFERRED BY THIS WARRANTY ARE IN ADDITION TO ALL RIGHTS AND REMEDIES CONVEYED BY SUCH CONSUMER PROTECTION LAWS AND REGULATIONS. Some countries, states and provinces do not allow the exclusion or limitation of incidental or consequential damages or exclusions or limitations on the duration of implied warranties or conditions, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary by country, state or province.

This document was created with the purpose of providing the most accurate and complete information. If you have comments or suggestions for improving this manual, contact Cubiscan.

Manual updated October 1, 2024.

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CHAPTER 1
PRODUCT DESCRIPTION

The Cubiscan Master Data Table (MDT) dimensions odd-shaped items for on-demand box making applications. Accurate product dimensions allow companies to build custom, right-sized packaging for customer orders, resulting in reduced shipping costs, minimized product damage, and increased sustainability. The Cubiscan MDT measures objects up to 8' in length, making it a valuable tool for companies that ship large, bulky items (i.e. kayaks, car bumpers, garden tools).

To collect item dimensions, the operator justifies the item to the corner of the dimensioning table and moves three laser guided sensors into position, one to measure length, one to measure width, and one to measure height. Once the lasers are in position, the operator triggers the measurement and the collected data is pushed directly into the on-demand packaging system. The Cubiscan MDT is also ideal for building custom packaging for multiple item orders. Arrange or nest the items how you would like to package them, trigger the measurement, and that data will be used to construct a custom box for your order.

Figure 1
Cubiscan Master Data Table

Specifications

Power requirements

95-250 VAC, 47-63 Hz

Environmental

Operating temperature: 14° to 104° F (-10° to 40° C)

Humidity: 0 to 95% non-condensing

Measuring capacities

Length Minimum:	3.0 in (8.0 cm)
Length Maximum:	96.0 in (240.0cm)
Width Minimum:	3.0 in (8.0 cm)
Width Maximum:	30.0 in (75.0 cm)
Height Minimum:	0.2 in (0.5 cm)
Height Maximum:	36.0 in (90.0 cm)
Accuracy:	+/- 0.2 in (0.5cm)
Measure increment:	0.2 in (0.5 cm)

Physical

Length:	104 in (265 cm)
Width:	34 in (85 cm)
Height:	66.5 in (170 cm)

User interface

Outputs:
Serial (1), Ethernet (1), USB-A (1), USB-B (1)

Safety Precautions

Definitions

Safety definitions are designed in adherence to American National Standards Institute (ANSI) safety sign standards in order to ensure that the Cubiscan is operated and maintained correctly and safely.

DANGER: Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. Includes hazards that are exposed when guards are removed.

WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in serious injury or death. Includes hazards that are exposed when guards are removed.

CAUTION: Indicates a potentially hazardous situation that, if not avoided, could result in minor or moderate injury.

IMPORTANT: Indicates information about procedures that, if not observed, could result in damage to equipment or corruption to and loss of data.

Labels

Labels are provided with the Cubiscan to alert operators of potential hazards. Ensure that the labels are properly displayed on the unit and in its vicinity. Do not remove or alter labels for any reason without first consulting a Cubiscan representative.

Danger High Voltage

Electric Shock

Keep off

Pinch Point

Caution

Warning

Electrical Hazards

Avoid handling electric cables, plugs, and other electrical components when connected to a live power source. Follow these safety standards when working with electrical components of the Cubiscan:

- Turn off the power to the machine before unplugging.
- Be sure to hold the plug, NOT the power cable, when unplugging.
- Whenever handling electrical cables or components, do so with care.
- Never place cables and other electrical components near a heat source.
- Ensure that grounding wires are in place and secure before operating the Cubiscan.
- Avoid stepping on or placing heavy objects on cables.
- Do not modify, bend, or otherwise tamper with cables and other electrical components.

If damage is observed from a cable, plug, or other electrical component, turn off the machine immediately and unplug it from the power source. Consult a Cubiscan trained technician for replacement.

If you do not use the unit for a long time, disconnect the power plug from the outlet to ensure safety. Allowing it to remain plugged in over a long period of time without use may cause fire or electric shock.

Failure to observe safe electrical standards may result in accidental electrocution, damage to the machine, fire, and possible injury or death.

Heat Warning

Motors and other electrical components, especially batteries, heat up during use. If the unit is used extensively, these parts may become overheated causing a potential hazard to the machine and the operator.

To avoid injury, when working around motors and other electrical components, avoid contact with these parts during operation and shortly after. Even with the power off heat may be retained in the part for several minutes after operation.

If you find certain parts are heating well beyond the temperature threshold, shut down the unit to prevent injury. Ensure that the problem is not a result of the surrounding environment. If it is, move the unit to a more suitable environment. If the problem persists, consult a Cubiscan technician.

Environment

The Cubiscan should not be installed in any environment where excessive heat, humidity, or dust is present. Variations in temperature or direct exposure to sunlight may cause inaccuracies in measurements and could damage sensors. Do not install near fans where temperatures may fluctuate, causing variations in measurements.

Do not install the Cubiscan in a location that is inclined as this will affect the precision of its measurement and may contribute to instability resulting injury if the unit tips over. Install the unit on a flat surface and stable location, where it can easily be leveled.

Some setups will require multiple cables running to the Cubiscan. This may cause a potential tripping hazard that can damage the unit and cause injury. Install the unit in a low traffic area, where wires may be tucked against a wall or some other inconspicuous place. If wire must be run in a traffic area, take precautions to prevent tripping such as taping down the cables or providing a cable ramp or other protective cover.

Handling of Cubiscan

When handling the Cubiscan unit take care to avoid sharp edges that may cause injury. If lifting is required, do so with a partner. Never attempt to lift the Cubiscan alone as this may cause injury.

Abnormal Operation

Turn off power to the Cubiscan and unplug it immediately if the machine gives off an odd smell, makes unusual sounds, emits smoke, or overheats. Call Cubiscan Technical Assistance at 801.451.7000 for assistance. Failure to do so could result in fire, accidental electrocution, and possible machine damage.

Caution

Do not use Cubiscan near electronic devices that handle high-precision control or weak signals as it may affect electronic devices leading to malfunction.

Do not allow foreign matter or liquids to get inside the Machine. Doing so may cause short circuit or smoke, resulting in fire, electric shock, or malfunction. If foreign matter or liquid gets inside the Cubiscan, immediately turn off the machine and unplug it from the outlet.

If the Cubiscan is dropped or suffers a strong impact, immediately turn it off and unplug it from the outlet. Continued use may cause fire, electric shock, injury, or malfunction.

Do not operate the touch panel with sharp objects. Pressing the touch panel strongly with a sharp object may cause damage, leading to malfunction.

Do not climb onto or lean on the Cubiscan. Doing so may cause injury.

Regular cleaning and calibration tests are required to maintain accurate measurements. Run calibration tests after any maintenance work.

Laser Eye Safety Classifications

Class 1

This Cubiscan uses Class 1 lasers. According to ANSI regulations a Class 1 laser is considered safe in all applications. The levels of optical radiation emitted from a Class 1 laser are above the exposure limits for the eye under any exposure condition.

Accessories

Certain accessories used with the Cubiscan may pose risk outside the scope of the standalone unit. These may include but are not limited to: scales, portable batteries, camera units, shrink wrappers, etc. Please consult additional documentation for the individual units. A collection of this documentation for each accessory sold with the unit may be found on the Cubiscan website: https://cubiscan.com/guides-accessories/

Cubiscan is not responsible for third party accessories used with the unit. Before using third party accessories, consult a Cubiscan sales representative or technician to ensure that the implementation of the accessory will not pose a safety risk, harm the Cubiscan, or potentially void the warranty.

CHAPTER 2
SETUP

This chapter provides instructions for assembling and setting up the Master Data Table. Perform the steps to set up the Master Data Table in the following order:

Placement

The Master Data Table is designed to be operated in a warehouse environment; however, for proper operation the following conditions should be met if possible.

- Do not subject the Master Data Table to extremes in temperature or humidity. Locate the Master Data Table as far from open freight doors as possible. Heaters or air conditioners should not blow directly on the Master Data Table.
- Avoid placing the Master Data Table in direct sunlight, as it may affect measurement readings.
- Protect the Master Data Table from static electricity, especially the touchscreen.
- Place the Master Data Table on a flat, sturdy surface as free from vibration as possible.

- Maintain a minimum of one-inch clearance at the back and sides of the Master Data Table. Do not rest objects against or set objects on the Master Data Table when not in use.
- If a computer is used, place it as close to the Master Data Table as possible. The operator needs to use the keyboard or mouse on the computer while cubing objects using the Master Data Table.
- Orient the Master Data Table so the track sensors can be accessed easily.

Unboxing Master Data Table

The Master Data Table is shipped in stacked pieces and will take some assembly. The unit will be boxed and secured by box straps. Within the box, the piece of the unit is wrapped and secured with cushioning. This prevents damage during transit.

Figure 2
Boxed unit

1. Extract each piece from the box and remove the wrapping.

Figure 3
Unboxing

2. The table will be at the bottom along with the leg railings and fasteners.

Figure 4
Table and fasteners

3. Due to the size of the back panel and table, two people are needed to lift these out safely.

Figure 5
Lifting table out

Assembling the Master Data Table

Setting up the table legs

1. Remover packing materials and position the table in desired location.

Figure 6
Table base

2. Begin by folding down one set of legs. Thread the 3/8" (16) bolts with washers through the two pre-tapped holes on the upper side of the legs. The top bolt will require a spacer.

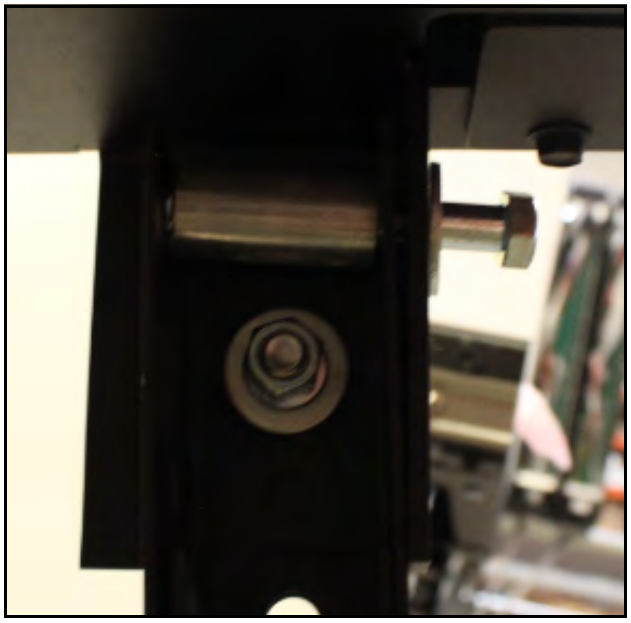

Figure 7
Legs - bolt and spacer

3. Secure the bolts on the other side with the flange nuts using a 9/16" socket.

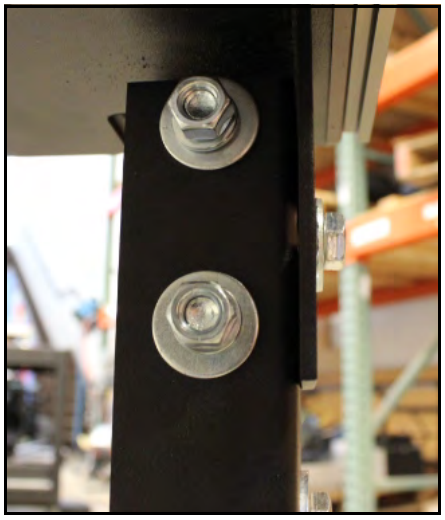

Figure 8
Legs - nuts and washers

4. Once the legs are secure, fold down the other side and secure the legs with the bolts and flange nuts the same as the first.

5. Attach the lower railings to the legs using the 1/4" (20) bolts. Secure in the back with the flange nuts, using a 3/8" socket.

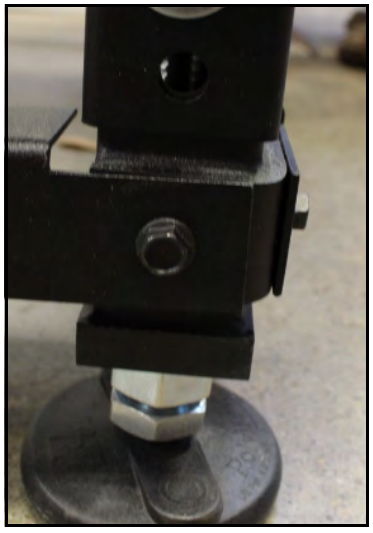

Figure 9
Leg rails

Height adjustment and leveling

1. Adjust the height of the legs, by removing the two adjuster bolts at the side of the legs.

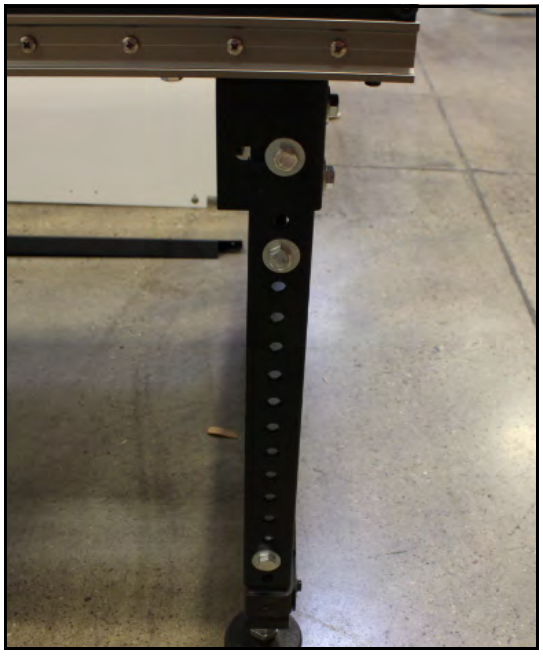

Figure 10
Adjusting table height

2. Extend the legs to the desired height and secure it with the adjuster bolts. Ensure all legs are adjusted to the same height.

3. If the table requires further leveling, the platforms at the bottom of each leg may be adjusted to level out the table. Use a wrench to turn the nut on the table leg to adjust the height in small increments.

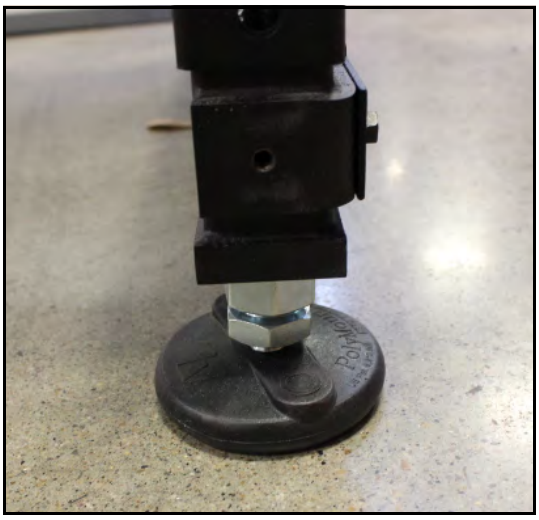

Figure 11
Leveling feet

NOTE *The Master Data Table does not need precise leveling for proper function. As long as the floor is relatively level, there should be no need to adjust the leveling.*

Back and side panels

1. Loosen the bolts for the side panel. Position the side panel over the bolts aligning with the pre-tapped, slotted holes. Hand tighten bolts.

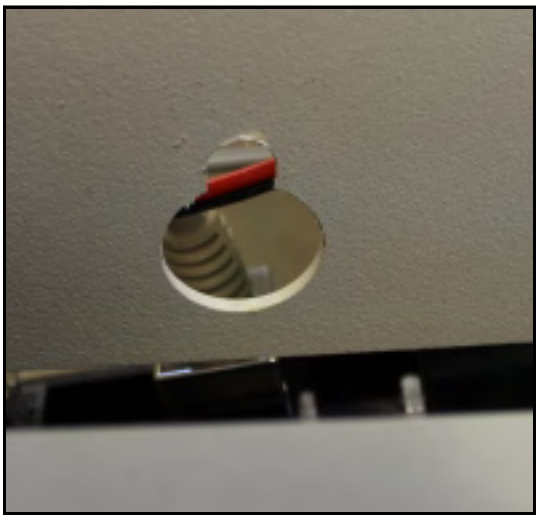

Figure 12
Slotted hole

2. Screw in additional bolts and tighten with 3/8" socket.

Figure 13
Side panel bolts

3. Connect cable from table into side panel input.

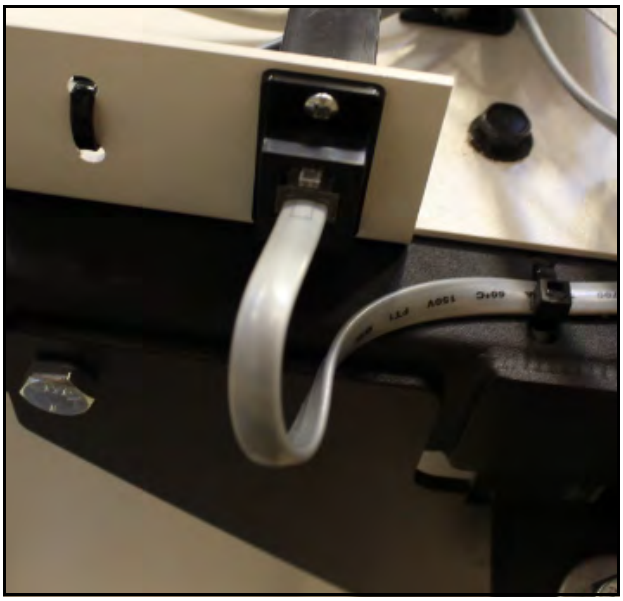

Figure 14
Table connector

4. Loosen back panel bolts. Position the back panel over the bolts aligning with the pre-tapped, slotted holes. Hand tighten bolts.

Figure 15
Slotted holes

5. Screw in additional bolts and tighten with 3/8”socket.

6. Connect side panel with back panel with 1/4" (20) screws.

Figure 16
Connecting panels

7. Ensure all bolts and screws are sufficiently tight. Do not over tighten as this may strip the threading.

Bottom rack (optional)

In some cases, a bottom rack is provided to support a PC unit or other conveniences. Complete the following steps to attach this rack to your unit:

1. Place the rack along the bottom railing where it will be utilized. Typically this would be the end near home position (the end with the

sensors). A space is cut into the rack to make room for the table legs. The rack should fit snugly into place between the two table legs.

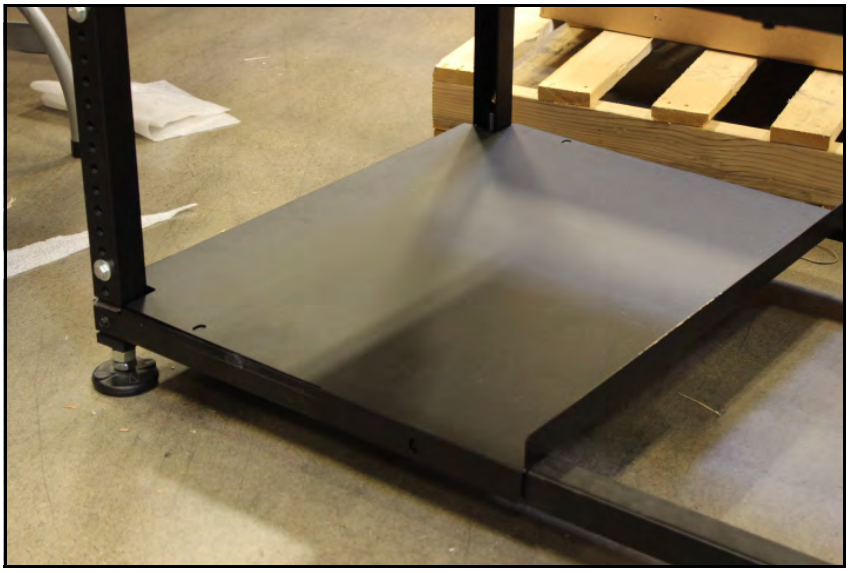

Figure 17
Bottom rack

2. With the rack in place, secure it to the railings along each side with the accompanying screws.

Figure 18
Securing rack

3. Once secured, the rack is prepared for the placement of a PC unit or any other accessory you wish to use with the MDT.

Connecting sensors

The Master Data Table has three laser sensors that are use to measure out product on the table. Each sensor is attached to a rails that runs along the table and side panel.

1. After connecting the back and side panels to the table, slide the sensors onto the rails along the table and side panels. There will be one sensor along the table and two sensors on the side panel: one at the top and one along the front.

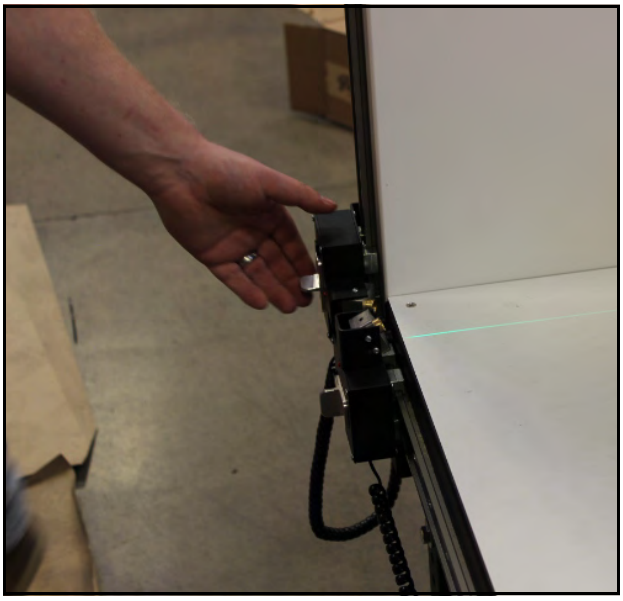

Figure 19
Laser sensors

2. With the senors in place connect the network cables form the sensor to its respective input along bottom of the side panel. The following will describe where each input is located.

side panel sensor (top): Input is located on near the upper-left portion of the panel side panel.

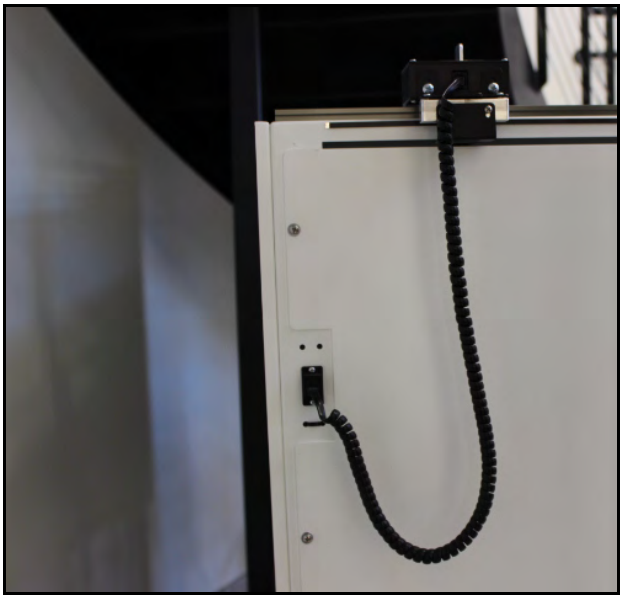

Figure 20
Side panel sensor (top)

side panel sensor (front): Input is located at the bottom front of the side panel.

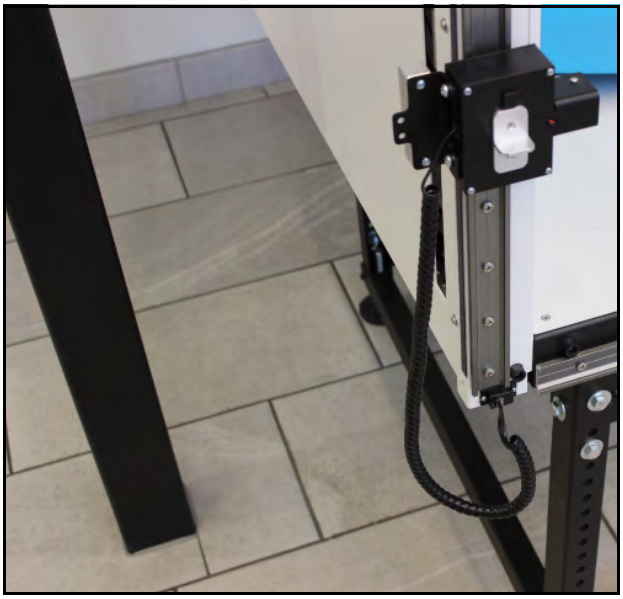

Figure 21
Side panel sensor (front)

table sensor: Input is along the bottom of the table near home position (front-left position).

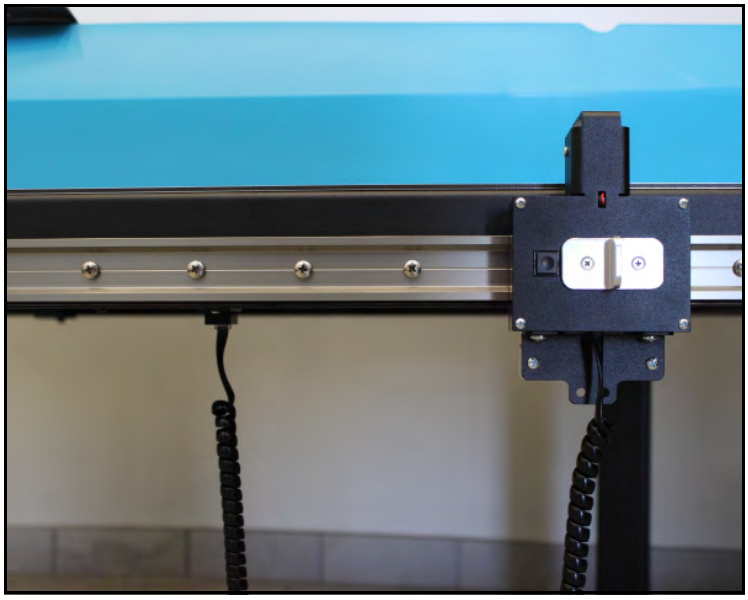

Figure 22
Table sensor

Connecting power

1. Connect the power at the bottom of the side panel along with any network cables.

Figure 23
Connecting power

2. Plug the power cord into an electric outlet. Ensure the cord is in a safe location where it will not be a tripping hazard.

NOTE *The Master Data Table should be powered on before running the Qbit program to cube and weigh packages.*

Turning on the Master Data Table

Specific procedures must be followed each time you turn on the Master Data Table, as follows:

1. Make sure there are no packages or other objects on the Master Data Table platform.

2. Make sure the sensors are in the home positions.

- **panel sensor (side)** - home position is at the bottom of the side panel.

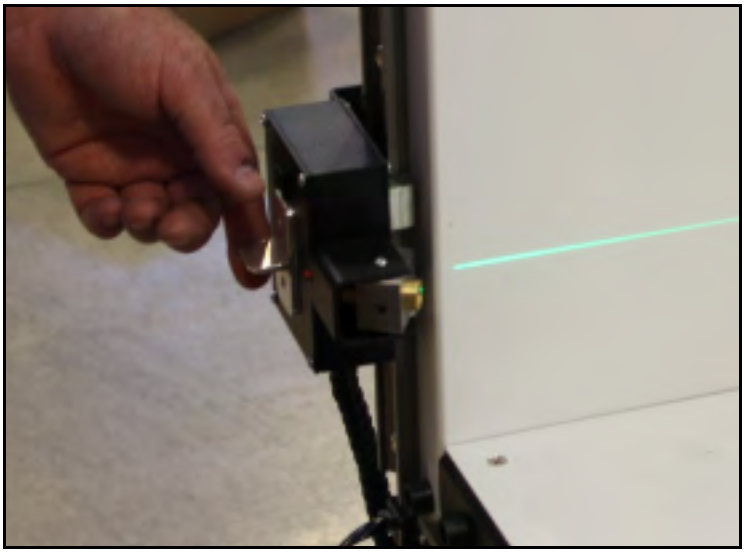

Figure 24
Panel sensor (side)

- **panel senor (top)** - home position is on the far side nearest the back panel.

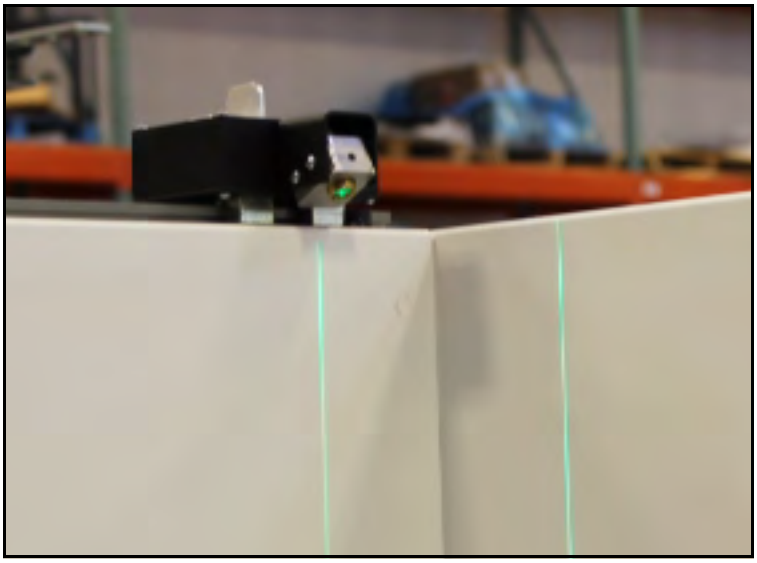

Figure 25
Panel sensor (top)

- **table sensor** - home position is on the side nearest the side panel.

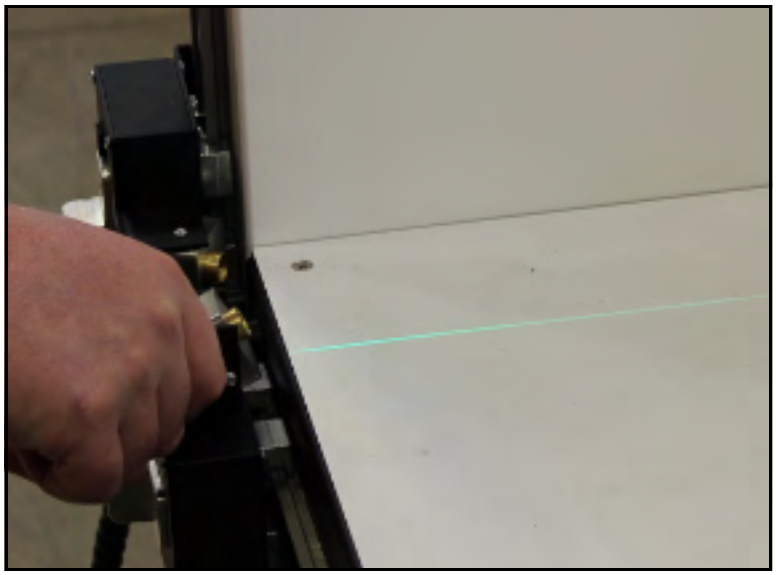

Figure 26
Table sensor

3. The table is ready for operation.

Setup checklist

Before using the Master Data Table for the first time, verify the following:

1. Has the Master Data Table been placed in the proper operating environment? The Master Data Table should not be pushed up against a wall and no object, cable, etc., should be resting on it or against it.

2. Has all shipping material been removed?

3. Has the Master Data Table been fully assembled and sensors connected?

4. Has the AC power cord been connected correctly?

5. Does the Master Data Table require recalibration? The Master Data Table *may* require recalibration due to handling during shipping. Refer to page 42 for information on calibrating the Master Data Table.

CHAPTER 3
OPERATION

This chapter provides instructions for the basic operation of the Cubiscan™ Master Data Table.

Operating the MDT

All controls and displays for the Cubiscan Master Data Table are located on the touchscreen located on the backside of the side panel. Measurements are displayed on the touchscreen. Different units may be selected in the Configure menu (see "Units" on page 34).

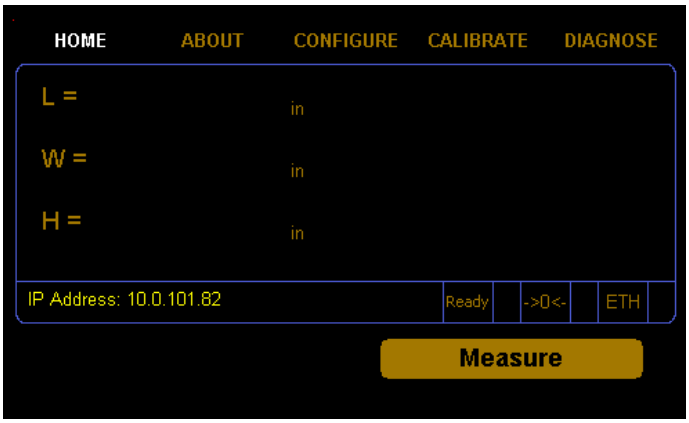

Figure 27
Cubiscan Master Data Table Touchscreen

L = This displays the measured length in inches (in) or centimeter (cm) as selected.

W = This displays the measured width in inches (in) or centimeter (cm) as selected.

H = This displays the measured height in inches (in) or centimeter (cm) as selected.

Ready (indicator) This indicates that the Cubiscan Master Data Table is ready for measuring.

ETH (indicator) Indicates that the Master Data Table is connected to Ethernet.

NOTE *Do not lean on or touch the Cubiscan platform or the package while a package is being measured. Any kind of contact with the platform or package during the measurement process can alter the sensor reading giving an inaccurate measurement.*

Making measurements

Before taking a measurement for the first time after power-up, move the sensors to home position. Home position for the sensors is to the far left for length, bottom of side panel for height, and along the back panel for width.

Figure 28
Home position

With the sensors in home position the measurements should be zeroed. If any of the measurements are not zeroed, proceed with calibrating the sensors, (see "Calibrating the sensors" on page 42).

Once the sensors are properly calibrated, proceed to measurement by complete the following steps:

1. Place object to be measured on the Master Data Table. Ensure that it is pushed to the back-left corner.

Figure 29
Measuring an object

2. Move the three sensors along their track, aligning the laser to the outer edge of the object. Using the white panel will make seeing the laser easier.

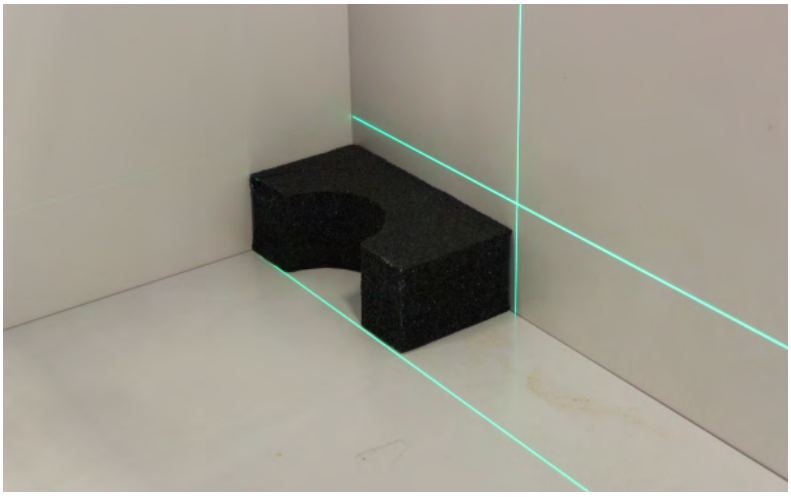

Figure 30
Laser guides

3. Once each sensor is in place, check the touchscreen to ensure that it is ready for measurement. The indicator “Ready” should be displayed in the bottom right of the home screen. If you will be posting data, also

ensure that the "ETH" is displayed, indicating that you are connected to the network.

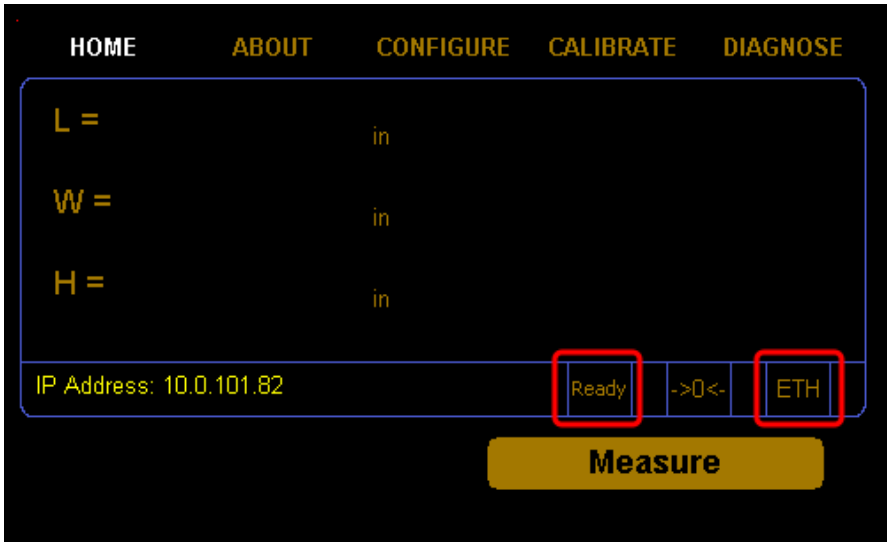

Figure 31
Measurement

4. Measurements may be take by pressing the button on the sensor or tapping **[Measure]** on the touchscreen. The measurement will be recorded. If posting is set up, the measurement will be posted to the server.

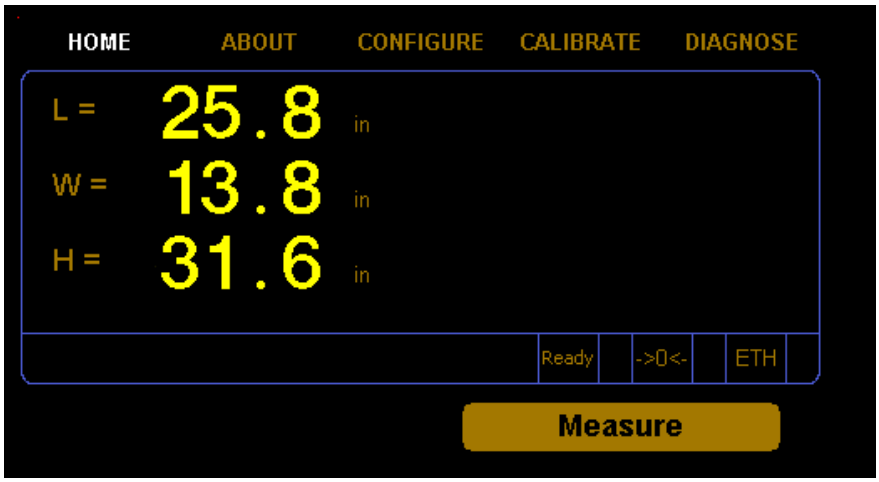

Figure 32
Measurement

For more information on configuring the units or network connection, see CHAPTER 4 "CONFIGURATION" on page 31.

CHAPTER 4
CONFIGURATION

This chapter provides instructions for using the Master Data Table touchscreen to set up the length, width, and height measurements, as well as special features that the Master Data Table offers. This chapter also provides instructions for configuring the units, dimensional weight factor, com port, and other settings. For information on calibrating the Master Data Table, touchscreen, refer to CHAPTER 5 "CALIBRATION".

System configuration

The following options can be used to configure your Master Data Table. The options available on the configure menu are Operation, Units, Ethernet, and Other.

Operation

This section discusses the options available on the Operation menu. Complete the following steps to access the Operation menu.

1. From the home screen, tap **MENU**.

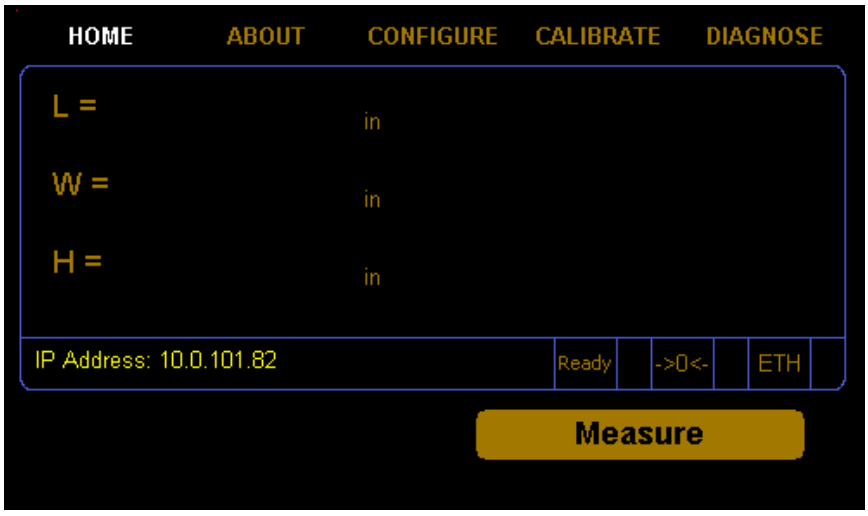

Figure 33
Home screen

2. Tap **CONFIGURE**. Select the **Operation** option if it is not already selected.

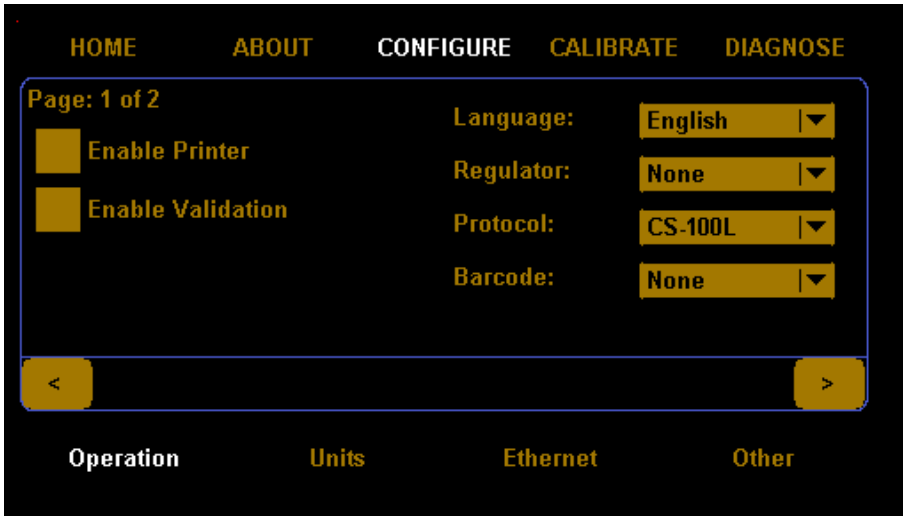

Figure 34
Configure operation

Enable Printer Check this box to allow the use of a printer accessory with the Master Data Table.

Enable Validation Enable option to have a validation check before transmitting data.

Language Choose interface language from drop down. Options include: English, French, Spanish, Japanese, and Chinese.

Regulator Choose the regulation standard. Options include: None, Australia, Europe-Middle East, and USA/Canada.

Protocol Select the protocol to be used for encoding data from the Master Data Table. Options include: CS-100L, Standard, Expanded, 200-B, and JSON.

Barcode The Master Data Table can be set to require scanning up to two barcodes. Select from the Barcode drop down, none, one, or two, depending on the number of barcodes that need to be scanned.

Click the arrows at the bottom of the screen to navigate to further options withing Configure > Operation.

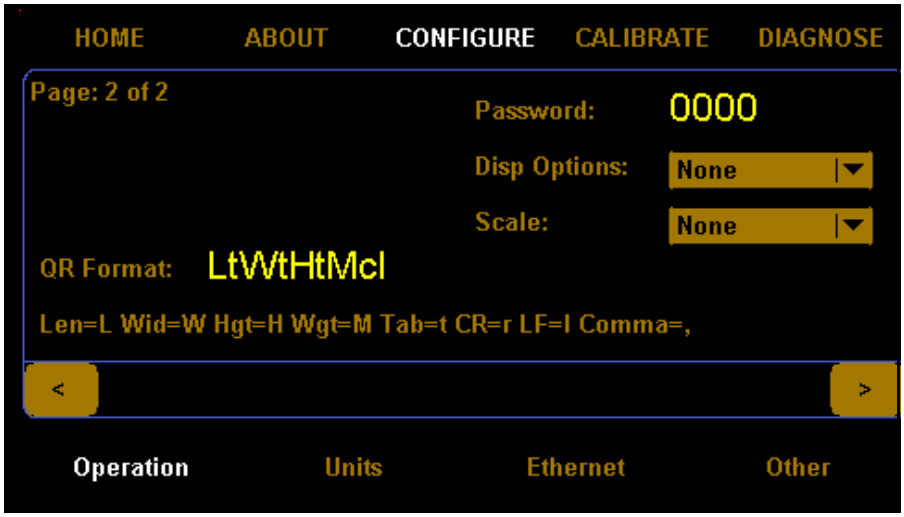

Figure 35
Configure operation page 2

QR Format Set the format of dimensions received when the QR code is scanned. Use the following to determine format:

L = length

W = width

H = height

M = weight

t = tab

r = CR

| = LF

‘ = comma

Password In this field you can enter a four-digit password. If you set up a password, it must be entered each time you try to access any of the menu screens (except for the About menu).

Disp Options Set how the acquired dimensions will be displayed. Options include: None, DimWgt, and QR Code.

Scale Choose whether to use a scale and which scale option to use. Options include: None or Internal.

Units

This section discusses the options available on the Units menu. Complete the following steps to access the Units menu.

1. From the home screen, tap **MENU**.

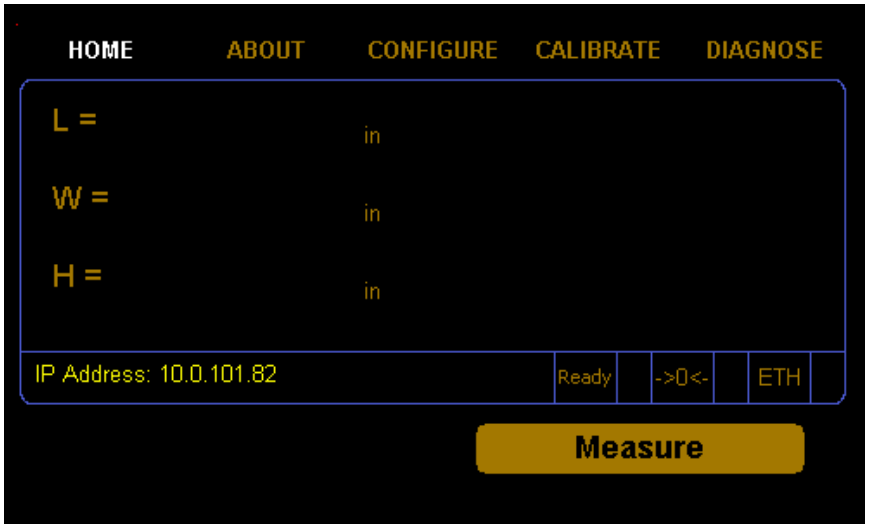

Figure 36
Home Screen

2. Tap **CONFIGURE**. Select the Units option if it is not already selected.

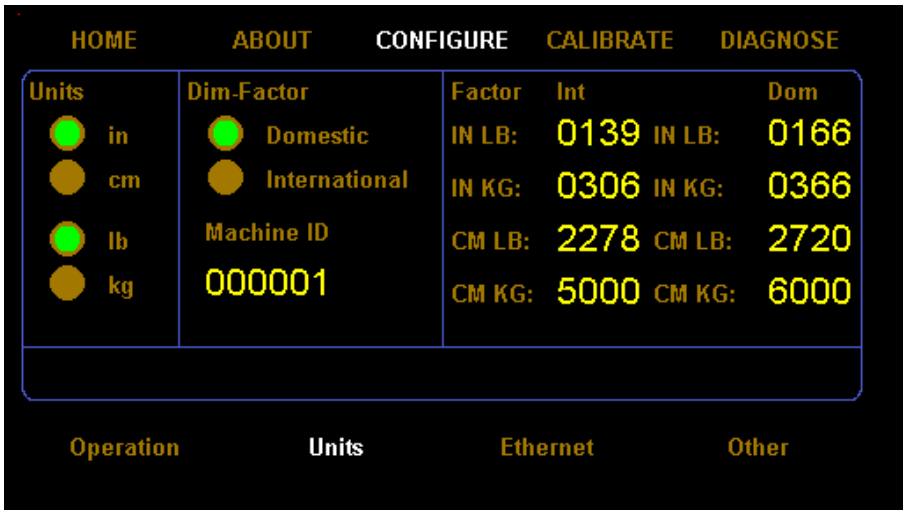

Figure 37
Configure units

Units In this field you can select the units that will be used. The options are inches (in), centimeters (cm), pounds (lb), or kilograms (kg).

Dim-Factor In this field you can select the dim factor that will be used. The options are domestic and international.

Machine ID In this field you can enter a unique ID for your Cubiscan. This can be helpful if you have more than one Cubiscan on site.

Factors In these fields you can view or change the current dim factor values.

The following table displays the default dimensional weight factors used by the Cubiscan.

139	International:	inches, pounds (in lb)
166	Domestic:	inches, pounds (in lb)
306	International:	inches, kilograms (in kg)
366	Domestic:	inches, kilograms (in kg)
2278	International:	centimeters, pounds (cm lb)
2720	Domestic:	centimeters, pounds (cm lb)
5000	International:	centimeters, kilograms (cm kg)
6000	Domestic:	centimeters, kilograms (cm kg)

Ethernet

This section discusses the options available on the Ethernet menu. Complete the following steps to access the Ethernet menu.

1. From the home screen, tap **MENU**.

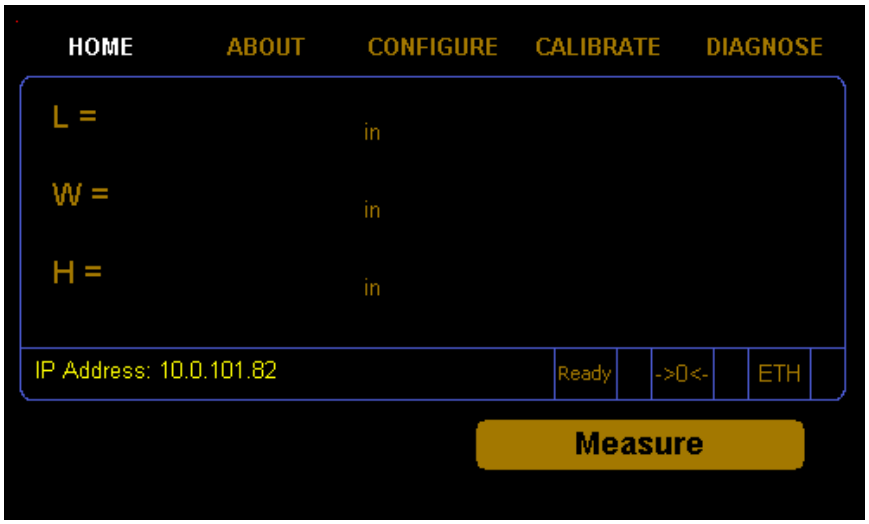

Figure 38
Home screen

2. Tap **CONFIGURE**. Select the Ethernet option if it is not already selected.

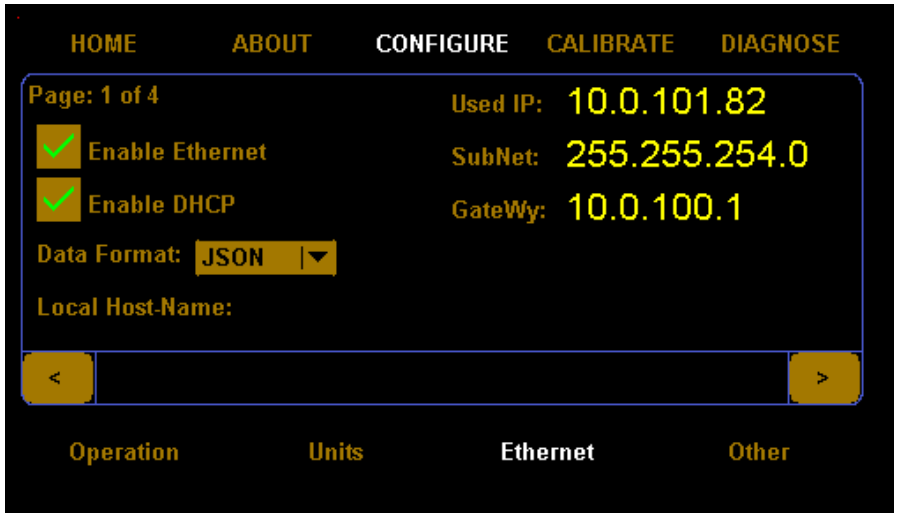

Figure 39
Configure Ethernet

This section describes the various settings and options of the Ethernet in use.

Used IP	This is the current IP address.
SubNet	This is the current subnet mask.
GateWy	This is the current gateway setting.
Enable Ethernet	Check this box to enable the in use Ethernet.
Enable DHCP	Check this box to enable the DHCP.
Data Format	You can select XML or JSON.
Local Host-Name	Enter name of local host, if needed.

If the DHCP is enabled and the network successfully connected, the **Used IP**, **Subnet**, and **GateWY** will display the values assigned by the network.

Static

Use the following options to view and configure static Ethernet properties for connecting to your network.

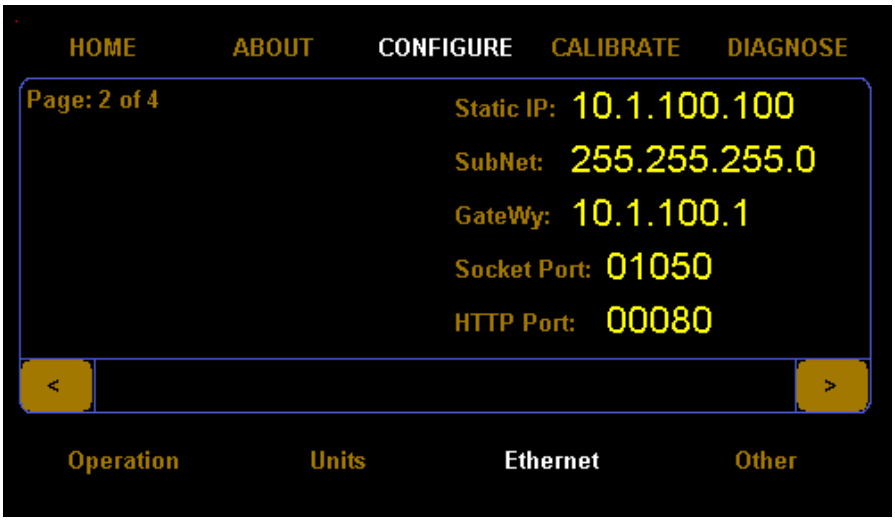

Figure 40
Configure static

Static IP	Enter the static IP address.
SubNet	This is the static subnet mask.

GateWy Enter the gateway setting.

Socket Port Enter port settings for socket.

HTTP Port Enter HTTP port settings.

If the DHCP is disabled or network connection was unsuccessful, the **Used IP**, **Subnet**, and **GateWy** will default to the **Static** settings.

Post

Use the following option to configure the posting operations for the Master Data Table.

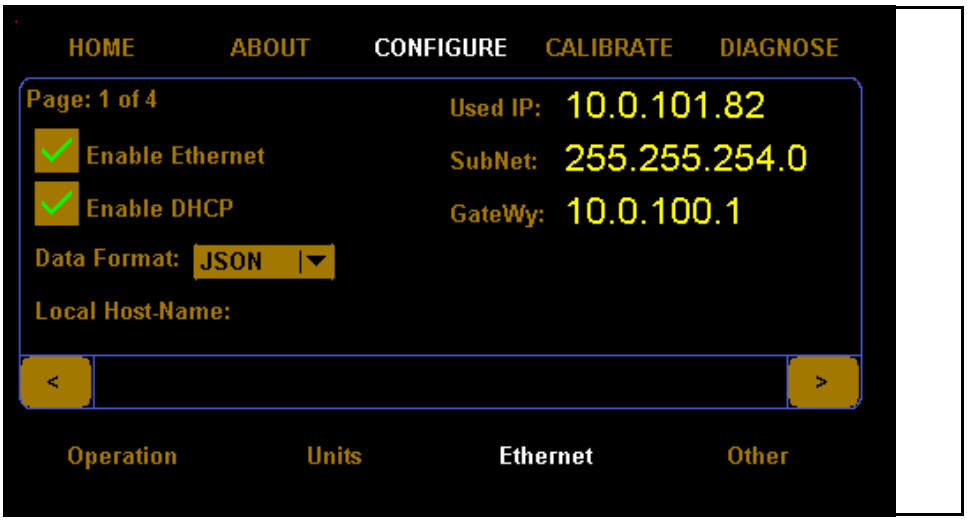

Figure 41
Configure post

Post IP Enter the IP address for posting.

DNS IP Enter the IP for posting using Domain Name System.

Post Port Enter the port for posting.

Enable Post Toggle to enable posting of measurement data.

Enable Dns Toggle to enable DNS posting.

Post Debug Toggle to enable posting of debug information.

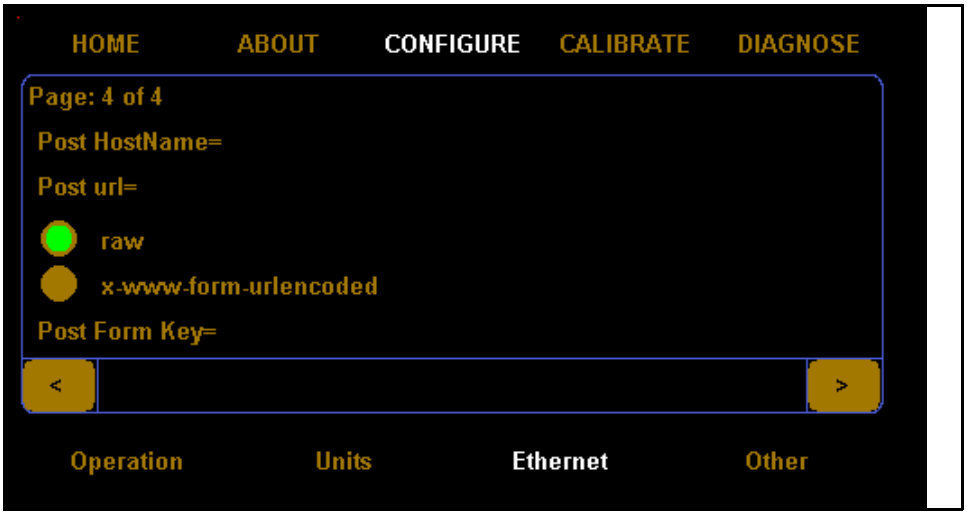

Figure 42
More post configuration

Post HostName — Enter the hostname of the server receiving posted data.

Post url — Enter the url of server to receive postdata.

raw — Select raw to use the URL as entered in the Post url.

x-www-form-url encoded — Encode the posting url with www.

Post Form Key — If a form key is needed to post to server, enter it here.

Other

This section discusses the options available on the Other menu. Complete the following steps to access the Other menu.

1. From the home screen, tap **MENU**.

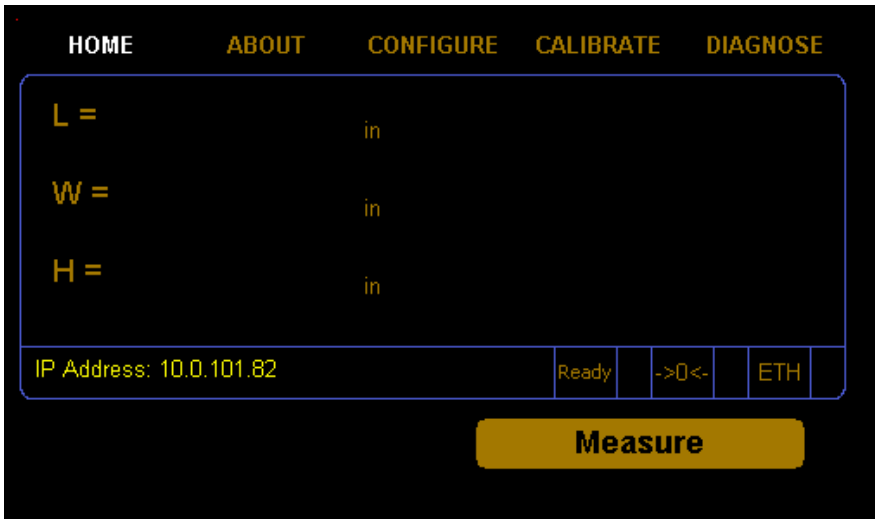

Figure 43
Home screen

NOTE *If you have set up a password previously in the system configuration, you need to enter the password to unlock the menu. Refer to page 43.*

2. Tap **CONFIGURE**. Select the Other option if it is not already selected.

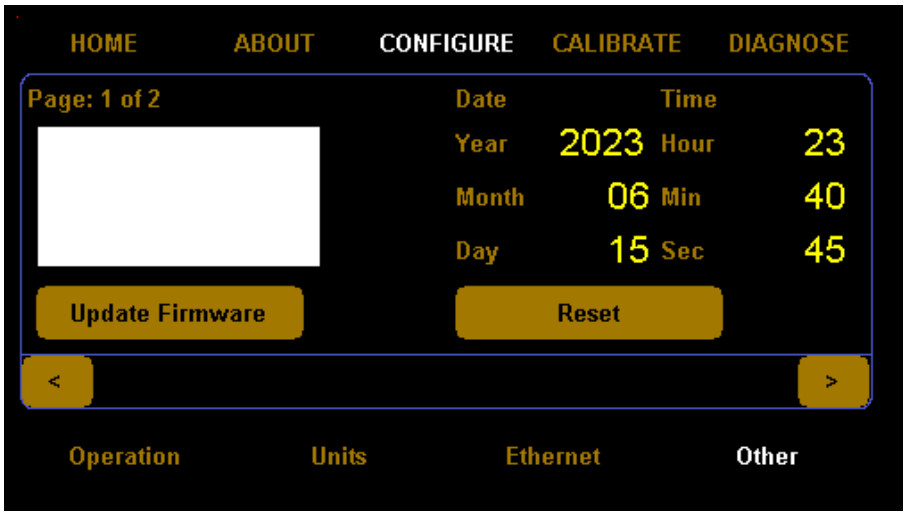

Figure 44
Configure other

Update Firmware

Tap this button to update the firmware.
The field below the button displays all firmware files that are saved on the SD card. If you would like to update the Master Data Table to a certain firmware file, select it in the list displayed and tap **[Update Firmware]**.

Reset Tap this button to reboot the system after updating the firmware. The system must be rebooted each time the firmware is updated.

Date/Time This displays the current date and time.

CHAPTER 5
CALIBRATION

This chapter provides instructions for calibrating the Master Data Table touchscreen, and sensors. The Master Data Table is calibrated before packaging. However, some circumstances in which recalibration may be required include the following:

- Calibrate the touchscreen if you have trouble making selections on the screen.
- Calibrate the Master Data Table if you have problems taking measurement.
- Calibrate the Master Data Table if it is subjected to any type of mechanical shock or collision with a heavy object.
- Calibrate the Master Data Table as part of a regular maintenance schedule. Calibration is recommended at least annually. If the Master Data Table is used heavily, calibration should be performed monthly.
- Perform quality checks as needed, depending on how critical the accuracy of the data is to you. Recalibrate if you are outside the tolerance of +/- 0.05 inches (+/- 0.1 cm) for the sensors or +/- 0.010 pounds
  (+/- 0.005 kg) for the scale.

During quality checks or when calibrating, make sure that the Master Data Table is not affected by external forces that may affect readings, such as sunlight or fans.

Calibrating the sensors

Before calibrating the Master Data Table, remove all items or other material from the platform and blow any dust off the measurement sensors.

To calibrate the sensor using the touchscreen, proceed as follows.

1. Tap **MENU** at the home screen.

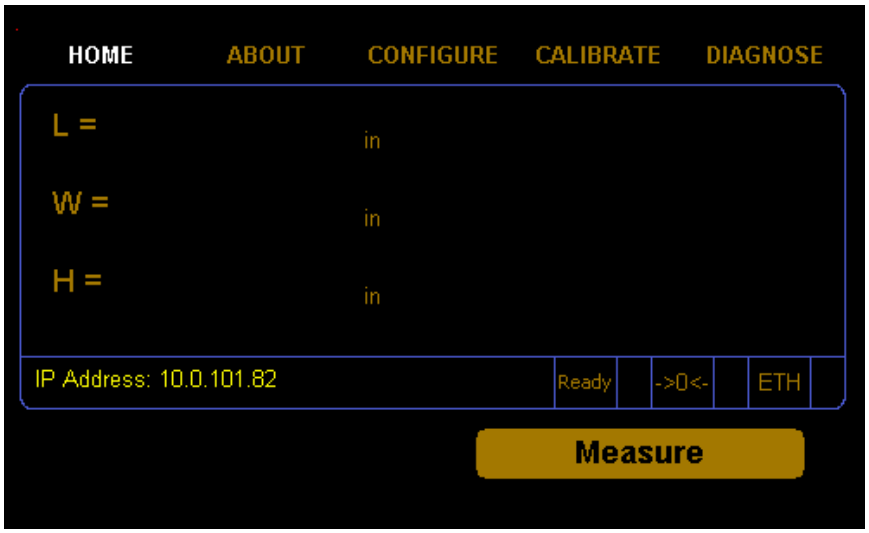

Figure 45
Home screen

2. Tap **CALIBRATE**. Select the Sensors option if it is not already selected.

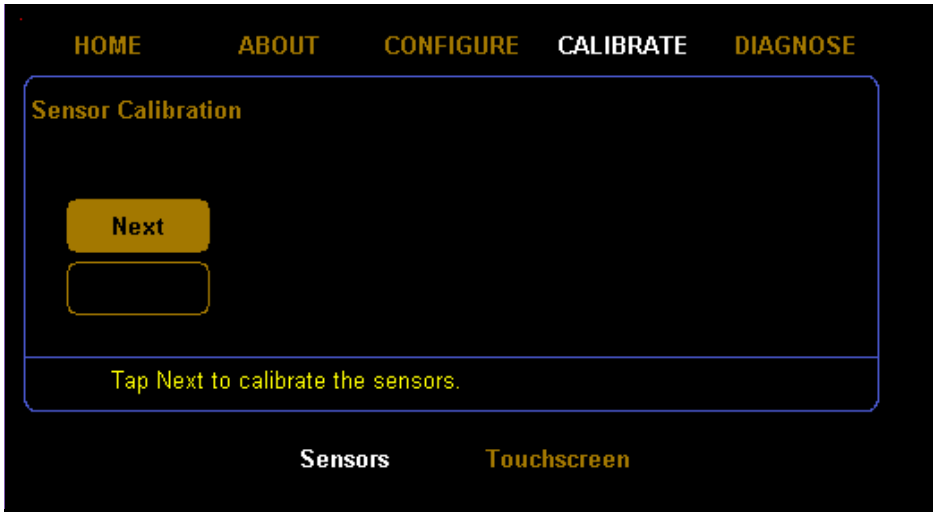

Figure 46
Sensor Calibration

3. Tap **[Next]** to begin calibration

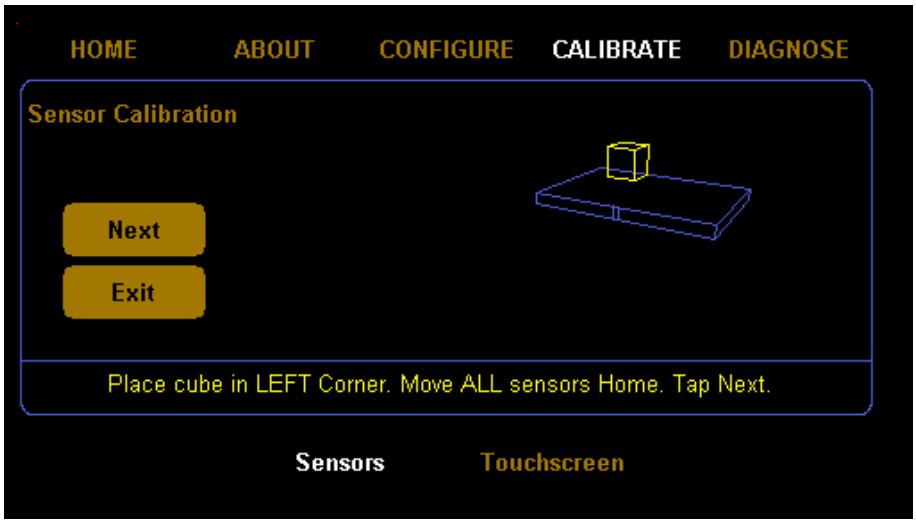

Figure 47
Sensor calibration: Step 1

4. Place the calibration cube in far left corner of the master table as depicted in the provided diagram.

5. Move all sensor to their home positions as follows:

   Length sensor: move sensors to the far left position.

   Width sensor: move sensor to the position closest the front.

   Height sensor: move sensor to the bottom position

6. Once the sensors are in home position, tap **[Next]**.

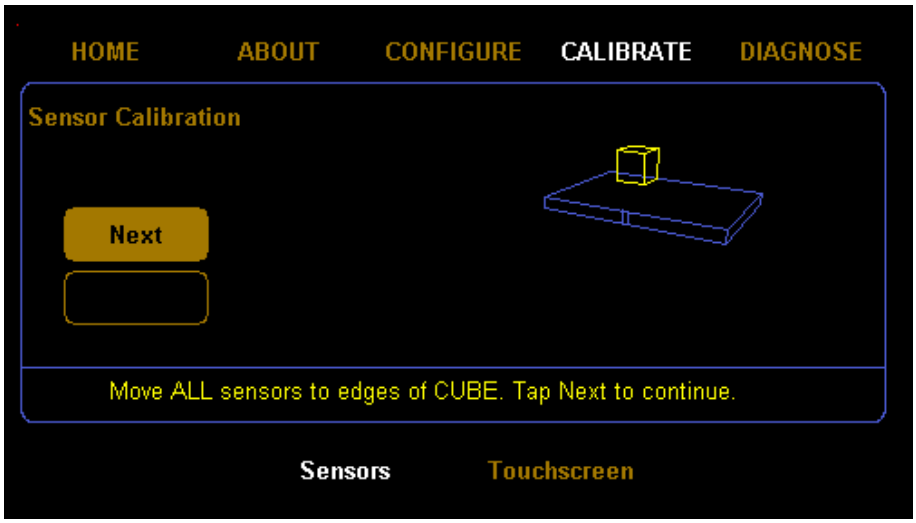

Figure 48
Sensor calibration: Step 2

7. Move the sensors to positions at the edges of the cube. Use the lasers as guides.

8. When sensors are in position, tap **[Next]**.

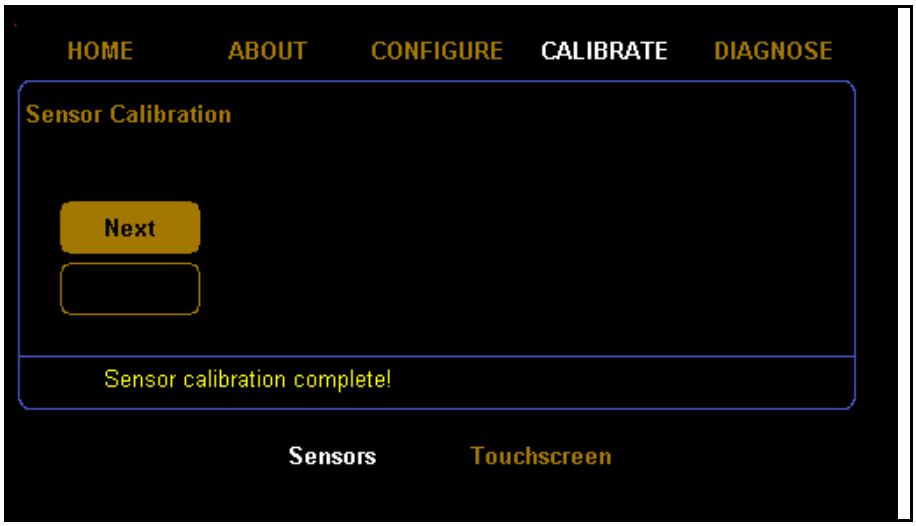

Figure 49
Sensor calibration: Step 3

9. A message will appear towards the bottom of the screen that the sensor calibration is complete.

10. Tap **[Next]** to return to the main sensor screen.

Calibrating the touchscreen

If you are having problems selecting functions on the touchscreen, you may need to recalibrate it. You should recalibrate any time it becomes difficult to select options on the screen.

Take the following steps to calibrate the touchscreen.

1. Tap **MENU** at the home screen.

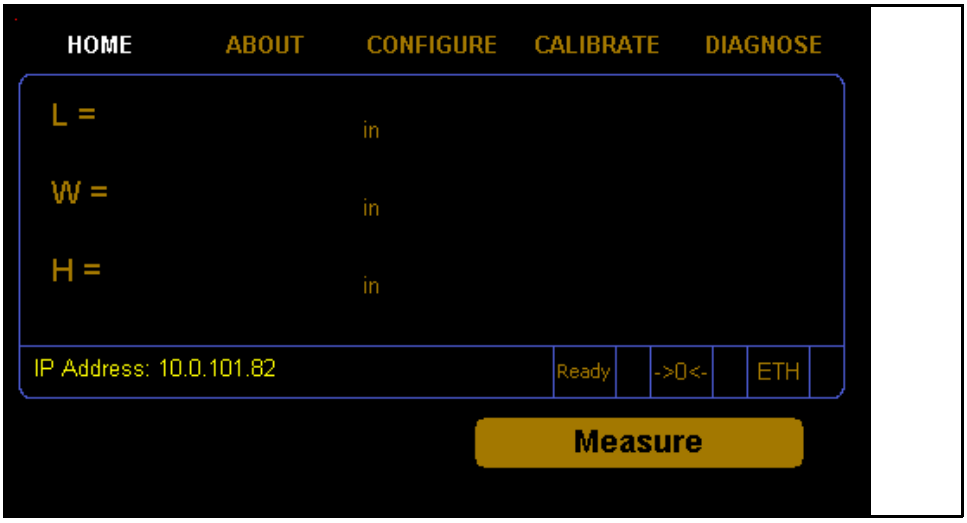

Figure 50
Home screen

2. Tap **CALIBRATE**. Select the Touchscreen option if it is not already selected.

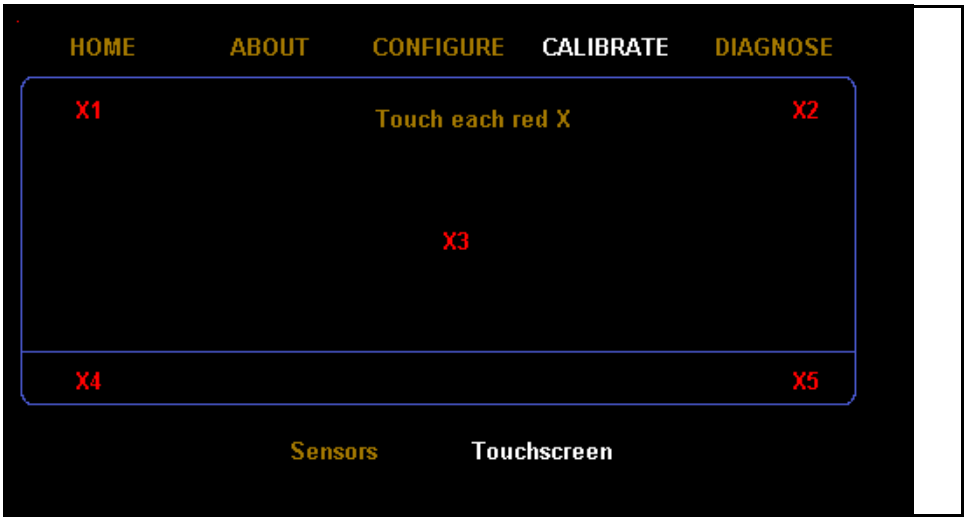

Figure 51
Touchscreen calibration

3. Using a stylus or your finger, touch the center of each **x** on the screen until the "x" turns green. There are five calibration points on the screen.

4. When all the **x**'s are green, the calibration is complete.

CHAPTER 6
TROUBLESHOOTING

This chapter provides assistance in identifying and solving common problems with the Master Data Table. If you encounter problems not covered in this chapter, or if a defect is suspected, contact your system integrator or call Cubiscan Technical Assistance at 801.451.7000 for assistance.

Not powering on

If there is no response when you power on the Master Data Table, do the following:

1. Verify that the AC power cord is pressed firmly into the power socket.
2. Verify that the AC power source is working properly.
3. Check the cord to ensure there are no breaks or exposed wires.
4. Contact Cubiscan if you require additional help.

Inaccurate dimension readings

If you suspect that the Master Data Table dimension readings are inaccurate, do the following:

1. Ensure the correct units are being used. To configure the units, see “Units” on page 34.
2. Move the sensors, ensuring lasers are aligned properly to the object boundary, then remeasure.
3. If inaccuracy persists, ensure the that the Master Data Table is properly calibrated. For calibration, see “Calibrating the sensors” on page 42.

4. If calibration does not fix the problem, contact Cubiscan Technical Assistance.

About

This section describes the About menu of the Master Data Table. The About menu contains useful information and records of the Master Data Table.

Version

This section discusses the options available on the Version menu. Complete the following steps to access the Version menu.

1. Tap **ABOUT** at the home screen.

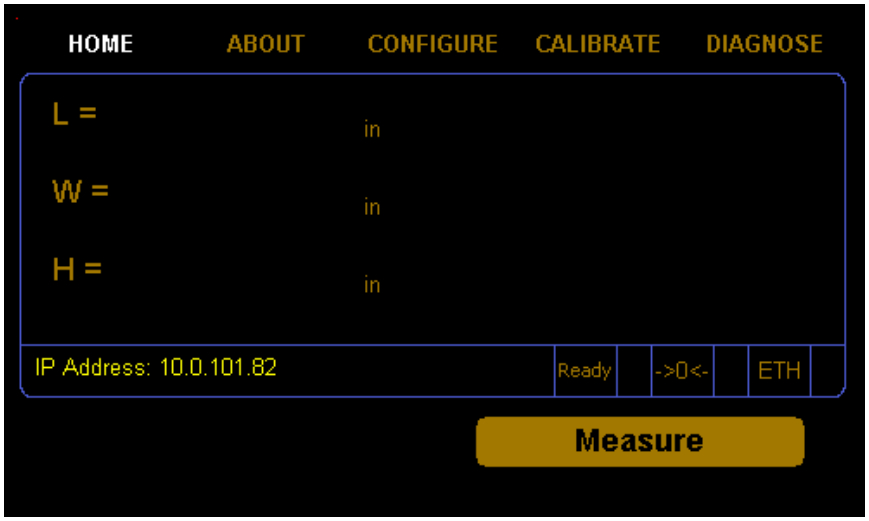

Figure 52
Home screen

2. From the ABOUT screen, select the **Version** option from the bottom of the screen if it is not already selected.

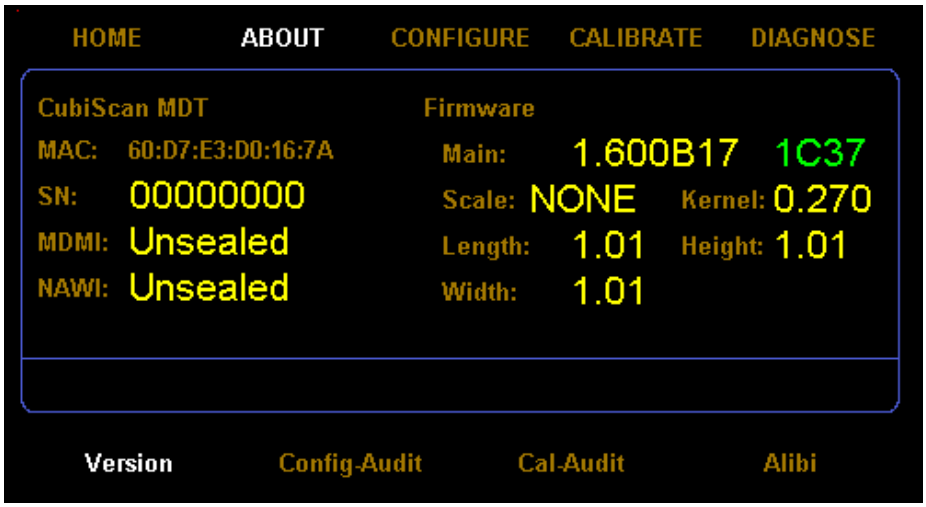

Figure 53
About version

The following information may be found in the Version screen:

MAC — This field displays the Media Access Control (MAC) address.

SN — This field displays the product number that is unique to each Master Data Table.

MDMI — This field displays the Multiple Dimensional Measuring Instrument (MDMI) status. This status can either be sealed or unsealed.

NAWI — This field displays the Non-Automatic Weighing Instrument (NAWI) status. This status can either be sealed or unsealed.

Main — This field displays the firmware version used for the main controller.

Kernel — This field displays the firmware version used for the kernel.

Scale — This field displays the firmware version used for the scale.

Length, Width, Height — These fields display the firmware used for the length, width, and height sensors.

Config-Audit

This section discusses the Config-Audit menu. Complete the following steps to access the Config-Audit menu.

1. Tap **ABOUT** at the home screen.

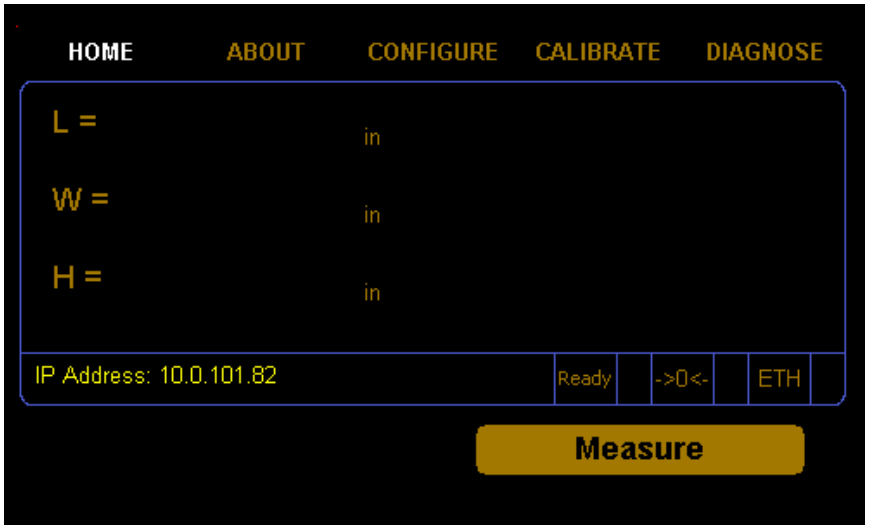

Figure 54
Home screen

2. From the **ABOUT**, select the **Config-Audit** option if it is not already selected.

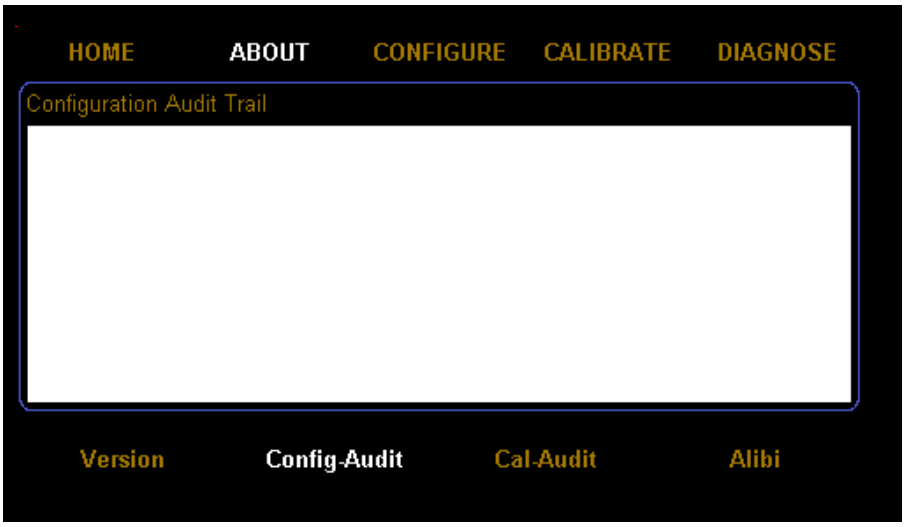

Figure 55
About Config-Audit

Configuration Audit Trail — This field displays the configuration audit history.

Cal-Audit

This section discusses the Cal-Audit menu. Complete the following steps to access the Cal-Audit menu.

1. Tap **ABOUT** at the home screen.

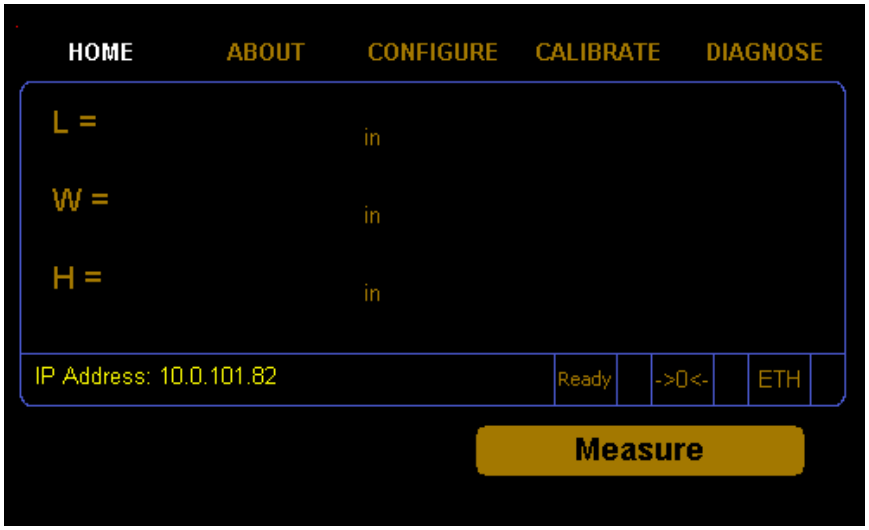

Figure 56
Home screen

2. From the **ABOUT**, select the **Cal-Audit** option if it is not already selected.

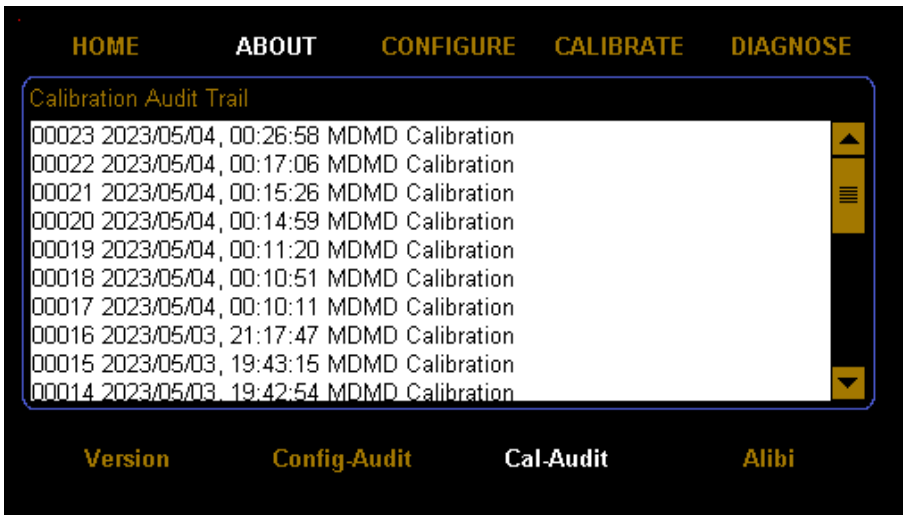

Figure 57
About Cal-Audit

Calibration Audit Trail This field displays the scale calibration history.

Alibi

This section discusses the **Alibi** menu. Complete the following steps to access the Alibi menu.

1. Tap **ABOUT** at the home screen.

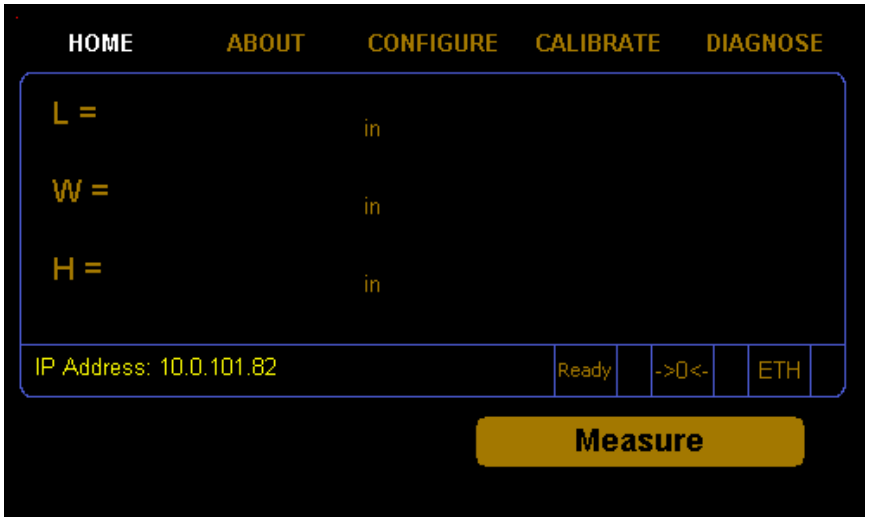

Figure 58
Home screen

2. From the **ABOUT**, select the **Alibi** option if it is not already selected.

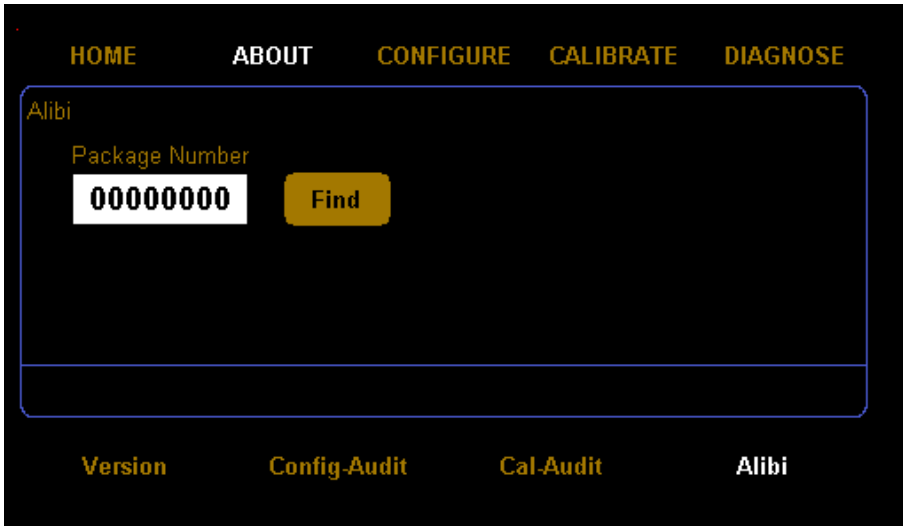

Figure 59
About Alibi

Package Number

Diagnostics

This section describes the diagnostic capabilities of the Master Data Table.

Sensors

Complete the following steps to view the Sensor Diagnostics.

1. From the home screen, tap **DIAGNOSE**.

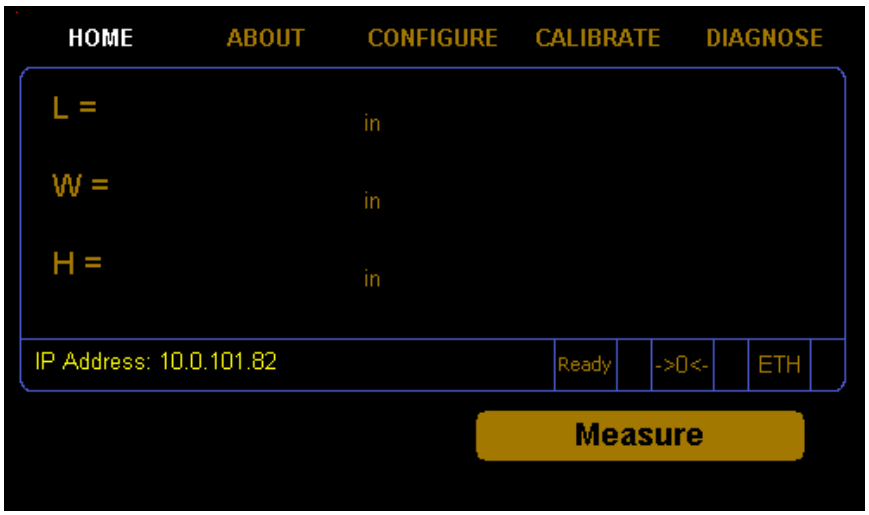

Figure 60
Home screen

2. From the **DIAGNOSE** screen, select the **Sensors** option if it is not already selected.

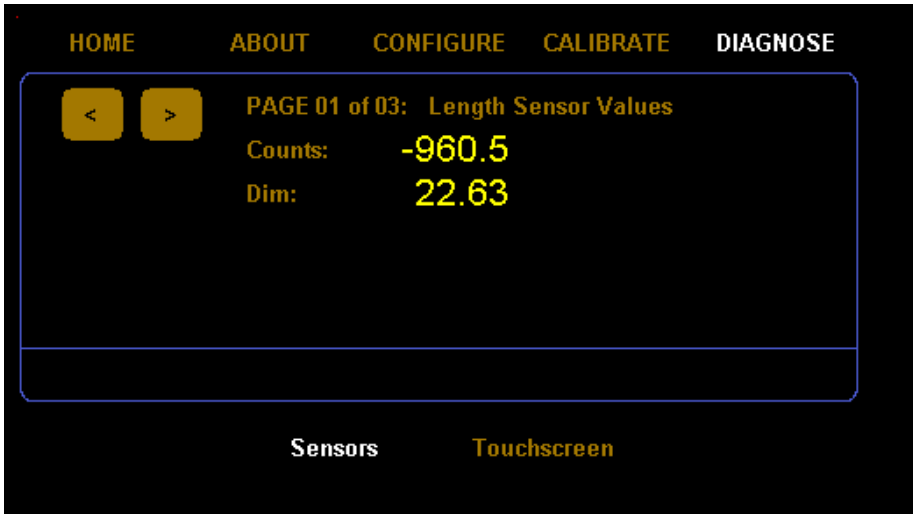

Figure 61
Sensors diagnostics

From this screen you can view the diagnostic sensor values. Use left and right arrows to move between sensors: Length, Width, and Height.

Counts — This is the raw value read from the magnetic encoder of the sensor axis (length, width, or height).

DIM — This is the distance in inches equating to the respective encoder value.

Touchscreen

Complete the following steps to view the diagnostics.

1. From the home screen, tap **DIAGNOSE**.

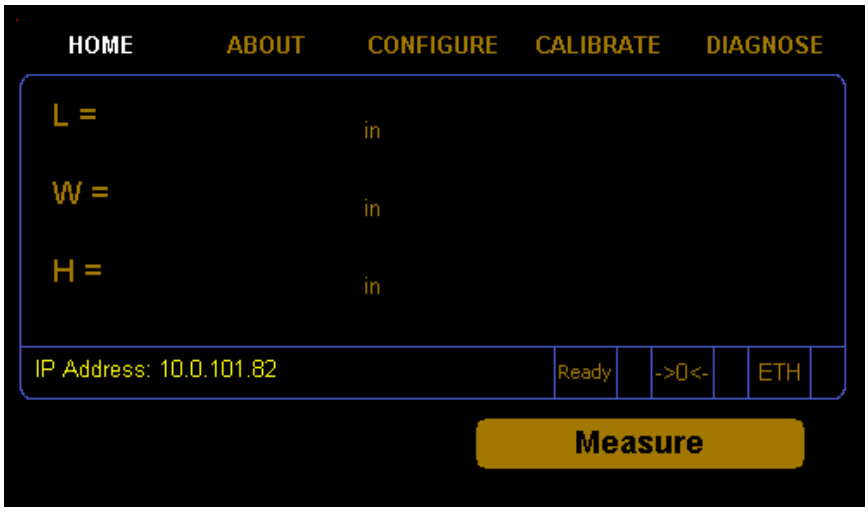

Figure 62
Home screen

2. From the **DIAGNOSE** screen, select the **Touchscreen** option if it is not already selected.

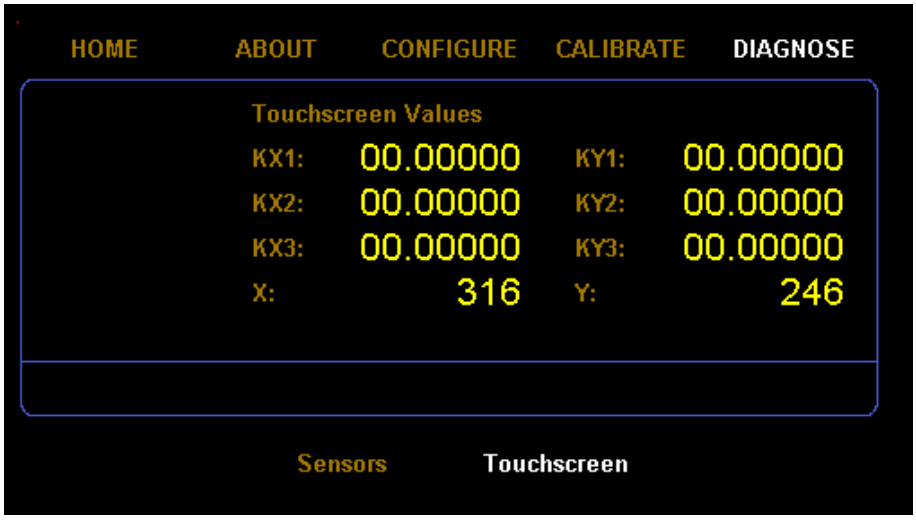

Figure 63
Touchscreen diagnostic

From this screen you can view the linearization parameters of the touchscreen. These values may be use to determine if there are any dead spots on the touchscreen.