iDimension® PWD

Static Dimensioning System

Operation Manual

RICE LAKE®
W E I G H I N G   S Y S T E M S

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Contents

*Rice Lake continually offers web-based video training on a growing selection of product-related topics at no cost. Visit **www.ricelake.com/webinars***

1.0   Introduction

This manual provides an overview of the iDimension PWD operation instructions.

Ensure the iDimension PWD unit is fully assembled by following the instructions of the iDimension PWD Assembly Instructions (PN 198812).

When interfacing this device to a third party program, please reference the software manufacturer's documentation for setup and configuration parameters as necessary.

Manuals and additional resources are available from the Rice Lake Weighing Systems website at **www.ricelake.com**

Warranty information can be found on the website at **www.ricelake.com/warranties**

1.1   Additional Resources

For additional resources, see the following information:

iDimension PWD Assembly Instructions

The iDimension PWD Assembly Instructions (PN 198812) provides an overview on how to assemble the iDimension PWD.

iDimension PWD Setup Manual

The iDimension PWD Setup Manual (PN 199543) provides an overview on how to setup QubeVu Manager for the iDimension PWD.

iDimension PWD Managers Guide

The iDimension PWD Managers Guide (PN 198680) provides an overview of the installation requirements, operation of the iDimension PWD and configuration parameters to change in the QubeVu Manager to alter the performance of the unit. The iDimension PWD Managers Manual is provided with each unit.

880 Performance™ Series Controller and Indicator Technical Manual

The 880 Performance Series Controller and Indicator Technical Manual (PN 158387) provides a detailed overview of the 880 indicator installation, configuration and operation procedures.

SUMMIT® 3000 Installation Manual

The SUMMIT 3000 Installation Manual (PN 76012) provides an overview of the SUMMIT 3000 installation procedure.

1.2   Regulatory Information

This product is a Class 1 Laser Product according to IEC 60825-1:2007 Ed. 2.0 and complies with 21 CFR 1040.1 pursuant to Laser Notice No. 50. A laser source with a diffraction optical element is embedded in the product, which produces a maximum output power of 1.1 mW at the aperture with a maximum wavelength of 825 nm.

FCC

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense. Changes or modifications not expressly approved by Postea, Inc. could void the user's FCC granted authority to operate the equipment.

1.3   Safety

Safety Signal Definitions:

⚠ 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.*

General Safety

Do not operate or work on this equipment unless this manual has been read and all instructions are understood. Failure to follow the instructions or heed the warnings could result in injury or death. Contact any Rice Lake Weighing Systems dealer for replacement manuals.

⚠ WARNING

Failure to heed could result in serious injury or death.

Electric shock hazard!

For pluggable equipment the socket outlet must be installed near the equipment and must be easily accessible.

Always disconnect from main power before performing work on the device.

Do not allow minors (children) or inexperienced persons to operate this unit.

Do not operate without all shields and guards in place.

Do not place fingers into slots or possible pinch points.

Do not use this product if any of the components are cracked.

Do not make alterations or modifications to the unit.

Do not remove or obscure warning labels.

Do not use near water, avoid contact with excessive moisture.

Keep the unit dry.

Never use damaged power cords, plugs or loose electrical sockets.

Never touch the power cord with wet hands.

Mount on a flat surface.

Never use product for anything other than its intended purpose.

Follow OSHA regulations for installation and use of equipment.

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2.0 System Overview

This section provides an overview of iDimension PWD kiosk indicator and control instruction.

The iDimension PWD kiosk houses the electrical components required to power and operate the iDimension PWD touchscreen display and 880 Panel Mount Indicator.

📝 **Note** | *Instructions for operation and use of the 880 Indicator are included with the iDimension PWD system.*

IFM Sensors

Optional IFM Sensor

IFM Sensors

Touchscreen Display

Kiosk

Kiosk Mounting Bracket

880 Front Panel Display

Tower Assembly

Forklift Bumper Guard

SUMMIT 3000 Floor Scale
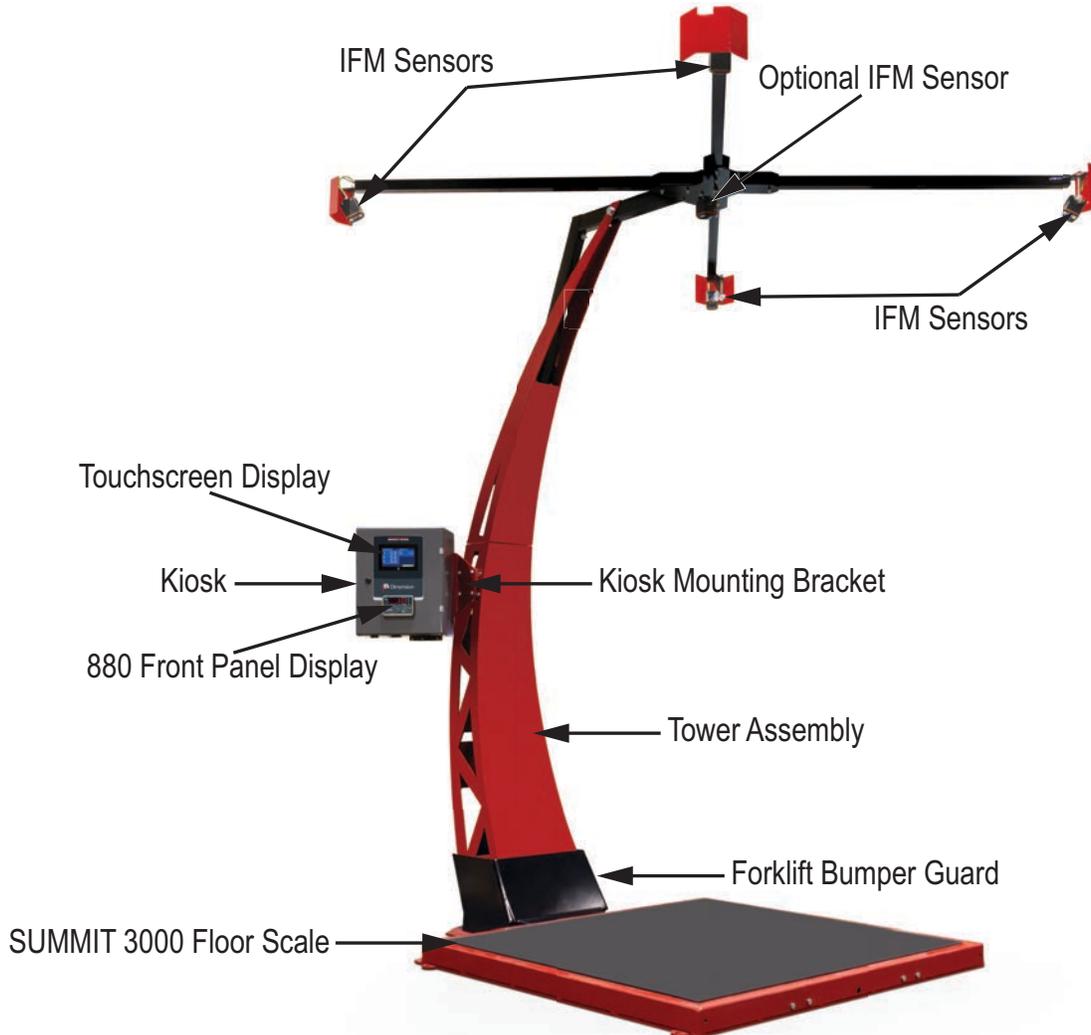
Figure 2-1. Overview

2.1   880 Panel Mount Indicator

For detailed information regarding the indicator setup and calibration, see the 880 Performance Series Controller and Indicator Technical Manual (PN 158387).

2.1.1   Kiosk

For information regarding the iDimension PWD Kiosk, see the following information:

Figure 2-2. Kiosk

Connections

See the following information for details regarding kiosk connections:

Item	Description
On/Off Switch	Controls the power to the device and all electronics, including sensors, for the iDimension PWD; If used to power cycle the system, ensure the system is powered down for 30 seconds and that the scale is clear during power up
USB Connector	Connect optional wireless barcode scanner or use for firmware upgrade with USB thumb drive
Network Connection	For connection to network or use as a service port for installation and troubleshooting

Table 2-1. Kiosk Connections

Front Panel Display

The front panel consists of a six-button keypad and a six-digit, 14-segment LED display. The Universal front panel includes a numeric key pad.

The numeric display consists of six 14-segment LED digits. If a negative number is displayed, the first digit is used to display **-**, reducing the number of available digits to five.

The symbols on the keys in Figure 2-3 (representing up, down, enter, left, right) describe the key functions when in configuration mode. The keys are used to navigate through menus, select digits within numeric values, and increment/decrement values, see Section 4.2 on page 13 for information about using the front panel keys in configuration mode.
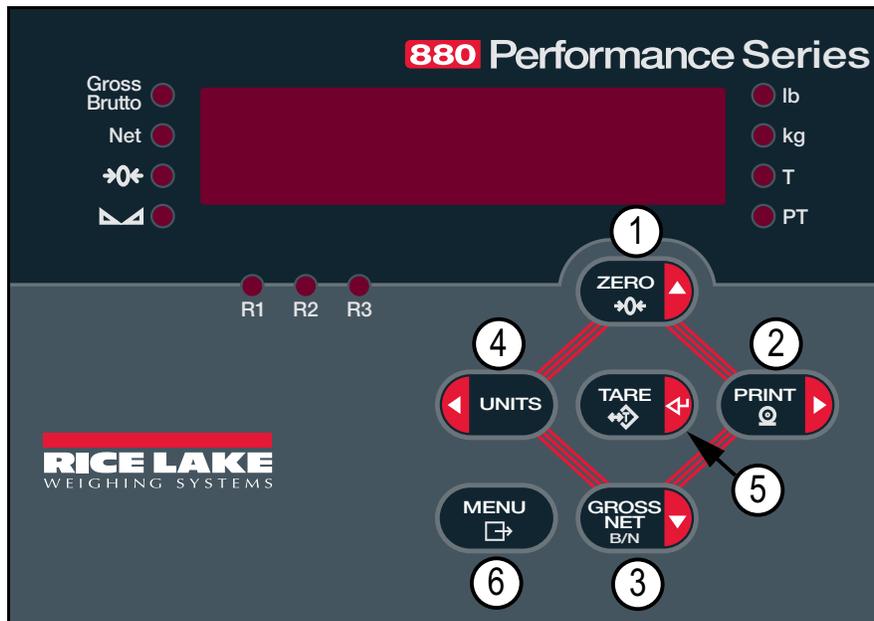
Figure 2-3. 880 Front Panel Display (Universal Model Shown)

Item No.	Key	Function
1	ZERO →0← ▲	Returns the scale to 0 weight; Used to navigate to other menus or to select another digit when editing a value
2	PRINT ☺ ▶	Not applicable for this application
3	GROSS NET B/N ▼	Not applicable for this application; Ensure the indicator is in the Gross Weight Mode to transmit the weight correctly to the iDimension display and the API; Instructions for operation and use of the 880 Indicator are included with the iDimension PWD unit
4	◀ UNITS	If configured, toggles displayed weight between lb and KG; Switches the weight display to an alternate unit, defined in the format menu (Section 4.2.2 on page 14); Units available: lb, kg, oz, metric ton, ton, gram; Used to navigate to different menus or to select another digit when editing a value
5	TARE ◆◇◆ ↵	Not applicable for this application
6	MENU ⊟→	Allows access to the user setup menu; Also acts as the cancel key when editing parameter values, or **Exit** key when in the configuration or user setup menus

Table 2-2. Key Functions

Not Applicable Keys

Tare, **Print**, **Gross/Net** are not applicable to the iDimension PWD.

📝 Note | *Ensure the indicator is in the Gross Weight Mode to transmit the weight correctly to the iDimension display and API.*

2.2   Test Object

A 20" x 20" test object is provided to periodically check calibration of the iDimension PWD. Calibration is only required if the IFM sensors have adjusted from the initial installation.

3.0   Performing a Measurement

This section provides an overview of how to perform a measurement with the iDimension PWD.

To perform a measurement, see the following procedure:

1. Ensure the scale displays a 0 weight. Press ![ZERO] on the 880 Indicator to return the scale to zero weight.
2. Place the pallet or box centered on the floor scale. Ensure the forklift or operator is clear within the 6' x 6' target area.
3. Trigger the dimension pressing the scan button on the touchscreen display, connected optional bar code scanner or scan button from the Demo Display.

3.1   Triggering Methods

The iDimension PWD includes two standard methods of triggering the device to perform a measurement:

3.1.1   Touchscreen Display

The touch-screen display is used to navigate QubeVu. The **Power** button for the USB display is located on the back of the unit. The USB operator display can be configured in QubeVu Manager.
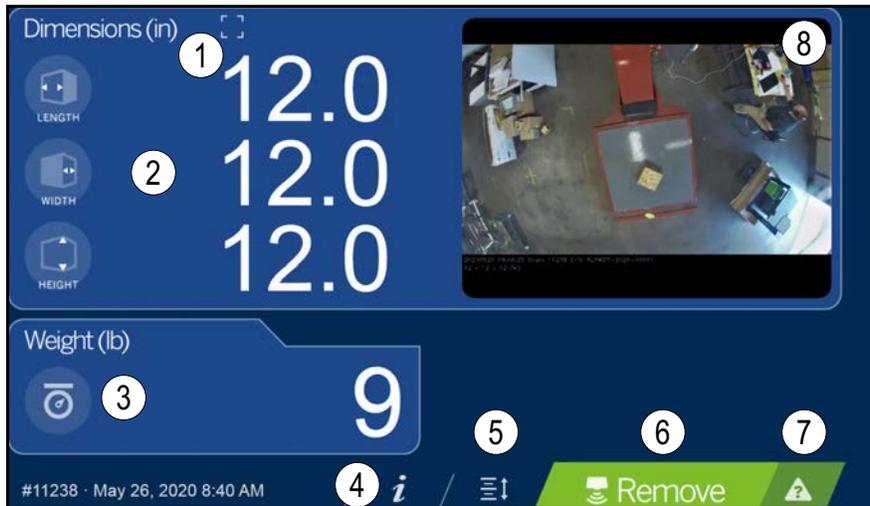
Figure 3-1. Touchscreen Display

Function keys allow the iDimension PWD to be managed via the touchscreen display.

Item No.	Function	Function
1	Out of Bounds Indication	For an example of an out of bounds indication, see Figure 3-2 on page 7
2	Displayed Dimensions	Displayed Dimensions
3	Weight Display	The weight display is used to indicate to weight of the item at the time of the item at the time of the dimensions were captured; Use the 880 Indicator weight display to view live weight data, including negative weight
4	Information Button	Provides access to configuration menu to set-up of time and date, display configured IP address and firmware updates via USB thumb drive
5	Zero Height Key	Not applicable to this application
6	Scan Button	Trigger the iDimension PWD to dimension
7	Help Key	Displays the Issue Review menu; Provides real time feedback to the operator of the unit; Provides step by step instructions on how to clear conditions such as started, stopped, wait or remove condition with no object in the scan area
8	Live Image	The weigh area provides a real-time view of the scanning area from the scanning head onto the USB display

Table 3-1. Key Functions

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Customer Display Icon – Out of Bounds Indications

Out of bounds indication provide a visual indication if the placement of the pallet or box is within a 72"x 72" work area.

Figure 3-2 indicates the pallet is out of bounds on the left edge, when facing the scale:

Figure 3-2. Out of Bounds Indication – Left

Barcode Scanner

An optional USB barcode scanner, using keyboard wedge mode, can be attached directly to the iDimension PWD Kiosk Internal PC. Use the scanner to scan a barcode and trigger a dimensioning transaction. The barcode scanned will also be included in the API.

3.1.2   Demo Display

The *Demo Display* menu is intended for use during demonstrations and testing the effects of configuration changes.
The *Demo Display* menu can be used to help the Rice Lake Weighing Systems technical support team in troubleshooting.

• Press from the *Display Pages* menu (Figure 5-1 on page 15) to enter the *Demo Display* menu
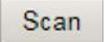
Press Scan to manually trigger a dimension.

Figure 3-3. Demo Display

> **Note** *Status messages are displayed within display screen menus. Messages displayed on screen are not error messages. See Section 6.5 on page 36 for displayed status, extended status and error status messages.*

3.1.3   Images

The iDimension PWD provides images in .jpg or .bmp format that are available to capture using the API.

There are two types of images:

IFM Sensor Low Resolution Intensity Images

The IFM sensors provide images with configurable bounding box and dimensioning data indications provided on each image.

The bounding box provides an indication of how the system has measured the object.

Note	*The images provided can become deteriorated as the object becomes closer to the sensor.*

Below is an example of a bounding box when the cartons is aligned with the edge of the pallet:
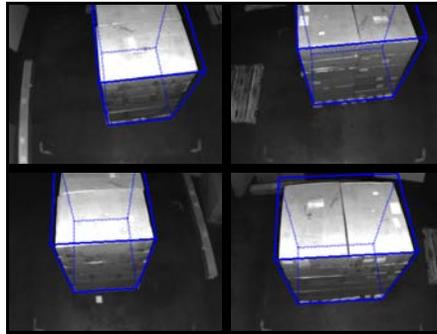
Figure 3-4. Aligned Bounding Boxes

Below is an example of a bounding box when the cartons are not aligned with the edge of the pallet:
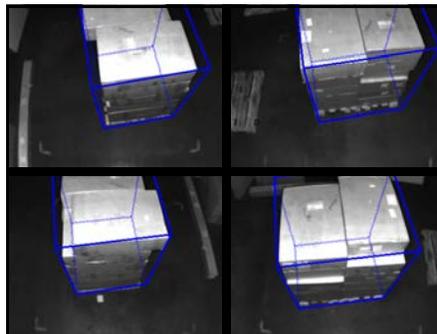
Figure 3-5. Unaligned Bounding Boxes

Optional High Resolution Image

When an optional Axis 2.4 mm with 3-axis camera angle adjustment is purchased, a color image is available from the API (Figure 3-6). The image is used for freight identification and damage claims and does not have bounding boxes or dimensioning data available.

Figure 3-6. High Resolution Image

Note	*Configuration settings are available using the QubeVu Manager's Capture Definitions feature.*

4.0 Configuration Menu

This section provides an overview of iDimension PWD **Configuration** menu instructions.

4.1 Access Configuration Menu

To access the **Configuration** menu, see the following procedure:

1. Select the **Device Information** function key i located at the bottom of the screen (Figure 4-1).

Figure 4-1. Select Device Information

2. The **Device Info** menu displays. For **Device Info** information (Section 4.2 on page 13).
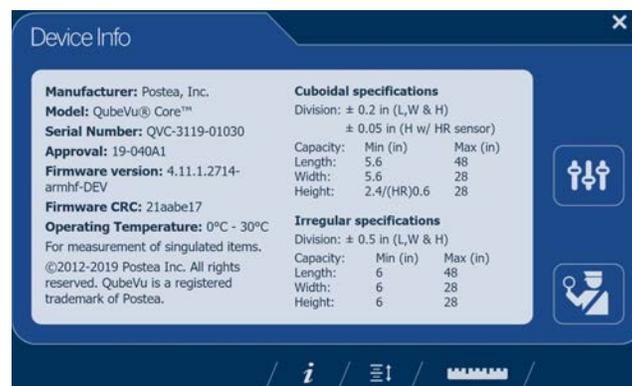
Figure 4-2. Device Information

3. Select the **Configuration** function key from the **Device Info** menu.

4. The **Configuration Menu** displays. For additional **Configuration Menu** information (Section 4.2.1 on page 13).

Figure 4-3. Configuration Menu

Item	Description	Reference
Setup Wizard	Not applicable	–
View EULA	Displays the **Software End User License Agreement** information	Section 4.1.1
Time Zone	Displays the current time zone and allows for time zone configuration	Section 4.1.2 on page 11
Date & Time	Allows the adjustment of date and time	Section 4.1.3 on page 11
Data Extract	View the configuration settings and the current and previous status; Must be configuration in administration mode	Section 4.1.4 on page 11
Scan Zone	Not applicable	–
Restart	Select to reboot the iDimension PWD unit	Section 4.1.5 on page 12
Enable Flats	Not applicable	–
Upgrade Firmware	Allows for a connected USB thumb drive to kiosk drive update the current device firmware	Section 4.1.6 on page 12
IP Address	Select to view the current IP address of the iDimension PWD unit	Section 4.1.7 on page 13

Table 4-1. Configuration Menu Keys

4.1.1   View EULA

The **View EULA** button displays the **Software End User License Agreement**.

Figure 4-4. End User License Agreement

4.1.2 Time Zone

The **Time Zone** button allows configuration of the current time zone.
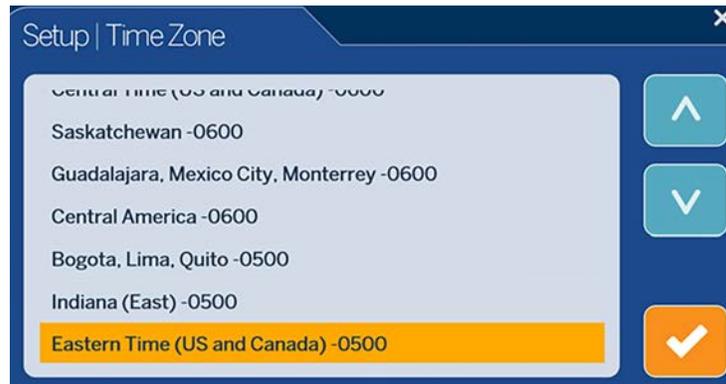
Figure 4-5. Time Zone

4.1.3 Date & Time

The **Date & Time** button allows configuration of the date and time.
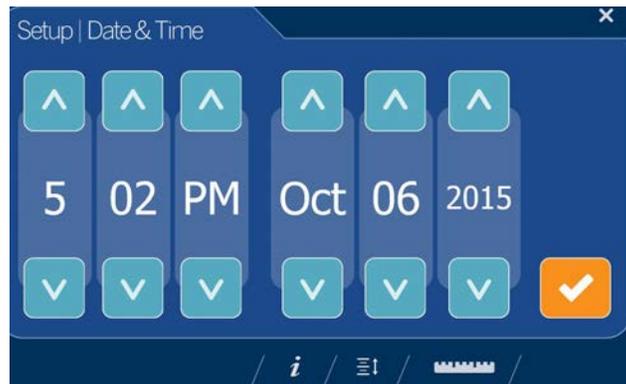
Figure 4-6. Date & Time

4.1.4 Data Extract

If ***Long Terms Store*** and ***Daily Extract*** are enabled by the system administrator, the operator can view the configuration settings and current/historical status. All settings are configured in the administrator mode of QubeVu Manager.

Figure 4-7. Extract Data

1. Select [icon] to refresh.

2. Select [icon] to perform a manual export.

3. Select the ruler icon [icon] to return to normal operating mode.

4.1.5 Restart

Select **Restart** for confirmation before restarting the device. Select [✔] to confirm or [✖] to cancel the process.
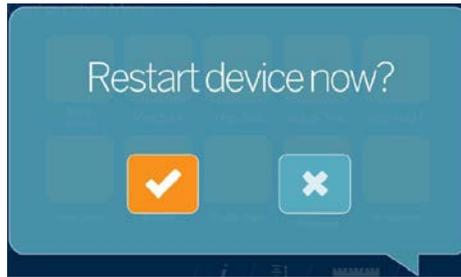
Figure 4-8. Restart

4.1.6 Upgrade Firmware

Updated firmware may be available at **www.ricelake.com**. When upgrading the unit, the firmware release must be downloaded to a USB drive.

1. Select **Upgrade Firmware**.
2. Attach the USB drive to the iDimension PWD USB port. Press [✔] to continue.
3. Firmware upgrade files contained on the USB drive are displayed.
4. Select the firmware upgrade required. Press [✔] to continue.

Figure 4-9. Connect USB Drive to Upgrade Firmware

> **Note** *The firmware update is copied from the USB drive to the iDimension PWD. The file checksum is used to validate the file.*
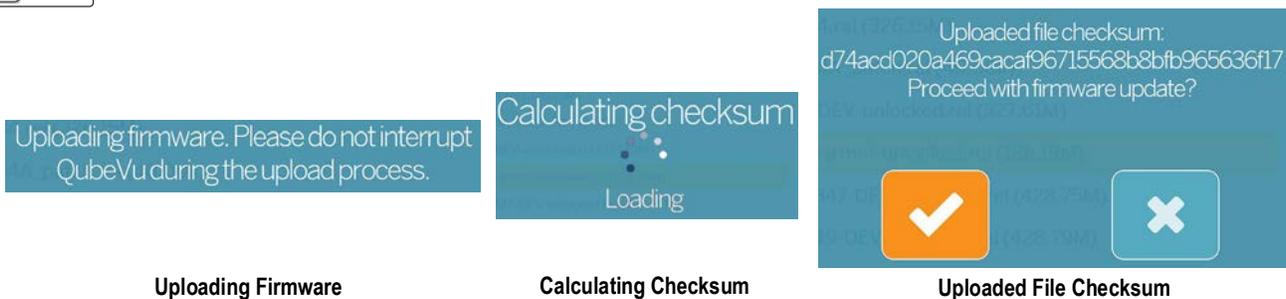
Uploading Firmware   **Calculating Checksum**   **Uploaded File Checksum**

Figure 4-10. Firmware Uploading Messages

5. Select [✔] when **Uploaded file checksum** displays to proceed with upgrade or [✖] to cancel the process. The update process takes a few minutes. Do not interrupt the process. The iDimension PWD reboots.

4.1.7 IP Address

The IP address displays the current IP address defined by the system administrator or network. Use the displayed IP address to configure the network port to access the Administrative QubeVu Manager software for full system setup and configuration.

Figure 4-11. IP Address

4.2 Device Information

Provides access to a weights and measures inspector, important information about the device.
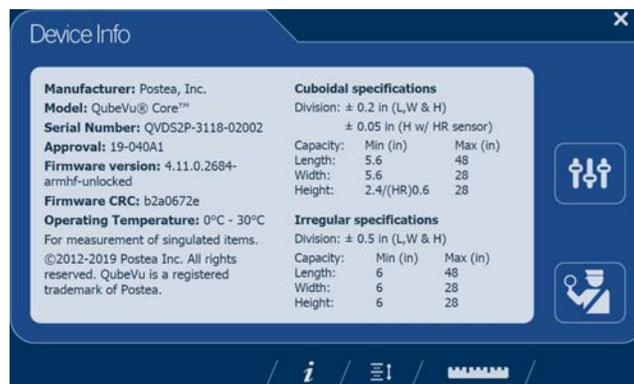
Figure 4-12. QubeVu Inspector Device Information Tab

Select the ruler icon ⎍⎍⎍⎍⎍ to return to the normal operating mode.

4.2.1 Device Information Key

The **Device Information** function key **𝑖** displays the **Device Info Menu**.

Press **𝑖** to enter into the **Device Info** menu on the USB touchscreen display. The menu provides access to a weights and measures **Inspection** menu and **Configuration** menu for setup of standard user functions.

4.2.2 Weights and Measures

Legal-for-trade devices using category 3 audit trail, this screen is must be accessed by a local weights and measures inspector.

From the **Device Info** menu, select the **Inspection** button .

Figure 4-13. Inspection Menu

Certification Change Log

The **Certification Change Log** provides a log of configuration and calibration changes for weights and measures inspectors.

Figure 4-14. Certified Change Log

- Select or arrows to scroll up through the log
- Select the ruler icon to return to normal operating mode
- Select to return to previous screen

Transaction Log

For specific applications and International approvals, requires long term storage audit trail to be configured in the QubeVu Manager **Measurement Settings** tab. If not configured, **No LTS data is available** displays.
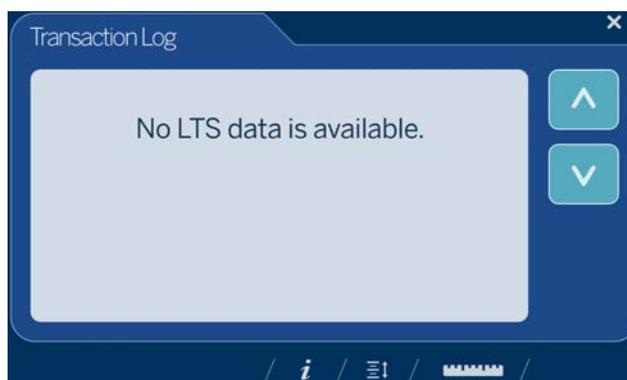
Figure 4-15. Transaction Log

5.0   Calibration

This section provides an overview of iDimension PWD *Calibration* menu instructions.

The *Calibration* menu provides access to the following information:
- Calibration settings for the *Sensor Calibration* and *Set Work Area* configuration
- Camera calibration – if required, calibrates the iDimension PWD using the calibration object

To enter the *Calibration* menu use the following procedure:
1. Connect the iDimension PWD via ethernet to a computer.
2. Open a web browser and enter: http://192.168.0.2. QubeVu Manager displays. If IP static address has been set different from the factory default, use the USB touchscreen display to identify IP address.
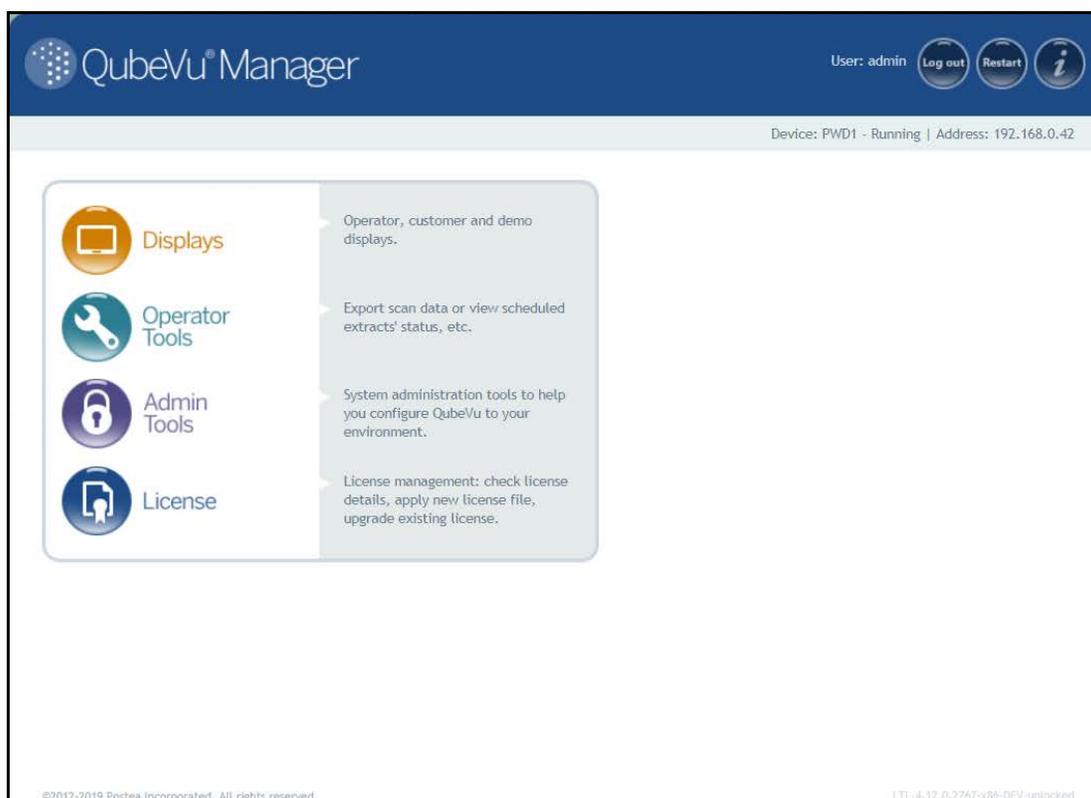
Figure 5-1. QubeVu Manager Home Page

Parameter	Description
Displays	Display information (iDimension PWD Managers Guide (PN 198680))
Operator Tools	Operator tools information (iDimension PWD Managers Guide (PN 198680))
Admin Tools	Admin tools instructions (iDimension PWD Managers Guide (PN 198680))
License	License information (iDimension PWD Managers Guide (PN 198680))

Table 5-1. QubeVu Manager Home Page Navigation

3. Press ⬤ Admin Tools from the **QubeVu Manager** menu (Figure 5-1 on page 15) to enter the **Admin Tools** menu (Figure 5-2).

4. The QubeVu Manager login screen displays. The default username and password are **admin** and **password**.
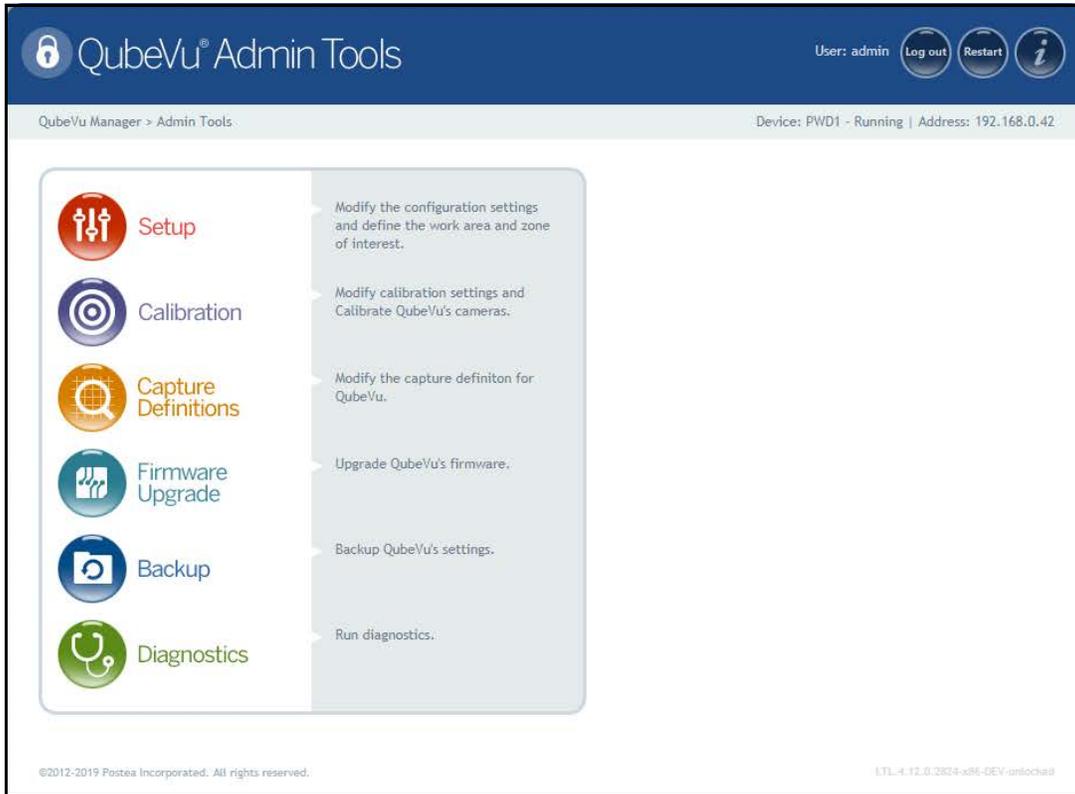
Figure 5-2. Admin Tools Menu

Parameter	Description
Setup	General (optional and scale), time and date, data extraction and long term storage, measurement, network settings (iDimension PWD Setup Manual (PN 199543))
Calibration	Calibration settings, define work area and calibrate cameras (Section 5.0 on page 15)
Capture Definitions	Capture definitions for QubeVu (iDimension PWD Managers Guide (PN 198810))
Firmware Upgrade	Update firmware (Section 4.1.6 on page 12)
Backup	Backup and restore settings (iDimension PWD Managers Guide (PN 198810))
Diagnostics	Diagnostics settings (Section 6.1 on page 27)

Table 5-2. Admin Tools Navigation

5. Press ⊙ Calibration from the **Admin Tools** menu (Figure 5-2 on page 16) to enter the **Calibration** menu.
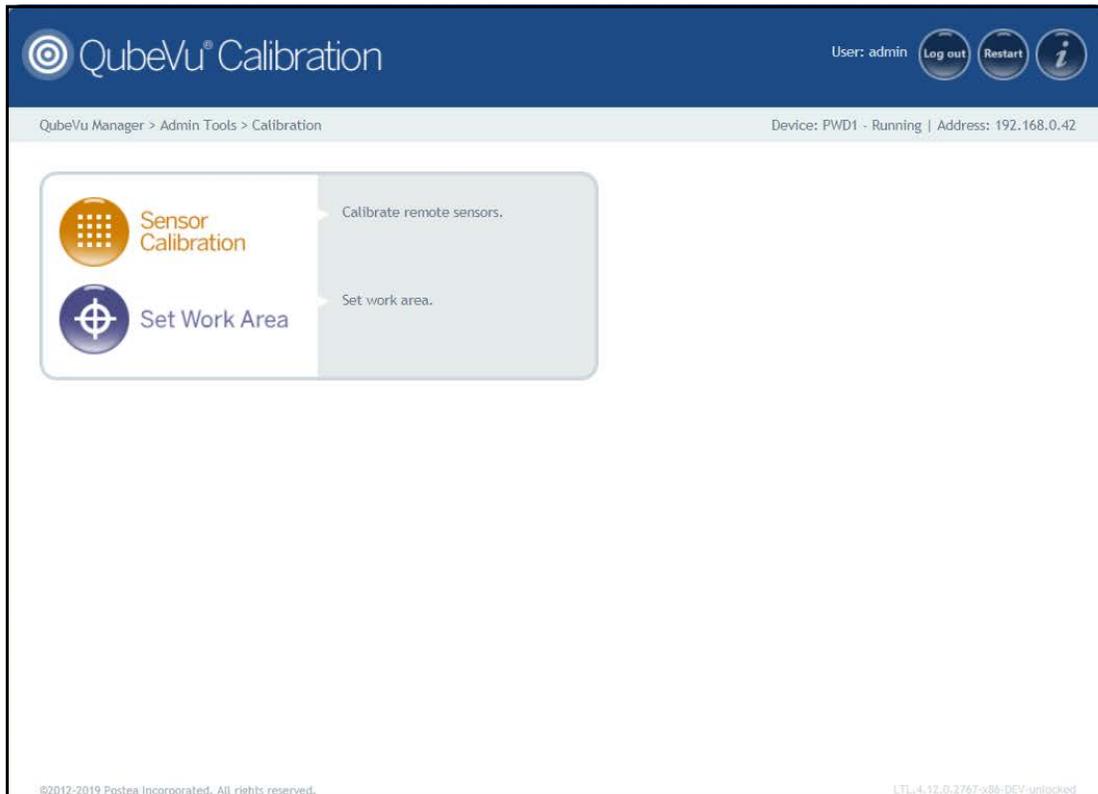
Figure 5-3. Calibration Menu

Parameter	Description
Sensor Calibration	Calibrate remote sensors (Section 5.1 on page 19)
Set Work Area	Set work area (Section 5.2 on page 25)

Table 5-3. Calibration Navigation

Calibration Object

A calibration object is provided with each unit and is required for calibration. The calibration object is an 8 x 7 square checkerboard and is 1118 mm x 982 mm and packaged in a 57'' x 48'' carton with protective foam inserts.

The calibration objects must be kept free from dirt, fingerprints and damage. To store the calibration object, carefully repackage the calibration object back into the carton for future use.
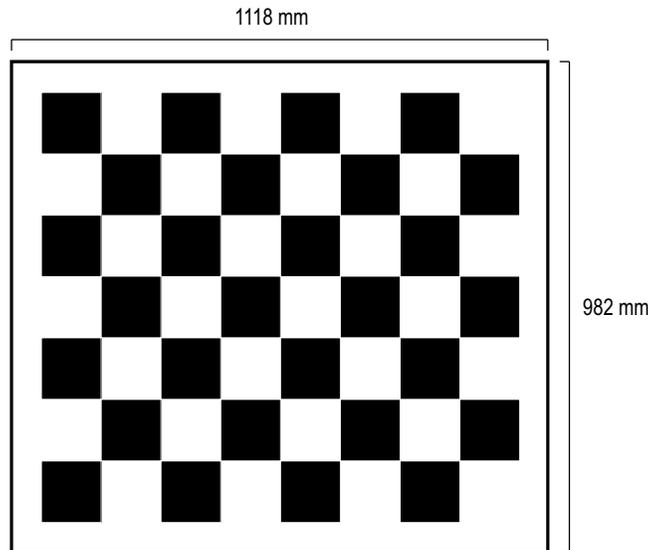
Figure 5-4. Calibration Object

5.1 Remote Sensors Calibration

Calibration requires the use of the calibration object and requires a 5-point procedure. Calibration is performed by placing the calibration object on the floor scale, starting at the 4 o'clock position (120°) and rotating the object 30° each step.

1. Press [Sensor Calibration] from the **Calibration** menu (Figure 5-3 on page 17) to enter the **Remote Sensors Calibration** menu.
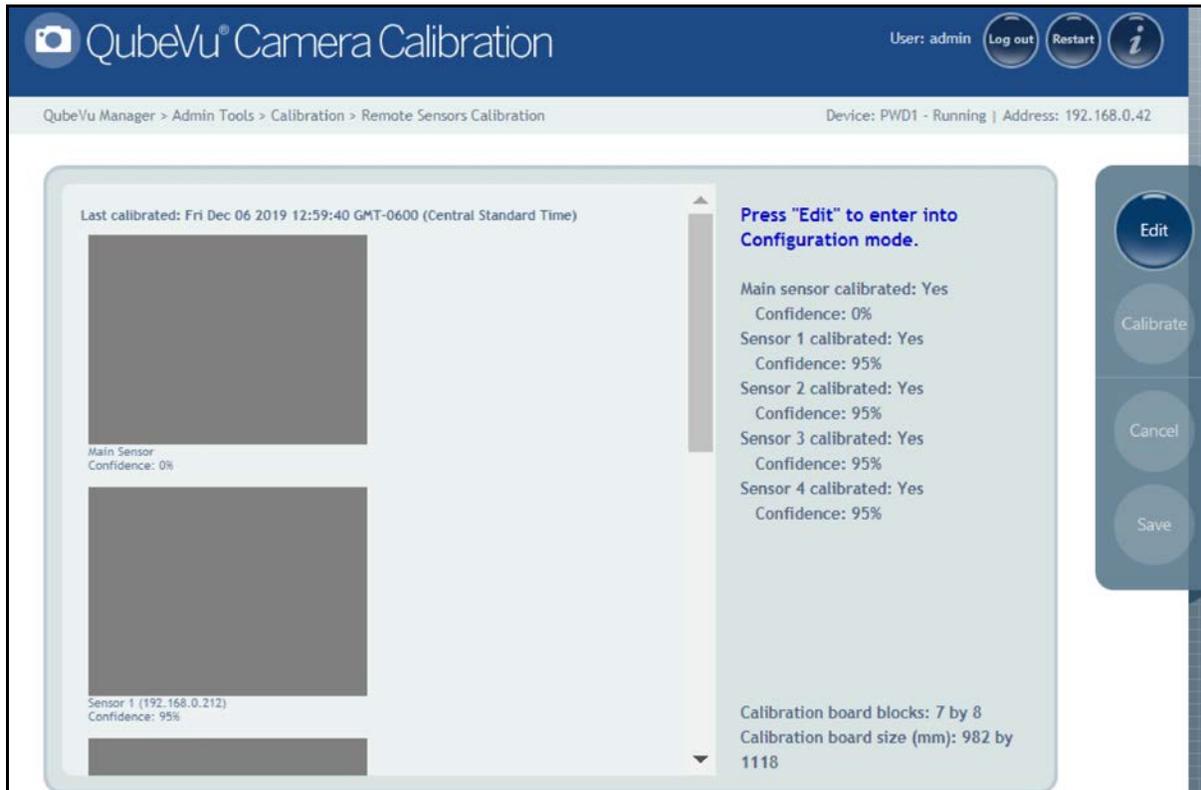
Figure 5-5. Remote Sensors Calibration

2. Press [Edit] to enter configuration mode. If a pop-up menu displays, refresh the web browser.

3. Place calibration object on the scale.

4. Align remote sensors towards the center of the floor scale using the cross hairs to guide, provided by the IFM sensors.
   • Ensure the sensor rods are securely mounted in place
   • Exact alignment is not critical
   • Aligning is defining the calibration position of each sensor

5. Align calibration object so the cross hairs are centered. Rotate the calibration object to 4 o'clock with the tower assembly being at 12 o'clock (Figure 5-6).
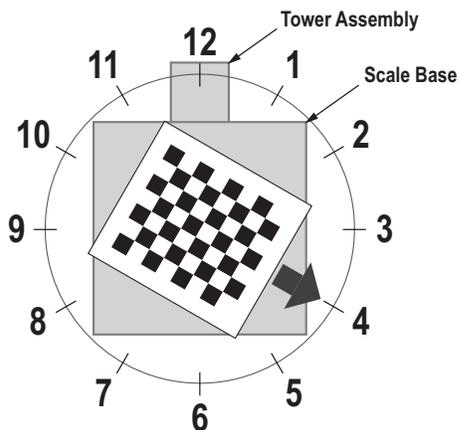
Figure 5-6. Rotate to 4 o'clock

6. Press **Calibrate**.
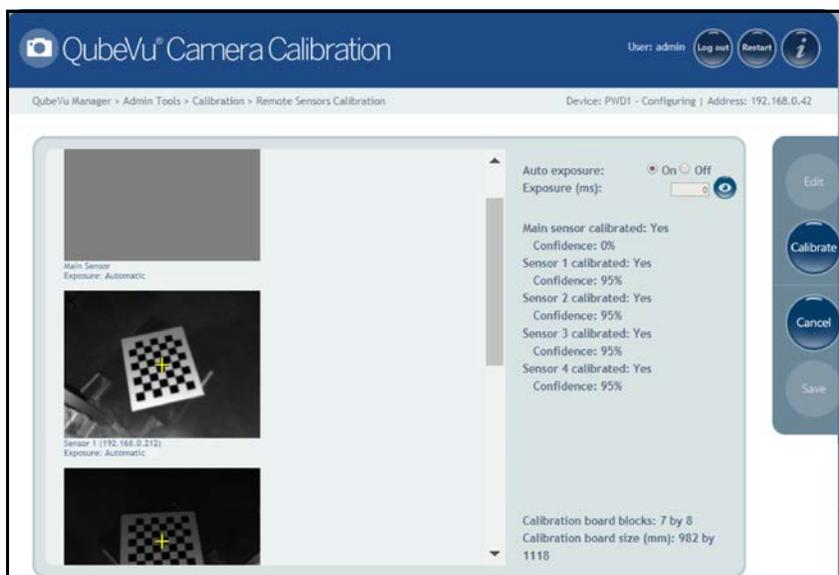
Figure 5-7. Object Calibration 1

7. Align calibration object so the cross hairs are centered. Rotate the calibration object to 5 o'clock with the tower assembly being at 12 o'clock (Figure 5-8).
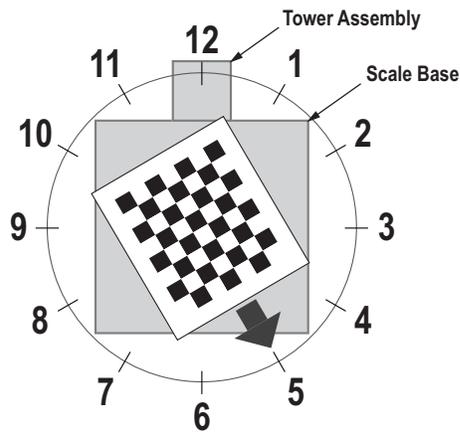
Figure 5-8. Rotate to 5 o'clock

8. Press **Calibrate** .
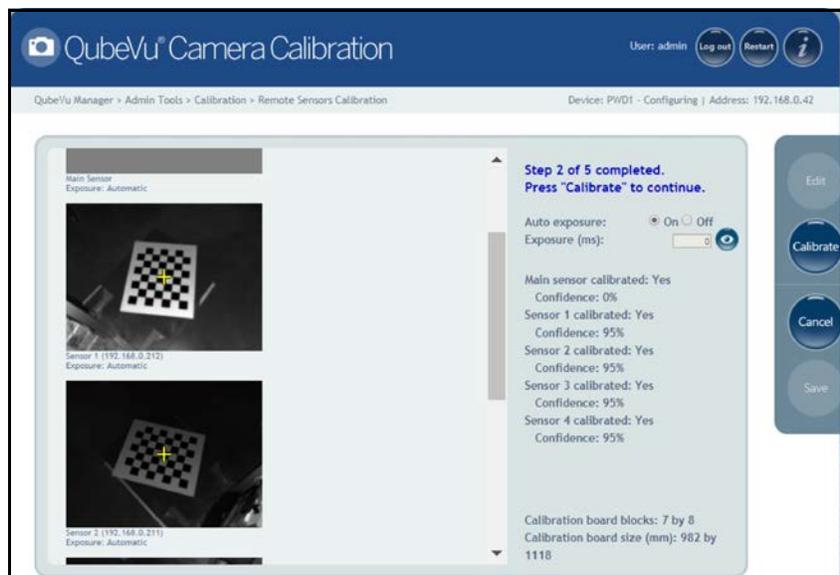
Figure 5-9. Object Calibration 2

9. Align calibration object so the cross hairs are centered. Rotate the calibration object to 6 o'clock with the tower assembly being at 12 o'clock (Figure 5-10).
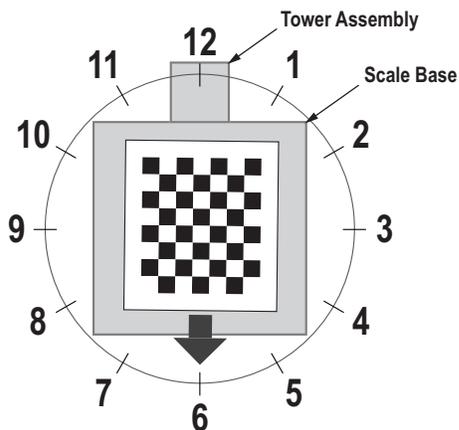
Figure 5-10. Rotate to 6 o'clock

10. Press **Calibrate** .
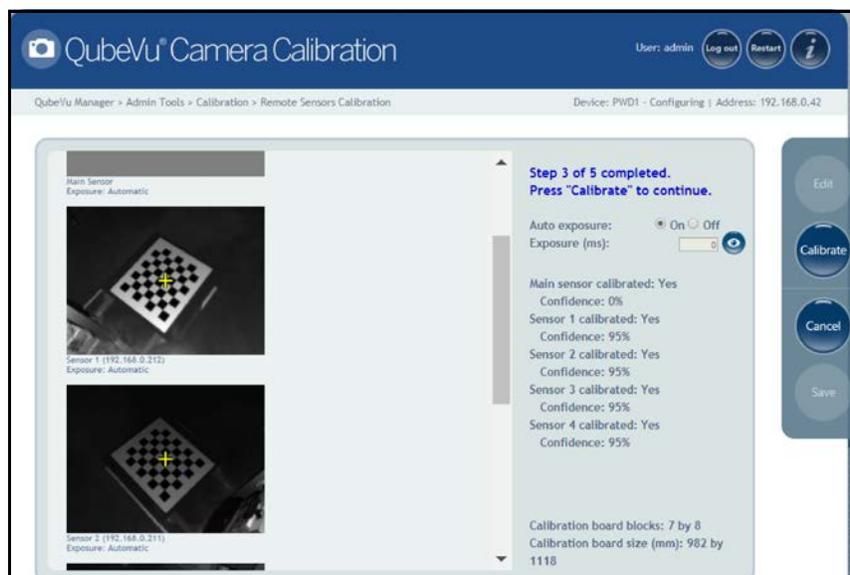
Figure 5-11. Object Calibration 3

11. Align calibration object so the cross hairs are centered. Rotate the calibration object to 7 o'clock with the tower assembly being at 12 o'clock (Figure 5-12).
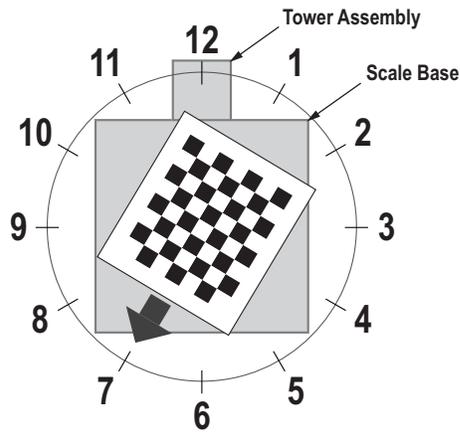
Figure 5-12. Rotate to 7 o'clock

12. Press Calibrate.

Figure 5-13. Object Calibration 4

13. Align calibration object so the cross hairs are centered. Rotate the calibration object to 8 o'clock with the tower assembly being at 12 o'clock (Figure 5-14).
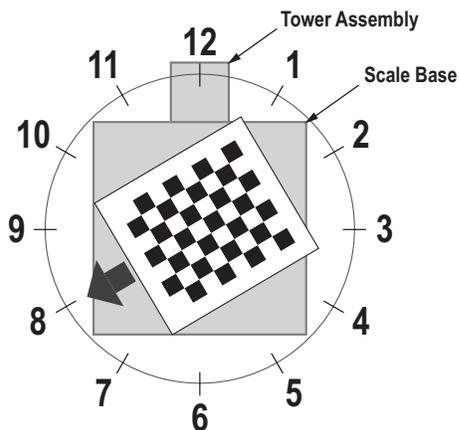
Figure 5-14. Rotate to 8 o'clock

14. Press [Calibrate].
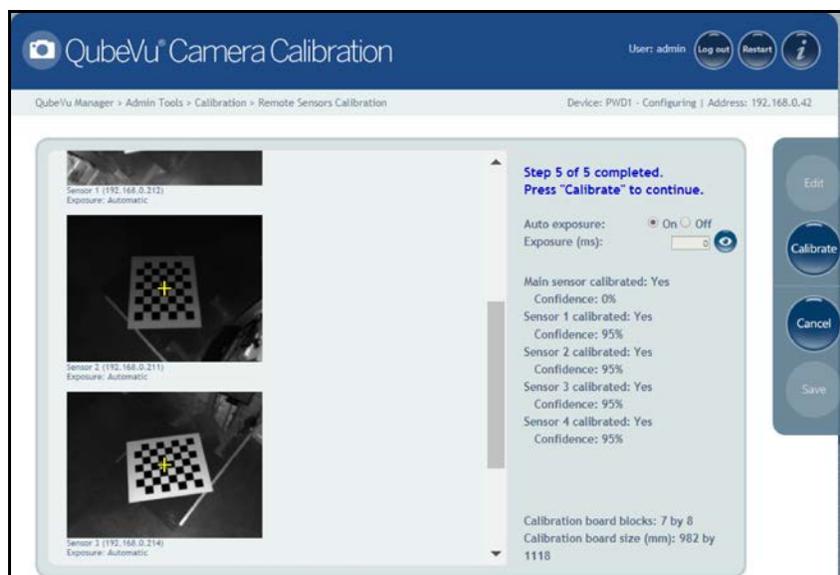
Figure 5-15. Object Calibration 5

Note | *If calibration fails, check for direct sunlight affecting the system then perform a new calibration.*

15. Upon successful calibration, press Save . The system returns to the **Calibration** menu.
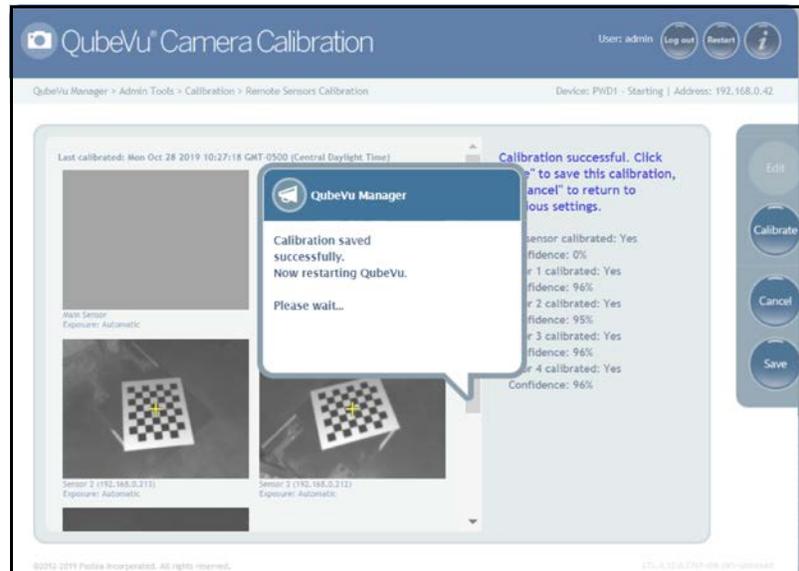
Figure 5-16. Successful Calibration

5.2   Set Work Area

The Set Work Area configures the iDimension PWD to control the out of bounds indications.

1. Press Set Work Area from the **Calibration** menu (Figure 5-3 on page 17) to enter the **Set Work Area** menu.
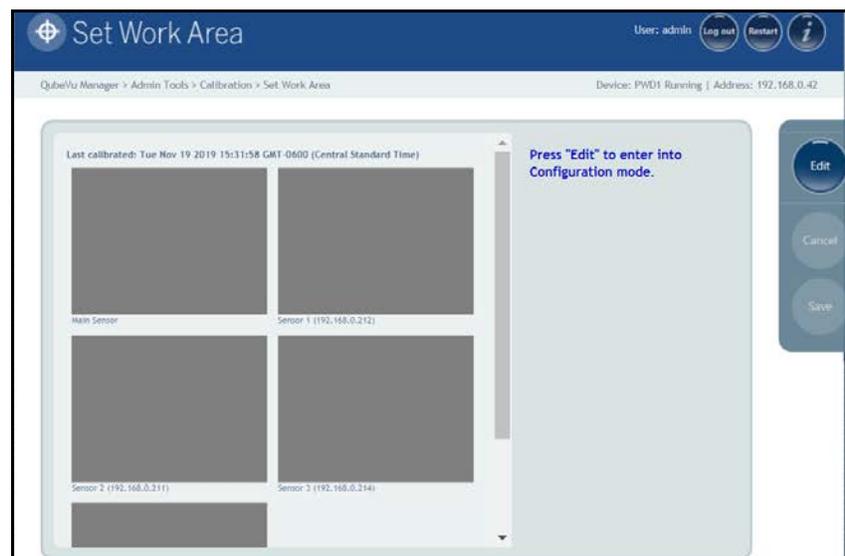
Figure 5-17. Work Area Settings

2. Press **Edit** and configure the settings as shown below:

> **Note** *Rice Lake Weighing Systems suggests using a minimum of 76" for the work area to ensure proper placement of the maximum 6' x 6' pallet.*
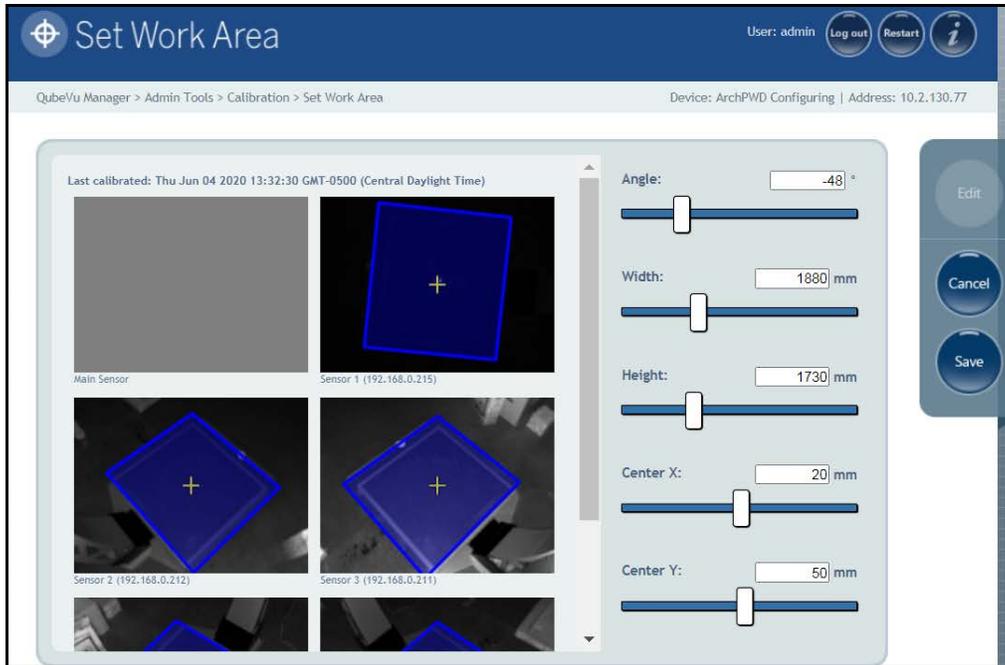
Figure 5-18. Work Area Configuration

> **Note** *Negative values (-48) are set using the slider bar. Adjust the numeric values (-xx) only.*

> **Note** *The default values shown in Figure 5-18 is for reference only.*
> *Refer to Table 5-4 for default values.*

Definition	Description
Angle	Enter the value for the desired work area angle Default: **-48°**
Width	Enter the value for the desired work area width Default: **1880 mm (80")**
Height	Enter the value for the desired work area height Default: **1730 mm (80")**
Center X	Enter the value for the desired work area center X Default: **20 mm (1.14")**
Center Y	Enter the value for the desired work area center Y Default: **50 mm (4.72")**

Table 5-4. Work Area Values

3. Press **Save** to continue.

6.0   Appendix

This section provides an overview of iDimension PWD *Diagnostics* menu instructions.

6.1   Diagnostics

> **Note** *The Administrator defined a username and password during the initial setup process.*
> *The username and password are required to log into and access the iDimension PWD Admin Tools.*

To enter the *Diagnostics* menu use the following procedure:

1. Press [Admin Tools icon] **Admin Tools** from the *QubeVu Manager* menu (Figure 5-1 on page 15) to enter the *Admin Tools* menu (Figure 5-2 on page 16).

2. The QubeVu Manager login screen displays. The default username and password are **admin** and **password**.

3. Press [Diagnostics icon] **Diagnostics** from the *Admin Tools* menu (Figure 5-2 on page 16) to enter the *Diagnostics* menu.

The *Diagnostics* tools can be used to test hardware components and gather diagnostic information.
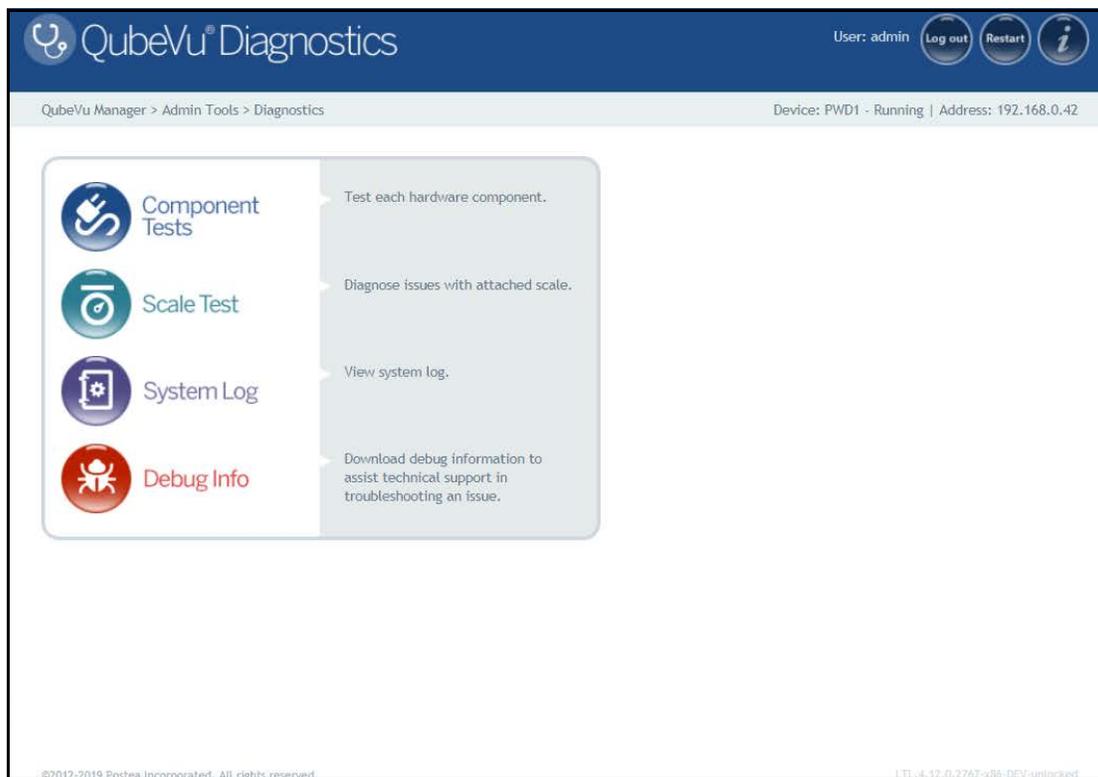
Figure 6-1. Diagnostics Menu

Parameter	Description
Component Tests	Test each hardware component (Section 6.2 on page 28)
Scale Test	Diagnose issues with an attached scale (Section 6.2.1 on page 32)
System Log	View system log (Section 6.3 on page 33)
Debug Info	Download debug information to assist technical support in troubleshooting an issue (Section 6.4 on page 33)

Table 6-1. Setup Navigation

6.2 Component Tests

Press [icon] **Component Tests** from the **Diagnostics** menu (Figure 6-1 on page 27) to enter the **Component Tests** menu.

The **Component Tests** menu is a tool to help diagnose the operation of the iDimension PWD. The applicable tests for this product include, **Scale Test** and **Remote Sensors Test** to determine operating status of the device. Contact the factory to determine if a failure has occurred.

Upon completion of a component test, restart the system to return to normal operating mode.

- Press [icon] next to each test to perform the specific test

- Press [Test all] next to each test each component

XTION Test
Not applicable for this application.

Scale Test
The **Scale Test** is used to help determine the communication settings of a serial scale attached to the unit.

Network Test
The **Network Test** performs a test to confirm the iDimension PWD network address to 169.254.1.1. The **Network Test** checks if the remote sensors and IP cameras, which are connected through ethernet to the device, are pinging correctly.

The status of each component is returned as either **Passed** or **Failed**. Press [icon] to view additional details.

Report component failures to the Rice Lake Weighing Systems technical support team.
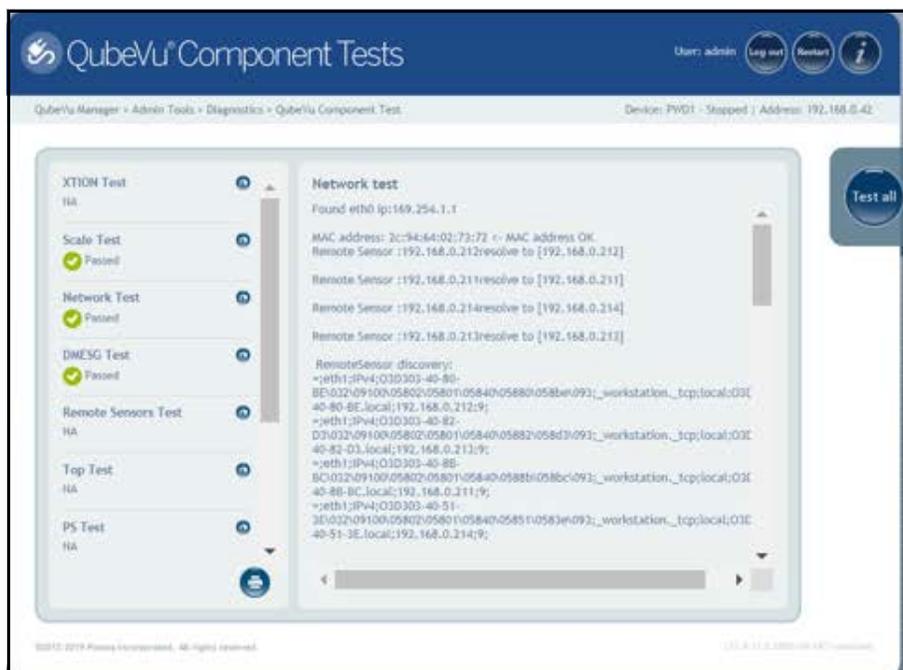
Figure 6-2. Network Test

Note *Network, DMESG and Tempterature tests are for manufacturing purposes only.*

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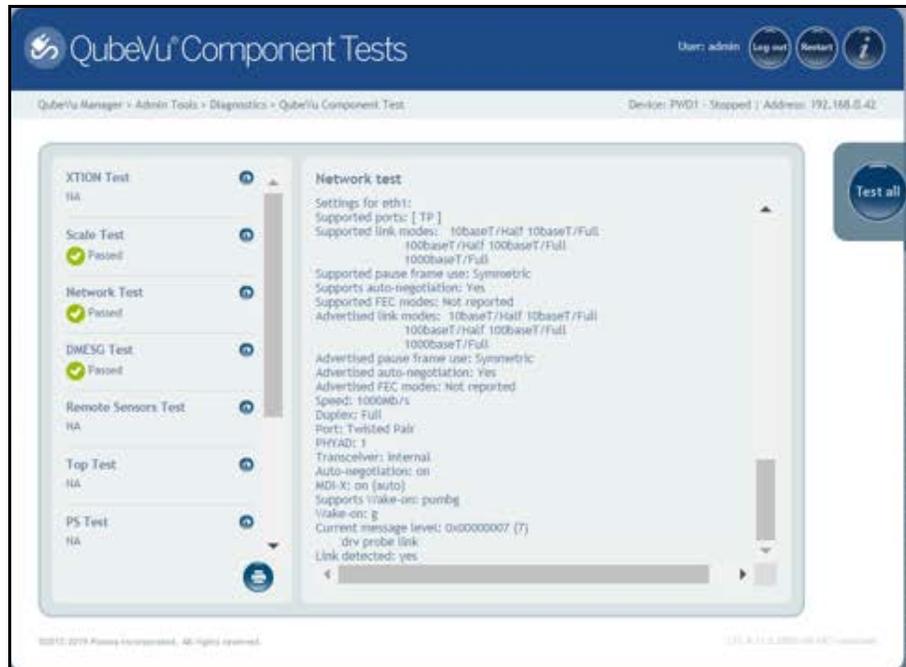
Figure 6-3. Network Test (Continued)

DMESG Test

The ***DMESG Test*** performs a firmware diagnostics test.
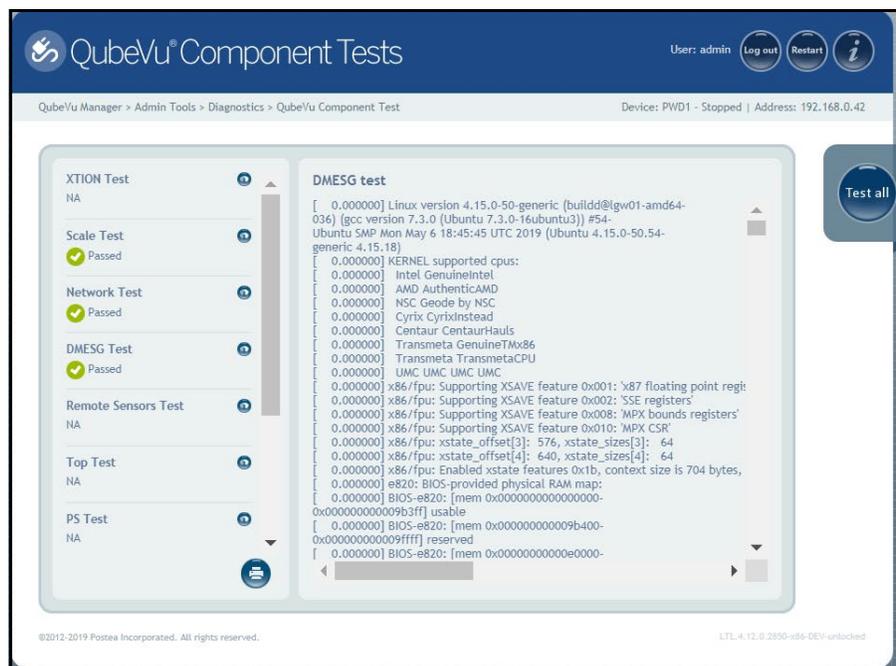
Figure 6-4. DMESG Test

Remote Sensors Test

The **Remote Sensors Test** provides results for the following tests: **Depth Information Test** and **Depth Image Test**. This test will take approximately 3-5 minutes to run. Scroll through pages to identify failures, each of the 4 or 5 sensors has a unique IP address. This test runs through the configuration of the IFM sensor, including firmware and application file loaded and running temperature.

    Depth Information Test – provides the total for the framerate of the remote sensors and total RGB images captured:

Figure 6-5. Depth Information Test

    Depth Image Test – provides details on the physical ports (USB/Serial):
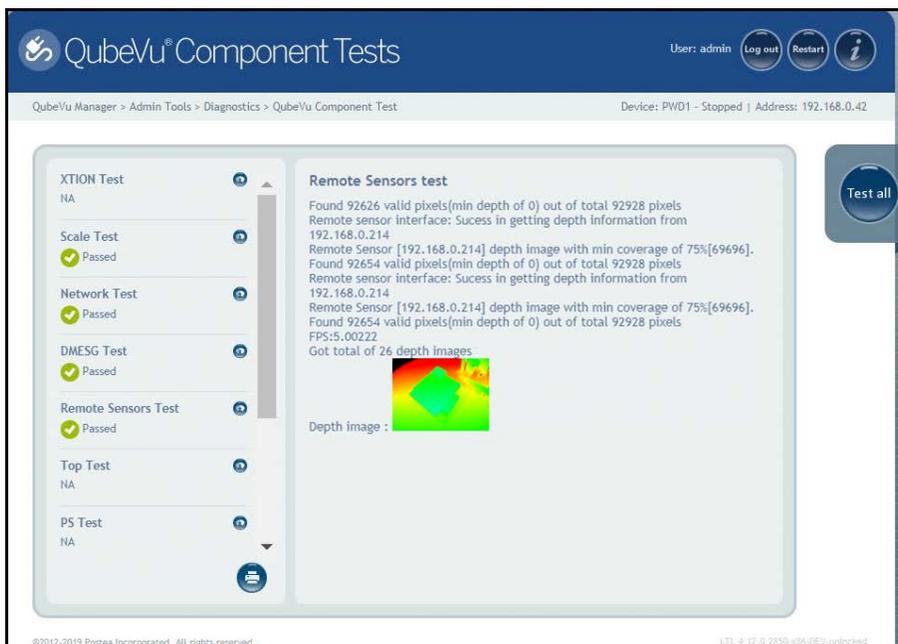
Figure 6-6. Depth Image Test

Top Test, PS Test, Serial Number Tests

Do not modify unless instructed by Rice Lake Weighing Systems dimensioning support.

Port Scan Test

The ***Port Scan Test*** provides details about the of valid pixels.

Figure 6-7. Port Scan Test

Temperature Test

The ***Temperature Test*** provides details about the remote sensor.
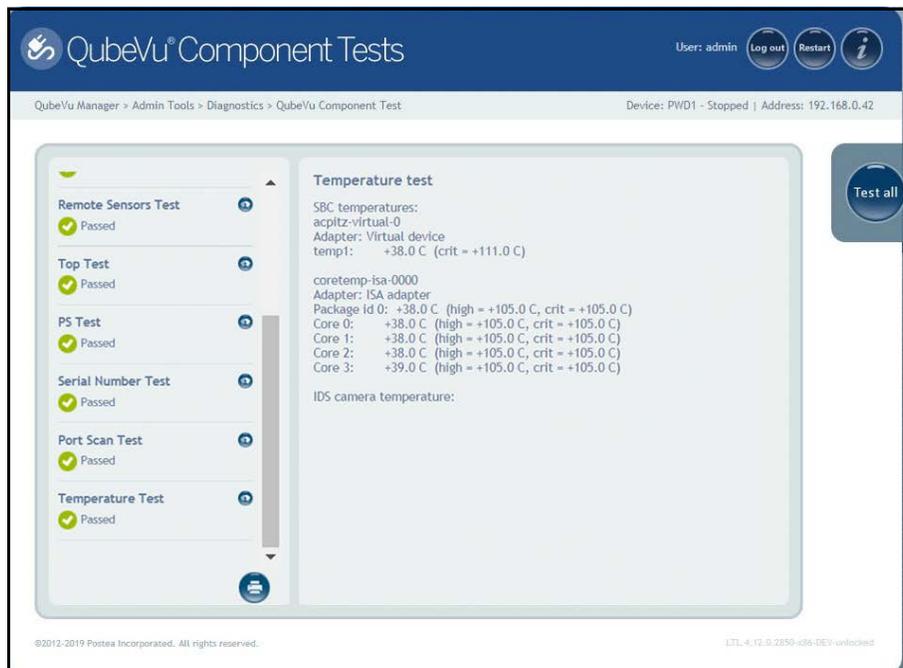
Figure 6-8. Temperature Test

6.2.1 Scale Test

Press [Scale Test icon] **Scale Test** from the ***Diagnostics*** menu (Figure 6-1 on page 27) to enter the ***QubeVu Scale Test*** menu.

The ***QubeVu Scale Test*** is used to test the connection from the indicator to the iDimension PWD. The scale settings are configured properly for NCI– 9600,N,8,1 (iDimension PWD Setup Manual (PN 199543)).

Figure 6-9. Scale Test

Figure 6-10. Scale Test (Continued)

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6.3   System Log Tab

Press [icon] System Log from the *Diagnostics* menu (Figure 6-1 on page 27) to enter the *System Log* menu.

The system log storage data is configured in the setup menu. The log view can be customized by type (view all or view info, debug or error messages only) or by order (view the latest first or the earliest first).
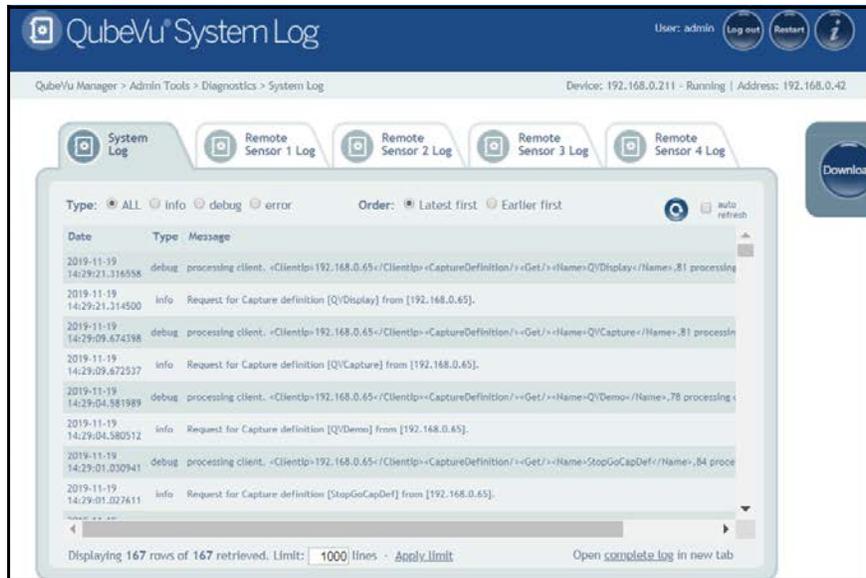
Figure 6-11. System Log Tab

Note   *The Remote Sensor Logs are not applicable.*

6.4   Debug Info

Press [icon] Debug Info from the *Diagnostics* menu (Figure 6-1 on page 27) to enter *Debug Information* menu.

The *Debug Info* is a file that provides engineering and trouble shooting information of the operation of the unit. This file may be requested for troubleshooting purposes. Check the **Select All** box then press [Download] to save the file to the computer.
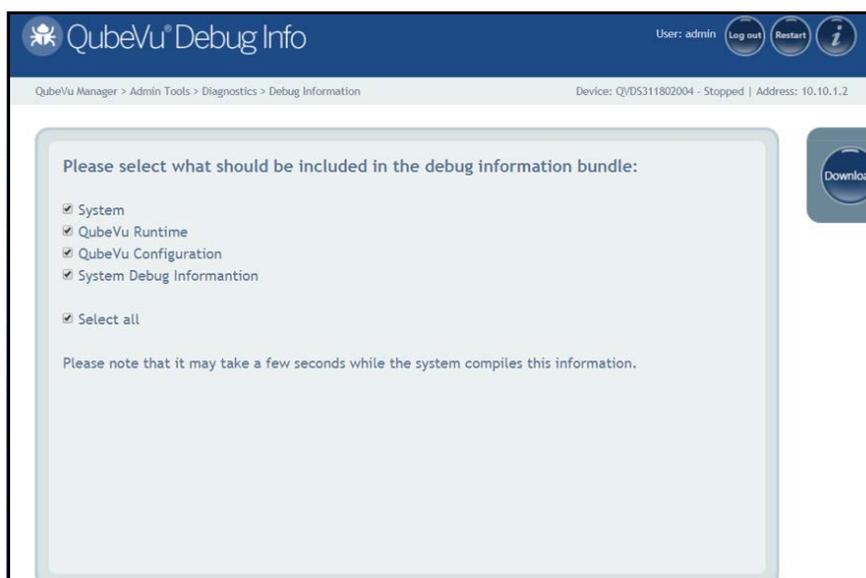
Figure 6-12. Debug Information

6.4.1   Troubleshooting

This section provides an overview of iDimension PWD troubleshooting instructions.

iDimension PWD Does Not Return to Ready State

1. Press ![help icon] on the USB display.
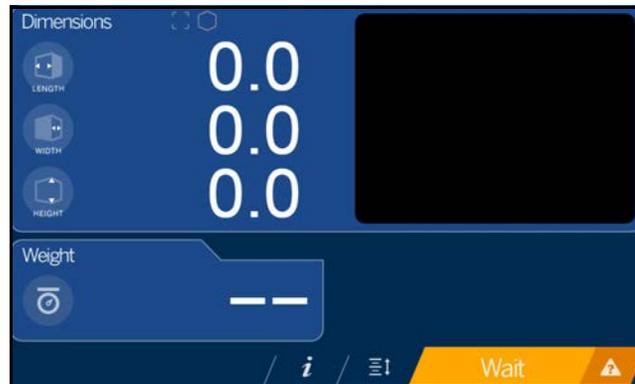
Figure 6-13. Help Button

2. Follow the provided help instructions to return the iDimension PWD to **Ready** state:
    A. **Device status: STARTED** or **REMOVE** displays; Clear the scale of obstructions
    B. Zero the scale
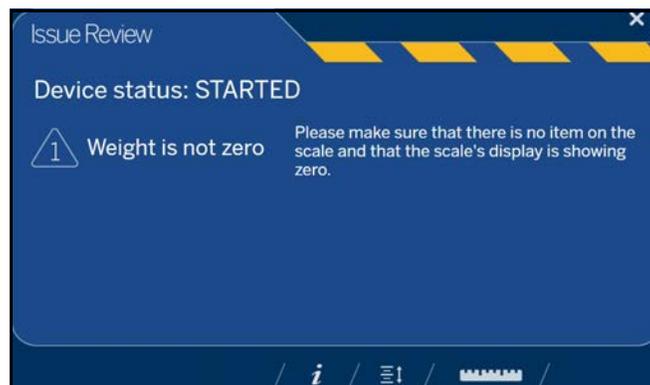
Figure 6-14. Device Status Started

    C. The iDimension PWD is zeroed

iDimension PWD Display is Off or Blank

1. Check power connection on the back of the iDimension PWD and the 120 V outlet.

Figure 6-15. Touchscreen Display No Power

2. Check USB connection on back of USB display.
3. Press the **Power** button on the back of the USB display.
4. Power cycle the iDimension PWD.
5. Check connection on scanning heads.

iDimension PWD Display is Locked and Will Not Dimension

1. Power cycle the iDimension PWD from an AC Outlet.
2. Restart the iDimension PWD.
3. Press *i* on the touchscreen display.

6.5   Status Messages

Status and error messages are visible from the QubeVu Manager Demo Display (Figure 6-16 on page 36).
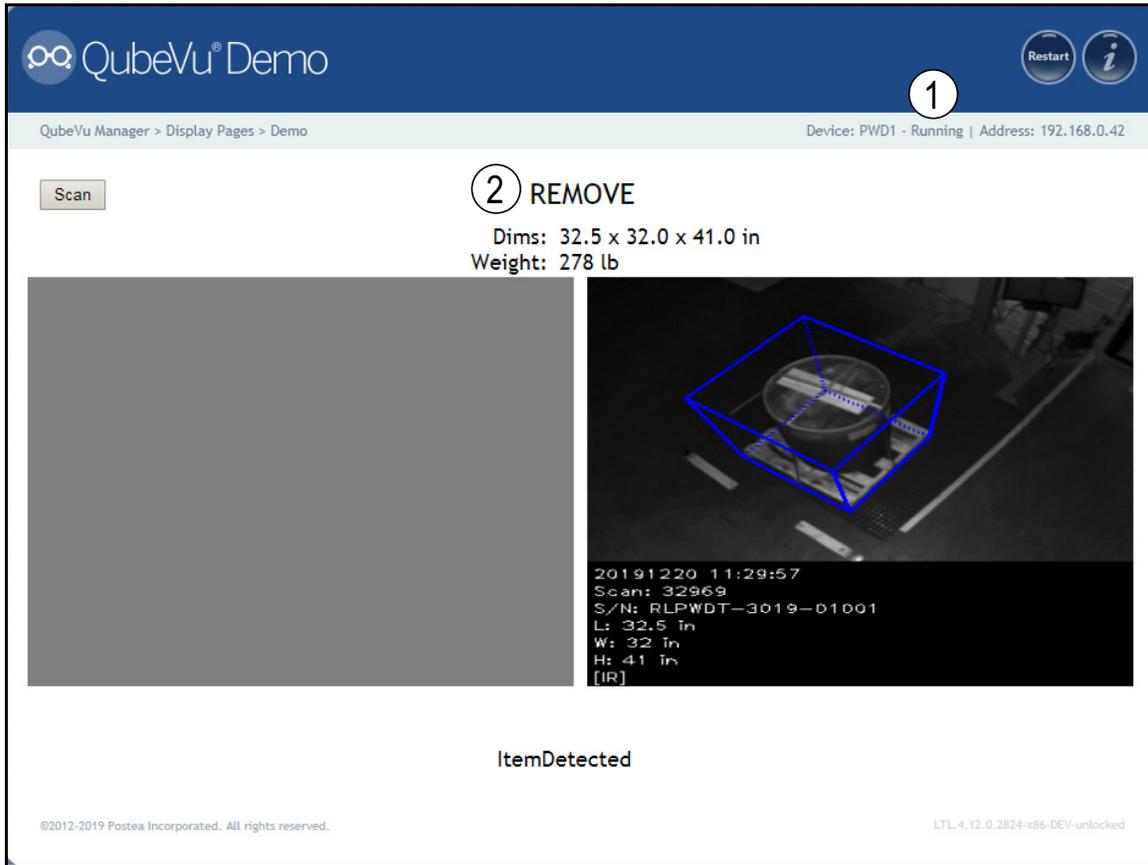
Figure 6-16. Demo Display

Item No.	Description
1	Status
2	Extended Status

Table 6-2. Status

Status	Description
STARTING	The system is starting up
STARTED	The system has started but is not ready for processing a dimension; If the device is in this status for more than a couple of seconds there is most likely an object on the platform that needs to be cleared or the scale is not at zero weight; If no object is on the platform, perform a zero height
READY	The system is ready and waiting to be used
TRACKING	The system is processing a dimension
REMOVE	The dimension has been fully processed – the item can be removed when the client processing has completed transferring the data
STOPPING	The system is transitioning into STOPPED state
STOPPED	The service has stopped – there is a problem; Perform a restart or power cycle the unit from the AC Outlet
CALIBRATING	The device is in calibration mode
CONFIGURING	The device is in configuration mode; A restart can take the device out of configuration mode

Table 6-3. Status Messages

6.5.1   Extended Status Messages

Status	Description
ScaleNotStable	This is set during tracking if the scale indicates that the value returned is not a stable value; This is only used when a recognized scale is connected to the system; Processing will not progress to the next step until this flag is cleared by receiving a stable weight from the scale
MotionDetected	This is set during tracking and ready states and indicates that the system has detected movement; Processing will not progress to the next step while this is set
ItemDetected	This is set when the system has detected that an item is placed on the device platform/scale; When a scale is used this indicates that weight returned is not zero; In 'scale-less' mode this indicates that the system cannot find the target panel
ItemNotDetected	This is set when the system is in ready mode and there is no item on the platform/scale
TrackerNotConfident	This indicates that the tracker detected an item but it is not confident what the dimensions of the item are; After a timeout (configurable) the system will progress to next step and return zero-valued dimensions
ExceptionOccured	This is set when an exception occurs
DeviceNotStable	This is set during tracking if one of the sensors indicates that the sensor value returned is not a stable value; Processing will not progress to the next step until this flag is cleared by receiving a stable value from the sensor
ServiceStarting	This is set when the system is initializing
ConfigMode	This is set when the system is in configuration mode, such as during calibration or image exposure adjustment; A restart operation takes the device out of configuration mode
ResultNotStable	This is set when the item is being manipulated such as when the item is in the act of being placed on the platform or removed from it
ItemOutOfBounds	This indicates that the item protrudes outside the measurable area; A repositioning of the item is necessary
WaitingToWarmUp	This is set during the warm-up period; If device is used in a certified-for-trade application the warm-up period must have been elapsed before certified measurements can be taken
PlatformNotClear	This is set when there is something on the platform

Table 6-4. Extended Status Messages

6.5.2   Error Messages

The device error messages which may be displayed are described below.

Error Code	Description
1	Hardware Initialization FAILED
2	Tracker Config Initialization FAILED
3	Missing RegistrationMarksCropped.bmp
4	Setting reference image for Targetfinder FAILED
5	Loading of Calibration files FAILED
6	Getting new Images from hardware FAILED
7	Tracking FAILED
8	Calibrating
9	TCP Server Port binding failed
10	TCP Server exception in Processing Client
11	TCP Server time out on Imaging
12	Low res camera needs to be calibrated first
13	Calibration stopped
14	Error loading / parsing Configuration
15	Unable to save Calibration to file
16	Unable to use name set in Capture/Get command; CaptureDefinition with name were not set
17	Invalid CaptureDefinition command
18	Unable to delete Calibration files
19	Unable to Zero Height
20	Failed to write or verify audit trail

Table 6-5. Error Messages

6.6   API

Application programing interface which provides the interface or communication between the iDimension PWD and WMS/ERP operating system.

7.0 Specifications

Product Dimensions

Length	92.7" (235.46 cm)
Width	117.34" (298.04 cm)
Height	131.86" (334.92 cm)
Weight	993.64 lb

Legal for Trade Measurement Range

Capacity	Minimum	Maximum
Length	6" (15.24 cm)	72" (182.88 cm)
Width	6" (15.24 cm)	72" (182.88 cm)
Height	6" (15.24 cm)	72" (182.88 cm)

Measurement Capabilities

48" x 42" x 84" (121.92 cm x 106.69 cm x 213.36 cm)
Contact factory for more examples

Measurement Increment

Division	±0.5" (1.27 cm)

Throughput

Average transaction time of 7 seconds

Performance Characteristics

Most surfaces are captured, transparent/translucent and glossy surfaces may provide a variance

Item Placement

Single pallet centered on the floor scale for best performance

Minimum Pallet Height

4.25" (10.80 cm) wood pallets

Shapes

Solid shapes, (3" (7.62 cm) protrusions or more) will be included in dimensions

Lighting Conditions

Operates in any indoor lighting environment

System Contents

iDimension PWD
Calibration Object   12" x 12" x 12" (30.48 cm x 30.48 cm x 30.48 cm)
Test Box

Dimensioning Speed

Within 2 seconds from the time the target area is clear and the unit has been triggered to scan

Unobstructed Floor Space

For best performance, provide a 15' (457 cm) width area clear of walls, inventory racks of barriers

Minimum Ceiling Height

11' (335.28 cm)

Sensor Height

10' (304.8 cm)

Network Interface

One static IP address required when used with a mobile PC; Up to 11 IP addresses reserved when connected directly to the network

Power Requirements

Single power source (96–264 VAC), with 25' (762 cm) power cable

Optional Network Camera

.24 cm (2.4 mm) POE network cable camera with 3-axis camera angle adjustment IP24 rating;
Standard 2688 x 1606 pixels, 96 dpi @ 751 kb standard output in .jpeg format;
Configurable for time and date, scan ID, system serial #, dimensions and dimensional indicators

Operating Temperature

14° – 104° F (-10° – 40° C)

Humidity

0–90% non-condensing

Warranty

Two-year limited warranty
Five-year limited warranty, sensors only

Approvals

NTEP
CoC 19-076

The iDimension PWD complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:
• This device may not cause harmful interference.
• This device must accept any interference received, including interference that may cause undesired operation.