

iDimension[®] Plus XL

Static Dimensioning System

Assembly Instructions



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Revision History

This section tracks and describes manual revisions for awareness of major updates.

Revision	Date	Description
B	August 12, 2024	Established revision history; updated replacement parts
C	February 4, 2025	Updated mounting and installation consideration list

Table i. Revision Letter History



Technical training seminars are available through Rice Lake Weighing Systems. Course descriptions and dates can be viewed at www.ricelake.com/training or obtained by calling 715-234-9171 and asking for the training department.

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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 assembly must be completed prior to assembling and installing the iDimension Plus XL to the optional stand and configuring the unit for use.

When interfacing the unit to third party software, please refer to the software manufacturer's documentation for setup and configuration parameters as necessary.



Manuals are available from Rice Lake Weighing Systems at www.ricelake.com/manuals

Warranty information is available at www.ricelake.com/warranties

iDimension Plus Manager Guide

The iDimension Plus Manager Guide (PN 195441) provides a detailed overview of the QubeVu Manager, the embedded firmware of the iDimension Plus. The QubeVu Manager software allows for device setup and configuration of the iDimension Plus XL in any environment. The QubeVu Manager software should only be used by a technical systems administrator.

iDimension Plus Operation Manual

The iDimension Plus Operation Manual (PN 195439) provides a detailed overview of the installation requirements, operation of the iDimension Plus XL and configuration parameters to change in the QubeVu Manager to improve the performance of the unit. The iDimension Plus Operation Manual is provided with each unit.



NOTE: Prior to powering on the unit, see the *iDimension Plus Operation Manual (PN 195439)*. The *iDimension Plus Operation Manual* contains the following information for common installation and operation requirements:

1. **Place system into the location intended for use.**
2. **Setup Wizard.**
 - **Upon initial power up, the Setup Wizard steps through configuring time and date, zeroing the height of the system with or without a scale, creating the scan zone and defining the system for use in displaying dimensions in imperial or metric mode**
3. **Connect to network via DHCP or directly to network connection on local PC for configuring system using embedded software, QubeVu Manager, from a Google Chrome web browser. Contact your network administrator, if a static IP address is required.**
 - **Scale parameters**
 - **Flat detection, objects under 1.2" height**
 - **Static IP address**
 - **Adjusting scan area and zone of interest for measuring flats**
 - **Configuring certification settings**
 - **Calibration, if necessary**

iDimension Plus XL Single and Dual Arm Stands Addendum

The iDimension Plus XL Single and Dual Arm Stands addendum (PN 199199) provides a detailed overview of the installation procedure to mount iDimension XL scanning head(s) to a single or dual arm stand to work in conjunction with most conveyor or tabletop applications.

1.1 Safety

Safety 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.

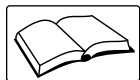


CAUTION: Indicates a potentially hazardous situation that, if not avoided, could result in minor or moderate injury.



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!

There are no user serviceable parts. Refer to qualified service personnel for service.

The unit has no power switch, to completely remove power from the unit, disconnect the power source at the AC outlet.

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

When cycling power, use the in-line power cord at a power outlet, do not power at the base.

Always disconnect from main power before performing any 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.

Retain packaging. When transporting the unit, always disassemble and pack it in its original packaging.

Use only supplied power adapter. Never short-circuit the power adapter or the device.

Operate between 41–104° F (5–40° C).

Never modify or attempt to repair the unit. Service must be performed by Rice Lake Weighing Systems only.

Handle cables and cable connectors with care. Never use damaged power cords or plugs or loose electrical sockets. Never touch the power cord with wet hands.

Never drop or allow an impact to the head.

Mount on a flat surface.

Never use product for anything other than its intended purpose.

1.2 Mounting and Installation Consideration

The iDimension Plus XL is designed to be attached to a variety of mounts using the included mounting bracket.

Regardless of how the iDimension Plus XL is installed, the following must be considered to ensure the best performance:

- The scanning head must be leveled
- The scanning head must be positioned centrally over the measuring platform, from the sensors perspective
- The scanning head must be mounted such that no movement can occur
- When installing the scanning head at 79", flat detection is increased to 2.4"
- The background of the measuring work area should be constant color, flat black is recommended for contrast
- If using over a static roller conveyor, configure the system for the depth only mode
- Ensure the system is installed in an area where glare from overhead lights are not visible on the measuring surface
- Determine ethernet cable length required for installation; Have ethernet cable available during assembly of the system

Once the iDimension Plus XL has been assembled use the iDimension Single and Dual Arm Stands instructions (PN 182726) to assemble the stand and mount the iDimension Plus and USB display RAM mount bracket.

Upon completion of assembly, refer to the iDimension Plus Operators Manual (PN 195439) to configure and setup the iDimension Plus using the setup wizard from the USB display and QubeVu Manager embedded firmware.

The iDimension Plus XL can be installed at either 60.2" in a Legal for Trade application or 79" in non-Legal for Trade mode using the setup wizard. Installing at 79" increases the maximum measurement applications provided by the iDimension Plus table top stand, as shown below.

Length	Width	Height
80"	60"	0"
78"	58.6"	2"
76"	57"	4"
74"	55.6"	6"
72"	54"	8"
70"	52.6"	10"
68"	51"	12"
66"	49.6"	14"
64"	48"	16"
62"	46.6"	18"
60"	45"	20"
58"	43.6"	22"
56"	42"	24"
54"	40.6"	26"
52"	39"	28"
50"	37.6"	30"
48"	36"	32"
46"	34.6"	34"
44"	33"	36"
42"	31.6"	38"
40"	30"	40"
38"	28.6"	42"
36"	27"	44"
34"	25.6"	46"
32"	24"	48"
30"	22.6"	50"

Table 1-1. Measurement Capabilities (inches)

Length	Width	Height
203.2 cm	152.4 cm	0 cm
198.12 cm	148.844 cm	5.08 cm
193.04 cm	144.78 cm	10.16 cm
187.96 cm	141.224 cm	15.24 cm
182.88 cm	137.16 cm	20.32 cm
177.8 cm	133.604 cm	25.4 cm
172.72 cm	129.54 cm	30.48 cm
167.64 cm	125.984 cm	35.56 cm
162.56 cm	121.92 cm	40.64 cm
157.48 cm	118.364 cm	45.72 cm
152.4 cm	114.3 cm	50.8 cm
147.32 cm	110.744 cm	55.88 cm
142.24 cm	106.68 cm	60.96 cm
137.16 cm	103.124 cm	66.04 cm
132.08 cm	99.06 cm	71.12 cm
127 cm	95.504 cm	76.2 cm
121.92 cm	91.44 cm	81.28 cm
116.84 cm	87.884 cm	86.36 cm
111.76 cm	83.82 cm	91.44 cm
106.68 cm	80.264 cm	96.52 cm
101.6 cm	76.2 cm	101.6 cm
96.52 cm	72.644 cm	106.68 cm
91.44 cm	68.58 cm	111.76 cm
86.36 cm	65.024 cm	116.84 cm
81.28 cm	60.96 cm	121.92 cm
76.2 cm	57.404 cm	127 cm

Table 1-2. Measurement Capabilities (cm)

2.0 Replacement Parts

This section provides an overview of the parts featured within the packaging for the iDimension Plus XL.

2.1 Unpacking

Immediately after unpacking the iDimension Plus XL, visually inspect the contents to ensure all components are included and undamaged. If any parts were damaged in shipment, notify Rice Lake Weighing Systems and the shipper immediately.

The iDimension Plus XL includes two parts packages:

- iDimension Plus XL (PN 192382)
- iDimension Plus XL Installation Kit (PN 198708)



Figure 2-1. iDimension Plus XL Parts

Item No.	Part No.	Description	Qty.
1	195504	Scanning Head	1
3	192382	USB Display	1
4	–	Ethernet Cable	1
5	188101	Calibration Object	1
6	198708	AC Power Cable (110 V / 240 V)	1
7		Power Supply	1

Table 2-1. iDimension Plus XL Parts List (192382)

Item No.	Part No.	Description	Qty.
2	198567	Scanning Head Mounting Bracket	1
8	223038	Power Cord, 25'	1
–	198590	USB Type A Male to Type A Female	2
–	79989	Cable Tie, Black Nylon	2
–	199199	iDimension Plus XL Single and Dual Arm Stands Addendum	1
–	195439	iDimension Plus Operation Manual	1

Table 2-2. iDimension Plus XL Installation Kit Parts List (198708)



NOTE: Keep calibration object for future use.

3.0 Assembly

This section provides an overview of iDimension Plus XL assembly instructions.

3.1 Unit Assembly

To assemble the iDimension Plus XL, follow the procedure below:

1. Remove scanning head and DC power supply from packaging.
2. Remove the rear cover from the scanning head by loosening and removing the three Phillips screws (screw locations are shown in [Figure 3-6 on page 11](#). Screws are located to the left of the scanning head within of [Figure 3-1](#)). See [Step 6 on page 11](#) for instructions on how to reinstall the Phillips screws.

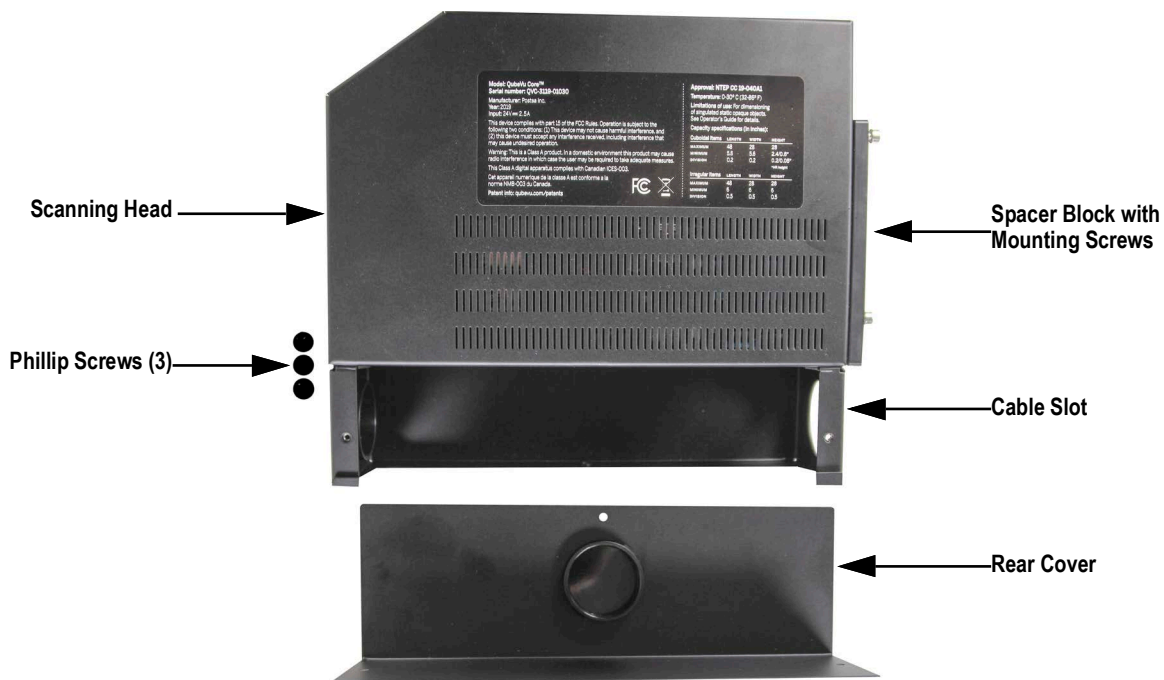


Figure 3-1. Scanning Head Parts

3. Remove the three mounting screws from the spacer plate and the spacer plate from the scanning head.

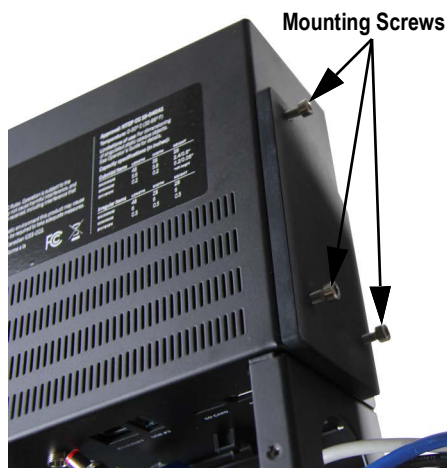


Figure 3-2. Mounting Screws



NOTE: Keep screws and spacer plate for reassembly with mounting bracket.

4. Insert USB, ethernet and power supply cables through the cable slot.



Figure 3-3. Feed Cables Through Head

5. Secure cable connections to the scanning head (Table 3-1):



Figure 3-4. Scanning Head

Item No.	Description
1	Power (DC in) - 24 V1
2	Ethernet Port
3	Open USB Port - Scanner or Powered USB Hub
4	SD Card (Not Supported)
5	HDMI Port (Not Supported)
6	Display Connection USB Micro B
7	USB - Scale Connection

Table 3-1. Scanning Head Connection List



Figure 3-5. Scanning Head Connections

- Reinstall the scanning head rear cover using the three small Phillips screws removed within [Step 5 on page 10](#).



Figure 3-6. Scanning Head with Rear Cover Secured

- Assemble the mounting bracket ([Section 3.1.1 on page 12](#)).

3.1.1 Mounting Bracket Assembly

1. Secure the power supply to the mounting bracket using the provided cable ties (2).

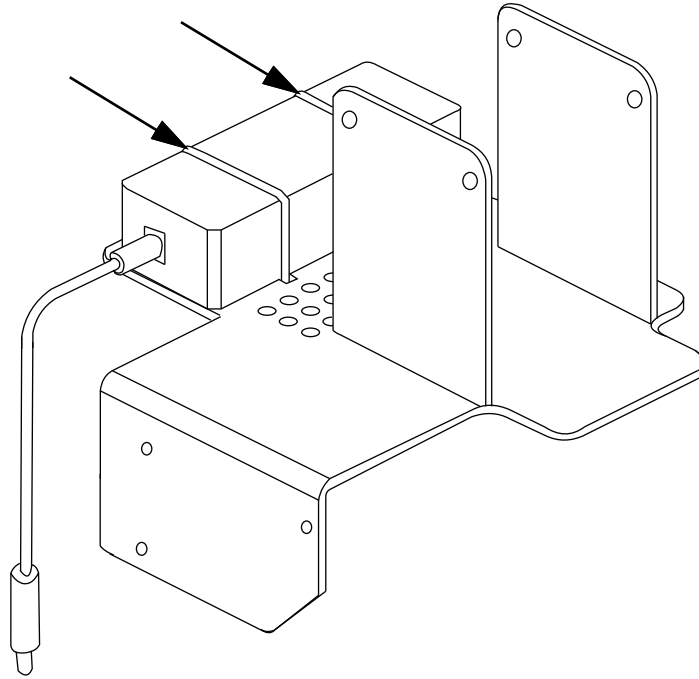


Figure 3-7. Secure Power Supply

2. Secure the mounting bracket on top of the scanning head, see the iDimension Plus XL Single and Dual Arm Stands Addendum (PN 199199) for installation instructions.

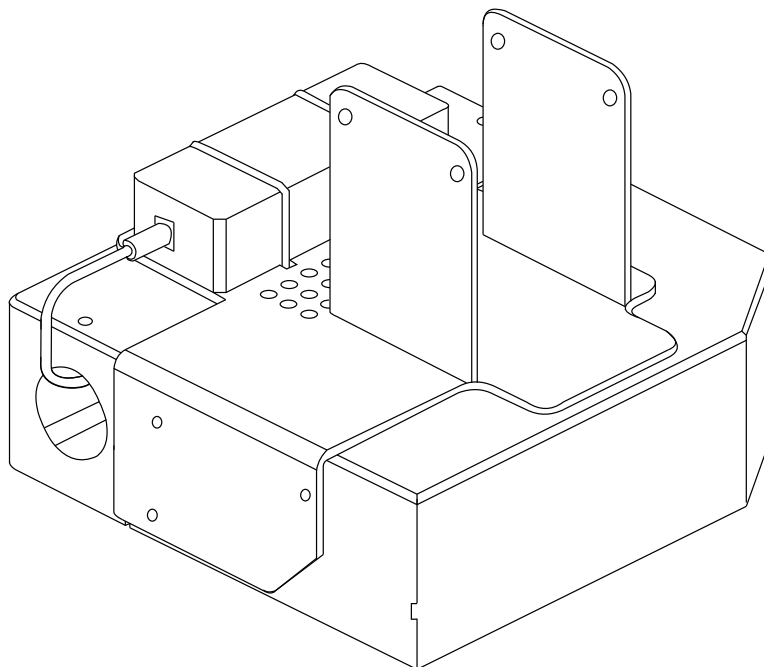


Figure 3-8. Mount the Bracket to Scanning Head

3. Add a spacer between the bracket and scanning head.

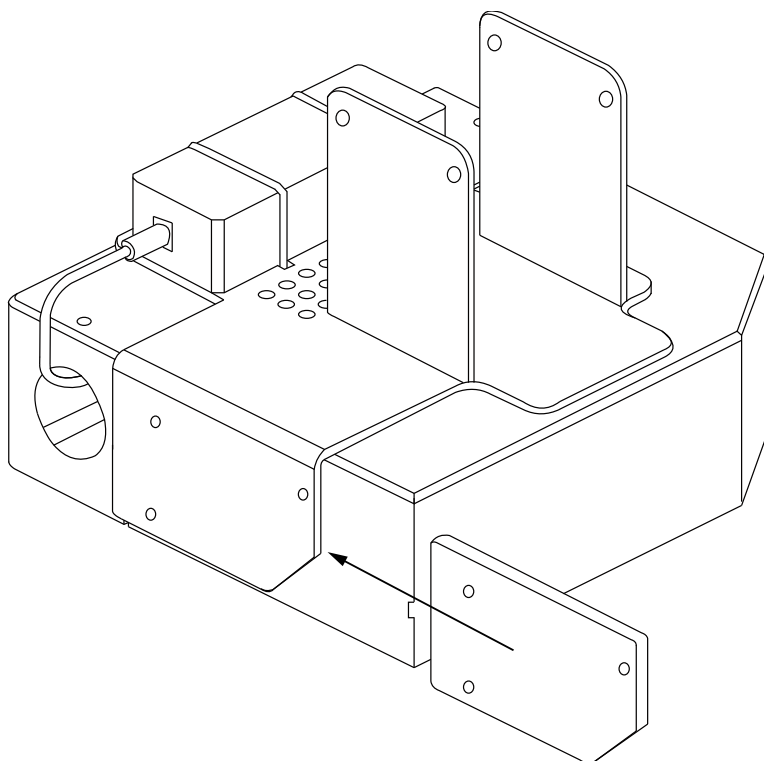


Figure 3-9. Add Spacer

4. Reinstall the three scanning head mounting screws removed in [Step 3 on page 9](#).

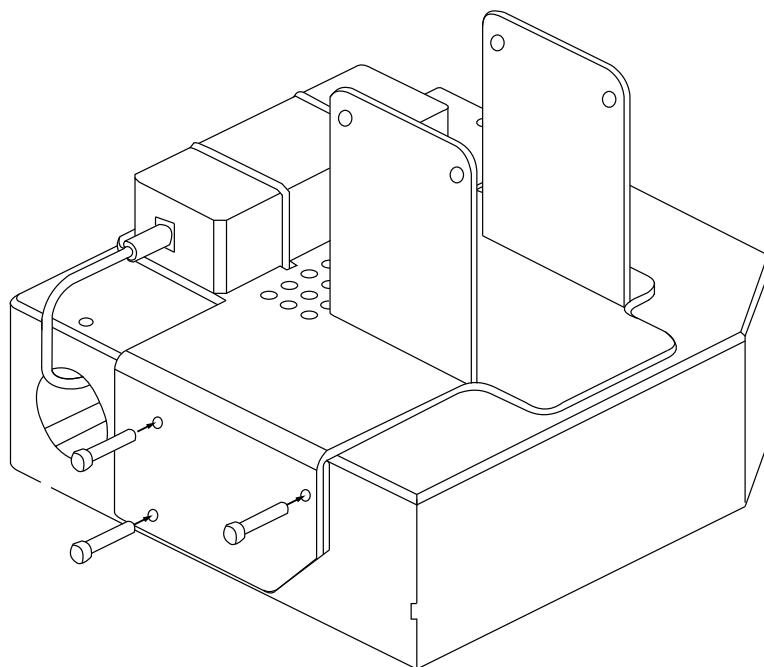


Figure 3-10. Reinstall Scanning Head Mounting Screws

5. Mount the assembly to stand using the iDimension Plus XL Single and Dual Arm Stands Addendum (PN 199199).

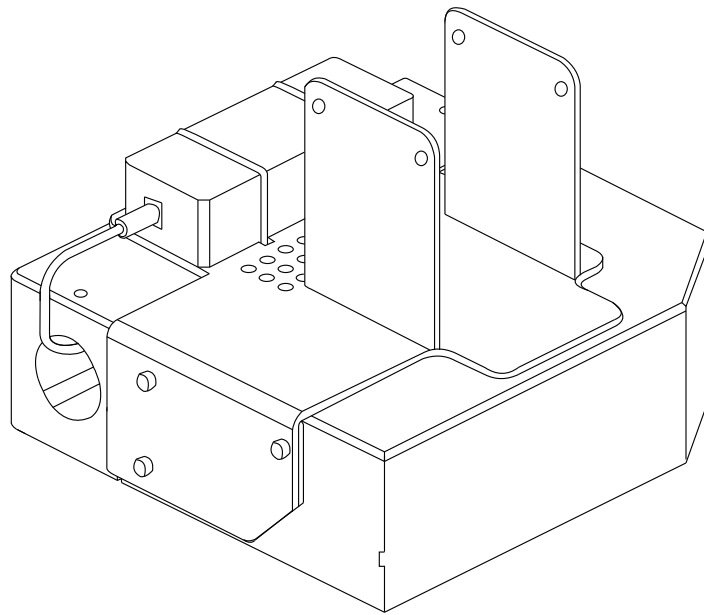


Figure 3-11. Assembled Mounting Bracket

3.2 Connect the USB Display to Scanning Head

Once the scanning head and the stand assembly are assembled:

1. Remove the pre-installed mounting bracket from the USB display.
2. Remove the USB cable cover plate from the back of the USB display (USB cable cover not shown in [Figure 3-12](#)).
3. Plug the USB display cable into the mini USB port.

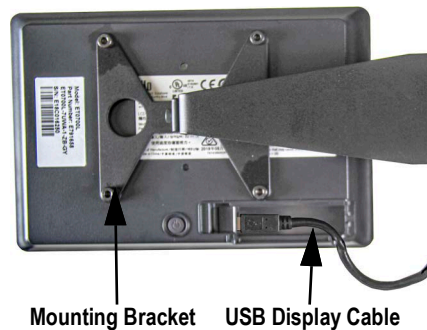


Figure 3-12. USB Display Cable



NOTE: See stand assembly instructions for mounting display to RAM mount kit (PN 196708).

4. Reinstall the mounting bracket from the USB display removed from [Step 1](#).
5. Reinstall the USB cable cover plate removed from [Step 2](#).



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