



Quick Set Up Guide

LU-8047-QS



QUV Accelerated Weathering Testers



QCT Condensation Tester



Revision Date
18 Apr 2022

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1. Specifications, Classifications, Symbols

1.1 Specifications, Classifications (Apr 2019)

- The recommended ambient operating temperature and relative humidity (RH) for QUV testers is 23 ± 5 °C and $50 \pm 25\%$ RH.
- Operating outside the recommended range (or in rare cases, even within it), certain standards or test cycle conditions may not be achievable.
- This can result in the tester producing chamber temperature and/or humidity faults.
- Never operate your tester in lab temperatures >40 °C or $>80\%$ RH.
- Operating Humidity: Non-Condensing
- Ventilation: The QUV adds 700 watts (2400 BTU/hr) and 5 liters of water per day to room air. Locate away from drafts.
- Weight: 136 kg (300 lbs).
- Installation: Category II for transient over-voltages.
- Pollution Control: Pollution Degree 2.
- Sound Pressure Level: Sound Pressure Level does not exceed 74 dBA.
- Altitude: 2000 meters or less.
- Operation: Continuous Rating
- Voltage: 120 V or 230 V (as stated on the nameplate) $\pm 10\%$ - single phase.
- Current: 16 A for 120 V testers. 8 A for 230 V testers.
- Frequency: 50 or 60 Hz.
- Supply Connection: Permanently connected or plug/socket connection (industrial type per IEC 60309 or twist lock type in North America).
- External Disconnect: Required for all connections.
- External Over-Current Protection: Must be rated for not more than 40 A (USA, Canada) or 64 A (Europe).

1.2 Symbols (Dec 2015)



Electrical Shock Hazard



Hot Surfaces Hazard



Attention



Ultraviolet Light Hazard



Local Waste & recycling regulations per the WEEE Directive 2002/96/EC on Waste Electrical and Electronic Equipment

2. Safety Information

Q-Lab accepts no responsibility for the consequences if the user fails to comply with the instructions in this technical manual. Q-Lab will accept responsibility for defective parts or components only if the machinery was defective at the time that the tester was shipped.

- This manual does not claim to address potential safety issues, if any, associated with the use of this product.
- It is the responsibility of the user of this manual to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment safety devices may be impaired.
- The QUV meets the European Low Voltage Directive 2014/35/EU and complies with the requirements of EN61010-1: 2010 (Third Edition), "Safety of Electrical Equipment for Measurement, Control and Laboratory Use".
- The QUV meets the European Electromagnetic Directive 2014/30/EC and complies with the requirements of EN 55011:2007 Radiated and Conducted Emissions – class A.
- Use only parts that have been supplied or recommended by Q-Lab.

2.1 Electrical Shock Hazard (Mar 2022)



- The QUV uses 400 volts to operate its fluorescent ultraviolet (UV) lamps.
- This voltage is extremely dangerous.
- Interlock switches remove power to the UV lamps when end covers are removed (Figure 2.1).

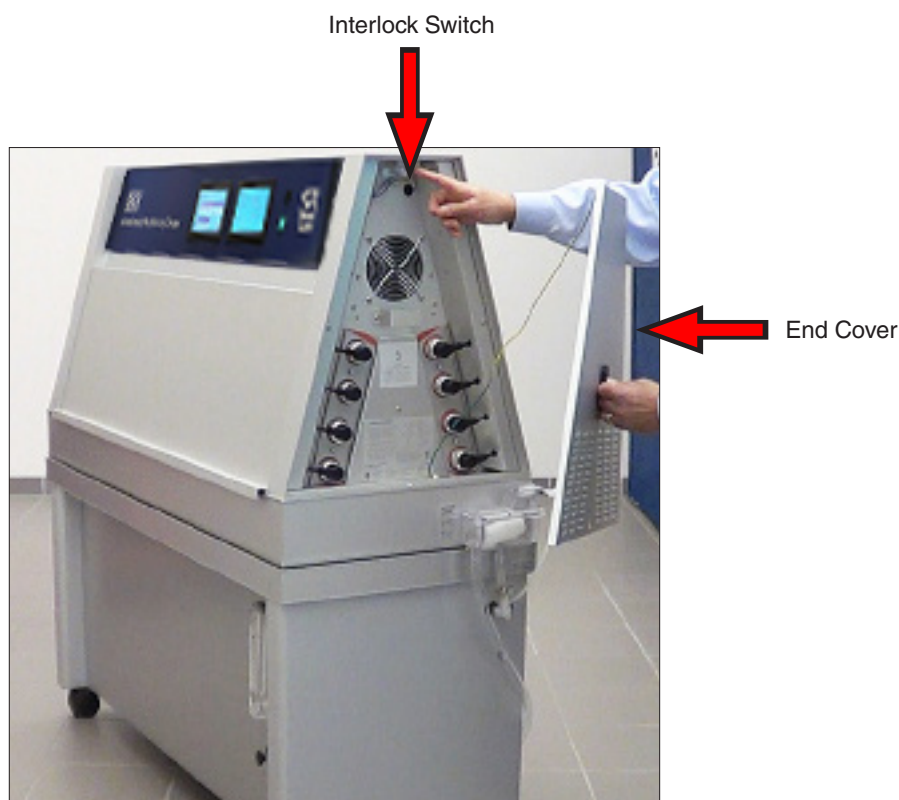


Figure 2.1: Power off to lamps when end covers removed.

2.2 Ultraviolet Hazards (Mar 2022)



- There is no Ultraviolet (UV) hazard from any QUV tester in normal operation with the doors closed.
- The QUV/uvc tester is equipped with additional light barriers to prevent any potentially-harmful stray UVC light from escaping the tester.
- QUV front and rear swing-up doors are equipped with interlock switches which shut off the UV lamps when either door is opened.
- Always STOP the test before opening QUV doors and removing test panels.
- Never look at lighted UV lamps without UV-absorbing goggles.
- Sunburn and eye inflammation are delayed reactions. Symptoms (pain, redness, hot sensation) may appear 4 to 12 hours after UV exposure.
- Threshold Limit Values (TLV) for UV exposure are published by the American Conference of Governmental Industrial Hygienists. The Threshold Limit Values should be used as guides for control of UV exposure.
- If exposure to UV lamps is necessary, wear UV-absorbing goggles. Protect skin with opaque clothing or a quality sunscreen lotion (e.g. 5 percent PABA).
- Individuals with light complexion are more susceptible to UV, and some individuals are allergic to UV. Many common medications increase your sensitivity to UV (including sunlight).
- Do not use QUV UV lamps for any purpose except QUV testing.
- When discarding the lamps, disable them to prevent unauthorized use.
- To disable, remove two of the end-pins with a wire cutter or pliers (do not break lamps).
- UV lamps are not useful for plant growth or similar purposes.
- For QUV testers equipped with optional quadrant boxes (Part Nos. V-60301-K and V-60292-K), an optional door interlock kit (Part No. V-60353-K) is available for the right front end of the QUV tester.
 - o The door interlock shuts off the lamps if a quadrant box is removed from either end of the QUV tester.
 - o The interlock is typically factory-installed with new QUV testers that have the 3D quadrant boxes.



Warning - Risk of Burns. Limit Exposure. Use Protective Gear.

Threshold Limit Value (TLV) exposure limits:

NOTE: the lamps can only be viewed like this if you have a UC10/UV or UC10/CW smart sensor connected to disable the interlocks on QUV/se, QUV/spray, QUV/spray/rp, and QUV/cw models. The UC10/UVc does not disable the interlocks on QUV/uvc testers.

- One sample holder removed.
- Hand 50 mm from lamps (same as sample).
- Allowable daily exposure is 1 minute.

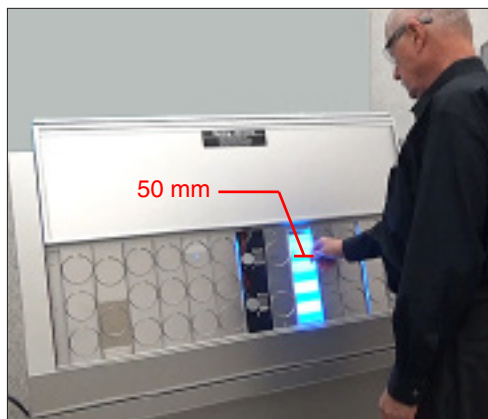


Figure 2.2a: Hand Exposure-One Holder Removed

- One sample holder removed.
- Hand 30 cm from lamps: allowable daily exposure 6 minutes.
- Face 1.0 m from lamps, allowable daily exposure 18 minutes.

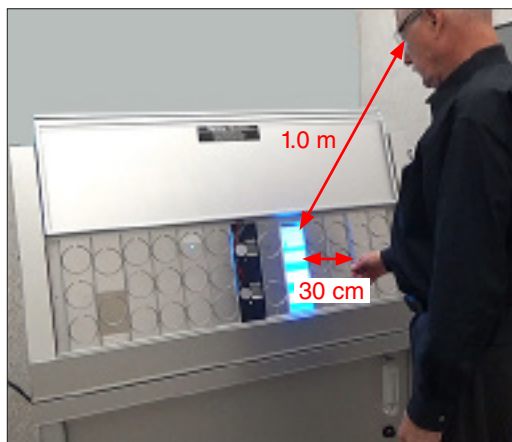


Figure 2.2b: Hand & Face Exposure-One Holder Removed

- All sample holders removed.
- Hand 30 cm from lamps: allowable daily exposure 2 minutes.
- Face 1.0 m from lamps, allowable daily exposure 6 minutes.

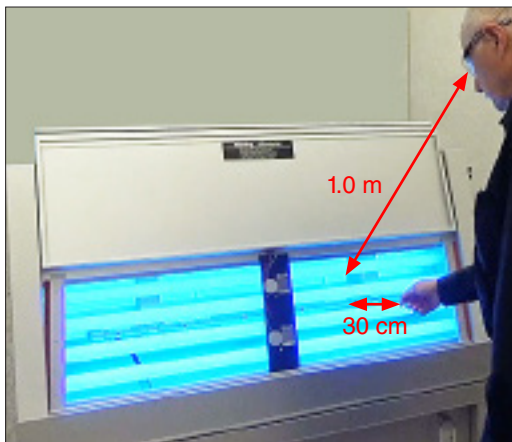


Figure 2.2c: Hand & Face Exposure-All Holders Removed

2.3 Disposal (Mar 2022)



- Dispose of UV lamps in accordance with local regulations.
- When disposing of the QUV, please follow local regulations.
- Components such as UV lamps, lithium batteries, or electronic assemblies may be restricted items for ordinary disposal.

3. General Description (Mar 2022)

Overview

- This Quick Setup Guide is not a Technical Manual.
- This document is intended to explain only the basics of tester safety, uncrating, and set up.
- The [QUV Technical Manual LU-8047-TM](#) is necessary for a complete understanding of how to operate the QUV/se, QUV/spray, QUV/spray/rp, QUV/cw, and QUV/uvc weathering testers.
- The [QUV Technical Manual LU-8047B-TM](#) is necessary for a complete understanding of how to operate the QUV/basic weathering tester.
- The [QCT Technical Manual LC-0875](#) is necessary for a complete understanding of how to operate the QCT condensation tester.
- The technical manuals are located in a blue binder packed inside the tester.



- Throughout this guide, references to the QUV tester also apply to the QCT tester unless otherwise stated.
- Throughout this guide, images of QUV testers with the dual touchscreen user interface are shown. All tester information is exactly the same for the QUV/basic tester with touchpad controls and 2-line LCD display,.

QUV and QCT Models Covered in This Guide

- QUV/basic: UV light with periodic lamp replacement and repositioning, condensation, and touchpad controls with 2-line LCD display. No irradiance control.
- QUV/se: UV light with SOLAR EYE irradiance control, condensation, and dual touchscreen user interface.
- QUV/spray: UV light with SOLAR EYE irradiance control, condensation, water spray, and dual touchscreen user interface.
- QUV/spray/rp: UV light with SOLAR EYE irradiance control, condensation, water spray, integrated water repurification system, and dual touchscreen user interface.
- QUV/cw: cool white visible light with SOLAR EYE irradiance control, condensation, and dual touchscreen user interface.
- QUV/uvc: short-wave UVC light with SOLAR EYE irradiance control and dual touchscreen user interface.
- QCT: condensation and mechanical controls. No UV light.



LU-8047-TM QUV Technical Manual.



LU-8047B-TM QUV Technical Manual.



LC-0875-TM QCT Technical Manual.

4. Operating Environment



The Tester Must Be Located in a Suitable Environment

- All Q-Lab test chambers are sophisticated scientific instruments.
- All tester models must be operated in a suitable controlled environment ([Section 4.1](#)).
- Operating the tester in an unsuitable environment ([Section 4.2](#)) will **void the warranty**.

4.1 Suitable Environments (Apr 2020)

Ambient Laboratory Temperature and Humidity

- The recommended ambient operating temperature and relative humidity (RH) for QUV and QCT testers is 23 ± 5 °C and $50 \pm 25\%$ RH.
- Operating outside the recommended range (or in rare cases, even within it), certain standards or test cycle conditions may not be achievable.
- This can result in the tester producing chamber temperature and/or humidity faults.
- Never operate your tester in lab temperatures >40 °C or $>80\%$ RH.
- Consult with Q-Lab for more specific information about achievable chamber temperature/humidity values based upon various ambient lab conditions.

Physical Environment

- A room that is dry, clean and free of dust, particles, gases, or salt fog.
- A room with an HVAC (heating/ventilation/air-conditioning) system.
- A location away from windows or HVAC vents.
- A location that provides the necessary minimum clearances as specified in [Section 6.1](#).

4.2 Unsuitable Environments (Apr 2020)

Salt Fog or Other Airborne Contamination

- Operating a QUV or QCT tester in an unsuitable environment will void the warranty.
- DO NOT install weathering testers in a room with corrosion chambers (Figure 4.2a).
- DO NOT locate a weathering tester in a room with machines or processes that generate dust, particles, vapors, gases, etc (Figure 4.2b).



Figure 4.2a: Do not install testers in a room with corrosion chambers.



Figure 4.2b: Do not locate testers in a room with airborne dust, particles or gases.

Uncontrolled Temperature and Humidity

- Do not operate the tester in a room with uncontrolled temperature and humidity (Figure 4.2c).
- Do not locate tester near sources of cold or hot air (Figure 4.2d).



Figure 4.2c: Do not locate the tester near open windows.



Figure 4.2d: Keep tester away from sources of hot or cold air.

Other Unsuitable Environments

- **Outdoors:** Rain and dust will corrode or short out electrical components.
- **Metal Dust / Metal Chips:** Do not locate the tester near metal cutting machines or metal grinding machines. Conductive metal dust or metal chips in the air will damage electronic components.
- **Carbon Fibers:** Do not operate the tester where carbon fibers or carbon reinforced plastic are being cut. The conductive carbon fibers will damage electronic components.
- **Conductive Pigments:** Do not operate the tester where carbon black or other conductive pigment dust is in the air. The conductive dust will damage electronic components.
- **Other Corrosive Gases:** Do not expose the tester to acid fog, SO₂ gas, or other corrosive gases.
- **Excessive Voltage:** The electrical supply to the tester must be no more than 10% higher than the voltage listed on the nameplate.
- **Low Voltage:** Recurring “brown-outs” or voltages less than 90% of the rated voltage will damage electrical components.
- **Water Leaks from Ceiling:** Water leaking onto the tester will damage electrical components.

For further detail on laboratory environment requirements, please contact Q-Lab Repair and Tester Support. See [Section 8](#) for contact information.

5. Uncrating (Mar 2022)

- All QUV and QCT testers are shipped in one of two types of crates (Figure 5.2a and Figure 5.2b).
- Labels on the crate indicate the location of the instructions to be opened first (Figure 5.2c).
- Instructions for uncrating and setting up the tester are located in the envelope shown in Figure 5.2d.

NOTE: When QUV testers are shipped on a Space Saver Frame, uncrating and removal from the pallet will be different from the procedure shown below. Please contact [Q-Lab](#) for assistance if desired.



Carefully read these instructions before uncrating the tester.
Follow all local, OSHA, EHS, and other applicable equipment operation and material handling safety requirements, recommendations, and practices.

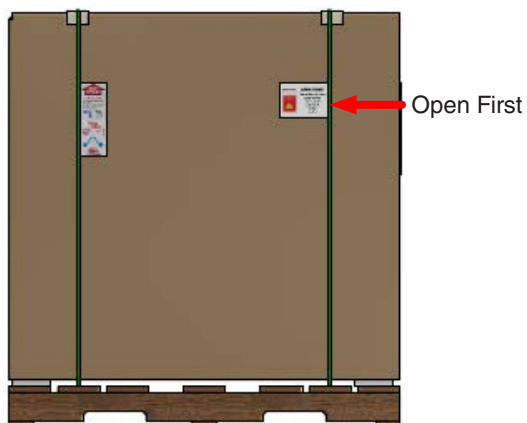


Figure 5.2a: This Crate has a Carton Banded to a Wooden Skid.

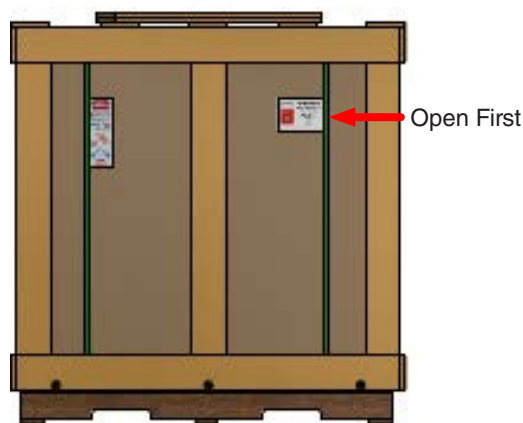


Figure 5.2b: This Crate has a Wooden Frame Surrounding the Carton.



Figure 5.2c: Labels on the crate indicate the envelope to be opened first.



Figure 5.2d: Open this envelope for important uncrating instructions.

Shipping Weight (Approximate)

Packaging	QUV	QCT
On Skid With Wooden Crate	181 kg (400 lbs)	123 kg (270 lbs)
On Skid With Carton Only	136 kg (300 lbs)	77 kg (170 lbs)

Tools Required

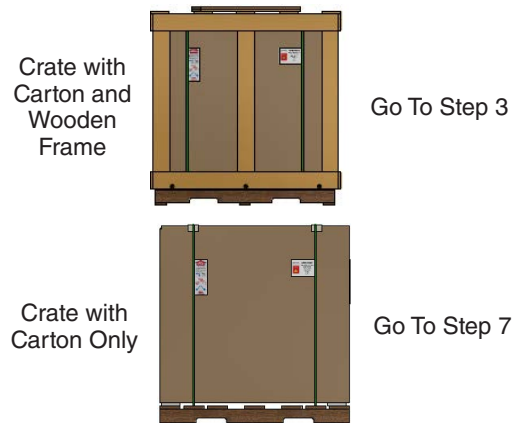
Phillips Screwdriver (Wooden Crate Only)	Flat Blade Screwdriver	Fork Lift*
Pry Bar (Wooden Crate Only)	Utility Knife	Band Cutter

*A fork lift or other mechanical lifting device is recommended for use in moving the crated tester to the installation location, and to lift the frame in one piece from the crate with wooden frame.

Follow the steps below to uncrate the QUV or QCT tester.



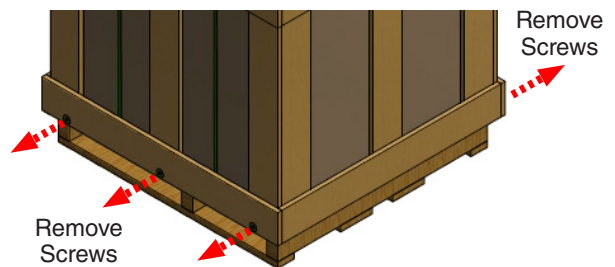
1. Uncrating instructions are located in this envelope. Remove and read the instructions.



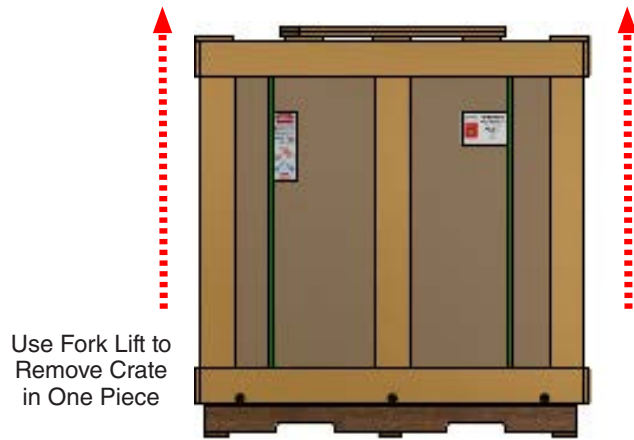
2. For crate with wooden frame continue with Step 3. For crate with carton only, go to Step 7.



3. Locate the three (3) Phillips screws in the bottom front and three (3) screws back horizontal boards.

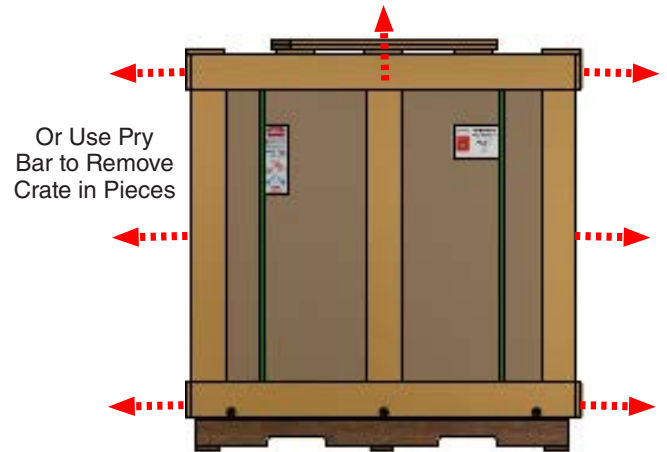


4. Remove all six (6) screws.



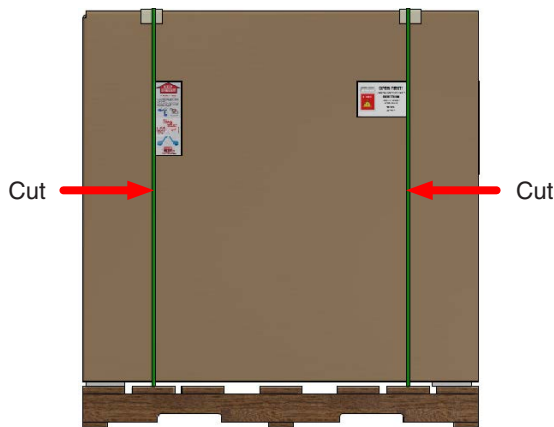
Use Fork Lift to Remove Crate in One Piece

5. If a fork lift is available, use it to carefully lift the wooden frame up and off of the tester.

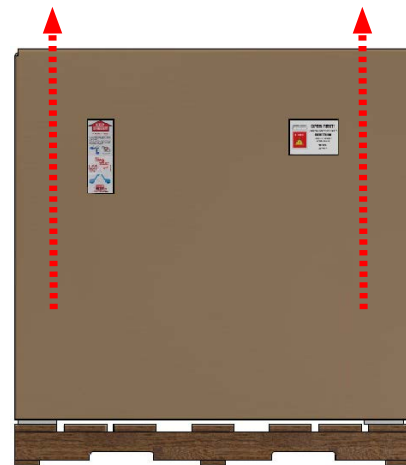


Or Use Pry Bar to Remove Crate in Pieces

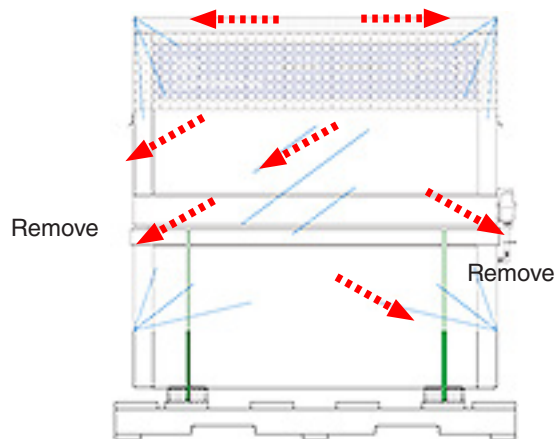
6. If a fork lift is not available, use a pry bar to carefully remove the horizontal and vertical wooden pieces from the tester.



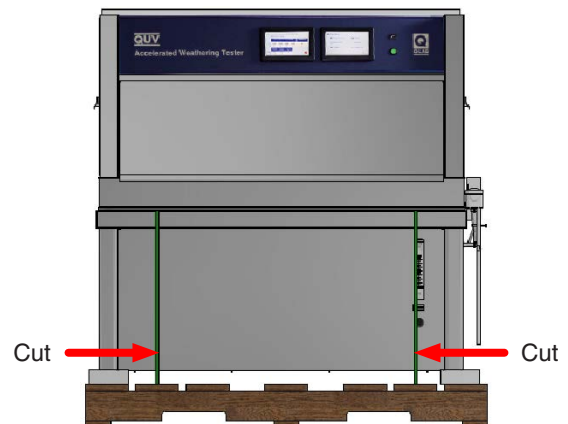
7. Cut the straps holding the carton to the skid. Remove the bands.



8. Carefully lift the carton up and off of the tester.

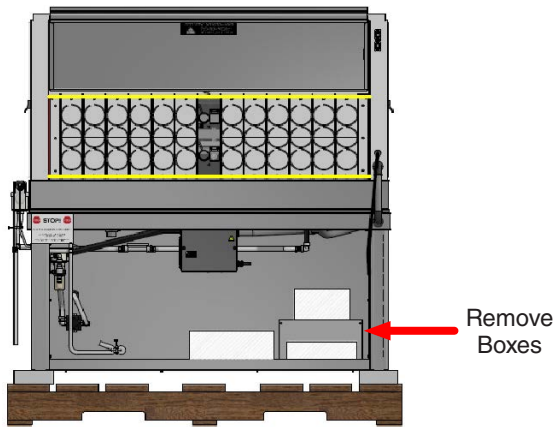


9. Remove all plastic wrap and foam from around the tester.

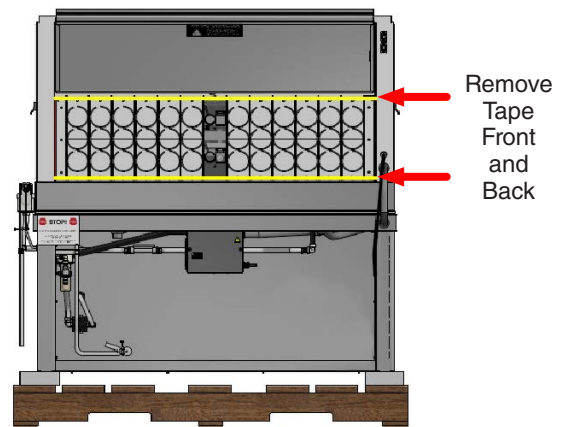


10. Cut the straps holding the tester to the skid. Remove the bands.

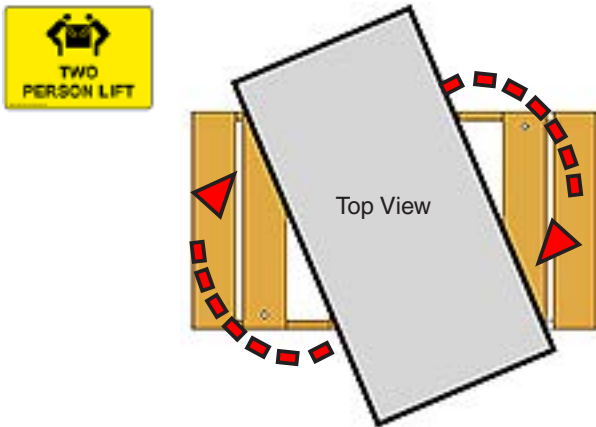
Section 5. Uncrating



11. Remove boxes of accessories in the bottom of the tester.



12. Remove the tape from the specimen holders in front and back of the tester.



13. Use 2 persons to rotate the tester diagonally on skid as shown.



14. Locate four (4) leveling casters in the boxes.



15. Thread the casters into the caster inserts in the four (4) tester legs.



16. Use 2 persons to carefully remove the tester from skid. Continue with Section 6 for tester setup.

6. Set Up

6.1 Dimensions and Space Requirements (Mar 2022)

Dimensions

- The external dimensions for QUV and QCT testers are listed in [Figure 6.1a](#).
- Dimension A does not apply to the QUV/uvc because it doesn't have the water feed assembly.
- Dimension D, tester height, can vary slightly (< 2.5 cm) due to adjustment to the tester leveling casters or feet.

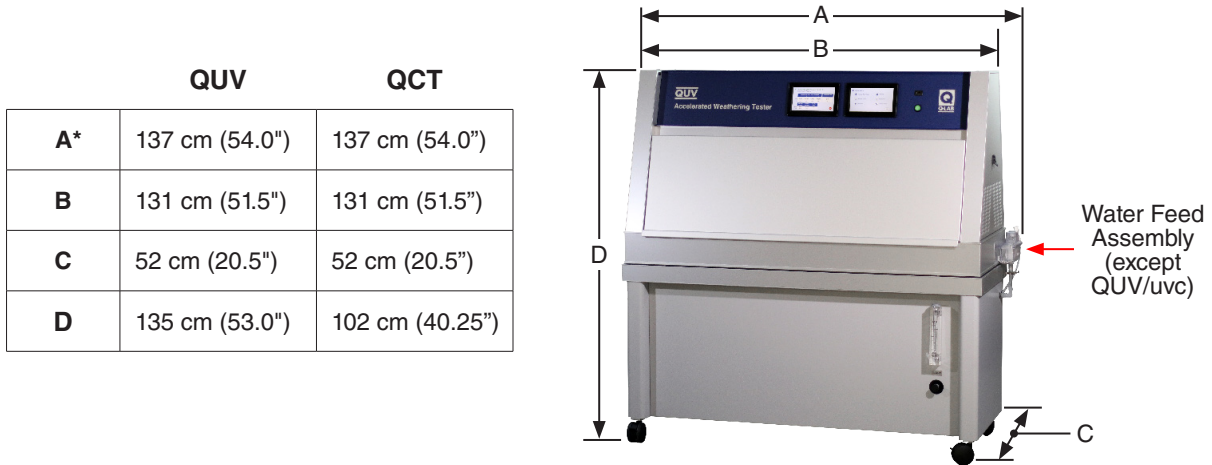


Figure 6.1a: External dimensions (QUV shown).

Space Requirements

- The testers should be positioned as shown in the [Figure 6.1](#) schematic.
- Positioning testers as shown will allow sufficient room to operate each unit, gain access to service areas, and provide proper ventilation through the air intake and exhaust vents.

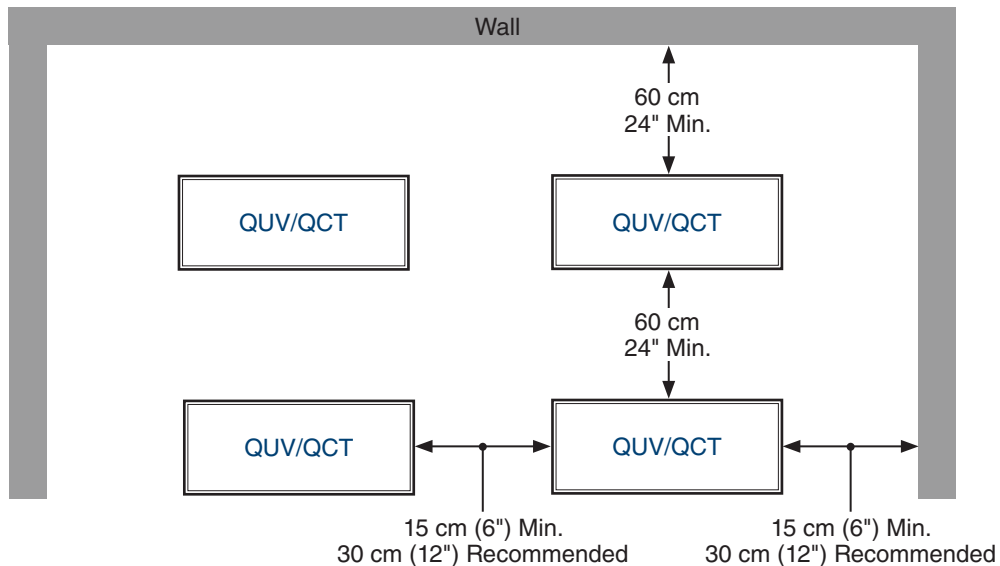


Figure 6.1b: Tester space requirements (top view).

6.2 Leveling (Feb 2022)

Casters

- For optimal specimen testing, it is important for the QUV tester to be level.
- Leveling casters are supplied as standard equipment on all QUV testers (Figure 6.2a)
- The casters are installed on the tester during uncrating (see Section 5).
- Each leveling caster can be adjusted up to 1.6 cm (5/8"). A locknut is included to lock the leveling caster in place.
- A bubble level is located on the top of the tester to make leveling easier (Figure 6.2b).



Figure 6.2a: Leveling casters are standard.



Figure 6.2b: Bubble level location.

Optional Leveling Feet

- The leveling casters can be replaced with the leveling feet field replacement kit (F-8977-K) (Figure 6.2c).
- The leveling feet fit in the same insert as the leveling casters and have an adjustment range of approximately 4 cm (1.56").
- Contact [Q-Lab](#) for more information.



Figure 6.2c: Optional leveling feet.

Optional Earthquake Restraints

- An optional earthquake restraint kit (CV-60450-K) is available to secure the QUV tester to the floor (Figure 6.2d).
- The restraints must be used in conjunction with the optional leveling feet (F-8977-K).
- The restraints fit around the threaded stem of the leveling feet and bolt to the floor to keep the tester from moving.



Figure 6.2d: Optional earthquake restraints.

6.3 Electrical (Apr 2022)

Voltage: Shown on the nameplate, either 120 V or 230 V, $\pm 10\%$ (Figure 6.3)

Transient Over Voltage: Installation Category II of transient overvoltages

Current:	120 V	230 V
QUV/se	16 amps	8 amps
QUV/spray		
QUV/spray/rp		
QUV/cw		
QUV/uvc		
QUV/basic	14 amps	7 amps
QCT	15 amps	

Frequency: 50 or 60 Hz

Circuit Protection: Built-in breaker, 20 A for 120 V machines and 10 A for 230 V machines

Electrical Connection:	120 V	230 V
Power Cord	12 ga, 3 wire, 4 m provided	16 ga, 3 wire, 4 m provided
Plug	3 wire grounding provided	Customer supplies

Wiring:	120 V	230 V
Power	Black	Brown
Neutral	White	Blue
Earth Ground	Green	Green/Yellow

- Although a Main Power Switch is provided at the rear of the unit (Figure 6.3), the specified means for disconnecting the Main supply circuit is the plug (customer must supply for 230 V testers) on the power supply cord.
- If the plug is not easily accessible for this purpose, then an external Disconnect Switch must be provided in the installation.
- To avoid nuisance tripping, Q-Lab does not recommend the use of Ground-Fault Circuit Interrupters (GFCI) circuit breakers with QUV and QCT testers.



Figure 6.3: QUV rear view showing power switch and nameplate and locations.

6.4 Water (Mar 2022)

- Water in the form of condensation and spray is used extensively in accelerated weathering testing.
- The QCT and all QUV models except QUV/uvc produce condensing humidity.
- QUV/spray and QUV/spray/rp models also deliver water spray to specimens.
- The QUV/uvc is not equipped with water delivery systems. It does not require a water supply connection

QUV/basic, QUV/se, QUV/cw, QCT

Supply Connections

- The water supply connects to the water feed assembly at the right rear side of the tester (Figure 6.4a and Figure 6.4b).
- Connect the water supply to the QUV water feed valve with 1/4" plastic tubing (included in CV-255-K), or 6 mm plastic tubing (included in CV-60131-K). See Figure 6.4c.
- Alternatively, 6 mm (1/4") copper tubing can be used.
- The water supply line should be equipped with a shutoff valve.



Figure 6.4a: QUV water supply connection location.



Figure 6.4b: QCT water supply connection location.

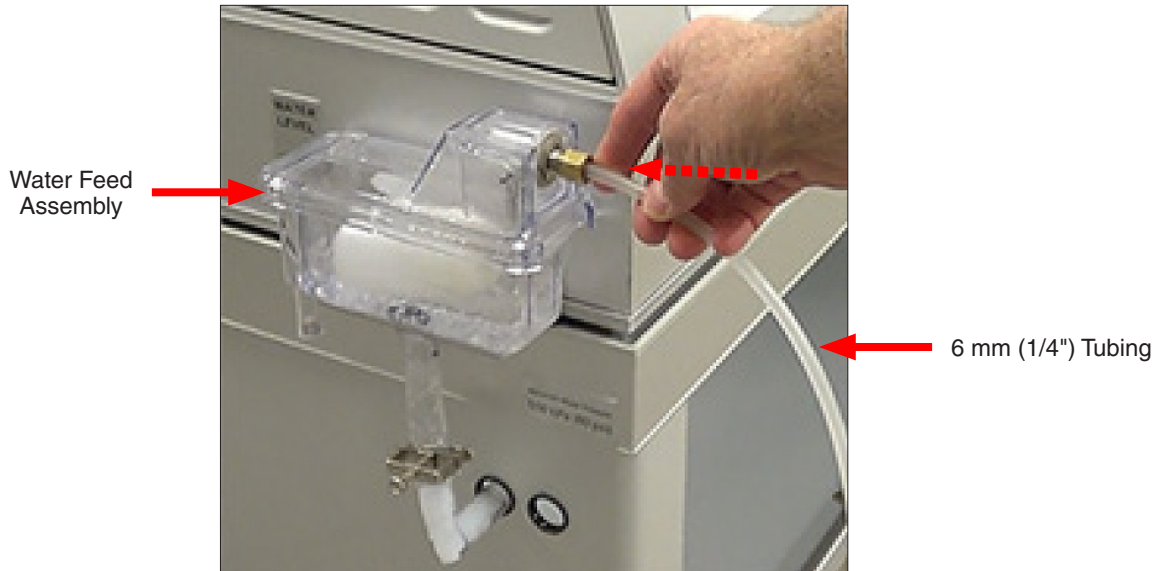


Figure 6.4c: Water supply connection.

Water Level Adjustment

- Level the tester (see [Section 6.2](#)).
- The water level in the water pan should be 10 mm to 15 mm high ([Figure 6.4d](#)).
- At this level, the water pan holds approximately 9 liters of water.
- See [CV-222-L](#) for information on adjusting the water level.

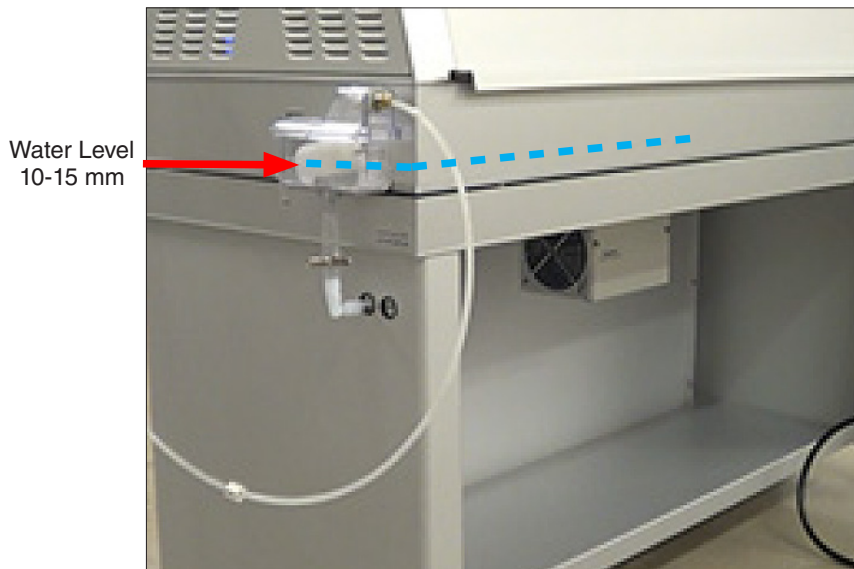


Figure 6.4d: Water level for all models without spray.

QUV/spray

Supply Connections

- The QUV/spray water supply connects to the solenoid valve assembly at the left rear of the tester.
- There are no QCT models with water spray.
- Three options are available to connect the water supply to the QUV/spray (see [Figure 6.4e](#) through [Figure 6.4g](#)).
 1. Connect a ½" supply hose over the supplied hose barb and secure it with a hose clamp.
 2. Connect a ½" supply tube into the push lock elbow.
 3. Connect a ½ mm supply tube using the supplied tube adapter (Part # U-40816-X, 230 V testers only).
- Connections between QUV/spray and the water supply should be stainless steel or plastic.



Connection Location

Hose Barb for
½" Inch Hose

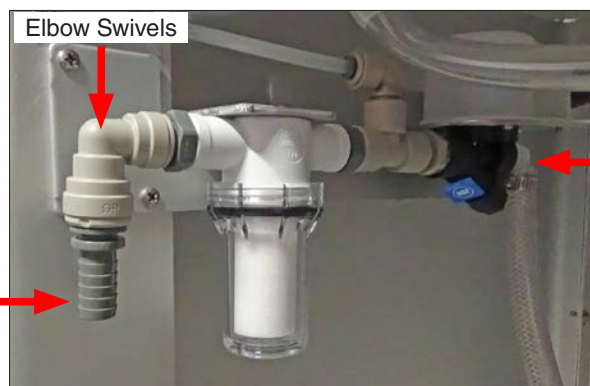


Figure 6.4e: Hose barb for ½" inch water supply hose.

Push Lock Elbow
for ½" Inch Tubing



Figure 6.4f: Push lock elbow for ½" water supply tube

Adapter for
12 mm Tubing



Figure 6.4g: Tube adapter for 12 mm water supply tube.

QUV/spray/rp (Integrated Repurification System)

Supply Connections

- Connect a 6 mm (1/4") water supply tube to the union tee on the water feed assembly (Figure 6.4h).
- Connections between QUV/spray and the water supply should be stainless steel or plastic.

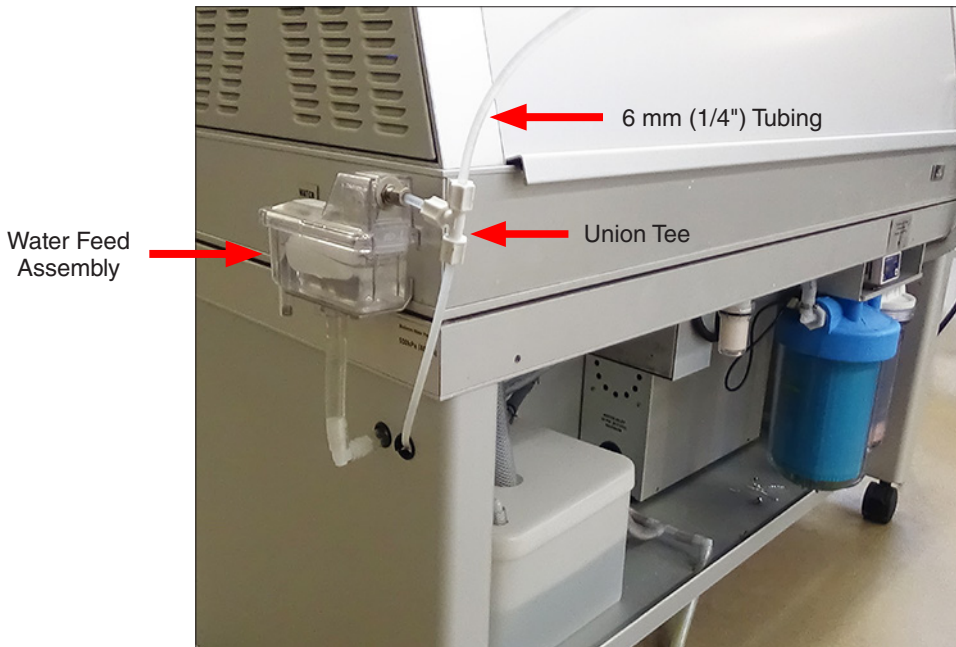


Figure 6.4h: Water supply connection for QUV/spray/rp testers.

Water Level Adjustment - All Spray Models

- Level the QUV tester.
- The water level in the water pan is normally 10 mm to 15 mm, except after a spray step when it will be 25 mm (Figure 6.4i).
- See CV-222-L for information on adjusting the water level.



Figure 6.4i: Normal and after-spray water levels.

Purity

- **IMPORTANT:** The tester **warranty is voided** if water purity requirements are not met.
- QUV models with water spray require much higher water purity than testers with no water spray.
- [Figure 6.4j](#) lists water purity requirements for all testers.

Model	Pressure	Condensation Volume	Spray Volume	Resistivity	Conductivity	Total Dissolved Solids	pH
QUV/spray	45-80 psi* (280-550 kpa)	5.0 liters/day	7.0 liters/min	>200k Ω•cm	<5.0 μS/cm	<2.5 ppm	6-8
QUV/spray/rp	2-80 psi (20-550 kpa)		7.0 liters/min**				
QUV/se QUV/cw QCT	2-80 psi (20-550 kpa)		NA	Tap Water			
QUV/uvc	Water Not Required.						

Figure 6.4j: Water Purity Requirements

- * The system pressure must be ≥ 45 psi when a spray step is running.
The system pressure is typically higher when there is no flow and then drops when the flow is on.
- ** For QUV/SPRAY/RP systems actual water use is 0 liters/min because all the spray water is recirculated.

- The reverse osmosis / deionized (RO/DI) water system shown in [Figure 6.4k](#) produces water pure enough for spray systems.
- **This type of RO/DI system is required for water spray in QUV testers.**



Important: Use Type I, not Type II anion in the mixed bed tanks of the RO/DI system.

The Strong Base **Type I** Anion resin in the mixed bed tanks is the most important part of these systems to prevent water spotting. This is because strong base Type I anion resin is the only resin that can effectively remove suspended silica. **Suspended silica is the major cause of specimen spotting.** Type I anion is much better at removing suspended silica than Type II.

Unfortunately, Type II is the most common anion. So be sure to insist that your water purification supplier installs Type I, not Type II. The cost for Type I anion is about the same as Type II. Note that Type I anion is only necessary in the mixed bed “polishing” stages of the deionization, not in the initial “rough” purification stages.

Reverse Osmosis / Deionization System

- Figure 6.4k below shows an effective Reverse Osmosis / Deionized Water System with Anion Type I Resin for spray water silica removal.
- For information on water purification systems, contact the Life Science business of Merck KGaA, Darmstadt, Germany. The Life Science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the USA and Canada.

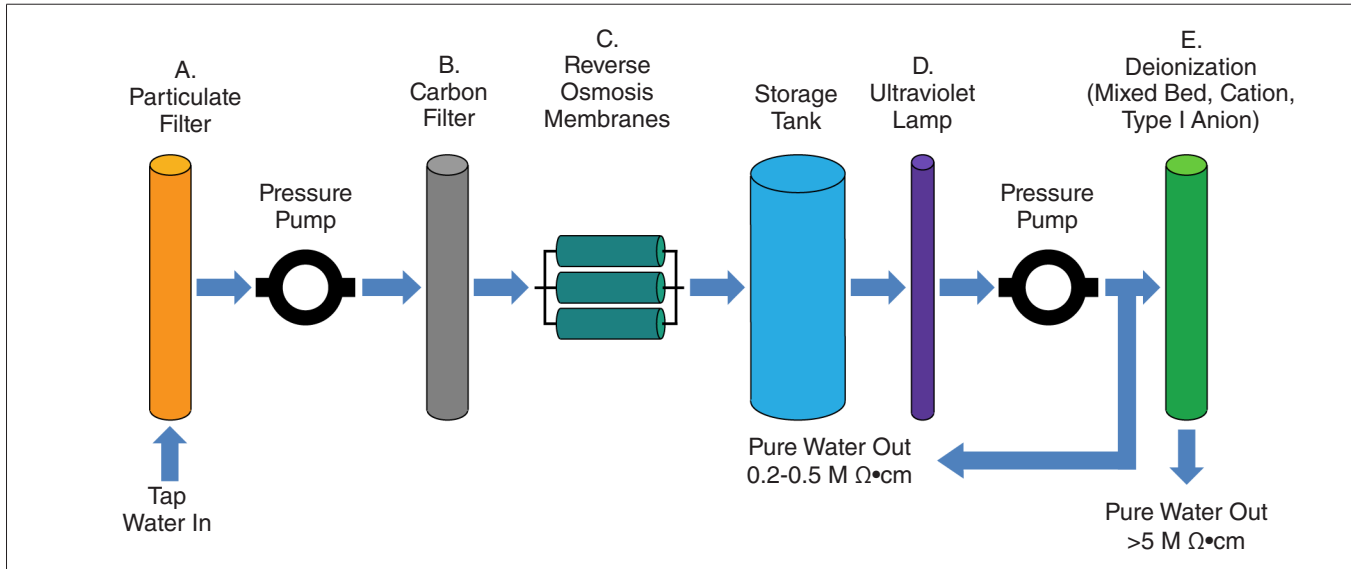


Figure 6.4k: Reverse Osmosis / Deionized water system.

- Additional RO/DI system information is shown below.

Stage	Purpose	Outgoing Purity	Notes
A. Particulate Filter	Remove small particles		Replace once per year
B. Carbon Filter	Remove chlorine		Replace once or twice per year
C. R/O Membranes	Remove dissolved solids, colloidal silica, organic and biological contaminants	0.2-0.5 M Ω•cm	Rough purification stage
D. Ultraviolet Lamp	Disinfect water		Rough purification stage
E. Mixed Bed Tank	Final polishing to remove positively and negatively charged ions	> 5 M Ω•cm	Final polished water purity

Drains

Water Pan Cleaning Drain (All Models Except QUV/uvc)

- Turn off water supply and unclamp the water pan cleaning drain to empty the water pan (Figure 6.4l).

Water Feed Overflow Drain (All Models Except QUV/uvc)

- The 12 mm (1/2") supplied hose should be connected to the water feed overflow drain and run to a floor drain (Figure 6.4l).

Water Pan Drain (QUV/spray)

- 32 mm (1-1/4") drain hose supplied.
- Connect to the fitting under the water pan and secure with a hose clamp (Figure 6.4m).

Repurification System Drain (QUV/spray/rp)

- 12 mm (1/2") drain hose supplied. Connect to the repurification system drain and run to a floor drain (Figure 6.4n).



Figure 6.4l: QUV/basic, QUV/se, QUV/cw, QCT

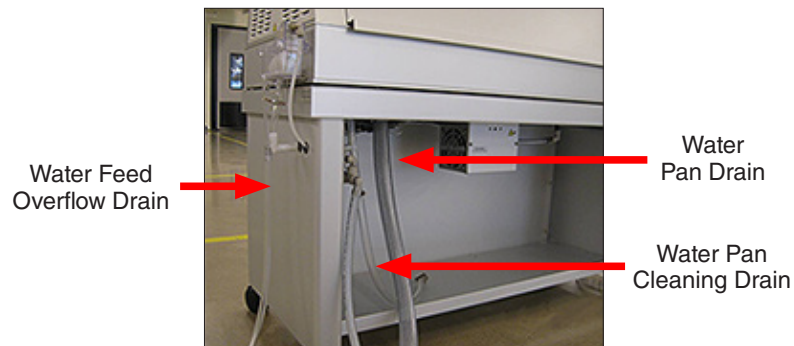


Figure 6.4m: QUV/spray

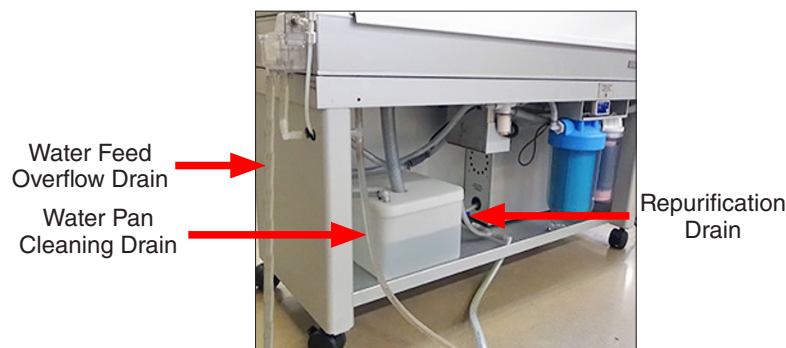


Figure 6.4n: QUV/spray/rp

7. Start Up

Overview



All set up tasks detailed in [Section 6](#) *must* be performed prior to starting the tester.
See *LU-8047-TM QUV Technical Manual* for a complete guide to the operation of QUV SOLAR EYE weathering testers.
See *LU-8047B-TM QUV Technical Manual* for a complete guide to the operation of the QUV/basic weathering tester.
See *LC-0875-TM QCT Technical Manual* for a complete guide to the operation of QCT condensation testers.

7.1 QUV Specimen Mounting (Apr 2022)

- The QUV specimen mounting system is highly adaptable.
- The standard QUV panel holders are designed to hold 75 mm × 150 mm (3 × 6 inch) panels.
- Optionally available are 100 mm (4") or 150 mm (6") wide holders.
- Three dimensional (3D) parts can also be mounted in a variety of available mounting boxes.
- For complete specimen mounting information see [Specification Bulletin LU-8001, QUV Specimen Mounting Guidelines and Available Holders](#).

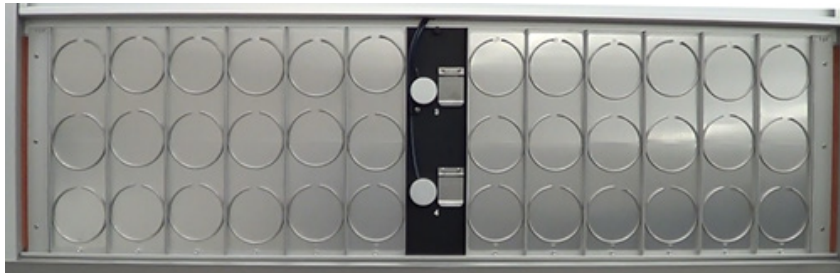


Figure 7.1a: 75 mm (3") wide holders mounted on QUV/se.

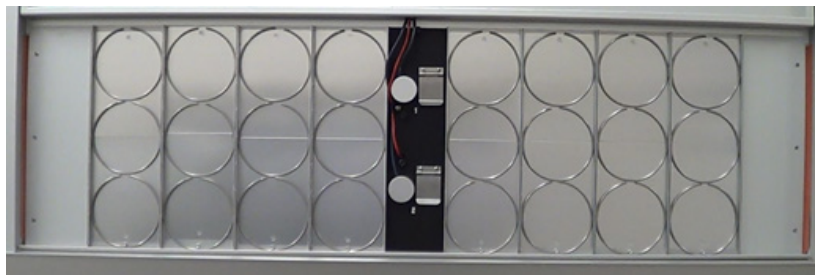


Figure 7.1b: 100 mm (4") wide holders mounted on QUV/se.

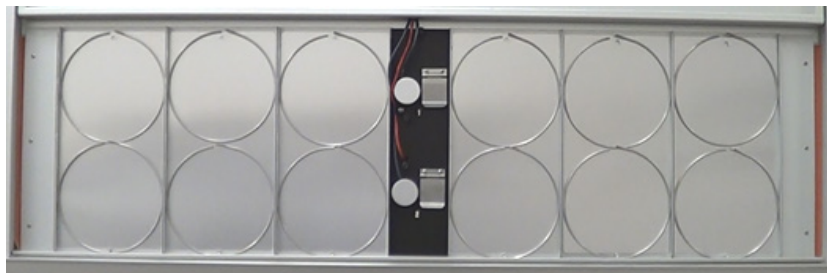


Figure 7.1c: 150 mm (6") wide holders mounted on QUV/se.

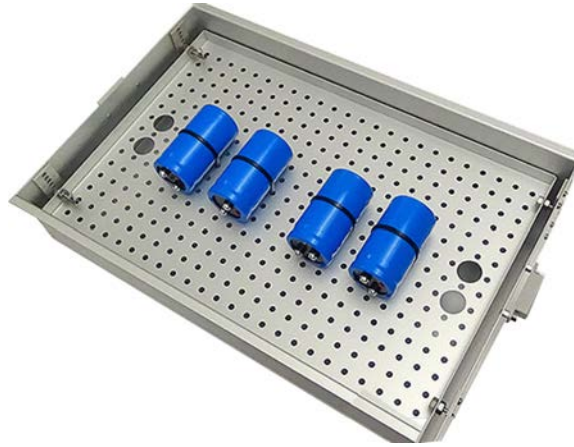


Figure 7.1d: Quadrant boxes with adjustable mounting trays hold large 3D specimens.

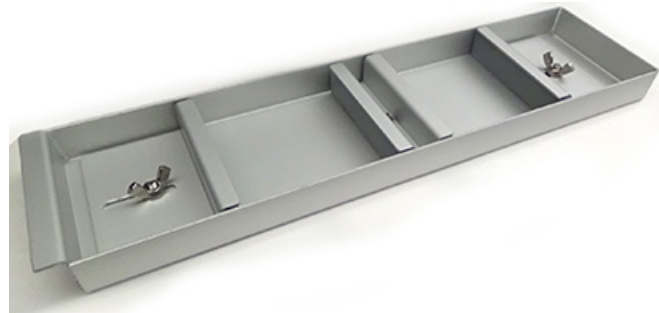


Figure 7.1e: Narrow 3D specimen holder with clamps.



Figure 7.1f: Wide 3D specimen holder with clamps.

7.2 QUV SOLAR EYE Models Control Panel (Apr 2022)

- The power switch is located on the rear of the tester (Figure 7.2a).
- Two touchscreen displays provide for control and monitoring of tester operation (Figure 7.2b).
- The Menu Screen (Figure 7.2c) is a control interface that provides functions for setting up and running test cycles, calibration of sensors, viewing diagnostic information, and display of error messages.
- The Status Screen (Figure 7.2d) displays test setup parameters and provides real-time data on actual test conditions.



Figure 7.2a: Power switch located on rear of tester.

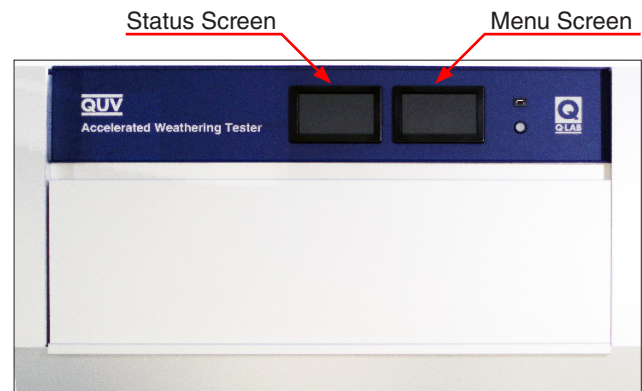


Figure 7.2b: Touchscreens located on front of tester.



Figure 7.2c: Menu screen displaying the main menu.

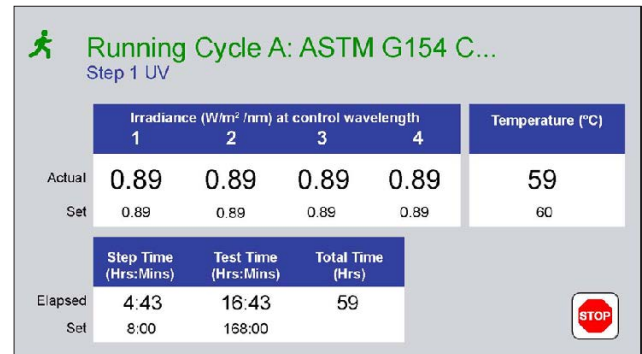


Figure 7.2d: Status screen displaying typical operating conditions.

7.3 QUV/basic Control Panel (Apr 2022)

- The power switch is located on the rear of the tester (Figure 7.2a).
- The control panel includes LCD displays and keypad to monitor and control all tester functions (Figure 7.3a).
- Test setup parameters and real-time data on actual test conditions are displayed (Figure 7.3b).
- The status and message display shows keypad input as well as diagnostic information and messages (Figure 7.3c).
- The keypad is used to enter all input required for tester operation.

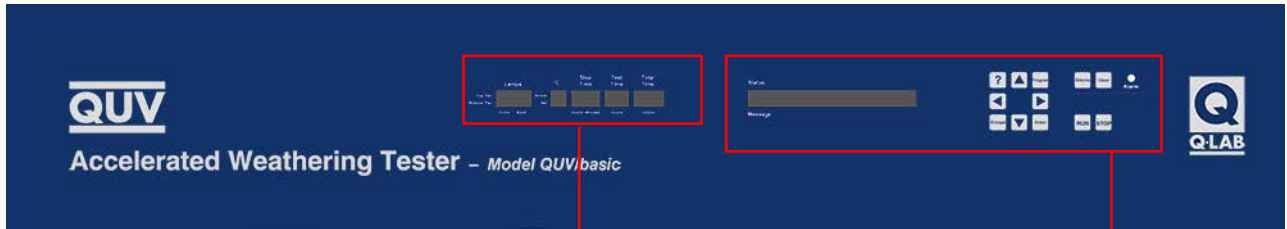


Figure 7.3a: Full control panel.

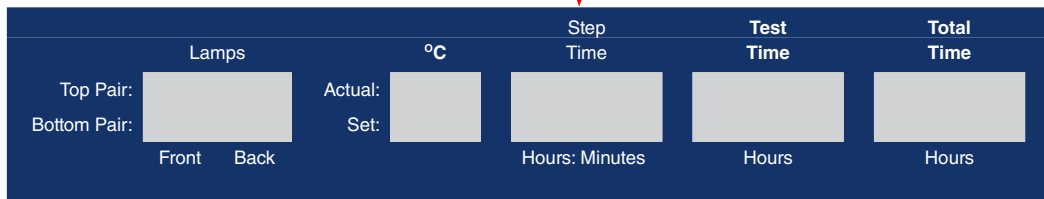


Figure 7.3b: Lamp, temperature, step time, test time, and total time display.

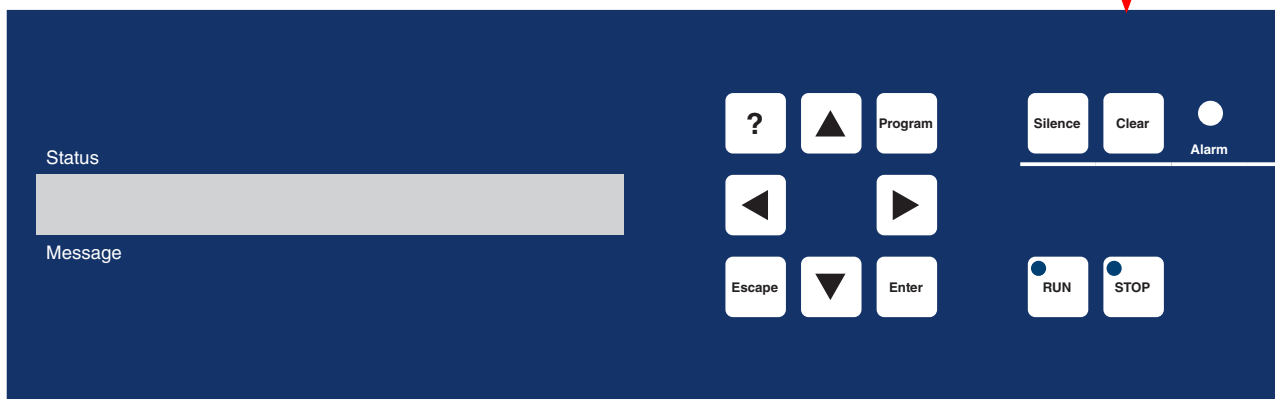


Figure 7.3c: Keypad and Status / Message display.

7.4 QCT Specimen Mounting (Apr 2022)

- Standard panels, or other flat specimens, are mounted on the support bars at the front and back top of the tester (Figure 7.4).
- Maximum capacity is sixty-two (62) 3 × 6" (75 × 150 mm) standard panels or forty-eight (48) 4 × 6" (100 × 150 mm) standard panels.
- All panels should be carefully butted together for a good seal between adjacent panels with no gaps.
- Condensation will seal gaps at the tops and bottoms of the panels.



Figure 7.4: Panels mounted on QCT.

7.5 QCT Control Panel (Apr 2022)

- The QCT power switch (Figure 7.2a) and function controls are located at the lower front of the tester.
- The condensation thermostat (Figure 7.5b) is used to set condensation temperature.
- The dry-off heat control (Figure 7.5c) is used to set dry-off temperature.
- The cycle timer (Figure 7.5d) is used to set timing for both the condensation and the dry-off functions.

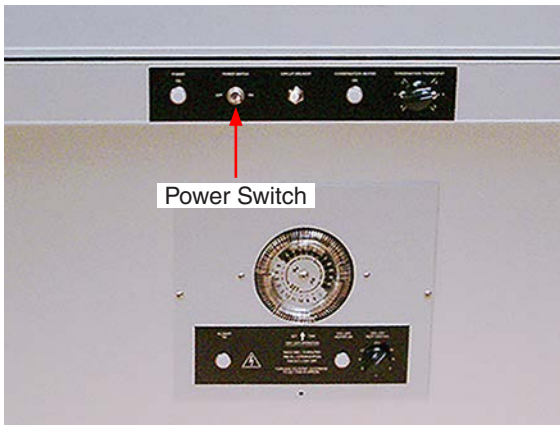


Figure 7.5a: The power switch is located on the front of the tester.

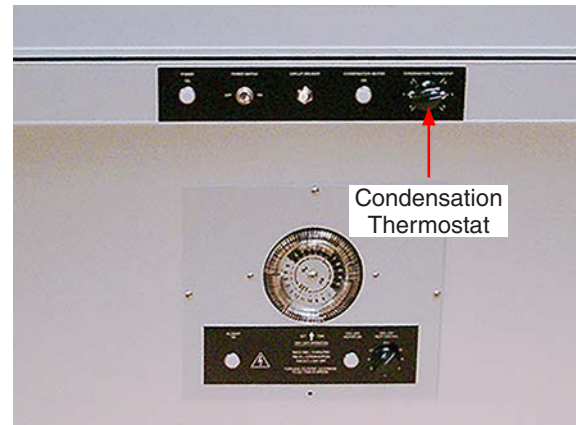


Figure 7.5b: Condensation thermostat location.

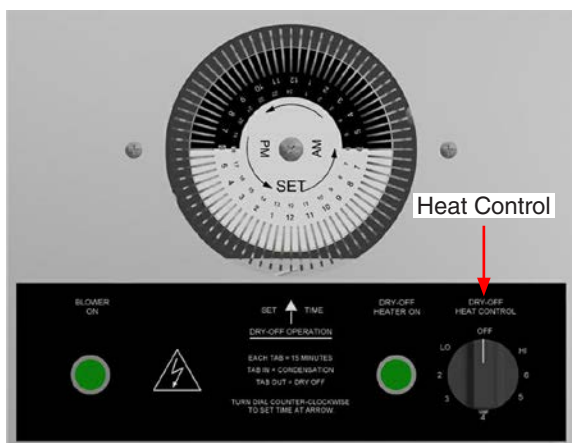


Figure 7.5c: Dry-off heat control, heater on indicator, and blower on indicator.

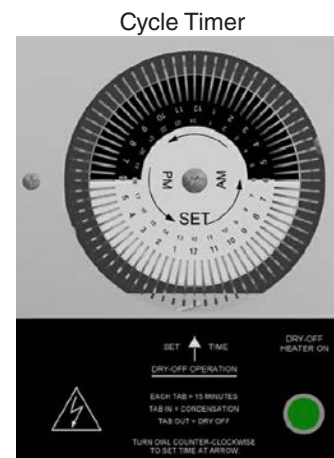


Figure 7.5d: The cycle timer is used to set the time for condensation and dry-off.

8. Repair and Tester Support (Jul 2020)

- Repair and Tester Support is available over the telephone Monday through Friday from 8:30 AM to 5 PM.
- Please contact the nearest international branch office by phone or email for technical support.
- You can also visit our website at [Q-lab.com](https://www.q-lab.com) to register your tester to access additional useful troubleshooting guides, operating manuals, and technical information.



For sales, technical, or repair support, please visit:

[Q-Lab.com/support](https://www.q-lab.com/support)

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