Universal Calibrator (UC) System
For Calibrating Irradiance and Temperature in QUV & Q-SUN Weathering Test Chambers

Overview
The Universal Calibrator system (UC) is a revolutionary, handheld device for calibrating temperature and irradiance across all Q-Lab weathering chambers. It utilizes inexpensive, modular, and disposable “smart sensors” to simplify calibrations and dramatically lower operating costs over competing approaches.

Features and Benefits
- Single, handheld touchscreen unit (UC1) with 7” color TFT touchscreen allows 8 user-selectable languages
- Modular irradiance and temperature smart sensors minimize total operating costs
- A single irradiance smart sensor (340 nm, 420 nm, or TUV) can calibrate multiple optical (UV) filter configurations
- Inexpensive smart sensors are designed to be disposable or may be recalibrated (ISO 17025 accredited certificates provided in both cases)
- Convenient on-screen reminders to replace (or recalibrate) smart sensors when due

How the UC Works
The UC system is designed to calibrate the on-board irradiance and temperature sensors in any QUV or Q-SUN weathering chamber equipped with SOLAR EYE irradiance control. The system consists of a UC1 handheld touchscreen display and various smart sensors. The UC1 is powered from the test chamber and never needs to be calibrated. An on-board battery in the UC1 maintains date, time, and language preferences when unplugged. Individual irradiance or temperature smart sensors retain calibration data and are automatically recognized by the UC1 when connected.
**Universal Calibrator Available Part Numbers:**

<table>
<thead>
<tr>
<th>Tester Model</th>
<th>Description</th>
<th>Name</th>
<th>Color Code</th>
<th>Used For</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Handheld Display</td>
<td>UC1</td>
<td></td>
<td>All Smart Sensors</td>
</tr>
<tr>
<td>QUV</td>
<td>Irradiance Smart Sensor</td>
<td>UC10/UV</td>
<td></td>
<td>UV 313/340/351 lamps</td>
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<td></td>
<td></td>
<td>UC10/CW</td>
<td></td>
<td>UV Cool White (Lux) lamps</td>
</tr>
<tr>
<td>Q-SUN</td>
<td>Irradiance Smart Sensor</td>
<td>UC20/340</td>
<td></td>
<td>Xenon arc lamps 340 nm control¹</td>
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<td></td>
<td></td>
<td>UC20/420</td>
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<td>Xenon arc lamps 420 nm control²</td>
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<td>Temperature Smart Sensor</td>
<td>UC20/TUV</td>
<td></td>
<td>Xenon arc lamps TUV (300-400 nm) control²</td>
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<td></td>
<td>UC20/LUX</td>
<td></td>
<td>Xenon arc lamps Lux control</td>
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<td></td>
<td></td>
<td>UC202/IBP</td>
<td></td>
<td>Uninsulated Black Panel</td>
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<td></td>
<td></td>
<td>UC202/BP</td>
<td></td>
<td>Insulated Black Panel (aka Black Standard)</td>
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</tbody>
</table>

**Notes:**
1. A single UC20/340 smart sensor replaces multiple CR20/340 units (Q, QB, D, BBF, BSL, and W)
2. A single UC20/TUV smart sensor replaces both the CR20/TUV and TUV/IR.

**Smart Sensor Recalibration/Replacement**

Calibration with the UC system is designed to simplify the entire calibration process. As a smart sensor nears its next calibration date, it will notify the user. Inexpensive smart sensors are designed to be disposable, in order to minimize shipping costs and tester downtime. Alternatively, smart sensors may be sent to Q-Lab for recalibration. The UC1 is a simple display that never requires calibration. All calibrations are accredited and performed in accordance with ISO 17025.

**UC1 Touchscreen Display**

The UC1 7" color touchscreen display further simplifies the calibration process through convenient drop-down menus to select tester, lamp, and optical filter configurations. Users can select one of eight languages (English, German, French, Spanish, Italian, Chinese, Korean, and Japanese) for UC1 operation.

**Warranty**

The Universal Calibrator System and Smart Sensors are guaranteed against defects in workmanship or materials for one year. Liability is limited to replacing or repairing any part or parts which are defective in materials or workmanship and are returned to our factory, shipping costs prepaid. Liability in all events is limited to the purchase price paid. Damage due to accident or abuse is not covered. Labor and travel costs are not covered. Q-Lab Corporation makes no other warranties, including implied warranties of merchantability or fitness for a particular purpose, except as may be expressly provided by Q-Lab Corporation in writing. Q-Lab Corporation shall not be liable for any incidental, consequential, special, or contingent damages arising out of the sale or use of any product.

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