## CALIBRATION STANDARDS (PART# TC3811)

Two light transmission test standards accompany each meter. The standards have VLT values of approximately 27% and 59%. The actual calibrated value of each standard is indicated on each sample. The standards were created using a NIST traceable source. Use the standards to verify that your meter measures the VLT values within +/- 2% of their indicated values. You should regularly verify that your meter is operating within specifications. Before using the standards, ensure they are clean and not scratched. Blow off any dust that may appear on the surface, and remove any finger prints with a micro-fiber cloth. If the meter measures outside the +/-2% range, please inspect the cleanliness of the reflector area of the REFLECTOR unit, and use compressed air to blow off the back side of the INSTRUMENT unit as well. If problems still exist, contact the manufacturer for a possible solution.



When testing with the calibration standards, conduct your measurement in the same manner as testing an actual window. When not in use, store the calibration standards in the re-sealable bag they were packaged in, and keep them inside the carrying case for best protection. If the calibration standards become scratched or

damaged, replacement sets can be ordered from the manufacturer. The part number for the replacement standard set is TC3811.



SPECIFICATIONS
Wavelength 550 Nanometers
Resolution 0.1%
Accuracy+/- 2 Percentage Points
Repeatability 1 Percentage Point
Measurement Range 0 to 100% Light Transmission
Operating Temperature 0 F to 122 F (-17 C to +50 C)
Storage Temperature4 F to 158 F (-20 C to +70 C)
Light sourceLED
Powered by 9V Alkaline Battery (Supplied)
Sample Thickness 0 to 0.25 inches (0 to 6.5 mm)
Minimum Sample Size 1 inch x 1 inch (25 x 25mm)
Instrument Dimensions 5.1 x 2.6 x 2.0 inches (130 x 65 x 52mm)
Instrument Weight 0.78 pound (0.35kg)

#### BATTERY REPLACEMENT

This instrument is powered by a single 9-volt alkaline battery (included). When the battery voltage is getting low, the battery indicator will illuminate. The instrument is still operable at this point, however it is recommended that the battery be replaced soon. Alkaline batteries are recommended for this product.

#### WARRANTY

The manufacturer warrants all models of the TC3800 to be free from defects in material and workmanship under normal use and service as specified within the operator's manual. The manufacturer shall repair or replace the unit within twelve (12) months from the original date of shipment after the unit is returned to the manufacturer's factory, prepaid by the user, and the unit is disclosed to the manufacturer's satisfaction, to be thus defective. This warranty shall not apply to any unit that has been repaired or altered other than by the manufacturer. The aforementioned provisions do not extend the original warranty period of the unit which has been repaired or replaced by the manufacturer. Batteries are not covered by warranty.

The manufacturer assumes no liability for the consequential damages of any kind through the use or misuse of the TC3800 product by the purchaser or others. No other obligations or liabilities are expressed or implied. All damage or liability claims will be limited to an amount equal to the sale price of the TC3800, as established by the manufacturer.

# **USER GUIDE**

## TINT-CHEK PRO

Model# TC3800

The TINT-CHEK PRO Window Tint Meter tests the Light Transmission % (VLT) of automotive windows, as well as flat glass applications. The two-piece design allows for testing of the windshield, as well as rear and side windows. The two piece instrument consists of a REFLECTOR unit and an INSTRUMENT unit that self-calibrates at start-up. The INSTRUMENT unit contains all of the electronics and is battery powered. The REFLECTOR unit does not contain any electronics and simply houses the reflector and magnets to help in aligning the two enclosures together for measurements.





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## **Quick-Start Directions**

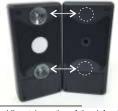
- Clean the window area being tested. Dirty glass can affect the accuracy of your results.
- Place both units of the instrument together, back-to-back, with no glass between them. Allow the magnets to help align the two units, and then turn the power on.
- Wait for the instrument to register a value of 100% on the display, and then pull the two instrument halves apart.
- Place the reflector unit on the inside of the window being tested. Push the reflector enclosure FIRMLY against the window so the suction cups secure the enclosure in place.
- Place the instrument unit on the exterior of the window being tested. Again allow the magnets to help align the two instrument halves.
- Once the instrument unit is in position, momentarily press and release the power switch to view the Light Transmission results (VLT value).
- 7. After registering the VLT value, remove the instrument from the window and it will automatically power off, clearing your VLT value from the display after a short delay. Repeat the process from Step 1 if you would like to confirm the a ccuracy of your previous measurement.





## **OPERATING TIPS**

Make sure the two enclosures fit together properly when you begin. The edges of the suction cups should not be bent or altered in any way. You will notice the felt pads on the back of the enclosures are contoured so they do not touch the suction cups when the two enclosure halves are placed together properly.



When testing the rear window of automobiles, take notice of the defrost lines that are printed on the interior of the window. Suctions cups will NOT stick if they are positioned on the defrost lines. If you can not find a location where both suction cups will miss the defrost lines, rotate the reflector unit 90 degrees to position both suction cups in between the lines.



When your instrument is not being used, please store it in the carrying case that was included. This will protect the product and keep it from getting damaged or dirty while being stored. As with any test equipment, we do not recommend storing the instrument in your automobile overnight during extreme temperature seasons.

If at any time during the operation of the instrument you want to power the unit off, press AND HOLD the power switch and the unit will shut off.

## OPERATING TIPS . . . Continued

The reflector area must be properly maintained in order for the instrument to continue providing accurate results. Use compressed air to blow off any dust that may accumulate over time. If there are smudges on the reflector that can not be removed by air, use a micro-fiber cloth to wipe the lens clean.





#### TROUBLESHOOTING

Incorrect usage or the encounter of unexpected conditions while testing can result in the following ERROR CODES:

- E1: The measured VLT value is LESS THAN the allowed percentage. The E1 error may occur if the instrument is not properly aligned with the reflector at start-up or during the actual measurement. It can also occur if you take a measurement without placing it on glass, or are holding the instrument away from the glass surface or in free air. To fix this problem, turn the instrument off and make sure it is properly aligned with the reflector, with no glass in between the two enclosures. Now turn the instrument on and conduct a new test
- E2: The measured VLT value is **GREATER THAN** the allowed percentage. The E2 error may occur if the instrument is not properly aligned with the reflector at start-up, or placed against a different surface other than the reflector at start-up. To fix this problem, turn the instrument off and make sure it is properly aligned with the reflector, with no glass in between the two enclosure. Turn the instrument on and conduct a new test.
- E3: The starting value that was obtained on the reflector unit to calibrate the device at 100% was different than expected. Make sure you properly align the two enclosures at start-up. Also make sure the lens of the reflector is clean. Use compressed air to blow off dust, or a micro-fiber cloth to remove smudges.