

## BATTERY REPLACEMENT

The instrument is powered by a 9-volt alkaline battery (supplied). The instrument will notify you when the battery is starting to get low. The meter will continue to operate, as this is just a warning that you will need to replace the battery in the near future. Once the battery has reached a level that is too low, the instrument will lock up the display with a "REPLACE BATTERY" message. To access the battery, remove the battery cover and replace with a new 9-volt alkaline battery. If the unit is going to be stored for more than a month without use, we recommend removing the battery during storage.

## USE / MIS-USE

Do not tamper with the enclosure of the instrument. Opening the enclosure WILL affect the calibration of the instrument AND will void the warranty.

Do not apply excessive force to the switch. Doing so could affect the performance of the instrument, especially if excessive force is applied during testing.

The instrument has been calibrated for testing Guardian Bird1st coatings. Testing of materials other than those listed is not warranted to produce the correct test results. If you have a custom application, consult the factory to find out if the product is applicable.

## WARRANTY

The manufacturer warrants the electronics included in all models of the RD1880 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, enclosures, lenses and front panel interface components are not covered by warranty.

EDTM, Inc. assumes no liability for the consequential damages of any kind through the use or misuse of the RD1880 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 RD1880, as established by EDTM, Inc.

## OTHER PRODUCTS FROM EDTM, INC.



**Glass & Air Space  
Laser Meters +  
Identify Low E Type  
(Model# GC3200)**



**ShowerGuard  
Coating  
Detectors  
(Model# RD1661)**



**Tin Side  
Detectors  
(Model# TS1320)**

# GUARDIAN® BIRD1ST™

## DIGITAL Coating Detector

MODEL# RD1880

MADE IN THE USA

### OPERATOR'S MANUAL

The Bird1st Coating Detector allows the user to easily identify the coated side of a piece of Bird1st glass. The meter can test glass in the tempered or annealed state in production, and can also test the glass once it has been installed to confirm proper installation. Simply place the meter against the glass surface and slide the meter across the glass. The results will be displayed on the LCD screen. The instrument includes a MENU button that allows the user to recalibrate the meter. Repeatedly pushing the MENU button will scroll through all of the available options of the meter. When you find the option you desire, simply push the Power/Select button and your selection is made.



### FEATURES

- Identify the coated side of the glass
- Identify the number of coated/uncoated interfaces
- Able to recalibrate the instrument in the field
- Backlit LCD display for testing in any light condition
- User-friendly LCD display operation with step-by-step directions on how to use
- "OPTO-CLEAN" error protection against dirty glass and dirty lens on the meter
- Powered by standard 9-volt alkaline battery (included)
- Automatic power-down feature to extend battery life



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## OPERATION

Bird 1st coatings by design do not have a consistent coating across the entire surface of the glass. There are interfaces that transition from coated to uncoated surfaces. Therefore it is necessary to slide the meter horizontally across the glass to detect the coating. It may be necessary to test in the vertical direction if coating is not detected in the horizontal direction. The meter will not test the opposite side of the glass, but rather only the side you are in contact with.

To begin, make sure the glass you are testing is clean. Dirty glass or dust and dirt on the surface of the glass can affect the results of your test. Also make sure the lens on the back side of the meter is clean. To turn the instrument on, press the momentary power switch on the front of the meter. The display will direct you to place the meter on the glass you want to test. While the meter is off of the glass the display will scroll between two screens displaying "KEEP FLAT, SLIDE ACROSS" and "GLASS SLOWLY <- SLIDE ->". This message appears when the meter does not detect the presence of glass.

When you are ready to begin testing, place the meter on either the left or right side of the glass, with the back of the meter pressed flat against the glass. Once the meter detects glass, the display will switch to "SLIDE SLOWLY <- ->". Please slide the instrument slowly across the glass horizontally in one direction, either to the left or to the right. DO NOT CHANGE DIRECTION. Ensure that as the instrument slides slowly across the glass that the back of the instrument stays flat on glass. As you slide, the meter will register the transitions between the coated and uncoated areas, and that number will appear on the bottom left of display. Once the meter registers 3 transitions the display will change to a positive indication of "SURFACE IS COATED" and will continue to count the transitions.

**\*\*PLEASE NOTE:** When you remove the meter from the glass, the measurement results will be cleared from the display.

If there is no Bird 1st coating detected, there will be no transitions noted on the display, and the display will stay on "SLIDE SLOWLY". If you have moved the meter horizontally across the entire surface of glass, and the display still says "SLIDE SLOWLY", then the glass surface does NOT contain the Bird 1st coating.

To conduct a new measurement, simply place the meter on the next glass surface and begin sliding the meter across the glass. There is no need to reset the meter or power it off, as the instrument intuitively knows you are moving on to the next measurement.

## MENU

Press and release the Menu button to enter into the calibration mode or to select either the previous calibration or the factory calibration. Continue to press the MENU button to scroll through the following MENU options. When you find the desired option, push the POWER/SELECT button to select it.

### **CALIBRATE**

If the warning message on the display has encouraged you to recalibrate, or you would like to perform this function, select this option in the MENU. Before beginning, be sure to clean the back lens of the meter, and find a clean sample of the Guardian Bird 1st coating. To complete the calibration, follow the instructions on the display to take a measurement on the Guardian Bird 1st sample. The meter will indicate if the calibration was successful or not. If the calibration was not successful, the display will show you what error occurred during the calibration process. If an error occurs, check to see that the meter lens is clean, and that your Guardian Bird 1st sample is valid and clean.

### **USE PREV. CAL**

If you do not like the new calibration that you performed, you can restore the previous calibration that was stored in the instrument.

### **USE FACTORY**

If you want to return the meter to the calibration that was originally shipped in the meter as new from the factory, make this selection.

## TEST RESULTS

One of the following screens will appear after a successful test:

**SURFACE IS COATED:** Surface 1 contains Guardian Bird 1st coating  
**SLIDE SLOWLY:** Guardian Bird 1st coating has not been detected on surface 1

Please note, the meter will make NO attempt to identify any coatings on surface #2.

### **"PLEASE CLEAN BACK LENS"**

This message will appear if the meter has determined that its back lens may be dirty. Simply use compressed air to blow off any dirt or dust from the back lens of the meter. This message is the first level of warning that your meter may need to be cleaned.

### **"MUST CLEAN BACK LENS"**

This message is the second level of warning that indicates the meter has a back lens that needs to be cleaned. The validity of your test results could be affected soon. Clean the back lens of the meter.

### **"MUST CLEAN AND/OR RECAL"**

If the meter has been neglected and the back lens has continually been degrading in cleanliness, this message will appear. Once this message appears, the validity of test results would be jeopardized, and the meter will NOT allow test results to be shown. Before any re-calibration is performed, it is pertinent that the back lens of the meter is cleaned first. This may be all that is needed to get the meter performing correctly again. Try cleaning the lens first and then test the meter again. If the same warning message appears, then it is necessary to recalibrate the instrument. Find a clean sample of Guardian Bird 1st glass and choose RECALIBRATE in the MENU system. Before re-calibrating, make sure the glass sample is valid and clean.

### **"KEEP FLAT, SLIDE ACROSS GLASS SLOWLY <- SLIDE ->"**

If you pick up the meter or the instrument is not setting flat against the glass during the test, this message will occur. The instrument is monitoring the measurement and if it determines that the meter has been pulled away from the surface of glass, it will display this message. Place the meter back on the glass to start a new test.

## MISCELLANEOUS

### **POWER**

If the user wants to turn the power off manually, you need to press AND HOLD the power button for 2 seconds. After 2 seconds the powering-down screen will appear, and the meter will begin its countdown to shutting off. You must continue to hold the button down during the countdown to complete the powering off sequence. If you let up on the button too early, the instrument will resume operation.

The instrument also has a built-in timer that will automatically power down the product if no button presses occur for approximately 2 minutes. This energy conservation design helps to extend the life of the battery in the instrument in case the user forgets to turn it off. To turn the meter back on, simply push the button.

### **MAINTENANCE**

You should occasionally inspect the cleanliness of the viewing window on the back side of the meter. If you see dust or dirt in the window, please use compressed air to blow it off. If you begin receiving a large number of error messages during your testing, this may be a sign that the back window needs cleaned. If there are smudges on the window that do not clean off with compressed air, use a soft lint-free cloth to wipe the lens. Always use compressed air first to remove any particles that may scratch the surface of the lens.