RapidMatch™ GO

User Guide

x·rite

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Compliance Information

To view E label Compliance information for WiFi devices, choose Settings > Device Information > Device Label

CE Declaration

Hereby, X-Rite, Incorporated, declares that this model is in compliance with the essential requirements and other relevant provisions of Directive(s) EMC Directive 2014/30/EU, LVD 2014/35/EU and RoHS 2011/65/EU.

Models with WiFi:

CE Mark: Radio Equipment Directive (2014/53/EU) CE 1177

Zentri Module No. AMW106

CE Mark: Radio Equipment Directive (2014/53/EU) CE 1177
EN 300 328 V2.1.1
EMC : EN 301 489-1 V2.1.1, EN 301 489-17 V.3.1.1,
EN 55022:2010/AC:2011, EN 55024:2010
Health : EN 62311: 2008
Safety : EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013

Federal Communications Commission Notice

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are

designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Models with WiFi:

Zentri Module No. AMW106

FCC ID: LSV-TOPAZ

RF Exposure requirements for mobile and base station transmission devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operation at closer than this distance is not recommended. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

NOTICE:

Changes or modifications made to this equipment not expressly approved by X-Rite, Incorporated may void the FCC authorization to operate this equipment.

Industry Canada Compliance Statement

CAN ICES-3 (A) / NMB-3 (A)

Models with WiFi:

Zentri Module No. AMW106

IC ID: 20894-TOPAZ

RF Exposure requirements for mobile and base station transmission devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operation at closer than this distance is not recommended. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

NOTICE:

Changes or modifications made to this equipment not expressly approved by X-Rite, Incorporated may void the FCC authorization to operate this equipment.

Modèles avec Wi-Fi :

Module Zentri n° AMW106

ID IC : 20894-TOPAZ

Exigences en matière d'exposition aux radiofréquences pour les appareils de transmission (mobiles et stations de base) : une distance d'au moins 20 cm doit être maintenue entre l'antenne de cet appareil et toute personne pendant le fonctionnement. Afin d'assurer la conformité, il est déconseillé d'utiliser l'appareil à une distance inférieure à celle-ci. La ou les antennes utilisées pour cet émetteur ne doivent pas être installées ou utilisées conjointement avec d'autres antennes ou émetteurs.

REMARQUE :

Les changements ou modifications apportés à cet équipement sans l'autorisation expresse de X-Rite, Incorporated peuvent annuler l'autorisation d'utilisation de cet équipement accordée par la FCC.

Japanese Ministry of Internal Affairs and Communications (MIC)

Models with WiFi:

Zentri Module No. AMW106

R 201-150256

Equipment Information

Use of this equipment in a manner other than that specified by X-Rite, Incorporated may compromise design integrity and become unsafe.

To avoid discomfort, do not look directly into the measurement optics when the instrument is on.

No user serviceable parts in this product.

WARNING: This instrument is not for use in explosive environments.

Do not immerse the instrument in liquid.

Transportation: This product contains a lithium-ion battery. Should you need to ship this device, you may wish to consult published guidance documents by one or more of these organizations for advice on how to comply with the regulations: IATA, ICOA, IMDG & PHMSA. The battery contained in this device is 46g in weight, 3.6V, 2.15 Ah, and complies with the UN 38.3 tests in effect the year it was originally shipped.

The instrument is a sensitive measurement instrument. If the instrument experiences a drop, a calibration should be performed followed by a selftest before any measurements are taken to ensure the instrument is working properly. Refer to the Calibration section for information on performing a Calibration.

Instructions for disposal: Please dispose of Waste Electrical and Electronic Equipment (WEEE) at designated collection points for the recycling of such equipment.

Firmware Software Licenses

1. Firmware consists of source code of:
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   All rights reserved

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2. Acknowledgement:
   Independent JPEG Group License
   The Firmware uses source code under the IJG license

1. Packaging

- RapidMatch™GO instrument
- USB interface cabling
- Calibration reference
- Safety strap
- Screen protector
- Spare light seal
- Soft carrying case
- Docking station

2. Overview

3. Powering On

The power/measure button is used to initiate the instrument from a power off state. Simply press the button for about one second to turn on the instrument. If the instrument does not power up after pressing the power button, the battery may require charging. Refer to Charging the Battery section. The instrument is also powered on by plugging the USB cable into your computer's USB port.

Powering Off

The instrument turns off automatically after two hours of nonuse. It is not required to turn off the instrument manually.

When first powered up, the instrument goes through a startup procedure and displays a splash screen before the Home screen appears.

Splash Screen **Home Screen**

4. Charging the Battery

General

The battery for your new instrument comes in a low to medium charge state and should be charged before use.

Connect the USB cable to the instrument and your computer's USB port. Make sure that the USB cable is connected directly to the computer. A connection to a USB port of a keyboard or PC monitor or a bus-powered USB hub is not recommended. PC monitor or keyboard USB ports are low power USB ports.

During charging, the instrument switches on and indicates charging with a “lightning bolt” in the battery icon. The instrument will not power completely off while plugged into the computer USB port, however, it will go into standby mode. This is indicated by a blue pulsing LED.

A full charge from empty will take approximately 6 hours connected to a computer USB port. Alternatively a standard USB charger can be used.

The charging time will not be reduced with a standard USB charger.

A USB charger with at least 500 mA is required. A standard charger with 1 A will not charge any faster.

Battery Icon Information

This icon at the top of the screen would indicate the battery is fully charged.

This icon at the top of the screen would indicate the battery has a sufficient charge for a substantial number of measurements.

This icon at the top of the screen would indicate the battery pack is low, but measurements are still possible. Battery should be charged soon.

The “lightning bolt” in the center of the icon at the top of the screen indicates the battery is charging.

Battery status is also reported in the Device Information menu item of the Settings window.

5. Measure Button

The measure button (1) is located on the side of the instrument. This is the same button that is used to power on and off the instrument. You can also tap the center of the screen (2) to initiate a measurement.

NOTE: In case of a firmware crash, this button acts as a RESET button. Remove the USB cable, press and hold the button for 10 seconds and then release. The instrument will turn off. Refer to the Troubleshooting section for additional information.

6. Contact Sensors, Indicators and LEDs

The indicators in the screen are arranged in the same pattern as the contact sensors located around the measurement port.

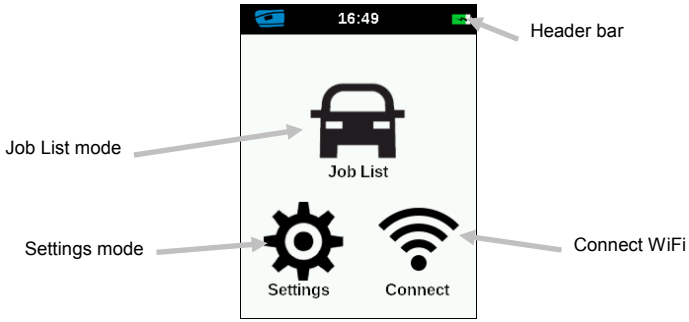
- **Green Indicator:** ideal contact is being applied to the corresponding sensor. A measurement can be taken when all three indicators illuminate green.
- **Red Indicator:** the required contact is not being applied to the corresponding sensor. Correct contact must be applied to achieve a green indicator condition.

The multi-color LED located on the front of instrument provides visual feedback on the status of a measurement and contact sensors.

- **Green LED:** Indicates all three contact sensors are activated properly and a measurement can now be triggered.
- **Red LED**: Indicates one or more of the contact sensors is not properly activated or an error has occurred during a measurement.
- **Blue Pulsing LED**: Indicates the instrument is in standby mode with the USB cable plugged into the computer and charging.
- **Off**: Indicates the instrument is off and not ready to measure.

7. Home Screen

When the instrument is powered-up, the home (top level) screen appears after the startup procedure is complete. Select the modes by tapping the icons located on the display screen.



Job List Mode: This mode is the main mode of operation. Jobs are added, selected, deleted, and measurements are taken in this mode.

Settings Mode: The settings mode is used to set and edit the instruments configuration options, and to enter the calibration mode. The settings options should be reviewed before you use your instrument for the first time.

Connect WiFi: This icon is used to connect to WiFi network. Refer to WiFi mode section for information.

Header Bar: Displays the current mode, WiFi connection (where applicable), and battery life status.

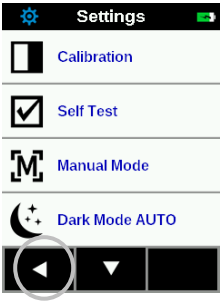
8. Navigating the Screen

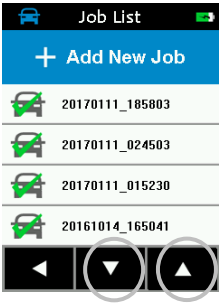
The instrument features a graphical touch screen display. All functionality is accessed directly through the screen.

Scrolling through Settings and Jobs

The Up (▲) and Down (▼) arrows appears on screens when some settings or jobs cannot be accessed from the main view. You can also swipe the screen up or down to view the additional settings and jobs.

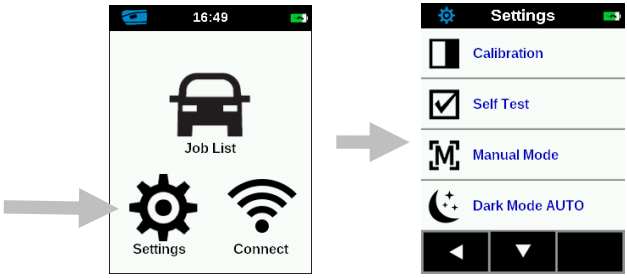
The Left (◀) arrow at the bottom of the screen is used to return the screen to the previous view.





Opening Settings and Jobs

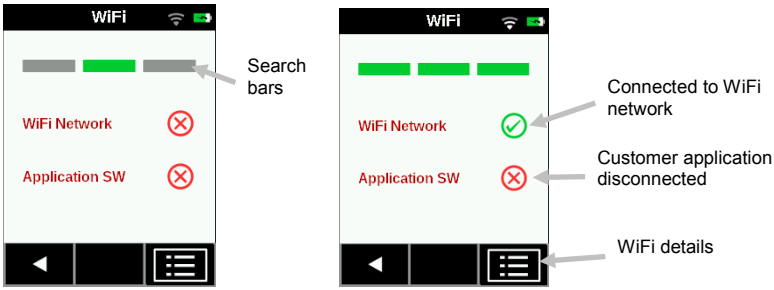
Settings and jobs are accessed by tapping the corresponding icon on the Home screen. For this example, the Settings icon was tapped to open the Settings screen. See Settings Mode descriptions that follow.



9. WiFi Mode

The WiFi Mode is used to connect to the available networks when activated in the Settings mode.

1. From the Home screen, tap the **Connect** icon to access the WiFi screen.
2. The instrument will search for available networks. Available networks for connection appear with a green checkmark next to the name.



3. Tap the screen to open the Job Viewer screen.
4. Tap the Settings icon to view the WiFi Settings for the connected network.
5. Tap the Left (◀) arrow to return to the home screen.

10. Settings Mode

Settings mode is used to adjust and view the instrument's settings.

Calibration

This option is used to activate the calibration procedure.

To access, tap **Calibration.** Refer to the Calibration mode section later in this manual for detailed information on performing a calibration.

Self Test

This option is used to run a self test of the instrument.

1. To activate, tap **Self Test** and then place the instrument on the white calibration tile.
2. Tap the **Start** icon in the display. The self test goes through 10 steps.

Measurement Option

This option is used to set auto measure mode.

Manual Measure: When set to Manual, you must press the Measure button or tap the screen once all three contact sensor indicators turn green in the display to take a measurement.

Automatic Measure: When set to Automatic, this option allows the instrument to automatically take a measurement once all three contact sensor indicators turn green in the display. No measurement switch press or screen tap is required. Once a measurement is taken, the instrument must be repositioned in order for another measurement to occur.

Dark Mode Option

This option is used to help reduce measurement noise on very dark sample measurements.

Off: When set to off, the option is not utilized.

Manual: When set to Manual, the instrument will display a message after the first measurement asking if you would like to turn on dark mode when a dark sample is detected. Select Yes to turn on Dark Mode or select No to continue without the option being used.

Automatic: When set to Automatic (default setting), the instrument automatically switches to dark mode after a dark sample is detected.

Speaker Option

This option is used to turn the instrument speaker on or off. The instrument beeps when the screen is tapped, after a measurement, and after a calibration.

WiFi Option

Off: When set to off, the option is not activated.

On: When set to on, the WiFi option is activated.

WiFi Setup: Tapping the button will cause the instrument to scan for available network. After scanning the available networks are displayed on the screen. Tap a desired network and setup the password if required. When finished, tap OK to select the Wifi network.

Language

This option is used to set the language that is displayed on the instrument during operation.

To set the language, tap **Language** and then tap the desired language.

N (measurement number) Option

This option is used to set the default number of measurements when using "Add new Job" option. The jobs created by the user software can define number of measurements individually for each job. Tap the option, enter the measurement number and tap the icon to save and exit.

Device Information

This option is used to view important instrument information such as hardware version, calibration reference serial number, battery data, etc.

Power Off

This option is used to power off the instrument.

To access, tap **Power Off** and then tap **Power down** to confirm.

Date and Time Option

This option is used to adjust the timestamp clock for the instrument.

1. To access, tap **Date and Time.** The flashing value in the field is the current value that can be adjusted.
2. Tap the **"Up"** arrow icon to increase the value.
3. Tap the **"Down"** arrow icon to decrease the value.
4. Tap the **"Left"** arrow icon to move the flashing field to the next field to the left.
5. Tap the **"Right"** arrow icon to move the flashing field to the next field to the right.
6. Tap the **"Checkmark"** in the center to save changes and exit the option.

Set LCD Color Option

This option is used to change the background color of the LCD screen slightly.

1. To access, tap **Set LCD Color.**
2. Tap the desired backlight color panel on the screen to save and exit the option.

Factory Reset Option

This option is used reset the instrument to its factory default settings. All stored sample will also be deleted when activated. Select Yes to reset to the factory default settings or select No exit the setting without resetting.

11. Calibration

The instrument must be calibrated on the white tile every 14 days. Measurements with expired calibration are still possible, but with a warning at the beginning of each job.

NOTE: Make sure to use the Calibration reference supplied with the instrument for calibrating. Do not substitute this reference with a reference from another instrument. The serial number of the Calbration reference is shown in the Setting>Calibration screen.

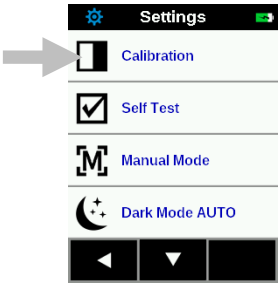
- Calibration should be performed at room temperature (23°+/-1°C and 40-60% relative humidity).
- The white tile in the calibration reference is severely affected by smudge marks, dust, and finger prints.

Cleaning the Calibration Reference

The white tile in the calibration reference should be cleaned using a mild soap and warm water solution, thoroughly rinsed with warm water, and wiped dry with a clean, lint-free cloth. You must let the reference dry completely before taking a calibration measurement.

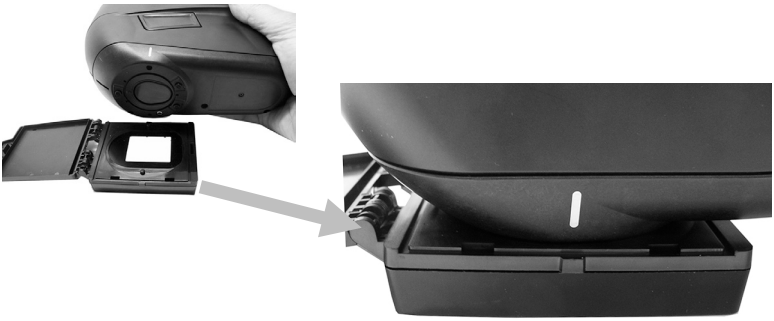
- Do not move instrument while taking a calibration measurement. If motion is detected by the contact sensors, an error message will be displayed and calibration aborted.
- Make sure the USB cable is unplugged from the instrument before performing a calibration.

1. Select the Calibration option from the Settings menu. **Note**: If “Calibration expired” message appears, advance to Step 2.



2. Open the Calibration reference and lay it flat.

3. Position the instrument over the white tile by locating the two pins in the Calibration reference into the holes in the measurement base. **NOTE**: The pins are keyed and will only insert in one direction.



4. When ready, tap **Calibration** and then tap **Yes** to start calibration. Do not touch the instrument throughout the measurement sequence.
5. After calibration is completed, remove the instrument from the calibration reference and close the reference case.

   NOTE: It is recommended to perform a Self-Test after the Calibration Refer to the Settings screen.

12. Measurement

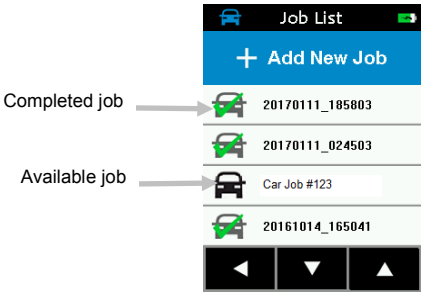
IMPORTANT:

- To avoid discomfort, do not look directly into the measurement optics when the instrument is on and measuring.
- Do not move instrument while taking a sample measurement. If motion is detected by the contact sensors, an error message will be displayed and the measurement aborted.
- Measurement performance may decline under certain condensing conditions.
- Do not move the instrument on the sample surface with pressure. This may cause scratches to the sample surface.

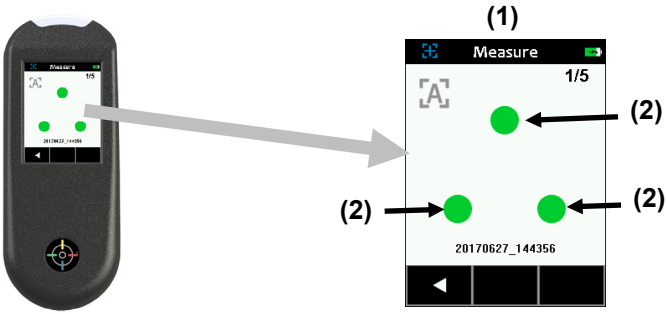
The Job List is used to measure and delete sample data. The following is a general job measurement procedure.

1. Search for a check area near the repair spot that is as flat as possible and clean the area.
2. From the Home screen, tap the Job List icon.
3. Select a downloaded job from the list or tap the Add New Job icon at the top of the screen to start a new job. After selection, the instrument goes into measure mode.
   NOTE: Downloaded jobs available for measurement do not have a

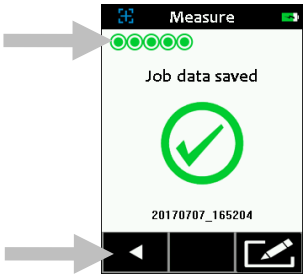
green checkmark. Downloaded jobs that have a green checkmark have already been completed.



4. Locate the measurement port in the bottom of the instrument over the first measurement area while viewing the screen (1).
5. Gently rock the instrument until all three positioning indicators (2) in the screen turn green. This indicates that all three contact sensors are activated.



6. Hold the instrument steady and press the Measure button or tap the screen to initiate a measurement in case the instrument is configured in Manual Mode. If the instrument is configured in Automatic Mode, the measurement will be triggered as soon as (with a one-second delay) the instrument is correctly positioned on the check zone and all pins are in contact (green indicators on UI). Continue to hold the instrument steady until the progress bar in the screen reaches 100%.
7. Continue with the remaining area measurements to complete the job.
8. After the last measurement is completed, the quality of the measurement is indicated with a 5 point system. Five points indicates excellent measurement without variation between the readings, 3-4 points indicates good measurement and 1-2 points indicates an acceptable measurement. Tap the Left (◀) arrow on the Job data saved screen to return to the Job List screen.

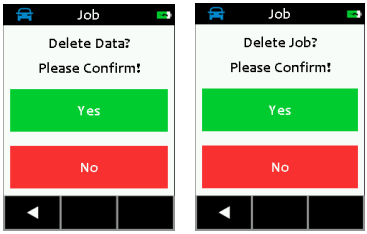


9. If the job was created on the instrument using the Add New Job feature, you can edit the name if desired. Click on the Edit icon at the button of the screen and enter a job name using the virtual keyboard. Click the Checkmark icon to save the job name.

Deleting a Single Job

1. To delete a single job or job data, tap the job from the Job list. You will need to tap the Down (▼) or Up (▲) arrow icons if the job you want to delete is not showing up in the list. You can quickly get to the end of the job list or top of the job list by pressing and holding the Down (▼) or Up (▲) arrow icon for 2 seconds and then releasing.

2. Tap Delete Data or Delete Job in the screen to continue. If Delete Data is selected, only the data will be deleted and not the job.
3. A message appears asking you to confirm that you want to delete the data or job. Tap Yes to confirm or No to return to the Job List screen.



All Jobs

1. To delete all jobs, press and hold the Down (▼) arrow icon for 2 seconds and release to advance to the end of the job list.

2. Tap the delete all jobs icon at the bottom of the screen.

3. A message appears asking you to confirm that you want to delete the job. Tap **Yes** to confirm or **No** to return to the Job List screen.

13. Cleaning

The exterior of the instrument may be wiped clean with a cloth dampened in water or mild cleaner.

Important Notes:

- DO NOT use any solvents to the clean the instrument, this will cause damage to the cover and internal electronic components.
- Compressed air should not be used to clean the instrument. Cleaning the instrument with blown air can cause dirt on the outside of the instrument to enter into the device, and contaminate optical components.

14. Specifications

Environmental

Operating Temp: 50°F to 95°F (10°C to 35°C)

Humidity Max: 85% RH max (non condensing)

Storage Temp: -4°F to 122°F (-20°C to 50°C)

Battery

Type:	Lithium Ion Battery
Cell Size:	18650
Nominal Voltage:	3.6V

Capacity:	2.15 Ah
Max. discharge current:	4A
Max. charge current:	2.15A
Inner resistance:	<= 120 mΩ
Compliance:	UN38.3, IEC62133B, CE
Protection:	over current, over charge, over discharge

15. Troubleshooting

Prior to contacting PPG support department for instrument problems, try the applicable solution(s) described below.

Problem	Cause	Solution
Instrument screen remains dark.	Instrument is turned off.	Turn instrument on by pressing the power/measure button.
	Instrument is in power down mode.	Touch the screen.
	Battery is very low.	Charge the battery min. 1 hour. After max. 5 minutes the screen will turn on.
	Battery is defective.	Charge the battery. If the screen does not turn on after max. 5 minutes check if the USB cable is correctly connected to the computer or power supply (USB ports on computer monitors and keyboards do not deliver enough power). If it still does not work the battery needs to be replaced. Contact technical support.
Screen is instable (turns on and off periodically) when the instrument is connected to a computer or power supply.	Battery is defective.	Battery needs to be replaced. Contact technical support.
Screen is	Firmware is locked up.	Disconnect USB cable. Press

frozen.		and hold the power/measure button for 10 seconds and then release. Instrument turns off. Instrument can be started normally.
Measurement error or results appear inaccurate.	Material being measured is damaged (e.g. scratched).	Repeat measurement.
	Calibration was performed on a dirty calibration reference.	Clean the calibration reference and repeat the calibration per procedure in the Calibration section.
	Instrument requires calibration.	Perform calibration on calibration reference followed by a self test. If calibration and self test fails, the instrument is defective. Contact technical support.
	Instrument is defective.	Perform a self test in the Settings menu. If the self test fails the instrument is defective. Contact technical support.
Calibration procedure fails.	Instrument defective.	Contact technical support.
Instrument and software not communicating (USB connection).	USB cable not connected.	Connect the USB cable between the computer and the instrument.
	USB cable is defective.	Exchange USB cable.
	Communication crashed between application software and the instrument.	Unplug the USB cable, wait 1 second and connect the cable again. If the communication still does not work, close and restart the software application. Restart the instrument. If the communication still does not work, reboot the computer.
Instrument will not measure or	Contact sensor(s) do not properly contact the	Lift the instrument and place it properly on the sample. Make

calibrate.	sample surface.	sure that all 3 sensor indicators on the screen turn green.
	Contact sensor(s) are not working correctly. Sensors may be stuck due to dirt or paint; or they are defective.	Open a new job to show the 3 sensor indicators on the screen and place the instrument on a flat surface and then lift it. If one or more of the sensor indicators in the screen do not change color when lifted, there may be a problem with the contact sensor(s). Contact technical support.
Shutter error.	Instrument defective.	Contact technical support.
Multiple error messages.	Instrument encountered a cascade of errors.	Press OK button in error message for 2 seconds.
Date and time wrong.	Incorrect setting.	Refer to instruction in manual.

16. Service Information

If you have any service request, please contact your local PPG Service and Support.

17. Replacement Parts

Part	Part Number
USB cable	SE108-USBAB-03
Safety Strap	59-902288-01
Screen Protector	TPZ-27724

Corporate Headquarters
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Grand Rapids, Michigan 49512
Phone 1 800 248 9748 or 1 616 803 2100
Fax 1 800 292 4437 or 1 616 803 2705

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Switzerland
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Suite 2801, 28th Floor, AXA Tower
Landmark East, 100 How Ming Street
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Phone (852) 2568 6283
Fax (852) 2885 8610

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