



# **AutoLight Plus**

# Window Tint Meter





Licence ID number: 10242







DECLARATION OF CONFORMITY

We, Auto Test Products Pty Ltd. Declare under our sole responsibility that the product AutoLight Plus is in conformity with the provisions of the following Council Directive: 1999/5/EC. A copy of the Declaration of Conformity is available from <u>http://www.autotest.net.au</u>

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#### PREFACE

Thank you for purchasing AutoTest products. Please read this manual completely before installing and operating the product so as to ensure correct operation of the product. Make certain that this manual can be accessed whenever necessary.

#### FOR YOUR SAFETY

Read these simple guidelines. Not following them may be dangerous. Read the complete user guide. Further detailed information is given in this manual.



#### SWITCH ON SAFELY

Do not switch the device on when wireless device use is prohibited or when it may cause interference or danger.



#### SWITCH OFF WHEN REFUELING

Do not use the device at a refuelling point. Do not use near fuel or chemicals.



#### SWITCH OFF NEAR BLASTING

Follow any restrictions. Do not use the device where blasting is in progress.



#### **USE SENSIBLY** Use only in the positions as explained in the product documentation.



#### **QUALIFIED SERVICE** Only qualified personnel may install or repair this product.



#### ACCESSORIES AND BATTERIES Use only approved accessories and batteries. Do not connect incompatible products.



#### **WATER-RESISTANCE** Your device is water-resistant. It is not waterproof



#### CONNECTING TO OTHER DEVICES

When connecting to any other device, read its user's guide for detailed safety instructions. Do not connect incompatible products.



#### **RISK OF DAMAGE TO EYES**

Wear safety goggles when operating near vehicle battery as Battery acid, fumes, oil and dust particles might cause damage to the eyes.

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#### **1. UNPACKING AND FIRST TIME USE**

Congratulations on your choice of an AutoLight Plus Light Transmission Meter. Please take the time to read this User's Guide before using the AutoLight Plus Meter in the field. Incorrect or inappropriate use of this instrument may void the warranty. Retain the packing materials for future shipping and transport of the unit for periodic calibration.

The packing box should contain:

- AutoLight Plus Light Transmission Meter
- 1 x Glass check sample
- 2 x Energizer Batteries (9V)
- USB stick including Manual
- Warranty registration card
- Protective Bag
- Calibration Certificate

#### 2. INSTALLATION AND BATTERY CHANGE

Your AutoLight Plus pack includes two 9-volt Energizer Batteries in the battery compartment accessible from the back of the light source tube. The battery must be connected before initial use. The long-life batteries will provide up to 6 hours of continuous use (approx. 500 tests). If standard batteries are used, anticipate a shorter period of continuous use. This meter is fitted with a low voltage cut out to ensure an accurate power supply to the light source. If the unit fails to operate, replace the batteries.

To replace batteries, remove screw from cover located at the bottom of the light source. Carefully replace both batteries. Close cover.

**NOTE:** Batteries must be disconnected and removed for prolonged storage. The warranty does not cover damage from battery leakage.

#### **3. CHECKING READOUT**

Using the glass check sample provided, check the light transmission readout by following the three testing steps outlined under '4. OPERATION'. When checking, align the light source and sensor by accurately mounting the sensor tube above the light source with the test glass in between. The light transmission value of the test sample is marked on the sample and should correspond to the reading of AutoLight Plus within ±3.



(mmminne)



#### 4. OPERATION

#### 4.1 Operating Conditions and Set-up

AutoLight Plus has a photocell built into the light sensor tube and a constant light source built into the light source tube. These components are fragile. Care should be taken when handling the unit and should not be dropped or violently shaken. **Avoid taking measurements in strong sunlight** as stray light may affect the reading accuracy. Aim the light source directly at the sensor for an accurate reading. It can be fixed or held onto one of the window surfaces while readings are being taken off the main unit. For best results you should take several readings to ensure consistence across the window.

#### 4.2 Instructions for Use

By aligning the light source and sensor on opposing sides of the window to be tested, the percentage of light transmitted through the window is measured.

#### Follow these three easy steps:

**Step 1 -** <u>Align</u> Auto*Light* Plus to the side window or windscreen so that the light source and sensor are on opposing sides.

**Step 2 -** <u>Activate</u> After aligning Auto*Light* Plus, press the measurement button to take a reading of the light transmitted through the window.

**Step 3 -** <u>Annunciate</u> After the test is completed, the display shows the percentage of light transmitted through the window. Auto*Light* Plus reads light transmission as a percentage. Simply compare the reading with the specific value according to your local regulations. The reading will remain displayed for approximately few seconds, before Auto*Light* Plus turns off automatically.

Repeat steps for each window area to be tested.



Step 1 – Align



Step 2 – Activate



Step 3 – Annuciate

#### 5. TROUBLESHOOTING

| Problem  | Troubleshooting                              |  |  |
|--|--|--|--|
| AutoLight Plus will not turn on                    | Batteries are discharged, replace batteries  |  |  |
| Sample glass not reading ± 3% from the glass value | Clean glass with a soft cloth                |  |  |
| Light gobe not working                             | Return AutoLight Plus for servicing          |  |  |
| AutoLight Plus turns off during use                | Batteries have discharged, replace batteries |  |  |

For other problems, contact AutoTest Products. Repairs should only be carried out by AutoTest Products Pty Ltd in order to ensure the product retains its calibration.

#### 6. CALIBRATION

Auto*Light* Plus will require calibration at intervals of one year or as required by your local authority. Calibration can only be carried out by AutoTest Products Pty Ltd.

#### 7. PC SOFTWARE GUIDE

#### SOFTWARE SETUP

System Requirements :

• Windows 10 or later

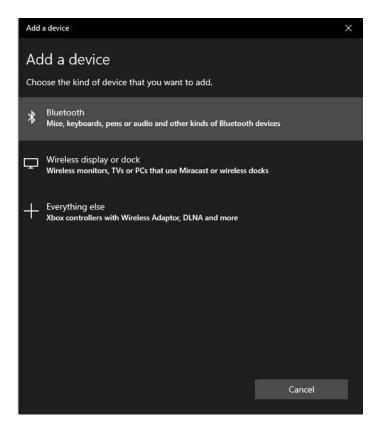
#### Install AutoLight Plus Download Software

Insert the AutoLight Plus Download software from enclosed USB stick and run "Setup.exe". Follow on screen instructions. You are now ready to download readings from your AutoLight Plus light meter.

#### **Pairing Device**

(1) Switch ON your AutoLight Plus device. When the light meter displays "." on its LED screen, it indicates that the device is ready and can be discovered using a Bluetooth discovery tool.

(2) Use your Bluetooth Manager to establish pairing with your AutoLight Plus device. The light meter should be listed in the Bluetooth devices list as ALP12345, where 12345 is the serial number.



(3) Once the AutoLight Plus device is found by your Bluetooth Manager, establish pairing using PIN '1234' (or '0000').

| Add a   | Add a device X              |        |  |  |  |  |
|---|-----------------------------|--------|--|--|--|--|
| Add a device  |                             |        |  |  |  |  |
| Make sure that your device is turned on and discoverable. Select a device below to connect. |                             |        |  |  |  |  |
|   | Communications device       |        |  |  |  |  |
| L.  | Unknown device              |        |  |  |  |  |
| ŗ.  | Unknown device              |        |  |  |  |  |
| ġ.  | ALP47202<br>Connecting      |        |  |  |  |  |
|   | Enter the PIN for ALP47202. |        |  |  |  |  |
|   |                             |        |  |  |  |  |
|   |                             | Cancel |  |  |  |  |
|   | Communications device       |        |  |  |  |  |
|   |                             |        |  |  |  |  |
|   |                             | Cancel |  |  |  |  |

#### Finding the correct COM Port

To find the Com Port in use by the AutoLight Plus, open Bluetooth Settings and click on more Bluetooth Options.

| And Hard Allow            |                                  | 0172 0072  |  |  |
|---------------------------|----------------------------------|--|--|--|
| Settings                  |                                  | - 🗆 X  |  |  |
| යි Home                   | Bluetooth & other devices        |  |  |  |
| Find a setting            |                                  | Turn on Bluetooth even faster  |  |  |
| , me of second y          | + Add Bluetooth or other device  | To turn Bluetooth on or off without                                    |  |  |
| Devices                   |                                  | opening Settings, open action center<br>and select the Bluetooth icon. |  |  |
|                           | Bluetooth                        |  |  |  |
| Bluetooth & other devices | On On                            |  |  |  |
|                           | Now discoverable as "AT9083"     | Related settings   |  |  |
| 日 Printers & scanners     | Now discoverable as A19065       | Devices and printers   |  |  |
| () Mouse                  |                                  | Sound settings   |  |  |
| 0 mouse                   | Mouse, keyboard & pen            |  |  |  |
| I Typing                  | HP Business Slim Keyboard        | Display settings   |  |  |
|                           |                                  | More Bluetooth options   |  |  |
| 🖉 Pen & Windows Ink       | HP USB Optical Mouse             | Send or receive files via Bluetooth                                    |  |  |
|                           | 0                                | Jend of receive mes the blaceboth                                      |  |  |
| P AutoPlay                |                                  |  |  |  |
|                           | Audio                            | Help from the web  |  |  |
|                           |                                  | Fixing Bluetooth connections   |  |  |
|                           | <b>(小)</b> Jabra EVOLVE 30 II    | Reinstalling Bluetooth drivers   |  |  |
|                           |                                  | Sharing files over Bluetooth   |  |  |
|                           | Other devices                    |  |  |  |
|                           |                                  | Get help   |  |  |
|                           | ALP47202<br>Paired               | Give feedback  |  |  |
|                           |                                  |  |  |  |
|                           | ATEN USB to Serial Bridge (COM5) |  |  |  |
|                           | BenQ GW2270                      |  |  |  |
|                           |                                  |  |  |  |
|                           | HR853                            |  |  |  |
|                           | S Paired                         |  |  |  |

(2) Once in More Bluetooth Settings, the Com Ports in use by your Bluetooth Connections are shown. To connect to your device the Com Port required is in the Outgoing direction and will have your Bluetooth Device Name ALP12345 where 12345 is the serial number of the meter.

In the example below the correct Com Port is COM9.

Downloading from the AutoLight Plus PC Software

| ptions | COM Ports | Hardware | 1   |         |
|--------|-----------|----------|---|---------|
| wheth  |           | a COM p  | erial) ports listed below.<br>ort, read the documenta |         |
| Port   | Dir       | rection  | Name  |         |
| COM    | 14 Inc    | oming    |   |         |
| CON    | 18 Inc    | oming    | ALP47202  |         |
| COM    | 19 Ou     | Itgoing  | ALP47202 'Dev B'                                      |         |
| C.     |           |          | 644   | Descent |
|        |           |          | Add   | Remove  |

(1) Run the AutoLight Plus downloading application.

| Serial No:      | COM Port:  |
|-----------------|--|
|                 | COM9 ~   |
| Meter Readings: | Erase data from<br>the meter after<br>successful |
|                 | Download Data                                    |
|                 | Save Data to File                                |
|                 | Load Data from                                   |
|                 | Generate Report                                  |
|                 | Exit   |

(2) Select the COM port to match the port at which your Bluetooth Manager is connected to the light meter. Once the COM port is selected, press "Download Data" to begin downloading.

(3) Once the data from the light meter is downloaded, you can press 'Save Data to File..' to store data on the PC. A previously saved light meter data file can be opened by pressing the 'Load Data from File...' button.

(4) To generate a test report, press 'Generate Report'. Users can customize the report format by altering the "ReportForm.dot" template file located in the same directory where AutoLight Plus software is installed.

**Please note** that AutoLight Plus automatically switches off after 60 seconds of inactivity and you will need to switch it back on if this occurs. Also note that steps 1 to 5 are only required to be followed for the first time. Once the COM port is obtained by your Bluetooth Manager, you can use that same COM port and start from the Downloading from the AutoLight Plus Section for future use.

#### 8. WORKSHOP PRO ANDROID APP GUIDE

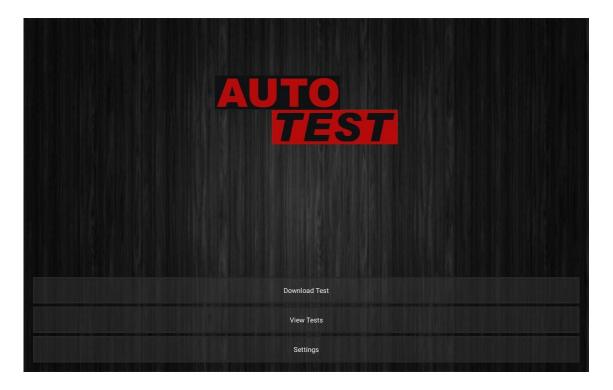
#### **Pairing Bluetooth**

Instructions on how to pair your AutoLight Plus can be found in the Workshop Pro manual on the AutoTest Website.

#### Main Menu

The main menu screen is shown below and allows you to choose from 3 options.

- Download Test
- View Tests
- Settings



#### **Download Test**

After clicking 'Download Test' follow the instructions below to download tests from your AutoLight Plus on to your Workshop Pro. You must have paired your AutoLight Plus device with your tablet before you can download any tests.

1. Select your AutoLight Plus to download from. The paired devices will be labelled ALPxxxxx (where xxxxx is your paired device 5-digit serial number ie ALP47202).

| DOWNLOAD |                               |        |  | ń |
|----------|-------------------------------|--------|--|---|
|          |                               |        |  |   |
|          |                               |        |  |   |
|          | Select AutoLight Plus to dow  | nload: |  |   |
|          | ALP51075<br>20:18:02:21:03:03 |        |  |   |
|          | ALP47202<br>20:18:02:21:03:88 |        |  |   |
|          | ALP50400<br>20:16:11:29:05:01 |        |  |   |
|          | ALP47207<br>20:16:11:29:06:10 |        |  |   |
|          |                               |        |  |   |
|          |                               |        |  |   |
|          |                               |        |  |   |
|          |                               | •      |  |   |

#### 9. SPECIFICATIONS AND SPARE PARTS

Standards: Confirms with ISO 3538 : 1997 Battery: 2 x Energizer Batteries ( 9 Volt ) Light Source Output: 2856°K + 50°K, confirming to C.I.E. Standard illuminant A Lamp Voltage: Stabilised within + 0.1% Sensor Spectral sensitivity: confirming to photopic curve V( $\lambda$ ) of relative illuminous Efficiency of the C.I.E. 1931 standard observer for photopic vision Display: LED readout 0 - 100%, linear from 20 - 100%, ± 3%

#### The following spare parts can be obtained from AutoTest Products:

- Calibrated glass sample
- PDF Manual
- Batteries (2 x 9v)
- Protective Bag

#### 8. WARRANTY

When you purchase an AutoTest Product you are required to complete warranty registration form, and return to AutoTest Products Pty Ltd within 10 days of purchase of the product. AutoTest Products or any Authorised AutoTest Service Centre warrants this product against defects in material and workmanship for a period of 12 months from the original date of purchase.This warranty applies only to products and components supplied by AutoTest Products which can be identified by the trade name or logo affixed to them or by other documents. AutoTest Products does not warrant any products not supplied by AutoTest Products.

Note: The use of proper paper is very important to the operation of the printer. Use of nonstandard paper will jam the printer and/ or wear the print head. Use of non- standard paper will void the warranty. Paper and printer ribbon cartridge are available from Autotest Products.

During the warranty period, AutoTest Products or any Authorised Service Centre will repair (or at its option replace), any defective component(s) without charge for parts or labour, provided the product is freight prepaid, to an authorised AutoTest Service Centre. Transit insurance and return freight will be at the owner's expense.

AutoTest Products or any Authorised AutoTest Service Centre reserves the right to refuse warranty repair if accident, abuse, misuse or misapplication has damaged the product. In transit or as a result of service or modifications by other than an Authorised Service Centre, nor are any other warranties expressed or implied, including any regarding merchantability or fitness for any other particular purpose.

AutoTest Products or an Authorised Service Centre is not responsible for incidental or consequential damages resulting from the breach of any express or implied warranty, including damage to property and, to the extent permitted by law, damages for personal injury.

(Express exclusions from warranty) Unless otherwise specified, this warranty does not cover:

1. Modified, abused, neglected, accidentally damaged or excessively worn products, or products that have become damaged or defective as a result of improper use.

2. Repairs attempted or made by other than our regional repair centre or authorised warranty service centre.

3. Conditions or malfunctions caused by the reasonable effects of fair wear and tear or the mal function of normally wearing parts, which include but are not limited to: Batteries, plugs and leads.

4. Consumable items, such as batteries (beyond 3 months from date of purchase).

5. AutoTest products that are not distributed through AutoTest's authorised distributors and resellers.

(Warranty non-transferrable) This warranty is not transferrable beyond the original purchaser. Warranty is subject to AutoTest Products Standard Terms & Condition Published widely. NOTES:

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