

AUTO ***LIGHT PLUS***

Light Transmission Meter



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™ 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
- 2 x Duracell (9V) batteries (MN1604)
- User Guide
- Warranty registration card
- Calibration samples x 3
- Protective Bag



2. INSTALLATION AND BATTERY CHANGE

Your AutoLight *Plus* pack includes two 9-volt Duracell 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 test 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 the level of accuracy of the instrument.

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 surfaced while readings are being taken off the main unit.

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 four easy steps:

Step 1 - Align: Align *AutoLight Plus* to the side window or windscreen so that the light source and sensor are on opposing sides.

Step 2 - Activate: After aligning *AutoLight Plus*, press ON button until you see “■” on the LED window. Then press the ON button once again to take a reading of the light transmitted through the glass window.

Step 3 - Annunciate: After the test is completed, the display shows the percentage of light transmitted through the window. *AutoLight 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 3 seconds, before *AutoLight Plus* turns off automatically.

Step 4 – View stored readings: To view stored light readings, press the ON button and do a quick test. When the test measurement is finished, wait for about two seconds and then quickly press the ON button to enter into viewing mode. Once in the viewing mode, subsequent presses of the ON button will increment test number and relevant light reading for each test will be displayed adjacently.

Repeat steps for each window area to be tested.



Step 1 – Align



Step 2 – Activate



Step 3 - Annunciate

5. TROUBLESHOOTING

Problem	Troubleshooting
<i>AutoLight Plus</i> will not turn on	Batteries are discharged, replace batteries
Sample glass not reading 41%, 51% or 74% \pm 3%	Adjust using test sample
Light globe not working	Return <i>AutoLight Plus</i> for servicing
<i>AutoLight Plus</i> 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 or by an Authorised Service Centre in order to ensure the product retains its calibration.

6. CALIBRATION

AutoLight 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 or by an Authorised Service Centre.

7. AutoLight Plus Download version 2.00M Quick Start Guide

Software Setup

System Requirements:

- Windows 2000 SP4 or later, Windows XP
- Microsoft Word 2000 or later for report generation

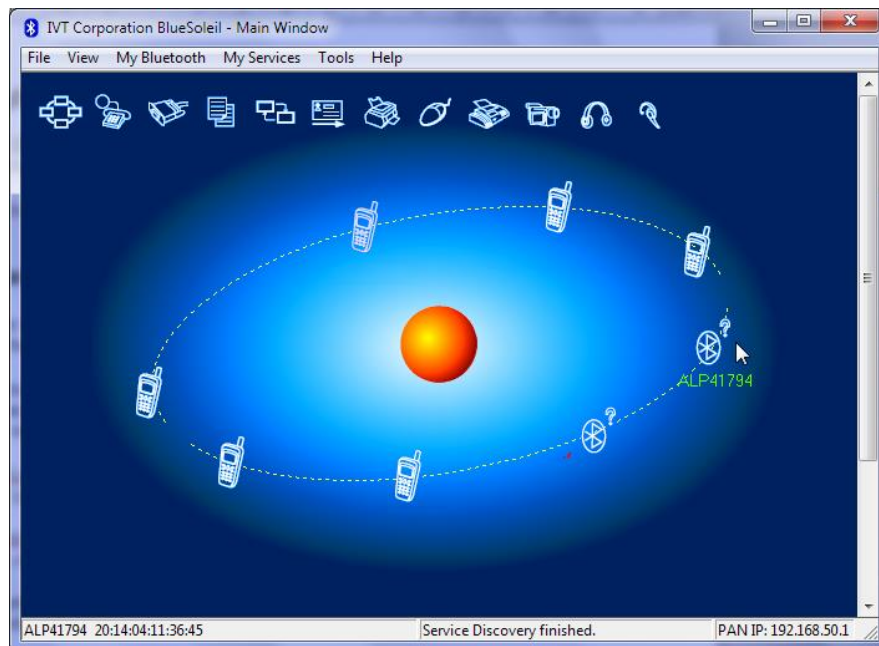
Install AutoLight Plus Download Software

Insert the *AutoLight Plus* Download software CD into CD-ROM drive and run “Setup.exe”. Follow on screen instructions.

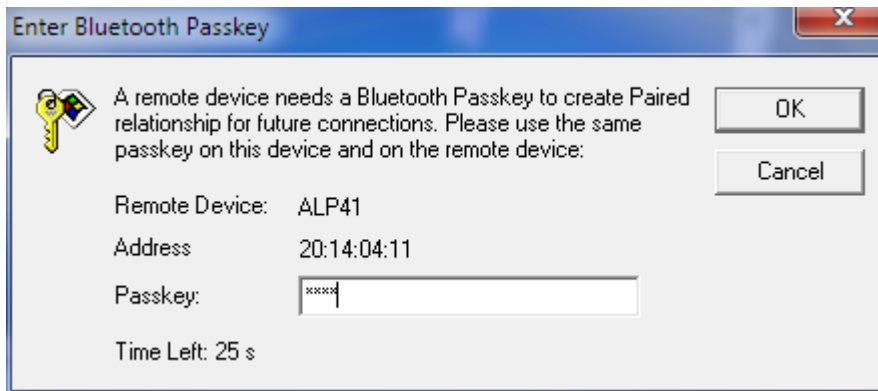
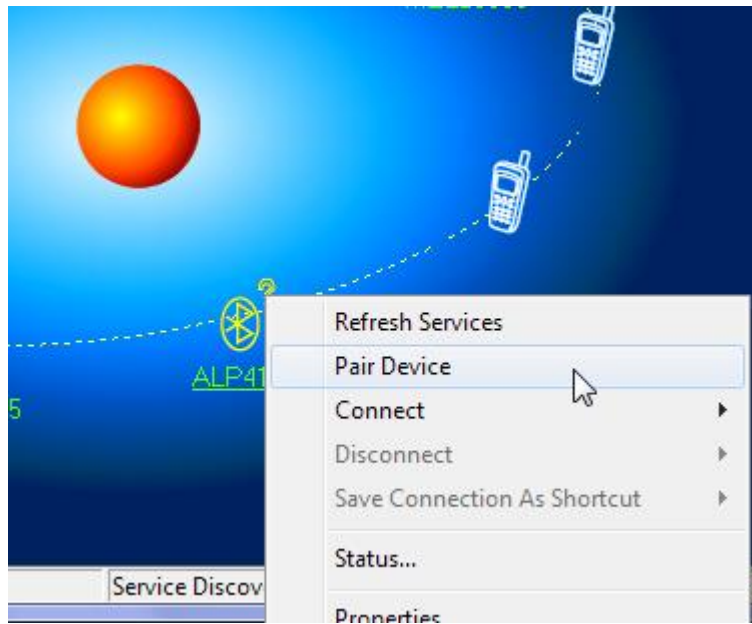
You are now ready to download readings from your *AutoLight Plus* light meter.

Download Readings

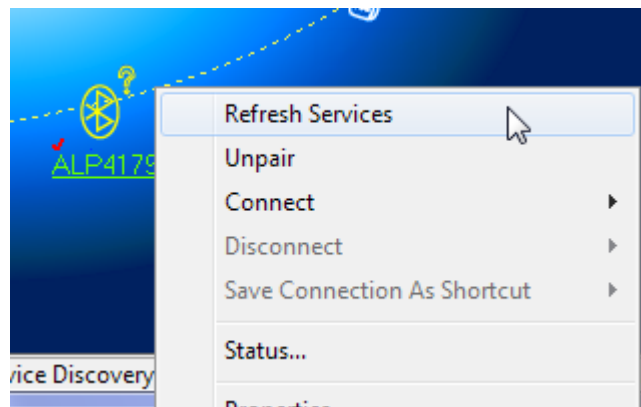
- (1) Switch ON your *AutoLight Plus* device. When the light meter displays “■” on its LED screen, it indicates that the device is ready and can be discovered using a Bluetooth discovery tool.
- (2) Use your Bluetooth Manager to establish pairing with your *AutoLight Plus* device. The light meter should be listed in the Bluetooth devices list as ALP12345, where 12345 is the serial number of the meter.

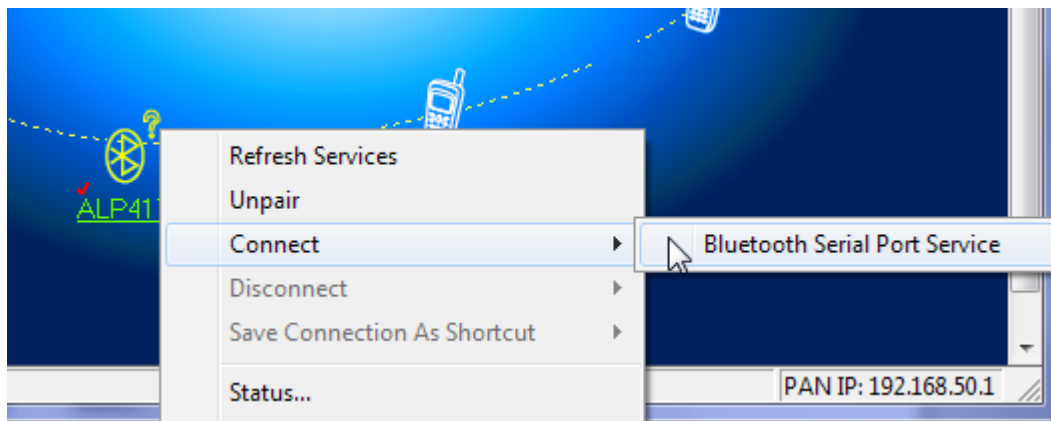


- (3) Once the *AutoLight Plus* device is found by your Bluetooth Manager, establish pairing using PIN '1234' (or '0000').

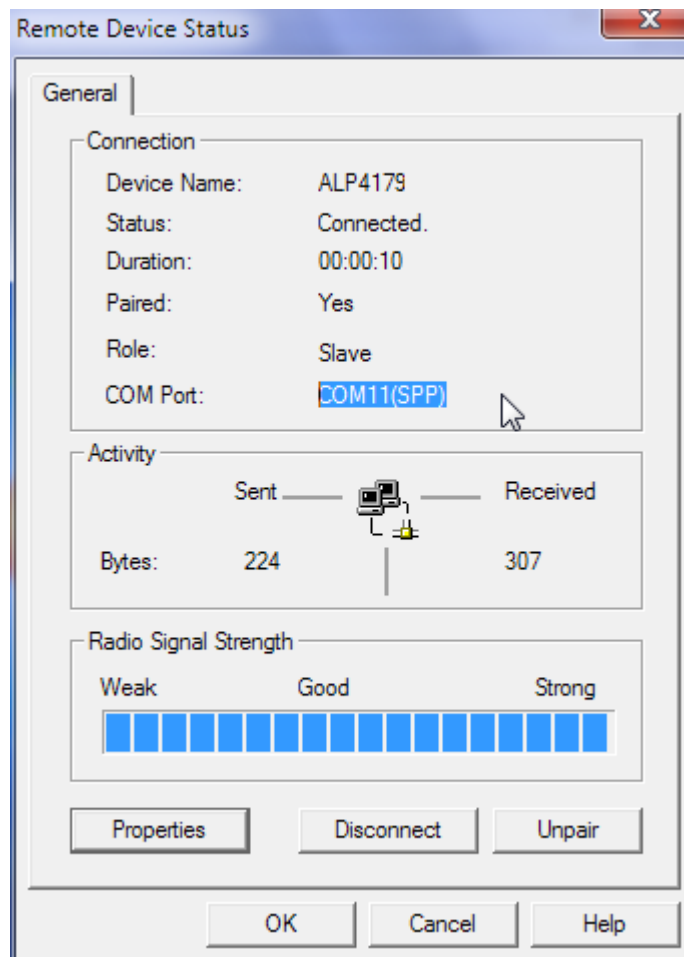


- (4) Once your AutoLight Plus has been paired with your PC, discover the services of your *AutoLight Plus* meter using your Bluetooth Manger and connect to the Serial Port service.

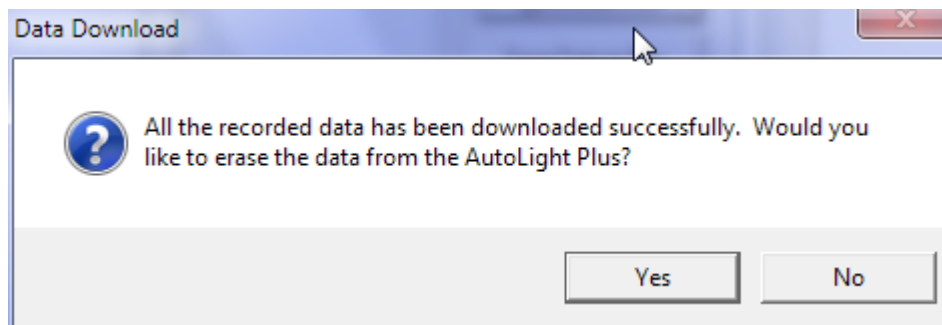
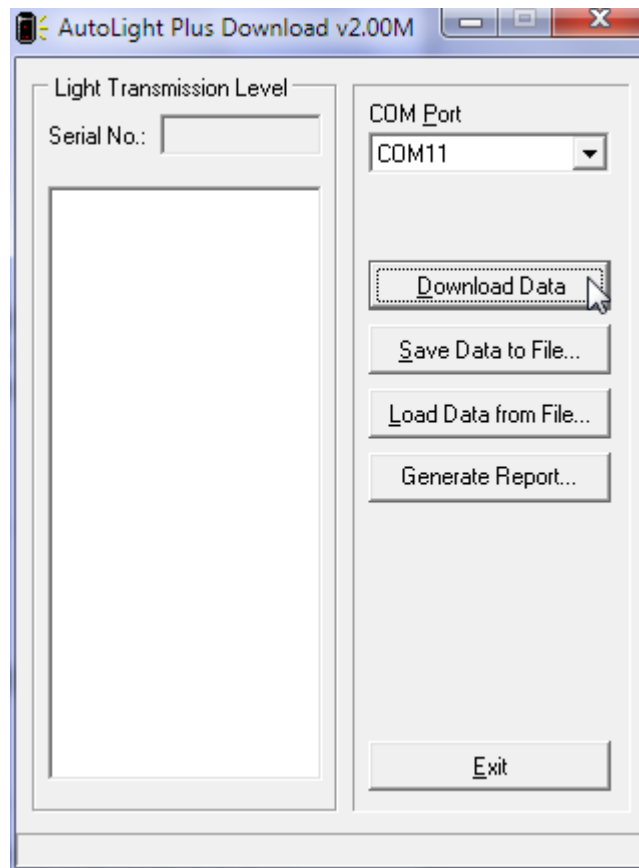




- (5) Once your Bluetooth Manager has established a Serial Port connection, your Bluetooth manager will inform you of the COM port to which the light meter is connected. Note down this COM port as it will be used by the *AutoLight Plus* downloading software.



- (6) Run the *AutoLight Plus* downloading application.
- (7) 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. When downloading is completed, the downloading software will prompt to erase currently stored tests from the device.



- (8) Once the data from the light meter is downloaded, 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.
- (9) 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* downloading 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 Step 6.

8. SPECIFICATIONS AND SPARE PARTS

Battery	2 x MN1604 batteries (9 Volt) - Duracell type only
Light Source	Output 2856oK + 50oK, conforming to C.I.E. illuminant A
Lamp Voltage	Stabilises within + 0.1%
Sensor	Spectral sensitivity conforming to photopic curve V (l) 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 samples
- User guide
- Batteries (2 x 9v)
- Protective Bag

The replacement of any other components must be carried out by AutoTest Products or an Authorised AutoTest Products Service Centre.

9. WARRANTY

To ensure prompt warranty service should it be required, please complete warranty registration form, and return to AutoTest Products Pty Ltd within 10 days of purchase of the product. AutoTest Products or an Authorised 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. During the warranty period, AutoTest Products or an Authorised Service Centre will repair (or at its option replace), any defective component(s) without charge for labour, provided the product is returned in its original or suitable equivalent container, freight prepaid, to an authorised AutoTest Service Centre. Transit insurance and return freight will be at the owner's expense.

In order to obtain calibration, warranty or non-warranty service, ship the product, freight and insurance prepaid to your nearest AutoTest Service Centre. Attach to the product your name, address, contact numbers, description of the problem and if a warranty claim, proof of purchase (dated sales receipt or invoice).

AutoTest Products or an 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.

Notes:

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