

User manual

Trailer Tester / Trailer Simulator

For vehicles with 7 / 13 pole socket and
Trailers / caravans with 7 / 13 pole plug
According to ISO 1724 and DIN 11446



**Warning: Multicon and WeSt
connections systems are not supported**

User manual
Gebruikershandleiding
Gebrauchsanleitung
Mode d'emploi



www.ecs-electronics.nl

Trailer test / Trailer simulator / Self test

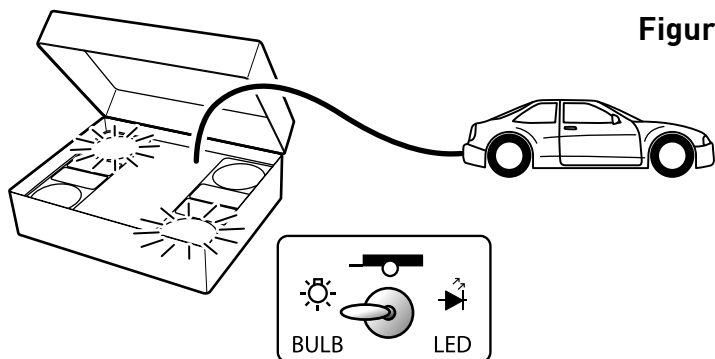


Figure 1

TRAILER SIMULATOR

- Bulb lighting on trailer
- LED lighting on trailer

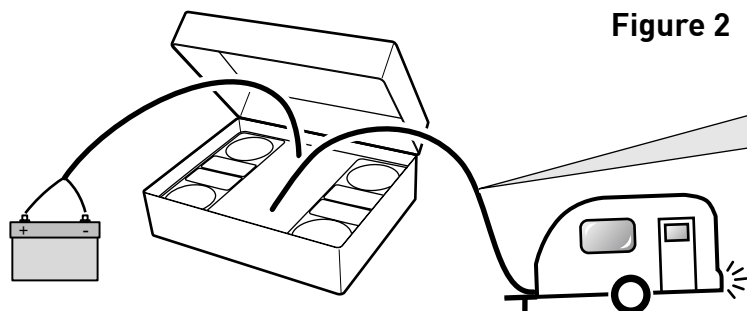


Figure 2

TRAILER TEST

Optional

Extension cable 10 meter (Not supplied)
Part No.: SP-128-ZZ

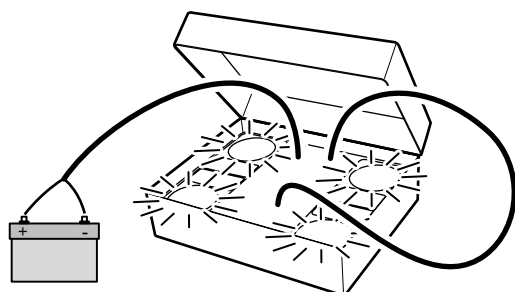


Figure 3

SELF TEST

Control Panel

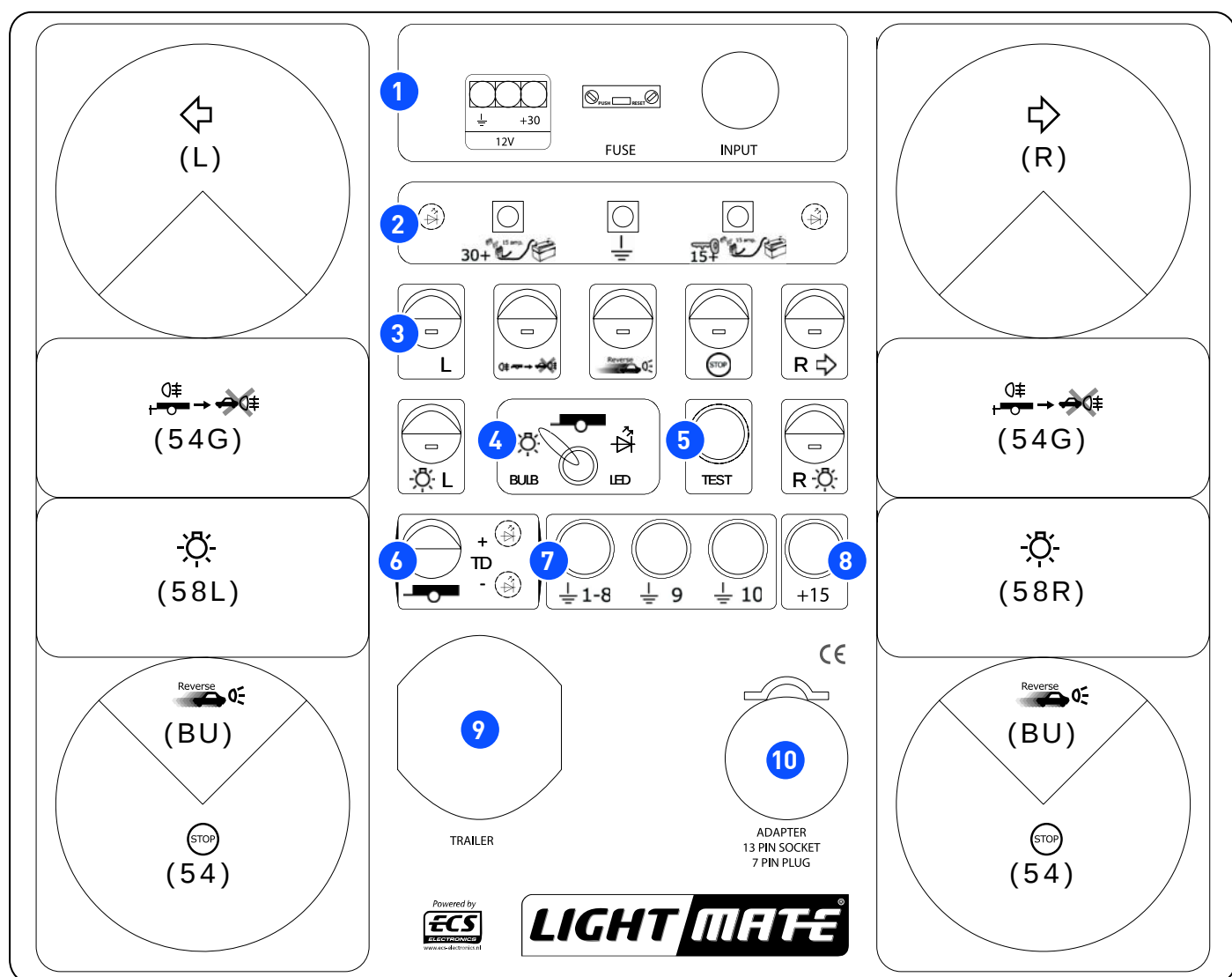
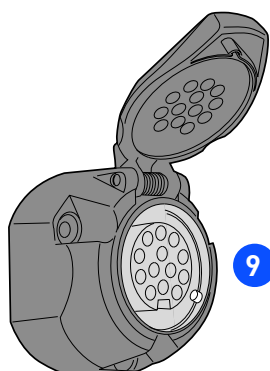
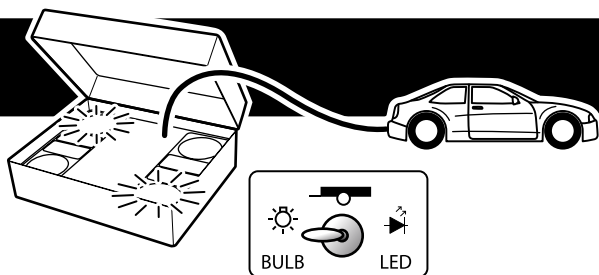


Figure 4

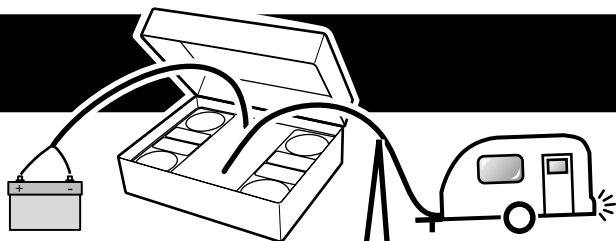


Function overview

- 1 Automatic fuse, external power and Input Cable with 13-pole plug
- 2 Test points and power indicators
- 3 Light switches
- 4 BULB-LED select switch
- 5 Button for self test
- 6 Trailer detection
- 7 Ground test buttons
- 8 Switched power button
- 9 13-pole output socket acc. DIN 11446
- 10 13>7 pole adapter



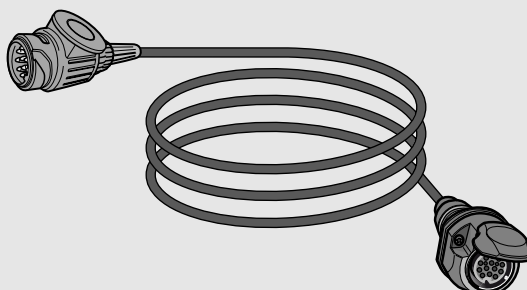
- Connect 13-pole plug to 13-pole socket of vehicle. Make use of 13>7-pole adaptor if necessary.
- LED +30 (2) will light up when power supply on 13-pole vehicle socket is connected. Not applicable by 7-pole vehicle socket.
- Put all light switches (3) in on position. BULB /LED Switch (4) in desired position. To check if vehicle is capable to control LED lighting on a trailer, use LED position (4).
- Start the engine. LED +15 (2) will light up when ignition power supply on 13-pole vehicle socket is connected. Not applicable by 7-pole vehicle socket.
- Switch vehicle parking lights on. Push earth buttons (7) two by two to check the three earth connections. The earth button not pressed is checked. Only applicable by 13-pole vehicle socket with the 3 earth wires connected. Stop the engine.
- By 7 pole vehicle socket just push earth button 1-8 (7) to disable earth. Parking lights on the tester will switch off.
- Check all taillight functions by switching on the vehicle taillight functions one by one.
- To simulate trailer recognition, switch TD switch to on (6).
- To test C2 function (indicator control) switch on the left hand indicator of the vehicle. To simulate a broken trailer lamp, switch off the L (3). If the vehicle and the towbar wiring kit have a C2 function, this function will now be activated. The 'broken' trailer lamp will be detected by the vehicle (buzzer, indication on the dashboard etc.). Repeat the above procedure for the right hand indicator.
- To check the rear fog light cut off, switch on the rear fog light of the vehicle. Now disable the trailer rear fog light (by using the switch (3) on the LightMate). The rear fog light on the LightMate will switch off, on the vehicle the rear fog light will be switched on.



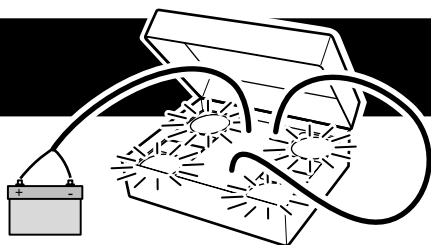
Optional

Extension cable 10 meter
(Not supplied)

Part No.: SP-128-ZZ

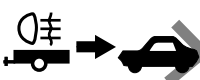


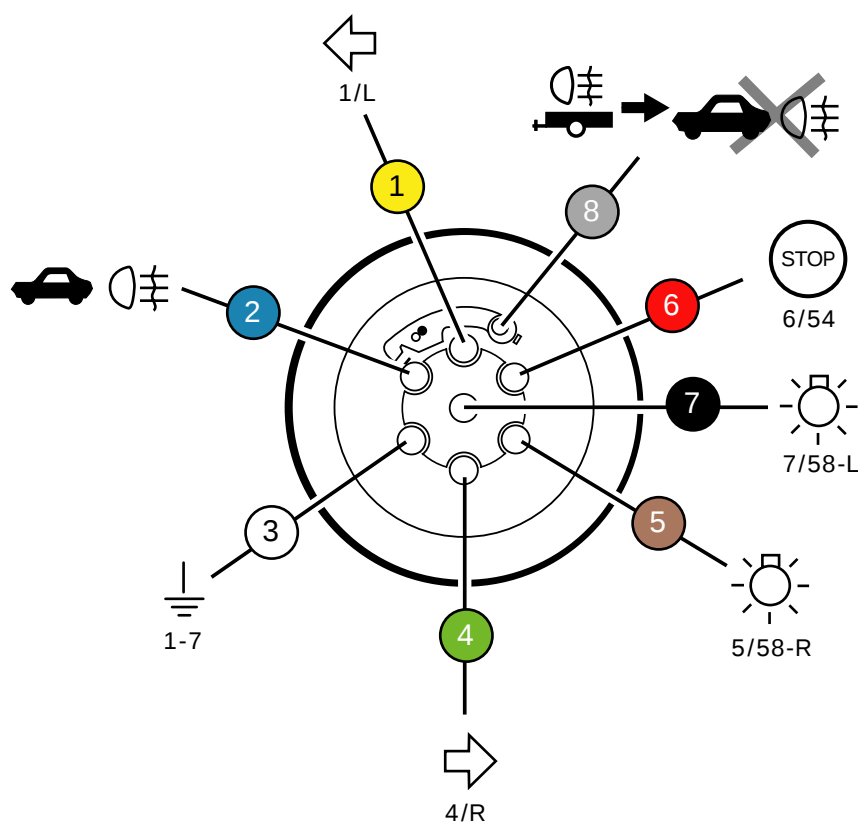
- Put all light switches (3) in the off position. Set the BULB /LED Switch (4) to the BULB position.
- Connect external power cable to a 12 V battery or Power pack 12V/15A (1).
- In case of a trailer with appliances or interior lighting, switch off all the loads.
- LED +30 (1) will light up. If not check the automatic fuse by pushing the button.
- Connect trailer plug to the socket (9). Make use of 7x13-pole adaptor if necessary. (Not supplied)
- Switch 58L (Pin 7) and 58R (Pin 5) lights on. Push earth button 1-8 (7) to disable earth for trailer lights. The lights 58L and 58R on the trailer will switch off.
- Push earth button 9 (7), to disable earth for 12 V power supply (+30) in Caravan. Only applicable by 13-pole.
- Push +15 button (8) for 12 V ignition controlled power supply (+15) in caravan. LED +15 (2) will light up. Only applicable by 13-pole.
- Push earth button 10 (7) together with button +15 (8), to disable earth for 12 V ignition controlled power supply (+15) in caravan. Only applicable by 13-pole.
- Check all taillight functions by switching trailer taillight functions **one by one** (3).
- Trailer recognition indication (+TD or -TD (6)). The LED's will indicate if a trailer recognition is connected. Only applicable for vehicles / trailers with this function used. Trailer recognition to earth (-TD) is normally used.
- In case of a short circuit in the trailer harness the automatic fuse will switch off. Fix this problem first before continuing testing. (The fuse can be switched on after a cooling period.)



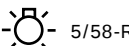
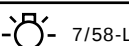
- Connect external power cable to a 12 V battery or power pack 12V/15A (1).
- LED +30 (2) will light up. If not please check the automatic fuse
- BULB /LED Switch (4) in BULB position.
- Put all light switches (3) in the on position.
- Push the test button for a maximum of 30 seconds! (5).
- If OK, All lamps will light up.
- If Not OK, replace the broken lamp(s).
- Put all light switches (3) in the off position and put the TD switch (6) in on position.
- Connect the 13-pole plug of the tester into socket (9).
- If the tester has no failures all LED's in the switches (3) will light up including the TD-LED (9).
- Disconnect external power cable.
- Disconnect the 13-pole plug.

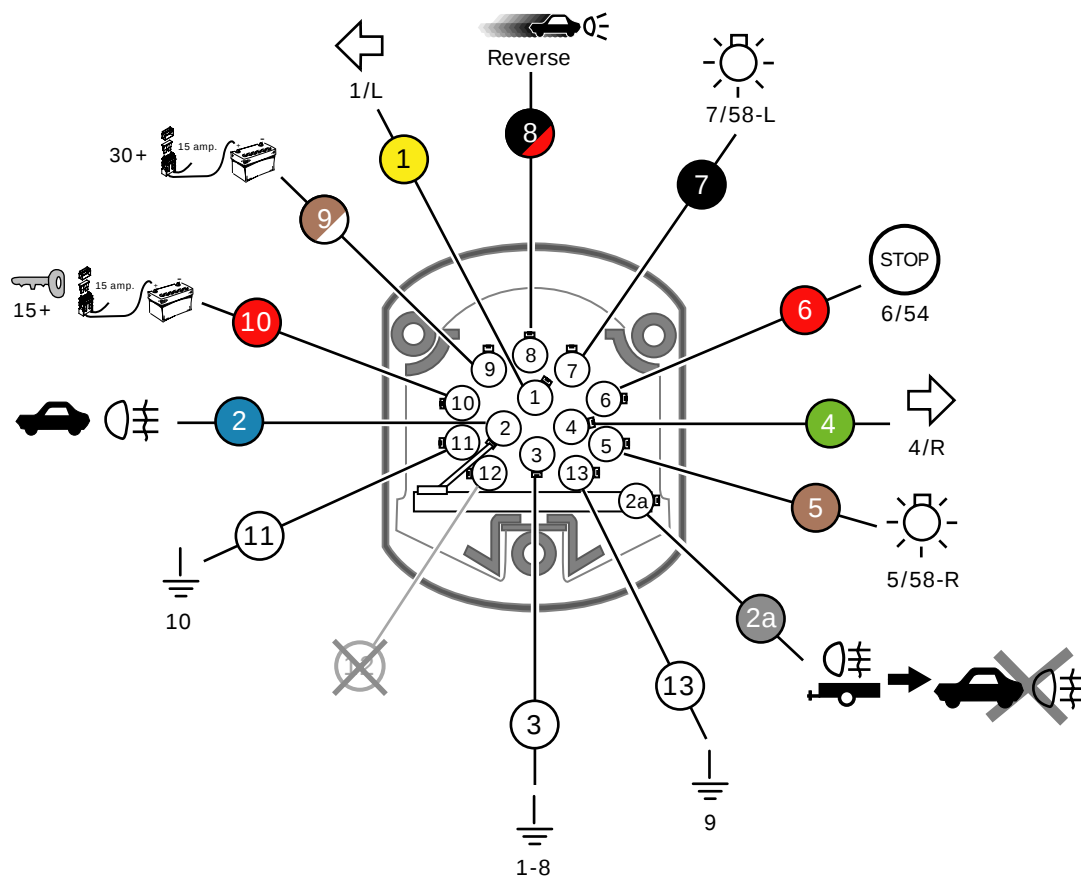
Socket connection DIN/ISO 1724

1	 1/L	 Yellow
2		 Blue
3	 1-7	 White
4	 4/R	 Green
5	 5/58-R	 Brown
6	 6/54	 Red
7	 7/58-L	 Black
8		 Grey



Socket connection DIN/ISO 11446

1	 1/L	 Yellow	8	 Reverse	 Black/Red
2		 Blue	9	 30+ 15 amp.	 Brown/White
2a		 Grey	10	 15+ 15 amp.	 Red 2,5mm ²
3	 1-8	 White	11	 10	 White
4	 4/R	 Green	12		
5	 5/58-R	 Brown	13	 9	 White
6	 6/54	 Red 1mm ²			
7	 7/58-L	 Black			



Applications	for vehicles with 7 / 13 pole socket and trailer/caravan with 7 / 13 pole plug according ISO 1724 and DIN 11446		
Supply voltage	9 .. 15 V		
Maximum supply current	10A, fused (automatic)		
Maximum load	L and R (Flasher)	:	21W, each
	58L and 58R (Tail)	:	21W, each
	54 (Brake)	:	2 x 21W
	54G (Fog)	:	1 x 21W
	BU (Back Up)	:	1 x 21W
Case dimensions	500 x 400 x 170 mm		
Weight	7,5 kg		
External power cable	1,50 Meter with cable clamps		
Adapter	13>7-pole acc. DIN 11446 > ISO 1724		
Extra features	fused in case off wrong connection Bulb or LED simulation test Self test		

Disclaimer:

The **LIGHTMATE** is made for functional testing only. Don't use the tester for duration tests.

TRAILER SOCKET CHECK LIST LIGHTMATE

(Make copy before use)

Vehicle model:

License plate:

Date:

Checked by:



- **LIGHTMATE** Connected to vehicle.
- LED 30+ lights up. Not applicable by 7-pole.
- LED 15+ lights up. Not applicable by 7-pole.
- Earth check circuit 9. Not applicable by 7-pole.
- Earth check circuit 10. Not applicable by 7-pole.
- Earth check circuit 1-8
- Taillight functions checked:
 - Left hand Indicator
 - Right hand Indicator
 - Stop lamp
 - Left hand tail lamp
 - Right hand tail lamp
- Trailer recognition. If applicable.
- C2 function (indicator control) left hand.
- C2 function (indicator control) right hand.
- Rear fog light cutoff.

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Dear customer your trailer socket is checked and approved with the ECS Electronics LIGHTMATE

ECS Warranty System for LIGHTMATE III

Thanks you very much for purchasing this ECS product.. Should you need to use our warranty service on this product, we want you to read the terms and conditions further on this document.

1. Standard Warranty conditions

ECS warrant that hardware of this product to be in good working order during the warrant period of six months. In the event that the hardware is found to be defective within the warranty period, hardware repair service will be provided free of charge at the ECS factory.

This service free of charge may be obtained only against presentation of the warranty card together with the original invoice/cash ticket issued to the customer, and if the warranty card states:

- a) The purchaser's name,
- b) The retailer's name and address,
- c) The serial number of the product,
- d) The date of purchase of the product.

ECS reserves the right to refuse warranty service if this information is not complete or has been removed or changed after the original purchase of the product by the consumer from the retailer. Warranty of the product will be expired if the customer has dismantled the hardware of the product.

2. To obtain warranty service

Warranty service is available by ECS service centre. Address ECS- electronics BV, Moerlaken 5-7, 4825 AR Breda, The Netherlands.

Any costs of secure carriage of the product to and from ECS electronics will be for account of the customer.

3. Limitations

ECS do not warrant the following:

- Periodic check-ups, maintenance and repair or replacement of parts due to normal wear and tear as bulbs.
- Defects caused by modifications carried out without ECS approval

Warranty repair service is excluded if damage or defects have been caused by:

- Improper use, excessive use, handling or operation of the product; in particular incorrect storage, dropping or excessive shocks.
- Repairs, modifications or cleaning carried out by unauthorised people.
- Use of spare parts which are not compatible with the product. Compatibility is ensured if original spare parts are used.
- Connecting the product to equipment not approved for connection by ECS
- Inadequate packaging of the product when returning it to the ECS service centre.
- Accidents or disasters or any cause beyond the control of ECS, including but not limited to lightning, water, fire, public disturbances and improper ventilation.

Warranty Card LIGHTMATE III

ECS electronics BV The Netherlands

Serial number LightMate

A) The purchaser

Name and address of dealer/purchaser

B) Retailer

Name and address of retailer

C) Date of product purchase

D) Name and address customer

ECS electronics BV
Department Customer Care
Moerlaken 5-7
4825 AR Breda
The Netherlands