12/24V Truck And Motorcar Electrical Tow Socket Tester

User Guide

This Product Includes The Following:

1. Vehicle tow socket tester 12/24V / 10A
2. Set of 12v/5w globes
3. Set of 24v/6w globes
4. SABS wiring standard diagrams

Thank you very much for purchasing this product!

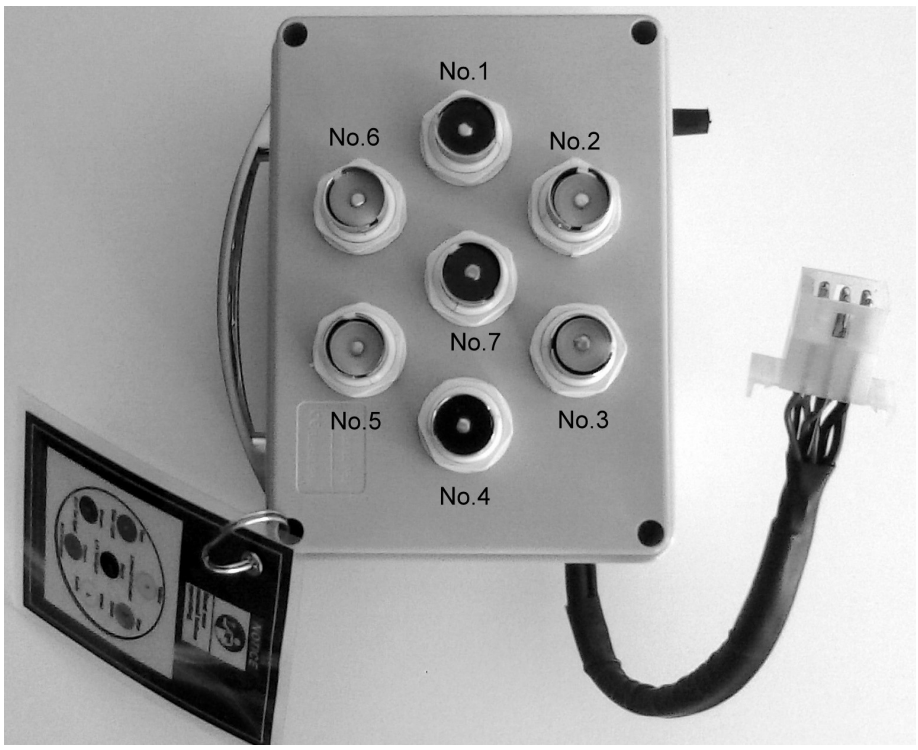
We hope you will have fun with the trailer light tester tool! We use this very same tester with great success at our workshop, Peter Tune Up and Repairs.

www.petertuneup.co.za

How To Safely Operate Tester

- This tester tests the tow electrical socket on all vehicle types, including those who come out with an added electronic tow control relay device
- Never pull on electrical wires
- Tester not waterproof; keep away from water, oil, petrol, and other liquid
- To test vehicles operating with 12-volt power – use the 12-volt globes on tester
- To test vehicle operating with 24-volt power – use the 24-volt globes on tester
- Thirty seconds per light load test is good enough. Be careful not to burn yourself as light bulbs will get hot
- Twelve-volt globes will blow when testing vehicles operating with twenty-four volts
- Twenty-four-volt globes will light up very dimly or not at all when testing vehicles operating with twelve-volts
- Make sure the cigarette lighter socket of vehicle you are testing has power for the tester to work
- Clean tester with oil-based products like turpentine. Never use thinners or any other alcohol-based cleaning products
- Always use protective eye-wear if you are sensitive to light brightness or in case a bad globe bursts

Special Note:
Connect tester only after the vehicle tow-bar module has been coded and communicates with the other modules as necessary, over the vehicle network.



no.1	Yellow wire	left-hand indicator
no.2	blue wire	auxiliary
no.3 (E/G Globe)	white wire	negative polarity (-) indicator
no.4	green wire	right-hand indicator
no.5	brown wire	right-hand tail light
no.6	red wire	stoplights
no.7	black wire	left-hand tail light

reads the voltage of the vehicle's battery you are testing

insert this plug into the vehicle cigarette lighter socket to power on tester

tow electrical male plug 7-pin standard

HOW TO TEST :

Two types of tests to carry out when installing or repairing electrical tow sockets**:**

1. To test the wiring standard (SABS).

2. To test if each light circuit can handle the required electrical load. The negative polarity indicator (E/G) globe on the tester and the specific light circuit you are testing must light up brightly. Should the two globes' brightness drop sharply or die, the light circuit will not pass the load test.

The tester does both tests simultaneously to make sure that the vehicle tow socket and light circuits work one hundred percent.

- Insert tow plug of the tester into the tow socket of vehicle
- Switch the tester on by inserting the tester power plug into your vehicle cigarette lighter socket. The negative polarity indicator (E/G) globe on the tester will light up if the earth/ground wire of the tow socket is available
- Continue with testing

Quick Tips

Please clean and remove dirt from the vehicle tow socket before connecting the tester. When plugged in, it sometimes helps wiggle the plug to loosen sticky terminals, ensuring better contact.

In some vehicles, the park-, door- and roof lights come on automatically; therefore, all doors need to be closed during testing as this will affect the tail light tests.

- FIRST STEP: EARTH / GROUND WIRE TEST -

This test is the first step, and the most crucial step as this earth/ground terminal pin(no.3) of the vehicle tow socket will supply negative polarity to the rest of the light circuits. If the (E/G) globe doesn't light up, then check for the following faults -

1. Tow socket not wired according to (SABS) standard.
2. Worn, dirty, or corroded terminal connections on tow socket.
3. There is no earth/ground at the vehicle tow plug.
4. Broken-off earth/ground wire.
5. Broken or missing electronic tow module.

With the earth/ground wire connected at the wrong terminal pin of vehicle tow socket, the tester will indicate by lighting up two globes in a dimmish way. More detail below on how the tester will signal a wrongly connected earth/ground wire at vehicle tow socket:

Earth/Ground Wire Test	Tow Socket Pin No.1-7	Signal On Tester Negative Polarity Indicator Globe (E/G Globe)	Test Pass/Fail
earth/ground wire not connected to	-	E/G globe off	fail
earth/ground wire connected to	no.1	E/G globe and left-hand indicator globe on / dimly	fail
earth/ground wire connected to	no.2	E/G globe and auxiliary globe on / dimly	fail
earth/ground wire connected to	no.3	E/G globe on / brightly	pass
earth/ground wire connected to	no.4	E/G globe and right-hand indicator globe on / dimly	fail
earth/ground wire connected to	no.5	E/G globe and right-hand tail light globe on / dimly	fail
earth/ground wire connected to	no.6	E/G Globe and stoplight globe on / dimly	fail
earth/ground wire connected to	no.7	E/G globe and left-hand tail light on / dimly	fail

- SECOND STEP: STOP LIGHT CIRCUIT TEST -

The stop GLOBE (no.6) will light up and stay on brightly without flashing when pressing down the brake foot pedal of the vehicle. If not then check for the following -

1. Blown fuse/s.
2. Worn, dirty, or corroded terminal connections on tow socket.
3. Broken or damaged brake light switch.
4. Damaged electrical wiring.
5. Broken or missing electronic tow module.

- THIRD STEP: TAIL LIGHT CIRCUIT TEST -

The tail GLOBES (no.5 and no.7) will light up and stay on brightly without flashing when switching on the vehicle's park light switch. If not then check for the following -

1. Blown fuse/s.
2. Worn, dirty, or corroded terminal connections on tow socket.
3. Broken or damaged tail light switch.
4. Damaged electrical wiring.
5. Broken or missing electronic tow module.

Note: Both the tail circuits must work to pass the wiring standard.

- FOURTH STEP: R /H INDICATOR CIRCUIT TEST -

The right-hand indicator GLOBE (no.4) will light up brightly and start flashing with the vehicle flasher unit when switching the indicator lever switch to the right side. If not then check for the following -

1. Blown fuse/s.
2. Worn, dirty, or corroded terminal connections on tow socket.
3. Broken or damaged indicator switch.
4. Damaged electrical wiring.
5. Broken or missing electronic tow module.

- FIFTH STEP: L /H INDICATOR CIRCUIT TEST -

The left-hand indicator GLOBE (no.1) will light up brightly and start flashing with the vehicle flasher unit when switching the indicator lever switch to the left side. If not then check for the following -

1. Blown fuse/s.
2. Worn, dirty, or corroded terminal connections on tow socket.
3. Broken or damaged indicator switch.
4. Damaged electrical wiring.
5. Broken electronic tow module.

- SIXTH STEP: AUXILIARY CONNECTION TEST -

If the auxiliary wire receives any positive polarity power, the GLOBE (no.2) on the tester will light up. By standard, this wire is open with nothing connected to it, and the globe should not light up. If it does, check for what reason. See on page 5, earth/ground connection to the auxiliary wire.

- SEVENTH STEP: HAZARDS CIRCUIT TEST -

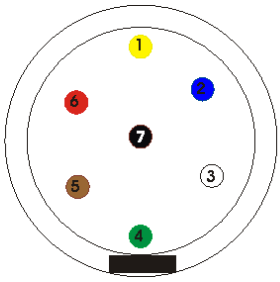
The right-hand indicator GLOBE (no.4) and left-hand indicator GLOBE (no.1) will light up and start flashing when switching the hazards switch. If not then check for the following -

1. Blown fuse/s.
2. Worn, dirty, or corroded terminal connections on tow socket.
3. Broken or damaged hazards switch.
4. Damaged electrical wiring.
5. Broken or missing electronic tow module.

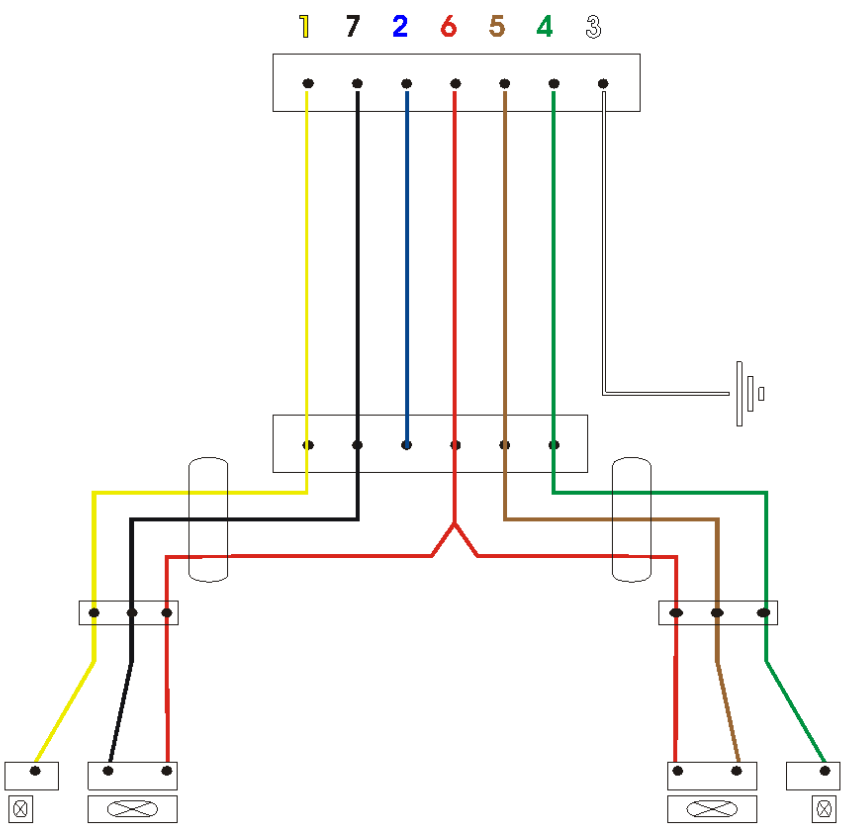
Dear User,

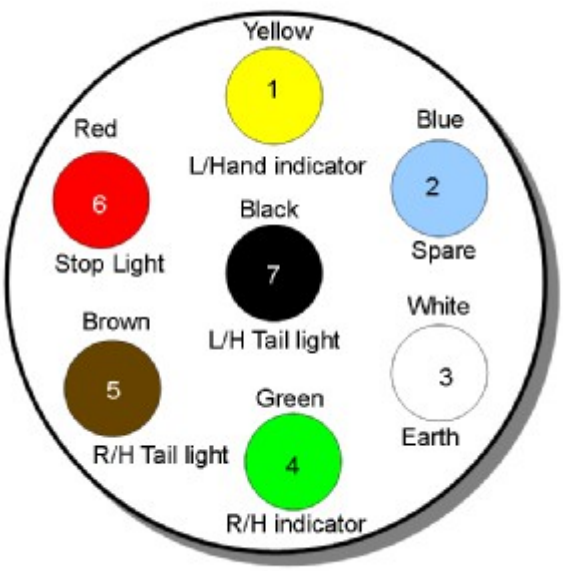
Just a reminder that free email support is available for any questions or problems you should encounter. Telephonic inquiries are also welcome.

WIRING DIAGRAM TAILGATE (TRAILER)
SABS 1327 - 1981



1.----- LEFT INDICATOR -----YELLOW
2.----- AUXILIARY----------BLUE
3.-----EARTH----------WHITE
4.-----RIGHT INDICATOR-----GREEN
5.-----RIGHT TAIL-LIGHT-------BROWN
6.-----STOP LIGHTS----------RED
7.-----LEFT TAIL-LIGHT---------BLACK




Yellow
1
L/Hand indicator
Blue
2
Spare
Red
6
Stop Light
Black
7
L/H Tail light
White
3
Earth
Brown
5
R/H Tail light
Green
4
R/H indicator