



**Jaltest PTE
(Portable Trailer e-Supply)**

User manual

jaltest.com



Rev. 01



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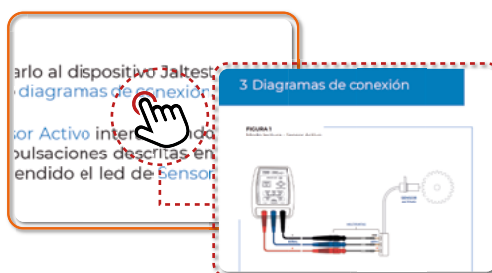
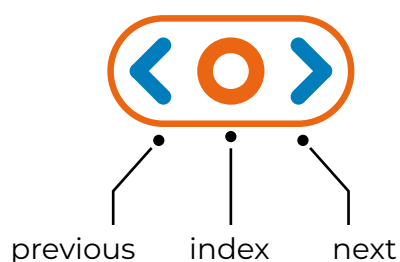
INNOVATION & TECHNOLOGY



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1 General Information

1.1 PRODUCT DESCRIPTION

Jaltest PTE is the mobile equipment designed to check the power supply and the signals that are transferred between the tractor head and the towed vehicle, such as lighting, indicator lamps, and CAN communication.

It has two operating modes, depending on whether check is required in the tractor head or in the towed vehicle. In addition, Jaltest PTE can be used as external power supply in the towed vehicle, therefore it is possible to diagnose the systems with electronic control through the Jaltest diagnostics tool without tractor head.

Through LED lighting, Jaltest PTE shows the status of each one of the electric signals of the ISO 7638 and ISO 12098 connectors, providing a quick and safe check.

It is a product designed to provide a quality service, reducing significantly the time spent on checks and fault detections.

1.2 EQUIPMENT COMPOSITION

Jaltest PTE is made of a case with rechargeable batteries (two 12V batteries in series), an electronic board, and an operator interface with keys and LEDs. Furthermore, it has the following connectors: SAE 0-40 "BATTERY CHARGER" to charge the internal batteries and the connectors of the ISO 7638 and ISO 12098 standards through which the checks are carried out.

LEDs indicate a correct operation with **green** colour, a fault with **red** colour and warning of a possible fault with **orange** colour.



1. Power switch
2. Protection fuse
3. Vehicle type selection keys
4. Connector type selection keys
5. Special function activation keys
6. ISO 7638 connector
7. ISO 12098 connector
8. Connector for battery charger*
9. ISO 7638 / ISO 12098 legend:



*Use only the charger supplied with the equipment and charge it in the 24V option, not 12V. **Do not keep charging uninterruptedly for more than 8 hours.**

ISO 7638	
1	KL 30. Battery positive
2	KL 15. Ignition positive
3	KL 31. ECU ground
4	KL 31. Battery ground
5	Warning Lamp
6	CAN H
7	CAN L

ISO 12098	
1	KL L. Left turn signal
2	KL R. Right turn signal
3	Rear fog light
4	KL 31. Ground
5	KL 58L. Left rear position light
6	KL 58R. Right rear position light
7	KL 54. Brake light electrical signal
8	Reversing light
9	KL 30. Power supply 24V
10	Special function
11	Special function
12	Special function
13	KL 31. CAN Ground
14	CAN H
15	CAN L



1.3 INDICATIONS AND RECOMMENDATIONS

- Use the equipment only as described in the manual.
- Prevent non-qualified personnel from using the equipment.
- Prevent the equipment from being used on wet surfaces or being exposed to rain and fluids.
- Do not put Jaltest PTE into operation close to open fuel containers or other open containers with chemical substances to prevent the deflagration risk or fire hazard.
- Store the equipment and its components in a dry place, away from heating sources and out of the reach of solar radiation.
- **Important!** The power switch must be in “OFF” position to avoid a premature discharge and/or irreversible damage in the internal batteries.
- Prevent the equipment from being knocked or falling.
- Avoid the use of the equipment in vehicles with a power supply voltage of 12V. Jaltest PTE is designed to provide or receive 24V. If this condition is not respected, serious damages can be done to the vehicle and/or the testing equipment.
- The connector for the battery charger must be used only to charge the internal batteries. Use the charger included in the equipment and select in the charger the 24V option. Do not use the device while charging. Do not keep charging uninterruptedly for more than 8 hours.
- It is recommended to charge the internal batteries at least once a month and always with the power switch in “OFF” position.



1.4 DEVICE SYMBOLS

SYMBOL	DESCRIPTION
	· Complies with European Directives
	· Do not dispose of this product as unsorted municipal waste. Contact a qualified recycler

1.5 WARNINGS AND SAFETY PRECAUTIONS FOR BATTERIES

- Keep batteries out of the reach of children.
- Do not use batteries for any applications other than those specified.
- Do not attempt to disassemble, modify, damage, impact, or carelessly dispose of batteries, otherwise they might leak, heat or explode.
- Do not dispose of batteries in water, fire, and prevent them from heating.
- Do not short circuit batteries.
- If the voltage of battery back is above 45V, please be sure to wear insulated gloves when working, otherwise you might get an electric shock.
- Do not face to the top of the battery in short distance. Please, keep a certain distance when measuring and repairing.
- Batteries contain sulphuric acid. Do not let sulphuric acid contact your skin, cloths, especially with your eyes. If this occurs, please wash your face with a lot of clean water, and consult a physician immediately.
- “Danger” indicates high danger and vigilance; “Warning” indicates moderate danger or alert; “Notice” indicates that a mild risk needs attention.
- Danger: Please do not use the battery outside the designated purpose. If it is used outside the designated purpose, as it may lead to liquid leakage, heating, fire or explosion.
- Danger: It is forbidden to disassemble, transform, damage, strongly impact or throw the battery, as it may lead to liquid leakage, heating, fire or explosion.
- Danger: It is forbidden to put the battery into the fire or heat it, as it may lead to fire or explosion.



- Danger: It is forbidden to connect the battery in short circuit, otherwise the battery will be heated and ignited.
- Warning: If total voltage of battery pack exceeds 45V, safety measures such as insulated gloves shall be used before work. If safety measures are not taken during work, there is risk of electric shock.
- Warning: Keep and use the batteries out of the reach of children.
- Warning: Sulphuric acid solution is adsorbed on the plates and separators inside the battery. If the battery is mechanically damaged, prevent the sulphuric acid from contacting the skin and clothes, and from splashing into the eyes. If this occurs, wash it immediately with plenty of water and go to hospital for serious cases.
- Warning: When installing the wiring, wrap the handle of metal installation tool with insulating tape. Notice: It is forbidden to discard batteries at will, as batteries and leakage can pollute the environment. Notice: It is forbidden to wipe the battery with organic solvents such as gasoline or alcohol.
- Notice: It is forbidden to store or use the batteries upside down.
- Notice: When measuring for maintenance, the face should not be directly on top of the battery. It should be kept at a certain angle or distance.
- Notice: The limit temperature range allowed for batteries is: Charging 0 to 40°C, discharging -20 to 55°C, storage -15 to 50°C, but use at 20 to 30°C is more appropriate to enhance battery life.
- Notice: If the battery is used in a way that is not described in this manual, or if there is any inconsistency with other product information, please seek help from your supplier.

2 Procedures

2.1 CHECK IN TOWED VEHICLE



Follow the steps described below to check the towed vehicle with Jaltest PTE.

1. With the power switch of Jaltest PTE in “OFF” position, connect the “ISO 7638” and “ISO 12098” cables of the vehicle in the corresponding connectors of the testing equipment.
2. Turn the power switch into “ON” position.
3. Press the towed vehicle selection key.

- **Green led:** The detected vehicle type corresponds to the selected vehicle type. Ready to start.
- **Red Led:** The detected vehicle type does not correspond to the selected vehicle type.

Nota: If LED is activated in **red** colour even if the correct vehicle has been selected, press the towed vehicle selection key for 5 seconds and the LED will change from red to **orange**. In this case, checks with Jaltest PTE are allowed, but note that a fault has already been found.



4. Press the selection key of the “ISO 7638” or “ISO 12098” connector, all LEDs flash.

Option A: Automatic Mode

Activate the mode with a long press (2 seconds) to start the automatic check of all electric lines sequentially.

Option B: Manual Mode

Activate the mode with short presses to select an electric line. Once the electric line to be checked has been selected, press again for 2 seconds.

Notes:

- If the check result of the line 1 of the “ISO 7638” connector is **orange** may be due to low consumption of components of the towed vehicle.

- To check the electric lines of the special functions of the “ISO 12098” connector (lines 10, 11 and 12), it is only necessary to select it, confirm the selection through a long press (2 seconds) and switch between “KL30” or “KL31” depending on the function configuration in the vehicle.

- Note that the result of checking some lines is **red** if there are no consumers according to the vehicle configuration.

2.2 CHECK IN TRACTOR HEAD



Follow the steps described below to check the tractor head with Jaltest PTE.



1. With the power switch of Jaltest PTE in “OFF” position and the vehicle ignition deactivated, connect the “ISO 7638” and “ISO 12098” cables of the vehicle in the corresponding connectors of the testing equipment.
2. Turn on the vehicle ignition.
3. Turn the power switch into “ON” position.
4. Press the tractor head selection key.

- **Green led:** The detected vehicle type corresponds to the selected vehicle type. Ready to start.

- **Red led:** The detected vehicle type does not correspond to the selected vehicle type.

Note: If LED is activated with **red** colour even if the correct vehicle has been selected, press the tractor head selection key for 5 seconds and the LED will change from red to **orange**. In this case, checks with Jaltest PTE are allowed, but note that a fault has already been found.

5. Press the selection key of the “ISO 7638” or “ISO 12098” connector, all LEDs flash.

Option A: Automatic Mode

Activate the mode with a long press (2 seconds) to start the automatic check of all electric lines sequentially.

Option B: Manual Mode

Activate the mode with short presses to select an electric line. Once the electric line to be checked has been selected, press again for 2 seconds.

Notes:

- To check the electric lines of lighting and indicator lamps of the tractor head in the “ISO 12098” connector, the corresponding signals must be activated in the cabin. In both modes, the LED will remain off if the signal is not activated and no fault is detected. In the latter case, a complete check will not have been performed.

- It is possible to activate the warning lamp in the instrument cluster. To do so, press the “KL31” key continually while the corresponding line is checked in Manual Mode (pin 5 of “ISO 7638” connector).

- Note that the result of checking some lines is **red** if there are no consumers according to the vehicle configuration.



2.3 USE OF JALTEST PTE AS POWER SUPPLY OF THE TOWED VEHICLE (24V)



Using Jaltest PTE as power supply of the towed vehicle and without the need for a tractor head, you can connect to electronic control systems with the Jaltest diagnostics tool.

1. With the power switch of Jaltest PTE in “OFF” position, connect the “ISO 7638” cable of the vehicle in the corresponding connector of the testing equipment.
2. Connect the diagnostics tool using the suitable cables.
3. Turn the power switch into “ON” position.
4. Press the towed vehicle selection key.
5. Press the selection key of the “ISO 7638” connector, all LEDs flash.
6. Activate the automatic mode with a long press (2 seconds) to start the check of all electric lines sequentially.

Note: The line LEDs corresponding to CAN communication (6.7) will be activated in **red** colour. It is a normal behaviour.

After checking the electric lines of the “ISO 7638” connector. **You can now diagnose the systems of the towed vehicle with Jaltest!**

Important! Jaltest PTE automatically cuts off power supply every 30 minutes. Note this fact during the diagnostics session, especially when performing actions with expert mode.



3 Technical data

3.1 SPECIFICATIONS

- Dimensions: 380x430x154 mm.
- Weight: 11.5 Kg.
- Internal lead-acid batteries (7.0 Ah)
- To prevent the total discharge of the batteries, Jaltest PTE automatically cuts off the power supply of the internal batteries when it detects a long period of inactivity.






Jaltest PTE has an acoustic warning that is activated 5 minutes before the power is cut. At the last minute, the warning frequency will increase. Press the “KL30” or “KL31” key to reset the counter.

- The low battery warning “LOW BATTERY” is activated if the voltage value is less than 20V.
- The range of working temperatures is 0 – 40°C.




When the temperature inside Jaltest PTE increases to over 49°C, the acoustic warning is activated.

- To configure the key tone, press the “KL31” and “KL30” keys simultaneously for more than 5 seconds.


3.2 OPTIONAL CABLES

PICTURE	REFERENCE	DESCRIPTION
	2260104	Serpentine 7 Terminal 24V Type-N ISO 1185
	2260105	Serpentine 7 Terminal 24V Type-S ISO 3731
	2260108	Serpentine 15 Terminal 24V Type-S/N B1
	2260109	Serpentine 15 Terminal 24V Type-S/N
	2260110	Serpentine adapter 15 Terminal A 7S/7N Truck



	2260113	Serpentine 7 pins EBS ISO 7638
	2260135	Serpentine 15 Terminal 24V Type-S/N Mercedes-Benz
	2260136	Serpentine 15 Terminal 24V Type-S/N IVECO

3.3 BATTERY CHARGER *

PICTURE	REFERENCE	DESCRIPTION
	50003001	JT3001 Battery charger 12/24V

* The battery charger is included in Jaltest PTE. Always use this charger and in the 24V option, not 12V.

4 Environmental information

The device Jaltest PTE is subject to the European Directive 2012/19/UE (RAEE).



At the end of the lifetime of the device, it should not be disposed of with general waste.

It can be handed over for free to the distributor, who will provide this service.

Warning: Disposing of a residue of an electronic device separately means avoiding possible negative consequences for the environment and health, resulting from an inadequate disposal, and allows a treatment and recycling of the materials it is made up of, obtaining important energy and resources savings.

Note: In order to emphasize the obligation to cooperative with a selective recycling, the warning shown on the picture can be found in the product, indicating that no traditional containers should be used for its disposal.

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