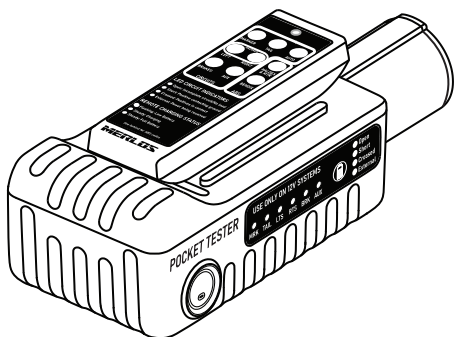


MERLOS

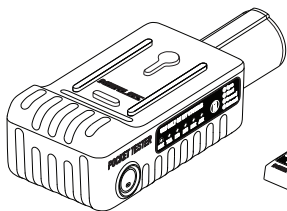
POCKET TESTER

for 7 Way Round Pin
Trailer Electrical Systems

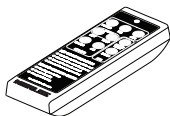


INSTRUCTION MANUAL

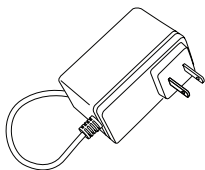
Product Components Included



Base Station



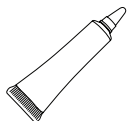
Remote



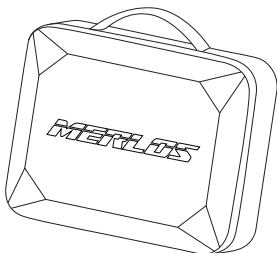
**Base Station
Charger**



Remote Charging Cable



Dielectric Grease



Carrying Case

Table of Contents

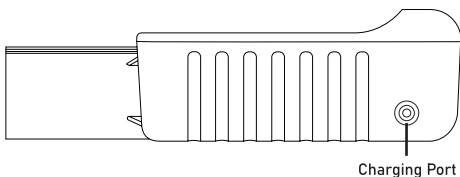
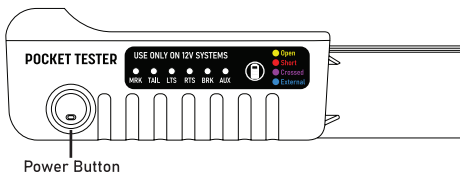
Base Station Operation	4-5
Remote Control Operation.....	6-7
ABS Diagnosing	8
ABS Bendix Codes	9
ABS Meritor Codes	10
ABS Haldex Codes	11
Maintenance, Care and Support	12

 **WARNING:** This device is intended for use only on trailers with 12V lighting systems. Misusing it with incompatible systems may cause damage or pose safety risks.

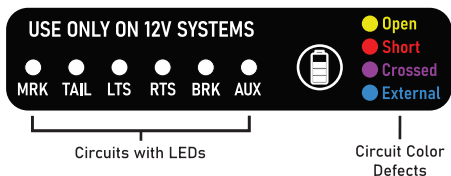
 **WARNING:** Never disassemble any of the components. There is a danger of an electric shock or fire could be caused by improper reassembly.

 **WARNING:** Misusing or mishandling a lithium-ion battery may cause fire or explosion, which can result in personal INJURY or DEATH and property damage.

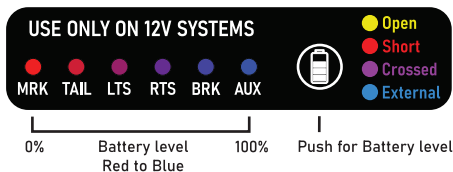
Base Station



Circuit Indicator



Battery Indicator



Base Station – Continued

Circuit Indicator Lights

Turning on a circuit shows any defects found on the indicator panel.

- Green: Output on, no defects
- Yellow: Open circuit detected
- Red: Short circuit detected, circuit flashes red a few times and remains on
- Purple: Crossed circuit detected, multiple positives in contact
- Blue: External power detected (External/Tractor Mode)
- All LEDs Flashing Red: Low battery voltage

Local Auto Cycle

If needed, use auto cycle without a remote.

- Hold battery button for 5 seconds to start (Yellow LED wave)
- Pause: press once (Red LED wave), circuit stays on
- Resume: press once (Green LED wave), continues
- Hold for 5 seconds to exit

External/Tractor mode

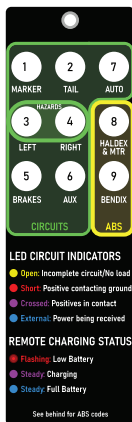
Test 7 way sockets for power. Turn off unit, plug into 7-way socket, then turn on. Blue LED indicates receiving power.

WARNING: Do not plug in if device is on or a circuit is active.
--

Device Charging

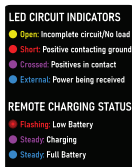
Use only the provided 15V charger and charge at room temperature to avoid battery damage. The LED will flash while charging and remain steady once fully charged. Charging time is about 3 hours.

Remote Control

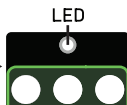


Button	Function
1	Marker Lights
2	Tail Lights
3	Left Signal Lights
4	Right Signal Lights
5	Brake Lights
6	Auxiliary
7	Auto Cycle Circuits
8	Haldex & MTR ABS Codes
9	Bendix ABS Codes
3+4	Hazard Lights Toggle
1+7	Remote Pairing
7+9	Remote Soft Reset

Remote LED Indicator



Circuit defects
and charging
status
appear on top
of remote LED



When a circuit is activated, any detected defects will appear on the remote LED for 6 seconds, indicated by specific colors (see LED Circuit Indicators on remote).

Use a standard 5V, 2A USB adapter with the included USB-C cable. Avoid using higher voltage adapters, as they may damage the remote.

Remote Control – Continued

One Click ABS

Buttons 8 and 9 send a signal to the ECU to display ABS codes on the trailer. (More details on page 8)

Hazard Lights

Press buttons 3 and 4 together to turn on the hazard lights. You can still test other circuits while hazards are on. To turn off the hazard lights, press buttons 3 and 4 again.

Remote Pairing

Activate Pairing Mode

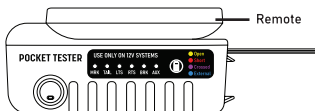
- Turn on the base station and immediately press and hold the Battery Button.
- The base station enters pairing mode, shown by an orange LED cycling back and forth. Pairing mode lasts 30 seconds.

Pair Remote

- On the remote, press and hold Buttons 1 and 7 together until all LEDs on the base station turn green, indicating a successful pairing.
- If pairing fails within 30 seconds, all LEDs will turn red.

Magnetic Storage

The remote can be stored on top of the base station when not in use. Magnets keep it securely in place.



ABS Diagnosing

Identify ABS Module

Determine the type of ABS module on the trailer. This device can only work on Haldex, Bendix and MTR (Meritor) modules.

Connect Base Station

Plug the base station into the trailer and turn it on.

Select Module

For Haldex or MTR, press the Haldex/MTR button.

If the trailer has a Bendix module, press the Bendix button on the remote.

Wait for Signal

The base station will send a signal to the trailer's ECU.

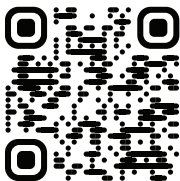
Read blink codes

The trailer will display blink codes to indicate the problem. Refer to the blink code descriptions on the following pages to diagnose the issue.

Quick Access to ABS Codes

For convenience, the ABS codes can also be accessed on our website at www.Merlos.co

Additionally, there is a QR code located on the back of the remote control, providing quick and easy access to the ABS codes online.



Scan for ABS codes

ABS Bendix Codes

Note: This chart provides a simplified list of ABS fault codes for quick reference. For detailed diagnostics, advanced troubleshooting, or additional information on this ABS system, please refer to Bendix's official documentation.

Blink Codes		Description
1st Code	2nd Code	
2	1-4	SL WSS Signal
3	1-4	SR WSS Signal
4	1-4, 6	SAL WSS Signal
5	1-4, 6	SAR WSS Signal
2	5	SL Tire Configuration
3	5	SR Tire Configuration
4	5	SAL Tire Configuration
5	5	SAR Tire Configuration
6	Any	Power
7	Any	Modulator 1 DTC
8	1-3	Modulator 2 DTC
9	1-3	Modulator 3 DTC
8	4	Modulator 2 Configuration Error
9	4	Modulator 3 Configuration Error
10	Any	Modulator Common
11	Any	Electronic Control Unit (ECU)
12	Any	J1587 Diagnostic
13	Any	Trailer ABS Indicator Lamp

ABS Meritor Codes

Note: This chart provides a simplified list of ABS fault codes for quick reference. For detailed diagnostics, advanced troubleshooting, or additional information on this ABS system, please refer to Meritor WABCO's official documentation.

Blink Code	Problem Area	Troubleshooting
3	Sensor BU1	Identify the sensor's position and verify its installation.
4	Sensor YE1	Identify the sensor's position and verify its installation.
5	Sensor BU2	Identify the sensor's position and verify its installation.
6	Sensor YE2	Identify the sensor's position and verify its installation.
7	External ABS ABS Modulator Valve	Ensure electrical connections are correct, check the power source.
9	Internal Modulator Failure, Inlet Valve #2	Confirm that installation is correct. If the issue persists, consult the manufacturer's support.
10	Internal Modulator Failure, Inlet Valve #1	Confirm that installation is correct. If the issue persists, consult the manufacturer's support.
11	Internal Modulator Failure, Outlet Valve	Confirm that installation is correct. If the issue persists, consult the manufacturer's support.
14	Power Supply	Ensure electrical connections are correct, check the power source.
15	ECU Failure	Confirm that installation is correct. If the issue persists, consult the manufacturer's support.
16	SAEJ1708 Failure	Internal system error. Consult the manufacturer's support.
17	SAEJ2497 (PLC) Failure	Internal system error. Consult the manufacturer's support.
18	Generic I/O Failure	Ensure electrical connections are correct, check the power source.

ABS Haldex Codes

Note: This chart provides a simplified list of ABS fault codes for quick reference. For detailed diagnostics, advanced troubleshooting, or additional information on this ABS system, please refer to Haldex's official documentation.

Blink Code	Description	Fault Code	Troubleshooting
Stays on	System OK	07	System functioning correctly.
1	Red Sensor 1A	01	Check for open or short circuits in sensor wiring. Measure resistance between pins; expected range is 980 - 2350 Ohms. Verify all connections. Replace faulty wiring if needed.
2	Red Sensor 1B	02	
3	Blue Sensor 2A	03	
4	Yellow Sensor 2B	04	
5	Blue Sensor 3A	05	
6	Yellow Sensor 3B	06	
7	Red Solenoid Valve	61, 67 71, 77 81, 87	Inspect the modulator solenoid for open or short circuits. Repair or replace any damaged components.
8	Blue Solenoid Valve	62, 68 72, 78 82, 88	
9	Yellow Solenoid Valve	63, 69 73, 79 83, 89	
10	Low Voltage Supply	90	Ensure power supply to the ABS is stable (>10V). Verify there are no issues with the power source.
11	ECU	93, 99 E-Codes	Replace or reprogram the ABS ECU if corrupt memory or hardware failure is indicated.

Maintenance, Care and Support

Using Dielectric Grease

Apply a thin layer of the supplied dielectric grease to the 7-way insert pins every few months or as needed. This prevents corrosion and extends contact pin life.

Handling and Cleaning

Do Not Submerge: The device is not waterproof; avoid water exposure.

Cleaning: Use a soft, non-abrasive cloth. Avoid harsh chemicals or abrasive materials.

Storage Guidelines

Carrying Case: Store the device in its case to protect it from dust, impacts, and environmental exposure.

Environment: Keep in a cool, dry area away from direct sunlight, high humidity, and heat sources.

Battery Care

Avoid Extreme Temperatures: Avoid exposing the device to very high or low temperatures.

Charging Practices: Unplug once fully charged and avoid extended charging after full capacity.

Soft Reboot for the Remote

Hold buttons 7 and 9 for a few seconds to perform a soft reboot if the remote becomes unresponsive. This resolves minor issues without unpairing.

Warranty Information

This product includes a 90-day limited warranty covering manufacturing defects and normal use issues. It does not cover :

- Accidental, impact, and water damages.
- Misuse, unauthorized repairs, or modifications.
- Normal wear and tear.

For full warranty details, please visit our website www.Merlos.co or contact us for assistance with a claim at Contact@Merlos.co

FCC Compliance Statement

This device **complies with part 15 of the FCC Rules.**

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.