

MI NOTICE

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02/03/06

Johnson Controls Inc.

18, Chaussée Jules César

BP 340 – OSNY

95526 CERGY PONTOISE CEDEX - FRANCE

GENERAL SAFETY PRECAUTIONS

- Ensure you read the following instructions carefully.
- Follow all the warnings and instructions shown on the products. The International Electrical Symbols used on the device and in this notice are explained in table 1 at the end of this document.
- Disconnect the equipment from the wall socket before cleaning. Do not use cleaning fluids or aerosols. Use a slightly damp cloth for cleaning.
-  This equipment must only be used with the battery and mains adapter supplied by us.
- These instructions contain information and warnings which must be followed by the user to ensure the equipment is used and maintained safely.
- **Equipment category II:** 400V overvoltage class II (IEC61010-1 electrical safety).
- **Pollution level 2:** non conducting pollution with occasional temporary conductivity caused by condensation (IEC61010-1 electrical safety).

IMPORTANT



To avoid the risk of electrocution:

- Live components are accessible when the equipment is open. The unit must be disconnected from the power source before any operation or repair inside the unit.
- Do not use the equipment if the unit or the connections are damaged.
- The battery access cover must be locked during use.
- Do not use the equipment in the rain.
- Any operation other than replacement of the battery must be carried out by an after sales service technician who is qualified to do so and knows the risks involved.

- **Federal Communication Commission Interference Statement**

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 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.

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

- **IMPORTANT NOTE:**

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Information to User:

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canada-Industry Canada(IC)

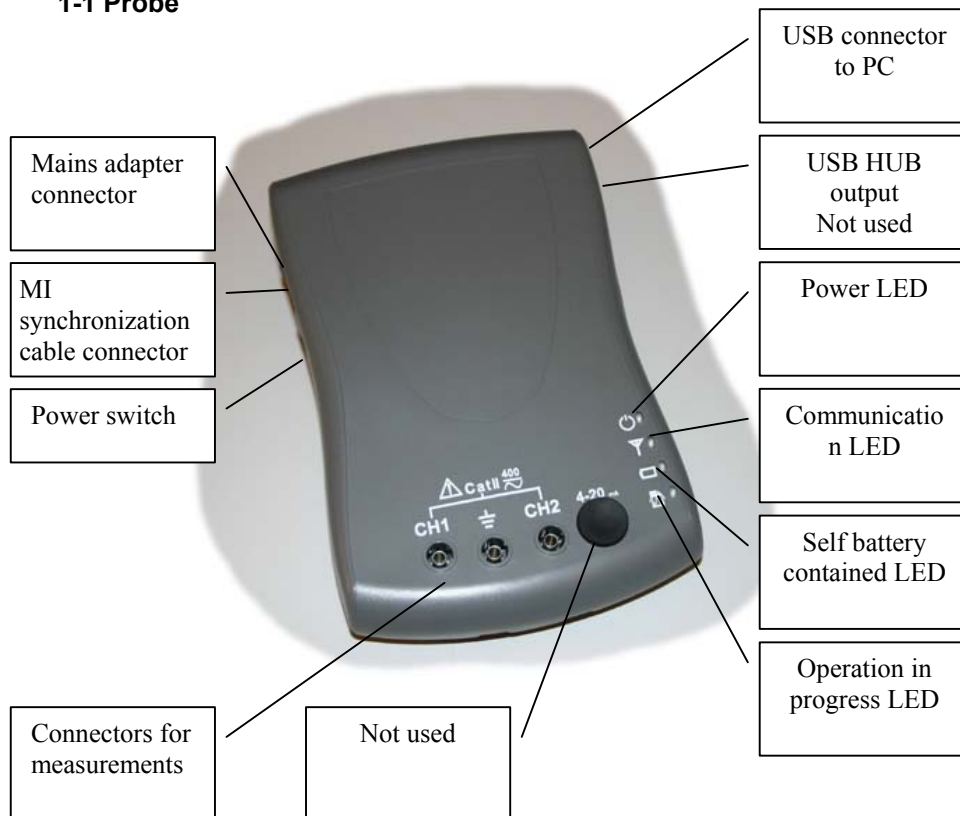
Operation is subject to the following two conditions: 1) this device may not cause interference and 2) this device must accept any interference, including interference that may cause undesired operation of the device.

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1- Description

1-1 Probe



1-2 Probe supply

The probe may be supplied by:

- The battery of the vehicle via the MI synchronization cable
- The self contained battery
- The mains adapter only to charge the self contained battery

2- Use



Warning

When working with voltages greater than 33 V RMS, 46 V peak or 70V continuous, take care as these voltages pose a risk of electrocution.

Use MI in accordance with the following instructions:

- ensure it is powered only by the internal battery,
- connect it to the central diagnostic unit using **Bluetooth mode only**,
- disconnect all other USB leads, MI synchronization lead...
- cover over all connector openings using the rubber covers provided for this purpose.



Important

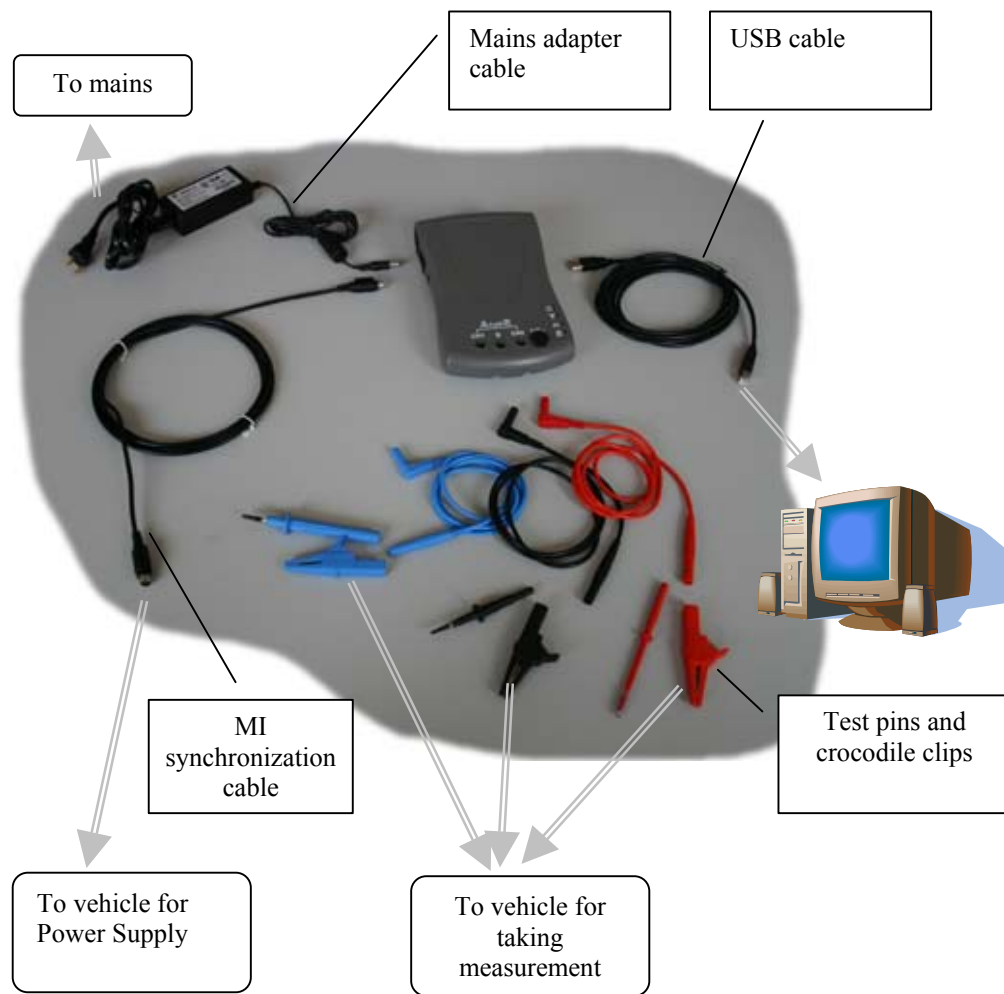
To avoid damage to the MI, follow the instructions below:

Use the terminals and function corresponding to the measurements to be made.

In ohmmeter mode, disconnect the circuit supply before checking its resistance or continuity.

Observe the temperature range for operation; do not expose the unit to heat behind a window or leave it in the cold.

2-1 Connection diagram



3- technical specifications

3-1 Equipment environment

Mains adapter:

Input: 100-240V AC 1A 50-60Hz

Output: 12V DC 1.67A

The removable plug for the mains power distribution board is used as a breaker device for the mains power source.

This mains adapter is used only to charge the MI self contained battery.

MI Probe:

Input: 8-16V DC I_{max} 2.5A

Battery:

Type Li Ion 3.2V 2200mAh

Battery life: 1hour 30 minutes at 25°C

. CONDITIONS FOR USE

Temperature for operation with internal battery in place:

in internal battery recharge mode: from 0°C to +45°C

in "measuring" mode: from -20°C to +60°C

in store: from -20°C to +45°C

Temperature for operation with internal battery removed from the unit:

in "measuring" mode: from -30°C to +70°C

in store: from -30°C to +80°C

Relative humidity: 0% to 90%

Operating altitude: 2,000 m

Outside of these limits, the unit is not within normal conditions of use and may not operate correctly.

4- Maintenance

Any operation other than replacement of the battery must be carried out by an after sales service technician who is qualified to do so and knows the risks involved

Only use the accessories and consumables supplied by us: measuring cables, connectors, spare battery.

4-1 Battery:



Warning

Do not reverse, incinerate or mutilate battery. This can cause toxic material or gas leakage and/or explosion.

4-1-1 Removing and refitting the battery

Removal

Disconnect all accessories from the MI, turn it off if it is operating, open the cover on the back of the probe and remove the battery.

Refitting

Fit the battery into position, connecting it without forcing it.

The battery fitting polarity MUST be observed (connector is fool proofed).

Refit the cover.



4-1-2 Recharging the battery

The battery must **ONLY** be recharged using the charger integrated into the MI.
Just connect the probe to the mains using the mains power adapter or to the car using the MI synchronization cable (refer to the connection diagram).
Make sure you observe the recharge temperatures shown in the technical specifications.

4-2 Scrapping the battery

The battery must not be thrown away. It must be returned to the manufacturer for recycling.

5- Cleaning

Disconnect the power before any cleaning operation. Use a damp cloth. Do not use solvents.

6- Accessories

Battery Type Li Ion 3.2V 2200mAH	218368073
MI synchronization cable	218365548
Adaptater AC/DC	218365598
Mains adapter cable	xxxxx
USB lead	218365556
Measurement leads red, black & blue	218374109
Tests pin red, black & blue	218374120
Crocodile clamps red, black & blue	218374117

8- International electrical symbols

	DC (Direct current)
	AC (Alternating current)
	AC or DC
	Earth ground
	Warning, refer to the notice for information
	Warning against electrical choc
	Double insulated

7- After sales service

In the event of any problems, please contact your Johnson Controls Inc. representative.

Johnson Controls Inc.

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