

# CP201 CHECK PLUG

## INSTRUCTION MANUAL



MARTINDALE  
ELECTRIC



### ALWAYS READ THESE INSTRUCTIONS BEFORE PROCEEDING

Thank you for buying one of our products. For safety and full understanding of its benefits please read this manual before use. Technical support is available from 01923 441717 and support@martindale-electric.co.uk.

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## 1 SAFETY INFORMATION





### REMEMBER: SAFETY IS NO ACCIDENT

These instructions contain both information and warnings that are necessary for the safe operation and maintenance of this product. It is recommended that you read the instructions carefully and ensure that the contents are fully understood. Failure to understand and to comply with the warnings and instructions can result in serious injury, damage or even death.

Particular attention should be paid to the Warnings, Precautions and Technical Specifications.


Please keep these instructions for future reference. Updated instructions and product information are available at: [www.martindale-electric.co.uk](http://www.martindale-electric.co.uk)

### 1.1 Meaning of Symbols and Markings

-  Caution - risk of danger & refer to instructions
-  Caution - risk of electric shock
-  Equipment protected by double or reinforced insulation (Class II)
-  Alternating current (AC).
- CAT III** (Measurement Category III) is applicable to test and measuring equipment connected to the distribution part of the building's low-voltage MAINS installation.

For further information on measurement categories refer to page 8, or visit [martindale-electric.co.uk/measurement\\_categories.php](http://martindale-electric.co.uk/measurement_categories.php)

 Equipment complies with relevant EU Directives

 End of life disposal of this equipment should be in accordance with relevant EU Directives

### 1.2 Precautions

This product has been designed with your safety in mind, but please pay attention to the following warnings and cautions before use.

#### Warnings

In order to avoid the danger of electrical shock, it is important that proper safety measures are taken when working with voltages exceeding 30V AC rms, 42V AC peak or 60V DC.

Where applicable other safety measures such as use of protective gloves, goggles etc. should be employed.

This check plug must only be used by a skilled and competent person who is familiar with the relevant regulations, the safety risks involved and the consequent normal safe working practices, and under the conditions and for the purposes for which it has been constructed and specified.

Before each use the check plug should be examined for damage, cracks, cuts or scratches. The 16A plug cable has contrasting outer and inner insulation, to allow damage to the cable to be easily identified. **Do not use** if damaged in any way.

Make sure the check plug is dry, clean and free from dust, grease and moisture while in use.

This check plug must only be used on CAT III and CAT II installations up to 300V to earth.

Always verify the unit is functioning correctly on a known correctly-wired live socket before and after use.

If the indicators do not illuminate, this does not necessarily mean the circuit under test is dead. E.g. the earth and neutral lines could both be open circuit.

**⚠ Cautions**

Avoid severe mechanical shock or vibration and extreme temperature.

**2. INTRODUCTION**

**2.1 Inspection**

Examine the shipping carton for any sign of damage. Inspect the unit and any accessories for damage. If there is any damage then consult your distributor immediately.

**2.2 Description**

The CP201/2 check plug is a socket tester designed for the fast and safe checking of 200 to 250V, 16A industrial sockets.

The check plug is fitted with a blue, 16A, 3-pin plug to BS EN 60309 (BS 4343).

Three indicator LED's across the front of the unit provide a clear indication of a correctly wired socket.

The check plug's moulded body gives lasting durability and is maintenance free.

**3. OPERATION**

Simply plug the check plug into a live 16A socket and switch the socket on.

Three indicator LED's across the front of the unit provide a clear indication of a correctly wired socket.

Fault indications are quickly identified using the key on the face label.

Additional information can be found in the table below, showing 32 wiring conditions, of which 28 are faults that require investigation.

In the event that a fault is indicated, investigation should only be carried out by a suitably qualified electrician.

NOTE: This unit, in common with other simple socket testers, cannot detect Earth / Neutral reversal.

Note 1 Earth / Neutral reversal not detectable.

Note 2 Investigation required by qualified electrician.

Note 3 Caution! Investigate with care. Socket wire(s) may be live, but LED's will not light. Investigation required by qualified electrician.

| N    | E    | L    | Socket Wires |      |      | CP LED's   |   |   |   |
|------|------|------|--------------|------|------|------------|---|---|---|
| N    | E    | L    | N            | E    | L    | OK         | ● | ● | ● |
| N    | N    | L    | N            | N    | L    | Note 1     | ● | ● | ● |
| E    | E    | L    | E            | E    | L    | Note 1     | ● | ● | ● |
| E    | N    | L    | E            | N    | L    | Note 1     | ● | ● | ● |
| L    | E    | N    | L            | E    | N    | LN Reverse | ● | ■ | ■ |
| L    | E    | E    | L            | E    | E    | LN Reverse | ● | ■ | ■ |
| L    | N    | E    | L            | N    | E    | LN Reverse | ● | ■ | ■ |
| L    | N    | N    | L            | N    | N    | LN Reverse | ● | ■ | ■ |
| E    | L    | L    | E            | L    | L    | LN Reverse | ● | ■ | ■ |
| N    | L    | L    | N            | L    | L    | LN Reverse | ● | ■ | ■ |
| N    | OPEN | L    | N            | OPEN | L    | No Earth   | ● | ● | ■ |
| E    | OPEN | L    | E            | OPEN | L    | No Earth   | ● | ● | ■ |
| L    | OPEN | E    | L            | OPEN | E    | No Earth   | ● | ● | ■ |
| L    | OPEN | N    | L            | OPEN | N    | No Earth   | ● | ● | ■ |
| OPEN | E    | L    | OPEN         | E    | L    | N Fault    | ■ | ● | ● |
| OPEN | N    | L    | OPEN         | N    | L    | N Fault    | ■ | ● | ● |
| OPEN | L    | E    | OPEN         | L    | E    | N Fault    | ■ | ● | ● |
| OPEN | L    | N    | OPEN         | L    | N    | N Fault    | ■ | ● | ● |
| N    | L    | E    | N            | L    | E    | LE Reverse | ■ | ■ | ● |
| E    | L    | E    | E            | L    | E    | LE Reverse | ■ | ■ | ● |
| E    | L    | N    | E            | L    | N    | LE Reverse | ■ | ■ | ● |
| N    | L    | N    | N            | L    | N    | LE Reverse | ■ | ■ | ● |
| L    | E    | L    | L            | E    | L    | LE Reverse | ■ | ■ | ● |
| L    | N    | L    | L            | N    | L    | LE Reverse | ■ | ■ | ● |
| OPEN | OPEN | L    | OPEN         | OPEN | L    | EN Fault   | ■ | ■ | ■ |
| OPEN | L    | OPEN | OPEN         | L    | OPEN | LEN Fault  | ■ | ■ | ■ |
| L    | OPEN | OPEN | L            | OPEN | OPEN | LEN Fault  | ■ | ■ | ■ |
| OPEN | L    | L    | OPEN         | L    | L    | LEN Fault  | ■ | ■ | ■ |
| L    | OPEN | L    | L            | OPEN | L    | LEN Fault  | ■ | ■ | ■ |
| L    | L    | OPEN | L            | L    | OPEN | LEN Fault  | ■ | ■ | ■ |
| OPEN | OPEN | OPEN | OPEN         | OPEN | OPEN | LEN Fault  | ■ | ■ | ■ |
| L    | L    | L    | L            | L    | L    | L Fault    | ■ | ■ | ■ |

**4. MAINTENANCE**

**4.1 Cleaning**

**⚠** Prior to cleaning, ensure the socket tester is disconnected from any voltage source.

If contamination is found, clean with a damp soft cloth and if necessary a mild detergent or alcohol. Do not use abrasives, abrasive solvents, or detergents which can cause damage to the unit. If a mild detergent is used, the unit should subsequently be thoroughly cleaned with a water dampened soft cloth. After cleaning, dry and allow to remain in a dry environment for 2 hours before use.

**4.2 Repair & Service**

There are no user serviceable parts. Return to Martindale Electric if faulty. Our service department will quote promptly to repair any fault that occurs outside the guarantee period.

**4.3 Storage Conditions**

The check plug should be kept in warm dry conditions away from direct sources of heat or sunlight, and in such a manner as to preserve their working life. It is strongly advised that they are not kept in a tool box where other tools may damage them.

## 5. WARRANTY AND LIMITATION OF LIABILITY

This Martindale product is warranted to be free from defects in material and workmanship under normal use and service. The warranty period is 2 years and begins on the date of receipt by the end user. This warranty extends only to the original buyer or end-user customer, and does not apply to fuses, disposable batteries, test leads or to any product which, in Martindale's opinion, has been misused, altered, neglected, contaminated, or damaged by accident or abnormal conditions of operation, handling or storage.

Martindale authorised resellers shall extend this warranty on new and unused products to end-user customers only, but have no authority to extend a greater or different warranty on behalf of Martindale.

Martindale's warranty obligation is limited, at Martindale's option, to refund of the purchase price, free of charge repair, or replacement of a defective product which is returned to Martindale within the warranty period.

This warranty is the buyer's sole and exclusive remedy and is in lieu of all other warranties, expressed or implied, including but not limited to any implied warranty of merchantability or fitness for a particular purpose. Martindale shall not be liable for any special, indirect, incidental or consequential damages or losses, including loss of data, arising from any cause or theory.

Since some jurisdictions do not allow limitation of the term of an implied warranty, or exclusion or limitation of incidental or consequential damages, the limitations and exclusions of this warranty may not apply to every buyer. If any part of any provision of this warranty is held invalid or unenforceable by a court or other decision-maker of competent jurisdiction, such holding will not affect the validity or enforceability of any other provision or other part of that provision.

Nothing in this statement reduces your statutory rights.

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## Measurement Categories

Measurement categories are determined by the potential for dangerous transient impulses on the mains supply system, the magnitude of which depends on the amount of damping of the transient energy due to the location within the system and the system voltage. Short-circuit current levels are also a factor.

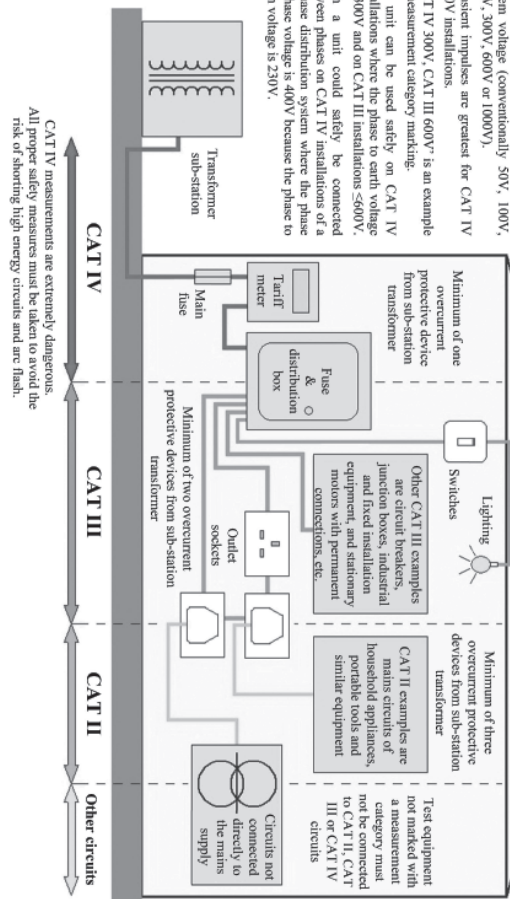
Test equipment used for measuring mains circuits will be marked with one or more of three measurement categories, CAT II, CAT III or CAT IV, to identify on which installations of a mains supply system it can safely be used.

Each category has a voltage rating marked to indicate the maximum safe phase to earth system voltage (conventionally 50V, 100V, 150V, 300V, 600V or 1000V). Transient impulses are greatest for CAT IV 1000V installations.

'CAT IV 300V, CAT III 600V' is an example of measurement category marking.

The unit can be used safely on CAT IV installations where the phase to earth voltage is 300V and on CAT III installations 600V. Such a unit could safely be connected between phases on CAT IV installations of a 3-phase distribution system where the phase to phase voltage is 400V because the phase to earth voltage is 230V.

CAT IV measurements are extremely dangerous. All proper safety measures must be taken to avoid the risk of shorting high energy circuits and arc flash.



## Specification CP201 Check Plug



### Electrical

Operating voltage range: 200 to 250V AC rms  
Frequency response: 30Hz to 70Hz  
Power consumption: <1.8W

Open earth indication: earth resistance  
>50kΩ nom at 230VAC nom

Open neutral indication: neutral resistance  
>50kΩ nom at 230VAC nom

### General

Power: from mains socket under test  
Dimensions: 65 x 65 x 47mm (check plug body)  
Weight: 195g approx.  
Includes: instructions

### Environmental

Temperature (Operating & Storage): -10°C to 40°C, 60% RH  
Altitude: up to 2000m  
Pollution degree 2

### Safety

Conforms to BS EN61010-1, CAT III 300V  
Class II, Double insulation

### EMC

Conforms to BS EN61326-1, BS EN61326-2-2

## Check out what else you can get from Martindale:

- 17th Edition Testers
- Accessories
- Calibration Equipment
- Continuity Testers
- Electricians' Kits
- Environmental Products
- Full Calibration & Repair Service
- Fuse Finders
- Digital Clamp Meters
- Digital Multimeters
- Labels
- Microwave Leakage Detectors
- Motor Maintenance Equipment
- Multifunction Testers
- Non-trip Loop Testers
- Pat Testers & Accessories
- Phase Rotation Testers
- Proving Units
- Socket Testers
- Thermometers & Probes
- Test Leads
- Voltage Indicators
- Specialist Metrohm Testers (4 & 5kV)
- Specialist Drummond Testers



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