

USER GUIDE



PROTAG CAT III RCD ADAPTOR – model PRO-RCD and 600V CAT III Test Lead Set



WARNINGS - READ BEFORE USE

1. For use by **qualified electricians only**. Read this Guide carefully, otherwise the use of this adaptor may be dangerous for the operator.
2. If the adaptor is used in a manner not specified in this Guide, the protection provided by the equipment could be impaired.
3. Do not use the adaptor or any accessories if any damage is sighted.
4. Consider all generally known precautions and safe work practices in order to avoid electric shock while dealing with hazardous voltages and environments.
5. **Use only the standard test leads, probes and crocodile accessories supplied.**
Under no circumstances remove the plastic “CAT III 600V” protective probe tip.
>> Removal of the plastic probe tips renders the probe unsafe and non-compliant for switchboard use. <<
6. Hazardous voltages exist inside the adaptor case. Disconnect all test leads before checking or replacing the fuses.
7. If a fuse has blown, replace only with fuses as specified on the case label and in this Guide.
8. Do not use this adaptor in AC supply environments with voltages higher than 415V AC, Line-Line.
9. Keep steel tools and magnetic sensitive equipment separated from the rear of the ADAPTOR.
Strong magnets are fixed to the back of the ADAPTOR.
10. Intended for use in a dry environment only.

Purpose

This document provides guidance for the safe use of the PROTAG PRO-RCD CAT III ADAPTOR.

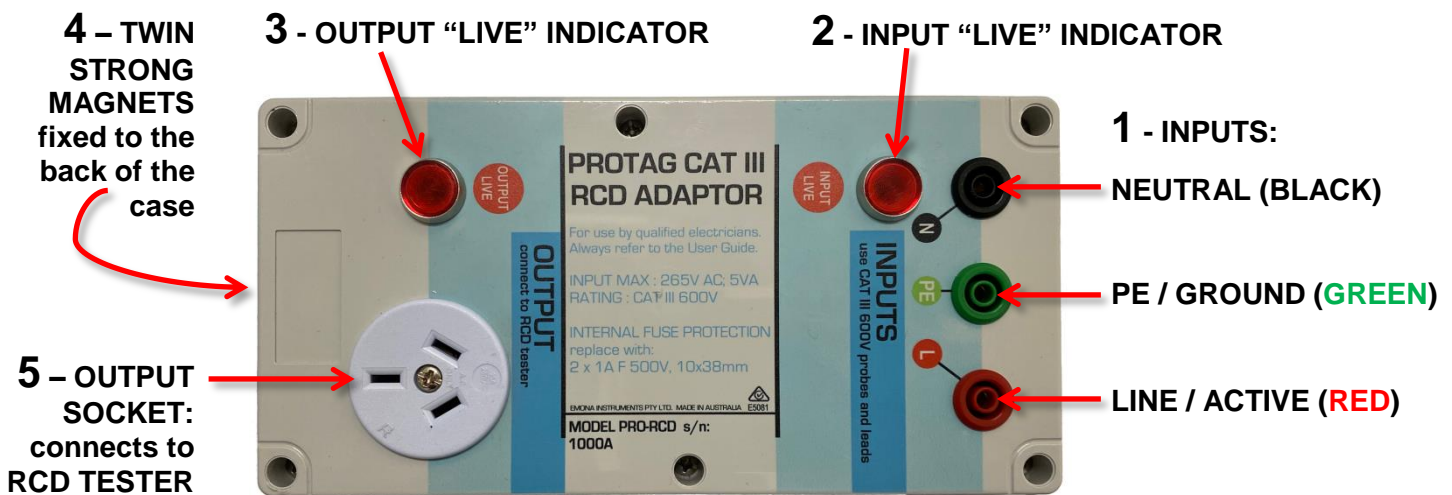
Description

The PRO-RCD is a CAT III 600V rated ADAPTOR, that allows testing of RCDs at the switchboard, using third party CAT II 300V rated RCD TESTERS.

Single phase or three-phase connections to a switchboard is established using CAT III 600V leads and probes. Output is a standard Australian 240V socket for connection to a third party RCD TESTER.

Two strong magnets fixed to the back of the ADAPTOR will support the ADAPTOR on vertical steel surfaces. Keep magnetic sensitive equipment separated from the rear of the ADAPTOR.

The ADAPTOR is designed to be used in commercial/industrial environments typical of factories and manufacturing establishments, and is only to be used by licensed electricians.



PROTAG CAT III RCD ADAPTOR – model PRO-RCD

Adaptor Functions

1 - INPUT SOCKETS – Neutral, PE (Ground) and Line (Active)

Can only be used with CAT III 600V rated, shrouded 4mm plugs, leads and probes

2 - Neon indicator confirms the INPUT is connected to **live voltages**.

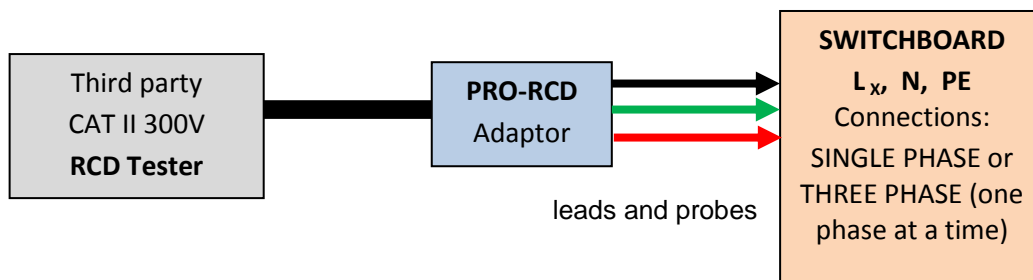
3 - Neon indicator confirms the OUTPUT socket has **live voltages present**.

4 – Twin strong magnets on the back of the case for holding the ADAPTOR onto vertical steel surfaces.

5 - Standard 3-pin socket for connection to an RCD Tester.

Use and Operation

The connection for use is illustrated below.



Connection diagram – single phase or three phase (one phase tested at a time)

The PROTAG PRO-RCD CAT III ADAPTOR is self powered when the INPUT is connected to a live mains source. The equipment is used as described below:

- 1) Plug the CAT III 600V rated red, black and green 4mm, right angle banana plugs to the matching ADAPTOR INPUT sockets.**
 - 2) Plug the red and black probes and green alligator clip to the matching red, black and green leads. At this time, do not connect to probes and clip to any external devices.**
 - 3) Connect an RCD TESTER to the ADAPTOR'S OUTPUT socket.**
 - 4) Turn ON the RCD TESTER and select RCD Test Function.**
 - 5) Connect the green ADAPTOR INPUT PE alligator clip to switchboard PE (GROUND/EARTH).**
 - 6) Connect L (red) and N (black) probes to the DUT at the switchboard.**
 - 7) Confirm INPUT LIVE neon is lit, indicating the ADAPTOR is connected to a live circuit. If not, confirm connection and status of switchboard.**
 - 8) Confirm OUTPUT LIVE neon is lit, indicating ADAPTOR is connected to a mains voltage within the correct operating window of 180V to 265V.**
- CAUTION - If the OUTPUT LIVE neon is not lit, the RCD test can not proceed and fault finding of the switchboard may be required, or ADAPTOR fuses may need to be checked.**
- 9) If INPUT and OUTPUT neon's are lit as described in 7) and 8), initiate the RCD Test.**

Fuses and Protection

The ADAPTOR provides FUSE and MOV input protection. The fuses are user replaceable.

Connection between the INPUT and OUTPUT is via dual relays, on L and N lines. The relays are only closed, providing direct connection between INPUT and OUTPUT, when the INPUT voltage falls between a predefined window – typically 180V to 265V. If the INPUT voltage is outside this range, the L and N relays remain open.

PE is directly connected between INPUT and OUTPUT.

PRO-RCD General Specifications

INPUT THREE SOCKETS, 4mm shrouded and color coded:
RED = active/L, BLACK = neutral/N, GREEN – earth/PE

MAX INPUT 265V AC

PROTECTION FUSE 2 x 1A F (fast acting) fuse, 10x38mm, rated at 500V or higher.

NEON INDICATION INPUT LIVE neon is lit when INPUT probes are connected to live voltages.

POWER CONSUMPTION 5VA, 50Hz

INTERNAL RELAY ISOLATION

- dual relays, in L and N circuits
- normally open; relays close only when INPUT voltage is between 180V and 265V (+/-10%)

OUTPUT Australian standard 240V/10A mains socket

NEON INDICATION OUTPUT LIVE neon is lit when RELAY contacts are closed indicating a mains voltage is present at the OUTPUT socket.

PE/EARTH Directly connected from INPUT socket to OUTPUT socket.

PHYSICAL 204 x 102 x 95mm, 800gm.

MAGNETIC BACK twin, strong magnets to hold ADAPTOR to vertical steel surfaces.

OPERATING ENVIRONMENT 0 to 40C, without moisture condensation

SAFETY RATING tested to CAT III 600V. Independent Test Report ID 2020-05

STANDARD ACCESSORIES

LEAD SET:

- 1 x **RED** 1.5m long, 4mm banana plugs, shrouded, 600V CAT III
- 1 x **BLACK** 1.5m long, 4mm banana plugs, shrouded, 600V CAT III
- 1 x **GREEN** 1.5m long, 4mm banana plugs, shrouded, 600V CAT III

PROBE SET:

- 1 x **RED** 600V CAT III (with red plastic protective probe tip : DO NOT REMOVE)
- 1 x **BLACK** 600V CAT III (with black plastic protective probe tip : DO NOT REMOVE)
- 1 x **CROCODILE CLIP, BLACK** 1000V CAT III.
- 1 x **CROCODILE CLIP, GREEN** 1000V CAT III.

WARRANTY

Warranty period of 12 months from date of invoice, against faulty parts or workmanship. Refer to Emona Instruments' Warranty Policy document.

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