

**TIMEGUARD®**

# RCD Fused Connection Unit

RCD10WPVN

RCD White Fused Connection Unit – Passive

RCD11WPVN

RCD White Fused Connection Unit – Passive

RCD16MLN

RCD Metal Fused Connection Unit – Passive



**Installation & Operating Instructions**

# 1. General Information

These instructions should be read carefully and retained for further reference and maintenance. The Timeguard range of RCDs, provide protection against fire hazard and rapid double pole disconnection from electric shock for the appliance connected to it. They fully comply with BS7288 and BS1363-4 (including updates and amendments). They are designed to mount on either a BS4662 recessed box or a BS5733 surface mount box (plastic versions only). Note: RCD – Residual Current Device.

## 2. Safety

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- Before installation or maintenance, ensure the mains supply to the RCD fused connection unit is switched off and the circuit supply fuses are removed or the circuit breaker turned off.
- It is recommended that a qualified electrician is consulted or used for the installation of RCD fused connection unit and install in accordance with the current IEE wiring and Building Regulations.
- Check that the total load on the circuit including when this RCD fused connection unit is fitted does not exceed the rating of the circuit cable, fuse or circuit breaker.
- Electricity can be dangerous, use of an RCD should not be regarded as a substitute for basic electrical safety precautions.

- Always test the RCD before use. If the test procedure is not completed satisfactorily or an appliance continues to trip the RCD seek professional advice and switch off the appliance.
- To clean use a dry cloth only.  
Do NOT use any liquid cleaners.
- The RCD should NOT be used when it could come into contact with liquids or excessive atmospheric pollution.
- A warming of the casing during use is normal.
- Do NOT use outside the service conditions.
- For devices having a solid neutral, ensure the correct polarity of the incoming supply connections should the device trip automatically upon connection to the supply.

## 2

### 3. Wiring Tests – **IMPORTANT**

- Remove this product from the circuit if carrying out tests (as described in the IEE Wiring Regulations) for earth loop impedance, prospective short circuit current and insulation resistance.
- Use the enclosed wiring label to ensure this is carried out.

## 4. Technical Specifications

### General RCD Specifications

- Operating Voltage: 230V AC 50 Hz
- Max Current: Fully complies with the current rating required by BS1363-4 (including updates and amendments)
- Rated Trip Current: 30mA
- RCD Type: Double Pole, suitable for 2 and 3 wire applications
- Breaking Capacity: 250A (Earth leakage)
- Through Fault Withstand: 1500A
- Operating Temperature Range: -5°C to 40°C
- Trip Speed: Less than 40msec at 150mA residual current
- Fixed Cable Capacity: 1x 8mm<sup>2</sup> or 2x 4mm<sup>2</sup> or 3x 2.5mm<sup>2</sup>
- Flexible Cable Capacity: 10.5mm diameter maximum
- Altitude: <2000m
- CE Compliant

Note: The RCD fused connection units are latching (passive) versions. If set, this will retain closed contacts if the mains supply is interrupted – essential for applications such as freezers.

## **RCD10WPVN**

- Minimum Box Depth  
Required: 25mm
- Dimensions (H x W x D): 85mm x 85mm x 52mm

## **RCD11WPVN**

- Minimum Box Depth  
Required: 25mm
- Dimensions (H x W x D): 85mm x 85mm x 42mm

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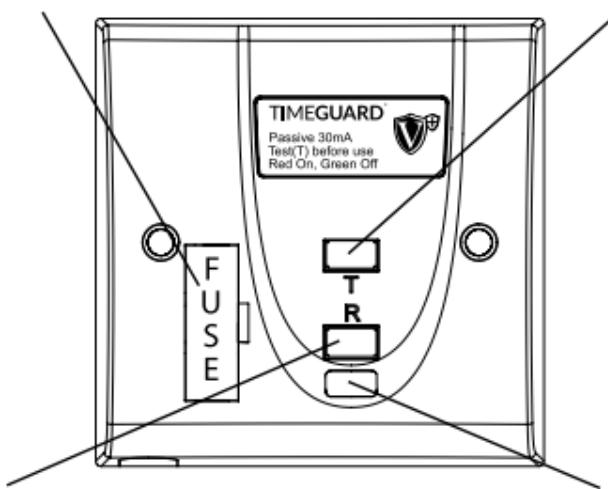
## **RCD16MLN**

- Minimum Box Depth  
Required: 40mm
- Dimensions (H x W x D): 87mm x 87mm x 60mm

## RCD10WPVN

BS1362 Fuse holder

Red Test (T) button



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## RCD11WPVN

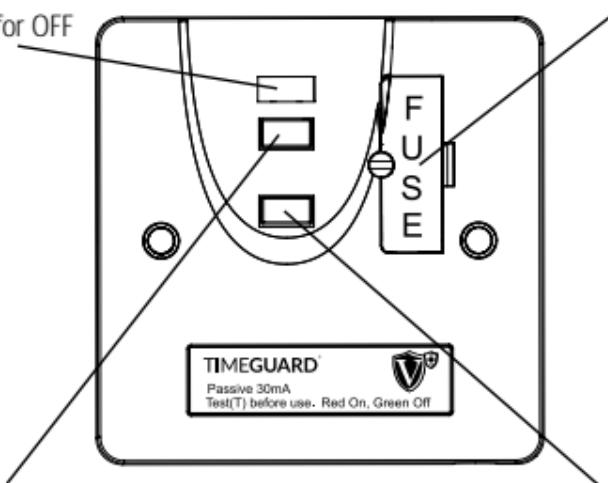
Status indicator shows Red for ON,

Green for OFF

BS1362 Fuse holder

Grey Reset button (R)

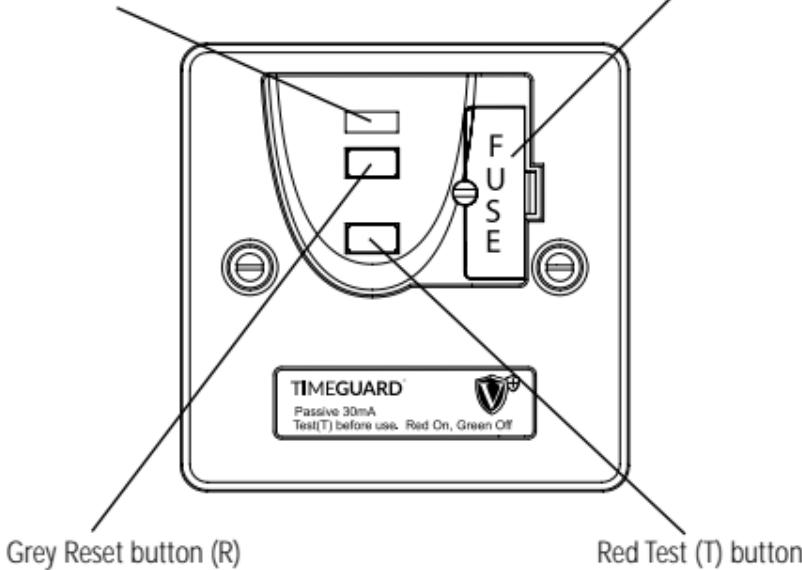
Red Test (T) button



## RCD16MLN

Status indicator shows Red for ON,  
Green for OFF

BS1362 Fuse holder



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## 5. Pack Contents

- 1x RCD Fused connection unit.
- 2x 3.5mm diameter fixing screws.
- 1x Warning label.
- 1x Instruction manual.
- 1x Cable clamp and cable clamp screw  
(Not RCD16MLN).

## 6. Installation

- The RCD should form part of a 30A ring main or terminate a spur off a 30A ring main. The cable connecting the supply to the RCD should be either: 2x 2.5mm<sup>2</sup> for the ring main or 1x 2.5mm for the spur.
- Fit the appropriate BS1362 fuse to suit the load appliance to be connected.
- The cable connecting the load appliance should be rated according to the fuse fitted to the connection unit.
- Make sure to tighten all screw terminals onto exposed wires.
- Ensure that there is both sufficient length of the supply cable tails(s) to enable easy wiring.

- 6.1 Ensure the mains supply is switched off and the circuit supply fuses are removed or the circuit breaker turned off.
- 6.2 Connect the incoming 230V 50Hz supply and outgoing load cables to the relevant terminals ensuring correct polarity is observed and that all bare conductors are sleeved (see section 7. Connection Diagrams).
- 6.3 A front cable exit cut-out is provided on the RCD10WPVN and RCD11WPVN units. The RCD10WPVN has a pre-installed removable blanking plate and the RCD11WPVN front cable exit needs to be cut-out manually.
- 6.4 If the front exiting cable cut-out is required:-
  1. Cut-out the front cable exit or remove the blanking plate (you can discard the blanking plate at this stage).
  2. Remove the cable grip and clamp screw from the accessory pack.

3. Secure the load cable to the unit using the cable clamp and clamp screw.
- 6.5 Finally secure the unit to the back box with the **fixing** screws provided, forming the cables during installation to avoid any entrapment and cable damage.  
Do not over tighten.

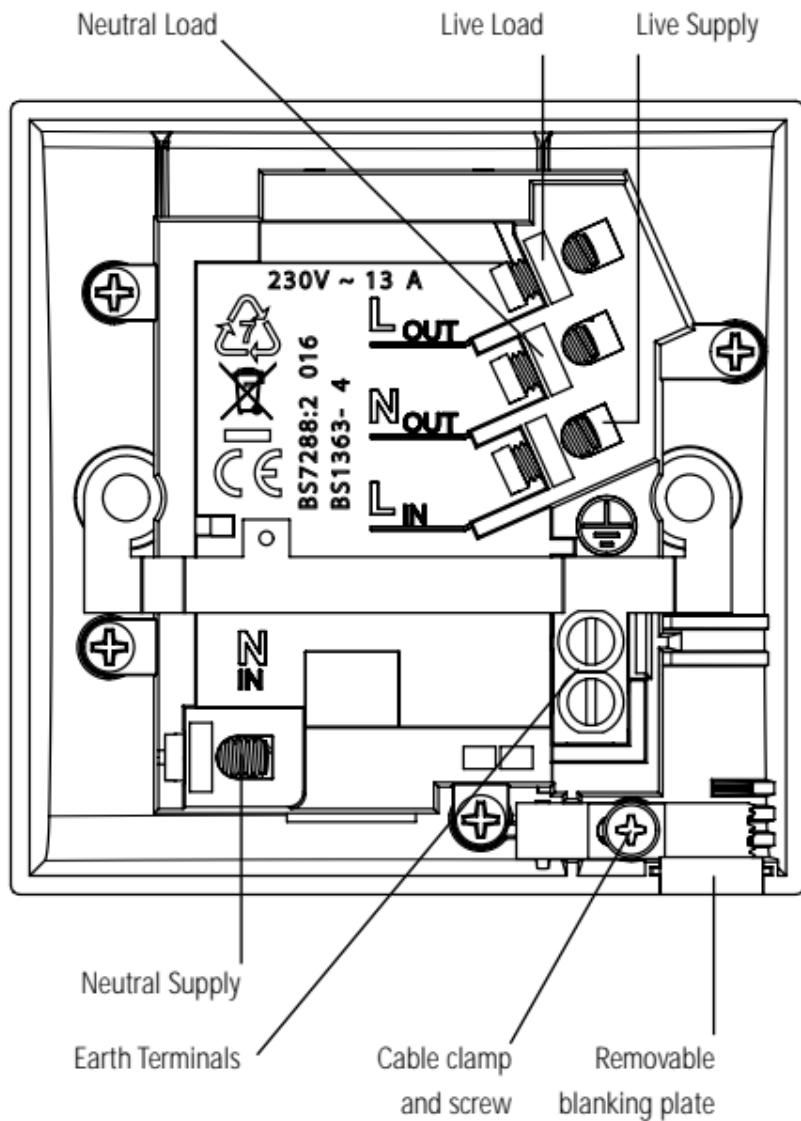
### **RCD16MLN Metal Clad Back Box**

- 6.6 Note the correct orientation of the back box (the word TOP should be the correct way up).
- 6.7 Lock rings, with a maximum thickness of 4.2mm and a maximum diameter of 25.7mm must be used on the inside of the back box. The gland or conduit must not project into the back box beyond the lock ring, a male adapter should be used within the back box along with a female coupler on the outside to terminate the cable glands or conduit.

# 7. Connection Diagrams

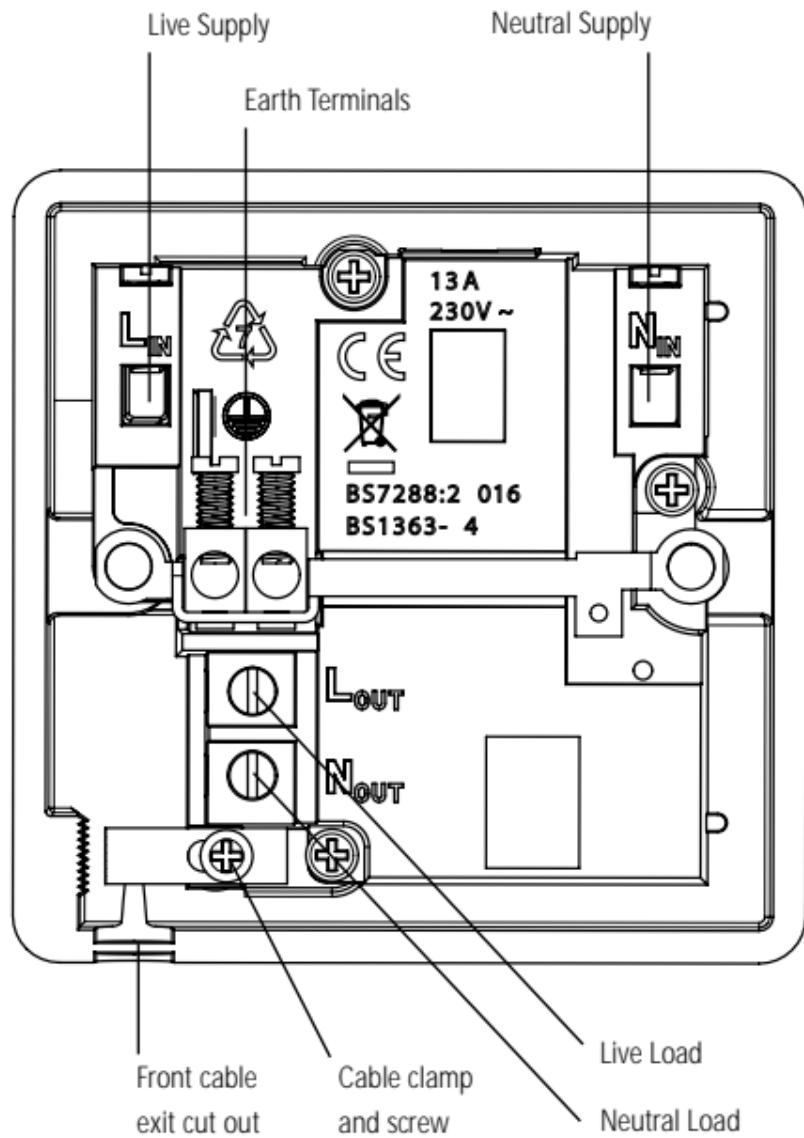
## RCD10WPVN

The terminals are marked as follows on the rear of the unit:



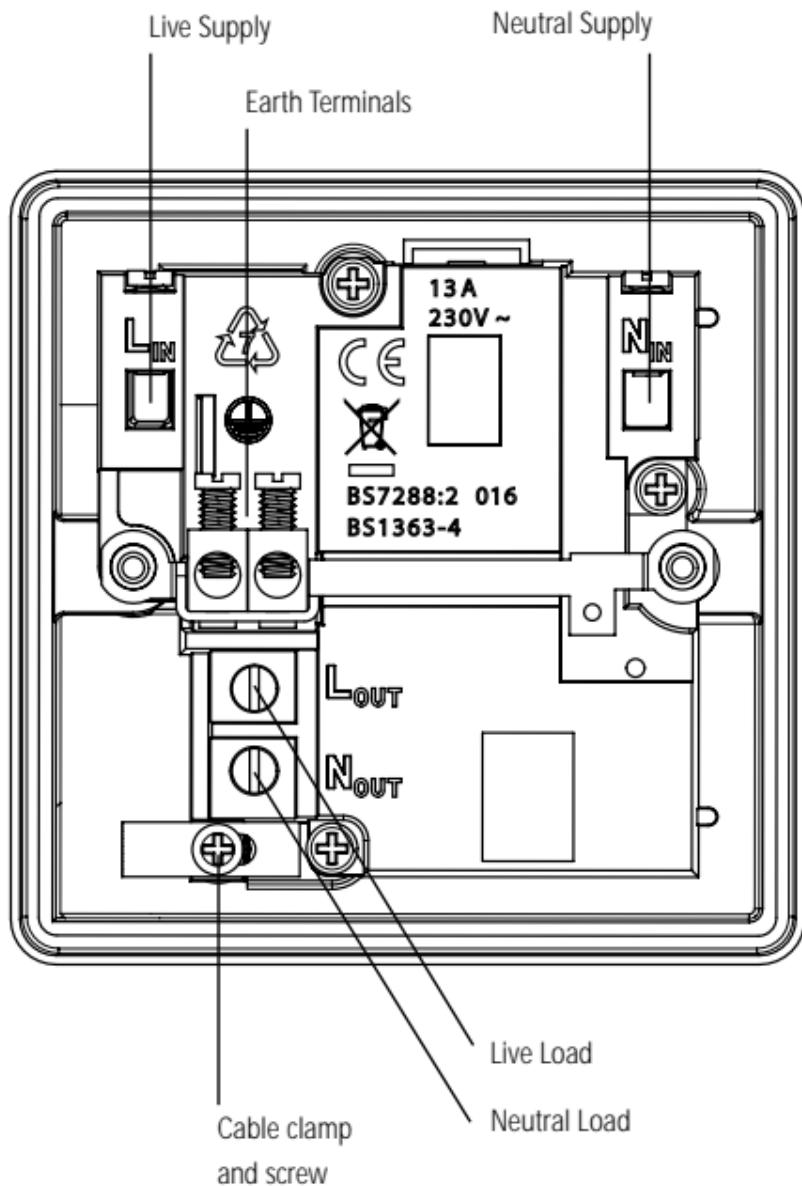
## RCD11WPVN

The terminals are marked as follows on the rear of the unit;



## RCD16MLN

The terminals are marked as follows on the rear of the unit;



## 230V 50Hz Mains Supply

Live Supply (Brown or Red) to

L IN

Neutral Supply (Blue or Black) to

N IN

Earth (Green/Yellow) to



## Load

Switch Live Supply (Brown or Red) to

L OUT

Neutral Load (Blue or Black) to

N OUT

Earth (Green/Yellow) to



## 8. General RCD Operation

**Note: Always test the RCD before use**

### To Test

- 8.1 **RESET** – Press the Grey/Blue Reset button marked (R), the status indicator should show Red.
- 8.2 **TEST** – Press the Red Test button marked (T), the status indicator should show Green. This indicates the RCD had been tripped and power has been disconnected.
- 8.3 **RESET** – Press the Grey/Blue Reset button marked (R) again, the status indicator should show Red.

- If all the above operations work satisfactorily, the RCD is safe for use.
- If the procedure is not completed satisfactorily, **DO NOT** use the RCD and see professional advice.
- In applications such as hand driers it may not be practical to expect each user to test before use. In this case we suggest an appropriate person applies the test routine twice a day.

## To Use

- After satisfactorily testing the RCD, any connected appliance may be switched ON, and used in confidence that the use is protected from electric shock by rapid disconnection.

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## If the RCD Trips

- Turn the appliance switch OFF, press the Grey/Blue Reset (R) button and note that the status indicator turns Red. Switch the appliance ON and if the RCD trips again, switch OFF the appliance and **DO NOT** use it, as it may be faulty. Seek professional advice.

If you experience problems, do not immediately  
return the unit to the store.

Telephone the Timeguard Customer Helpline;

**HELPLINE  
01582 544 548**

or email [helpline@timeguard.com](mailto:helpline@timeguard.com)

Qualified Customer Support Co-ordinators will be on-line  
to assist in resolving your query.

**TIMEGUARD®**

**Deta Electrical Co Ltd**  
Panattoni Park, Luton Road,  
Chalton, Bedfordshire, LU4 9TT  
Sales Office: 020 8452 1112  
or email [csc@timeguard.com](mailto:csc@timeguard.com)



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