INTRODUCTION

These instructions explain how to use Combined Mounting & Earthing (CME) kits to simultaneously mount and earth ABB OVR Surge Protection Devices (SPDs) with one or two central earth studs on their top face.

OVR CME 4, OVR CME 8, OVR CME 16, OVR CME 32

1. Safety note:

Warning! Installation by person with electrotechnical expertise only.

Warnung! Installation nur durch elektrotechnische Fachkraft.

Avvertenza! Fare installare solo da un elettricista qualificato.

Avertissement! Installation uniquement par des personnes qualifiées en électrotechnique.

Advertencia! La instalación deberá ser realizada únicamente por electricistas especializados.

2. Contents

2.1 Each unit consists of a pre-drilled earth bar, mounting pillars, nuts and washers (for fixing the pillars to the earth bar) and a choice of countersunk and pan head screws, plus both shakeproof and plain washers (for fixing the pillars).

	OVR CME 4	OVR CME 8	OVR CME 16	OVR CME 32
Earth bar	1	1	1	1
Mounting pillars	2	2	3	5
Nuts	2	2	3	5
Plain washers	4	4	6	10
Shakeproof washers	2	2	3	5
Countersunk screws	2	2	3	5
Pan head screws	2	2	3	5

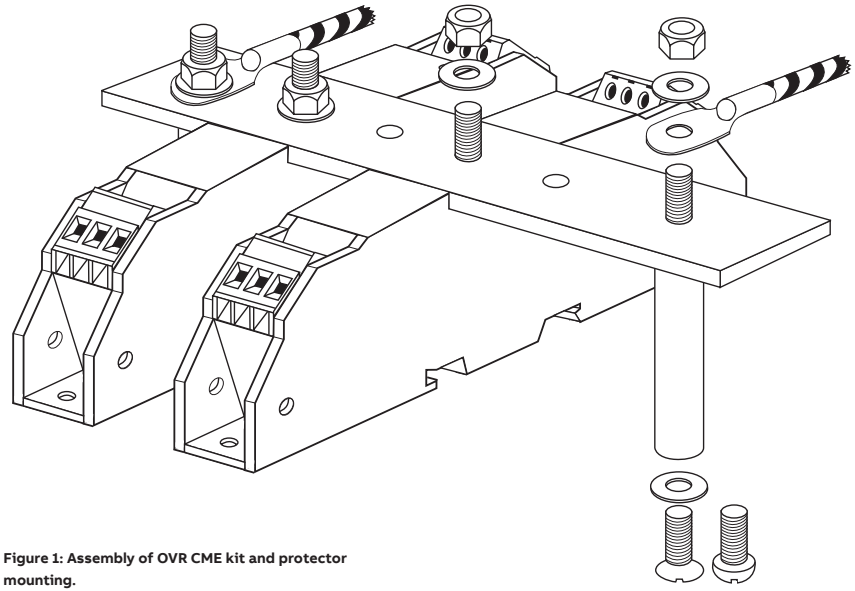


Figure 1: Assembly of OVR CME kit and protector mounting.

3. Installation

Figure 1 gives an overview of OVR CME kit assembly.

3.1 Positioning the OVR CME kit

The OVR CME kit(s) will need to be installed so that:

(a) they have a short connection to earth (see Section 3.6 - Connect to earth)

(b) individual SPDs can be easily removed after installation (see Figure 2)

(c) SPD's clean cables are kept away from their dirty line cables and earth cables (see Figure 3)

3.2 Mark and drill mounting holes for the OVR CME kit

OVR CME kits are installed with a mounting pillar at each end with, in the case of the OVR CME 16 and OVR CME 32, additional pillars evenly spaced between (see Figure 4, overleaf).

Note: Appropriate ABB WBX enclosures are supplied with pre-drilled fixing centres in their base plate, for a OVR CME 4 (OVR WBX 4 and OVR WBX 4/GS), OVR CME 8 (OVR WBX 8 and OVR WBX 8/GS) and one or two OVR CME 16's (OVR WBX 16/2/G).

If you are using one of these OVR CME/ OVR WBX combinations proceed to Section 3.3.

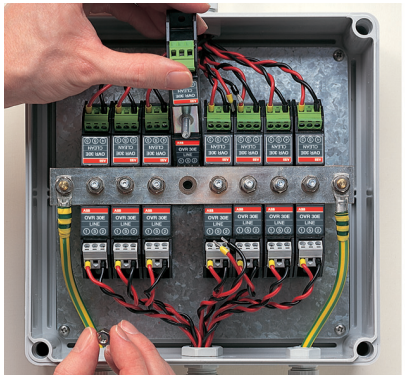


Figure 2: Removing a SPD after installation

Position the OVR CME kit(s) in the panel or on the enclosure base plate and, using the earth bar as a template, mark the positions of the mounting pillars. Drill M6 clearance holes in the positions marked.

3.3 Fix the mounting pillars

Using either a countersunk or pan head screw (as required), together with a washer, and (if required) a shakeproof washer, fix each mounting pillar to the panel or enclosure base plate.

3.4 Fix the enclosure base plate to the base of the enclosure

Where the mounting pillars have been fixed to an enclosure base plate, this should be fixed to the enclosure base (as per its installation instructions).

3.5 Bolt the earth bar, earth connections and pillars together

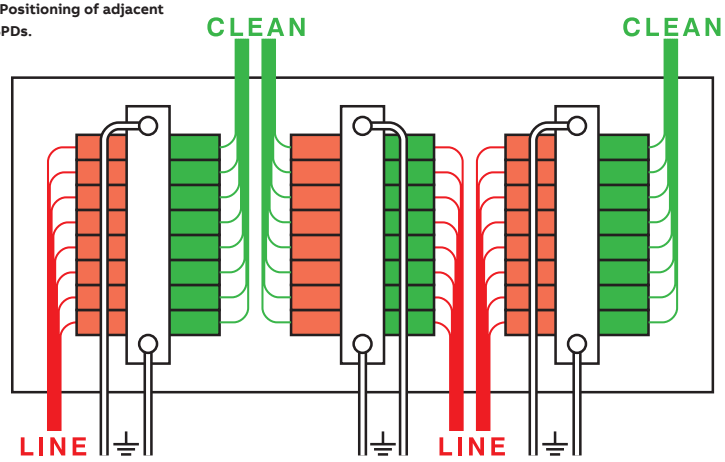
Secure the earth bar to the mounting pillars with the nuts and washers provided (see Figure 5, overleaf. See also Section 3.6 - Connect to earth).

3.6 Connect to earth

SPDs should be connected to the same earth as the equipment they are protecting. The OVR CME kit should therefore be bonded to the earth star point (or main electrical earth).

This is the point where all the earths of the system converge.

Figure 3: Positioning of adjacent rows of SPDs.



For outdoor installations, such as CCTV cameras, the OVR CME kit should also be cross-bonded to the pole or mast.

As a general rule we recommend one connection to earth per mounting pillar (although a single earth connection is usually acceptable for a OVR CME 4).

These earth connections should be kept at least 5 cm apart and away from SPDs' clean side cables and each other.
Use 10 mm² stranded green/yellow cable for the earth bond(s).

These earth bond(s) should be less than 1 metre long (otherwise the effectiveness of the SPDs will be reduced).

Earth bonds of 2, 3 or 4 metres are allowed if:

(a) 2, 3 or 4 parallel earth bonds are used and these parallel earth bonds are kept at least 5 cm apart from each other, or

(b) both the main earth bar and the OVR CME kit (and SPDs) are located on a large metal sheet, the OVR CME kit can be bonded to the metal sheet which in turn is bonded to the earth bar.

... continued overleaf

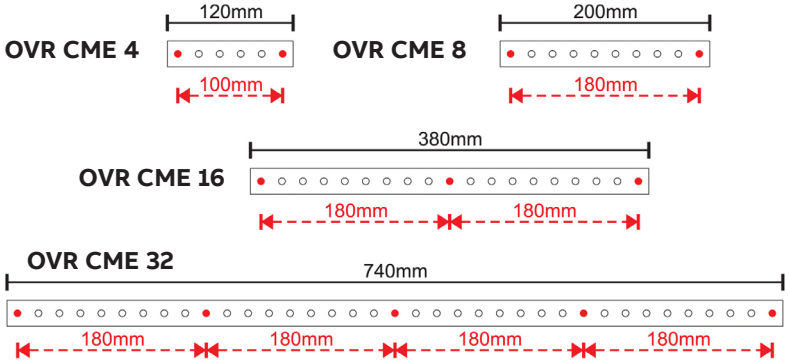


Figure 4: Positioning of mounting pillars.

Where even 4 metres of connecting lead is not sufficient, data/signal/power cabling should be re-routed to bring it within 4 metres of the OVR CME kit and its SPDs.

In circumstances where the cabling cannot ideally be re-routed, the OVR CME kit can alternatively be connected to the electrical earth local to the equipment being protected (eg the earth bar of the local power distribution board).

3.7 Mount SPDs on the OVR CME kit

Fix SPDs to the OVR CME kit with the nut(s) and washer(s) supplied with the SPD(s).

Then make electrical connections to the SPDs in accordance with the SPDs' installation instructions.

Note: Do NOT use power driven screwdrivers to make connections to OVR SPDs. Hand tighten only.

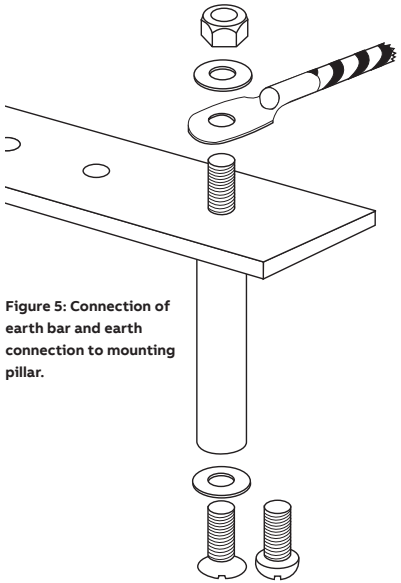


Figure 5: Connection of earth bar and earth connection to mounting pillar.

Environment
Consider the protection of the environment! Used electrical and electronic equipment must NOT be disposed of with domestic waste. The device contains valuable raw materials which can be recycled. Therefore, contact ABB for disposal of this equipment.

Notes

INSTALLATION INSTRUCTIONS

OVE CME 4, OVR CME 8, OVE CME 16, OVR CME 32 for for combined mounting and earthing kits

Contact us

ABB Ltd
Tower Court
Foleshill Enterprise Park
Courtaulds Way
Coventry CV6 5NX
Tel: 0333 999 9900
Fax: 0333 999 9901
E-Mail: LV.Enquiries@gb.abb.com
Twitter: @ABBUKLVP

www.abb.co.uk/lowvoltage