

INTRODUCTION

These instructions explain how to use Combined Mounting & Earthing (CME) kits to simultaneously mount and earth Furse ESP Lightning Barriers with one or two central earth studs on their top face.

CME 4, CME 8, CME 16, 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).

	CME 4	CME 8	CME 16	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

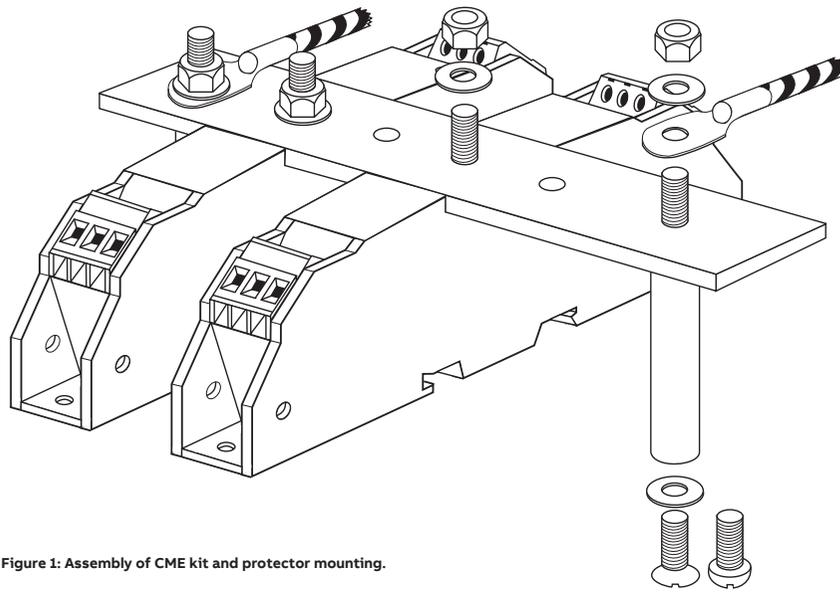


Figure 1: Assembly of CME kit and protector mounting.

3. Installation

Figure 1 gives an overview of CME kit assembly.

3.1 Positioning the CME kit

The 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 Lightning Barriers can be easily removed after installation (see Figure 2)
- (c) Lightning Barrier'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 CME kit

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

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

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

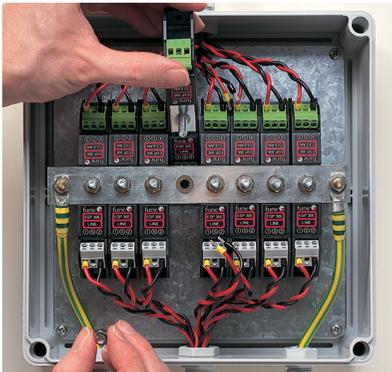


Figure 2: Removing a Lightning Barrier after installation

Position the 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

Lightning Barriers should be connected to the same earth as the equipment they are protecting. The 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.

For outdoor installations, such as CCTV cameras, the 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 CME 4).

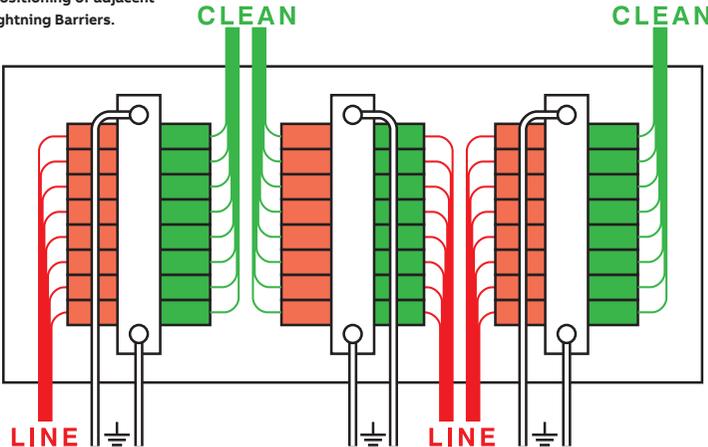
These earth connections should be kept at least 5 cm apart and away from Lightning Barriers' clean side cables and each other. Use 10 mm² stranded green/yellow cable for the earth bond(s).

These earth bond(s) should be less than 1 metre long (otherwise the effectiveness of the Lightning Barriers 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 CME kit (and Lightning Barriers) are located on a large metal sheet, the CME kit can be bonded to the metal sheet which in turn is bonded to the earth bar.

Figure 3: Positioning of adjacent rows of Lightning Barriers.



... continued overleaf

