



FP1192, 55 to 75Ahr Battery Restraint Installation Instructions

1. General Description

To ensure all New Zealand installed Control and Indicating Equipment (CIE) comply with NZS4219:2009 clause 5.12, seismic battery restraint requirements, all batteries must be seismically restrained.

These instructions describe the installation of the 55 to 75Ahr Battery Restraint Bracket in JCI 40U x 310 deep 19" Rack Cabinets and how to restrain 55 and 75Ahr batteries. Additionally, it describes how batteries can be stacked and restrained with this bracket.

The Battery Restraint Bracket consists of a grey metal bracket, an instruction label fitted to the bracket, 4 adjustable Tie Down Straps (2 fitted and 2 spare) and M6 mounting fasteners for mounting the bracket in JCI 40U x 310 deep 19" Rack Cabinets.

The methods of seismic battery restraint detailed in this literature have been tested and found to comply with NZS4219:2009 clause 5.12, battery restraint requirements.

2. Kit Contents

Each kit contains:

- 1 x FA2758, 55 to 75Ahr Battery Restraining Bracket, with label LB0715 fitted,
- 2 x WA0008, M6 flat washer,
- 2 x WA0013, M6 shakeproof washer,
- 2 x NT0014, M6 hex nut,
- 4 x SU0391 Tie Down Straps, 2 fitted to the Battery Restraining Bracket FA2758, and 2 spare straps.
- 1 x LT0745, these installation instructions.

3. Battery Restraining Options

First determine if you are installing 1 pair of batteries or installing 2 pairs of batteries in a panel.

If installing 1 pair of batteries follow steps 4 to 5.

If stacking 2 pairs of batteries follow steps 6 to 8.

4. Battery Restraint Bracket Mounting

To mount the Battery Restraining Bracket in 40U x 310 Deep 19" Rack Cabinets, fit the bracket in the bottom of the cabinet over the bottom two M6 studs.

Fix the bracket in place with M6 flat washers, shakeproof washers and nuts supplied with the bracket, as shown in Figure 1 below.



Figure 1 – Mounted Battery Restraining Bracket

5. Seismically Restraining 55 to 75Ahr Batteries

To restrain batteries with the Battery Restraining Bracket:

1. Loosen the bracket pre-fitted tie down straps to allow the batteries to be placed within the strap circumference.
2. Place the batteries in the cabinet so they are encircled by the straps.
3. Push the batteries towards the back corners of the bracket while tightening the straps.
4. Ensure the strap clamps face towards the centre of the cabinet as shown in Figure 2.
5. Coil up any excess strap lengths.

This should result in batteries being restrained as shown in Figure 2 below.



Figure 2 – Pair Of Restrained 75Ahr Batteries

6. Seismically Restraining Stacked Batteries

Before mounting the Battery Restraining Bracket in 40U x 310 Deep 19" Rack Cabinet, fit all four Tie Down Straps to the bracket as shown in the Figure 3 below. Thread the Tie Down Straps through the inner most slots in the bracket, through the strap buckles and then pull tight.



Figure 3 – Battery Restraining Bracket With 4 Tie Down Straps Fitted

7. Battery Restraint Bracket Mounting

To mount the Battery Restraining Bracket in 40U x 310 Deep 19" Rack Cabinets, fit the bracket in the bottom of the cabinet over the bottom two M6 studs.

Fix the bracket in place with M6 flat washers, shakeproof washers and nuts supplied with the bracket, as shown in Figure 4 below.



Figure 4 – Mounted Battery Restraining Bracket

8. Seismically Restraining Stacked Batteries

1. Loosen the bracket bottom Tie Down Straps to allow the bottom batteries to be placed within the strap circumference.
2. Place the bottom batteries in the cabinet, laid on their sides with terminals facing inwards, so they are encircled by the bottom straps.
3. Push the batteries towards the back corners of the bracket while tightening the straps.
4. Ensure the strap clamps face towards the centre of the cabinet as shown in Figure 5.
5. Loosen the bracket top Tie Down Straps to allow the top batteries to be placed within the strap circumference.
6. Place the top batteries on top of the bottom batteries, laid on their sides with terminals facing inwards, so they are encircled by the top straps.
7. Push the batteries towards the back corners of the bracket while tightening the straps.
8. Ensure the strap clamps face towards the centre of the cabinet as shown in Figure 5.
9. Coil up any excess strap lengths.

This should result in batteries being restrained as shown in Figure 5 below.



Figure 5 – Set Of Stacked Restrained Batteries
two 40Ahr (top) and two 75Ahr (bottom) shown