



# Installing the High-Density Electrical Interface Assemblies on the Cisco ONS 15310-MA

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**Product Name:** 15310-EIA-HD-A, 15310-EIA-HD-B

This document explains how to install and remove high-density electrical interface assemblies (EIAs) on the Cisco ONS 15310-MA. As appropriate, use this document in conjunction with the *Cisco ONS 15310-CL and Cisco ONS 15310-MA Procedure Guide*, the *Cisco ONS 15310-CL and Cisco ONS 15310-MA Reference Manual*, and the *Cisco ONS 15310-CL and Cisco ONS 15310-MA Troubleshooting Guide* when working with the high-density EIAs.

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## High-Density EIA Description

High-density EIAs are attached to the ONS 15310-MA shelf assembly backplane to provide up to 168 transmit and receive DS-1 connections through six Champ connectors per side (A and B) or six transmit and receive DS-3/EC-1 connections through six BNC connectors per side. The EIAs are designed to support DS-1, DS-3, and EC-1 signals. The appropriate cable assembly is required depending on the type of signal.



### Note

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The HD expansion connectors on the high-density EIA are not supported in Software Release 7.0.x and earlier.

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You can install EIAs on one or both sides of the ONS 15310-MA. As you face the rear of the shelf assembly, the right side is the A side (15310-EIA-HD-A) and the left side is the B side (15310-EIA-HD-B).



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Figure 1 shows the J connectors on the A- and B-side high-density EIAs installed on the ONS 15310-MA.

Figure 1 High-Density EIA Connectors

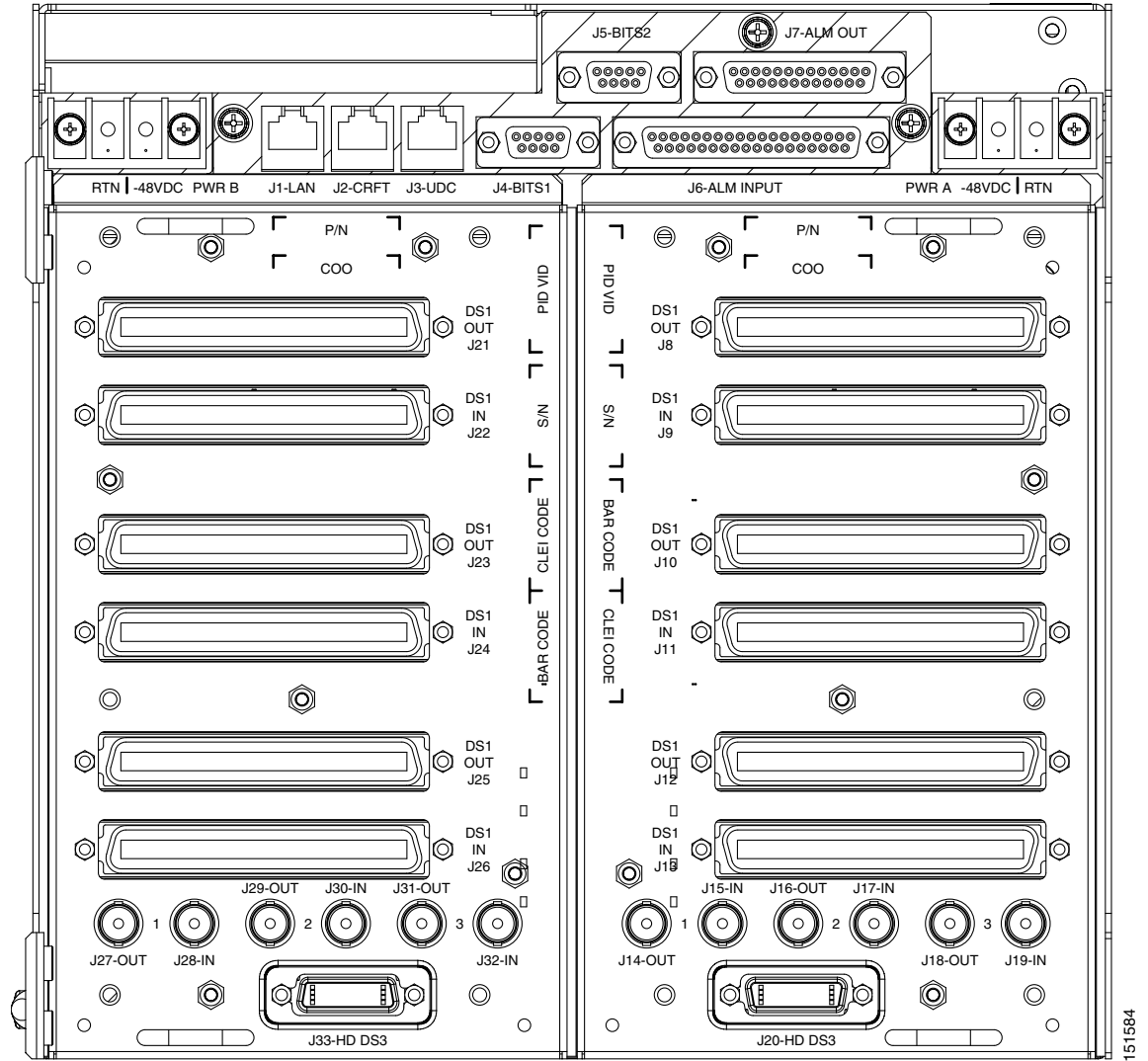
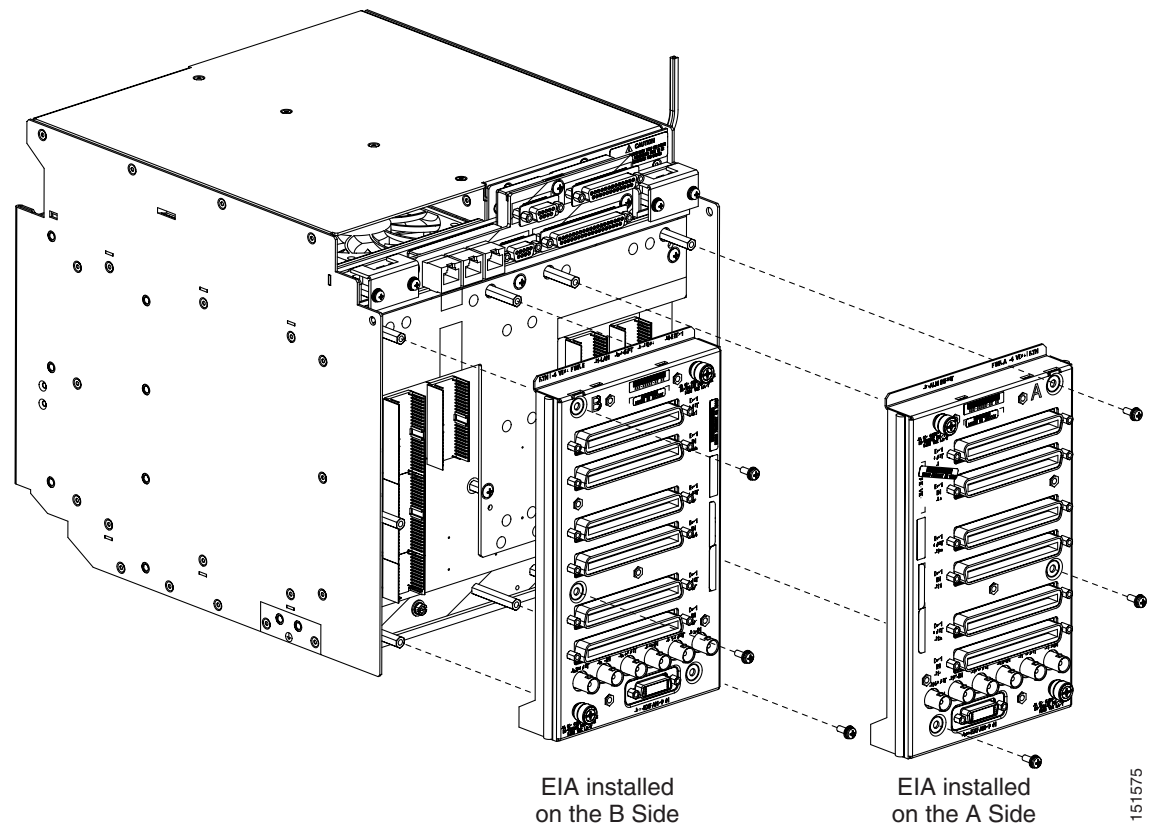


Figure 2 shows the A- and B-side high-density EIAs installed on the ONS 15310-MA.

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**Figure 2** High-Density EIA Installation



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## High-Density EIA Installation

To install the EIA on the rear of the shelf assembly, you must first remove the standard sheet metal covers. The EIAs use the same screw holes as the standard sheet metal covers, but they use three holes for panhead screws and two holes for jack screws.

When installed with the standard door and cabling on the backplane, the ONS 15310-MA shelf measures approximately 13.7 inches deep when fully populated with backplane cables.

## Install the High-Density EIAs

The following parts are needed to install the high-density EIAs.

- #2 Phillips screwdriver
- High-density EIA(s)
- 6-32 x 5/16-inch pan head screws (3, included with EIA)



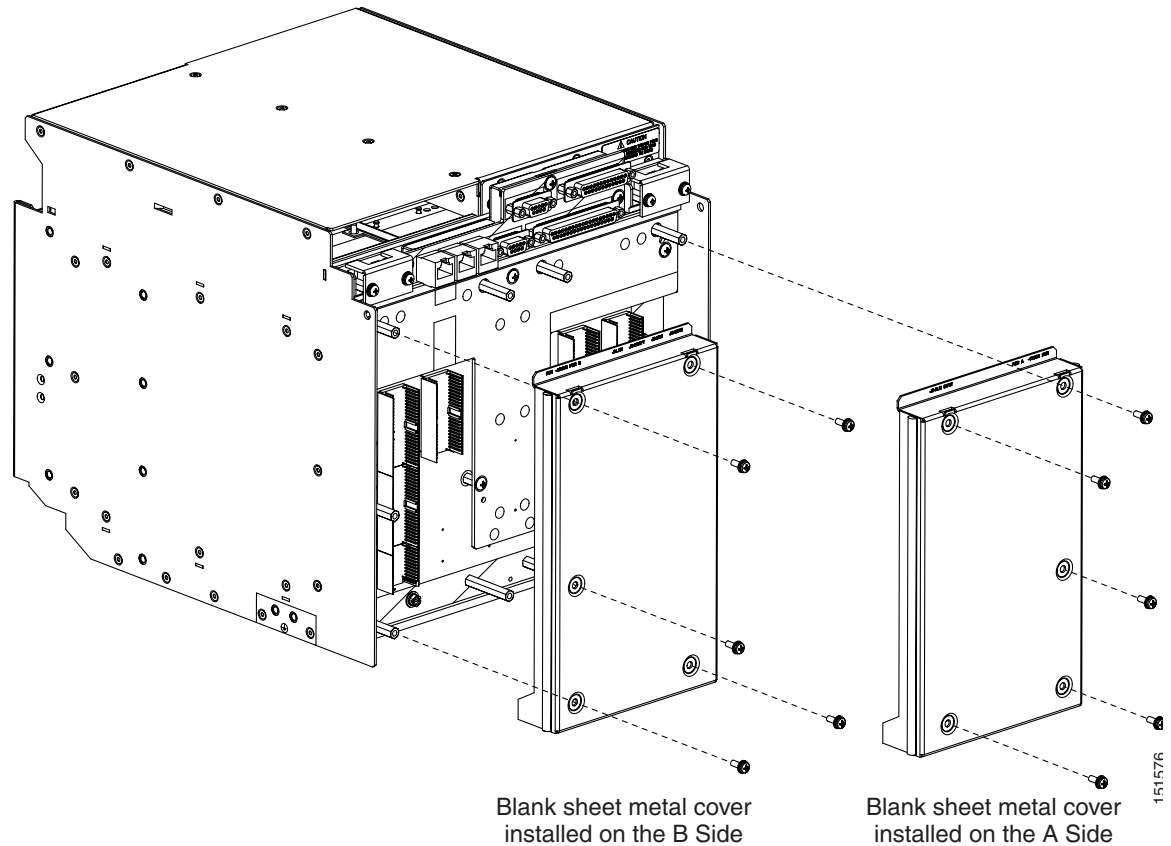
**Caution**

Always use the supplied ESD wristband when working with a powered ONS 15310-MA. Plug the wristband cable into either of the ESD jacks, on the far left and right faceplates in the shelf.

- Step 1** Remove the blank sheet metal covers. Use a Phillips screwdriver to remove the five screws holding each sheet metal cover in place.

Figure 3 shows the screw locations of the sheet metal covers installed on the A- and B-side of the ONS 15310-MA.

**Figure 3** Blank Sheet Metal Covers

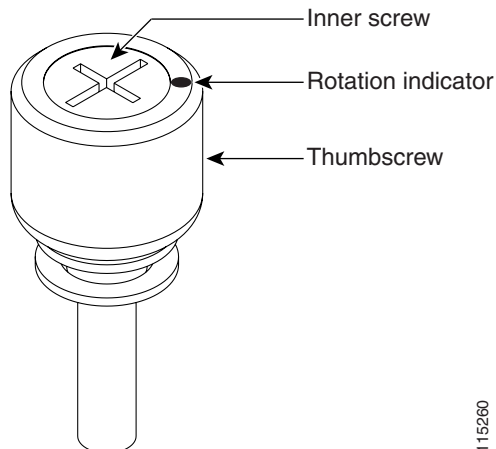


- Step 2** Determine which high-density EIA is designed for installation on the B Side and which is designed for installation on the A Side (Figure 2 on page 3).
- Step 3** Align the connectors on the EIA you want to install with the mating connectors on the backplane, using the plastic guide posts on the connectors.

  
**Caution**

Do not firmly apply pressure to the EIA; this could damage the EIA and backplane connectors.

- Step 4** Seat the EIA as flat as possible by gently exerting enough pressure with your hands to only partially seat the connectors. Do not try and fully insert the EIA.
- Step 5** Locate the two jack screws on the EIA, which are found on the opposite corners (Figure 2 on page 3). (For example, on the B-side EIA, the screws are located in the top right and bottom left corners.)
- Step 6** Starting with either jack screw, tighten the thumb screw turn five full turns, then turn the other thumb screw five full turns (Figure 4). Alternate between the jack screws until the EIA is full seated onto the chassis and the jack screws are hand tight. The EIA is fully mated when both jack screws are fully threaded into the chassis.

**Figure 4 EIA Jack Screw**

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**Caution**

Threading one jack screw completely before threading the other jack screw might result in connector misalignment and damage to the EIA. Do not overtighten the jack screws.

**Step 7**

Install the remaining three 6-32 x 5/16-inch pan head screws onto the EIA and torque to 8 to 10 in-lbs.

**Step 8**

Repeat Steps 3 through 7 to install the other EIA, as necessary.

## Related Documentation

- *Cisco ONS 15310-CL and Cisco ONS 15310-MA Procedure Guide*
- *Cisco ONS 15310-CL and Cisco ONS 15310-MA Reference Manual*
- *Cisco ONS 15310-CL and Cisco ONS 15310-MA Troubleshooting Guide*

## Obtaining Documentation and Submitting a Service Request

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