This document outlines how to install a NEWT-IPX on a 1RU Shelf, and then install the 1RU Shelf in a rack frame.

Before You Begin

The 1RU Shelf supports up to three NEWT-IPX modules, each module installed in a separate slot on the 1RU Shelf. The slot a NEWT-IPX will use determines the placement of the Ear Bracket on the NEWT-IPX chassis.

Before proceeding, it is recommended to:

- determine how many NEWT-IPX modules you will install and
- determine the slot(s) on the 1RU Shelf you will install the NEWT-IPX into

Installation Requirements

You will need:

- One Phillips #2 screwdriver
- One 1RU Shelf with L-Brackets Kit (Ross P/N NEWT-SHELF-KIT)
- At least one NEWT-IPX module (a maximum of three modules can be installed on the 1RU Shelf)

Installing the NEWT-IPX in the Middle Slot

To install the NEWT-IPX in the middle slot you must first install the L-Brackets to the front edge of the shelf. The L-Brackets are used to secure the NEWT-IPX to the 1RU Shelf. Refer to Figure 1 for install details.

![Figure 1 Installing the L-Brackets](image)

To install the Ear Brackets to the NEWT-IPX

1. Affix an Ear Bracket to the left side of the NEWT-IPX.
2. Affix an Ear Bracket to the right side of the NEWT-IPX.
To install the NEWT-IPX in the middle slot of the 1RU Shelf

1. Position the NEWT-IPX between the L-Brackets installed on the shelf.
2. Affix the NEWT-IPX to the left L-Bracket using a #6-32 screw through the middle hole on the corresponding Ear Bracket.
3. Affix the NEWT-IPX to the right L-Bracket using a #6-32 screw through the middle hole on the corresponding Ear Bracket.

Installing the NEWT-IPX in the Left or Right Slots

Installing the NEWT-IPX in the left or right slots of the 1RU Shelf requires you to first install an Ear Bracket to the required side of the NEWT-IPX chassis. The module(s) are then secured using the rack/frame screws that affix the 1RU Shelf to the rack frame.

To install an Ear Bracket NEWT-IPX

1. If you are installing the NEWT-IPX in the left slot, affix one Ear Bracket to the left side of the NEWT-IPX.
2. If you are installing the NEWT-IPX in the right slot, affix one Ear Bracket to the right side of the NEWT-IPX.
3. Position the NEWT-IPX on the 1RU Shelf so that the Ear Bracket sits atop the Mounting Ears of the 1RU Shelf.

Installing the 1RU Shelf in a Rack Frame

The 1RU Shelf is affixed to the rack frame via the ears located on its front.

⚠️ **Caution** — An 1RU Shelf with three NEWT-IPX modules installed is heavy. Ensure that you have a firm grip on the shelf, or that the shelf is otherwise supported, before affixing it to the rack frame.

To install the 1RU Shelf in a rack frame

1. Secure each power supply to the 1RU Shelf using a tie wrap(s) or Velcro pad(s).

   The example below shows three NEWT-IPX on the 1RU Shelf.

2. Slide the 1RU Shelf fully into the rack frame so that the ears of the 1RU Shelf are flush to the rack frame.

   ⚠️ **Caution** — Adequate ventilation within a rack frame must be maintained.

3. Use a Phillips screwdriver and the provided screws to secure the 1RU Shelf to the rack frame.
Cabling the NEWT-IPX

Refer to the *NEWT-IPX Quick Start Guide* for cabling details and further installation steps.