OP5705XG Installation and Configuration

Installation

Make sure to respect **proper grounding**, as described in Connecting the Ground Screw below.

- Place the OP5705XG on a shelf or a desktop, or install it in a traditional rack
- Connect the power cable to the nearest power outlet
- Connect the OP5705XG to the same network used by the host PC, using the cables

Connecting the Ground Screw

You must **connect a grounding cable** from the OP5705XG ground screw to the **rack** (or any other **strong ground**) to ensure that the OP5705XG terminates securely in a ground.
Proper grounding helps prevent electric shocks, protects the OP5750XG from voltage spikes (from a variety of causes, including lightning strikes), and provides increased immunity from EMI by lowering noise levels and emissions.

1. Select a **flat braided grounding strap** of **adequate length** (as short as possible provides the best protection), with ring terminals on each.
2. Attach **one ring terminal** to the **ground screw** on the **OP5705XG**.
3. Attach the other ring terminal to the **rack** using a nut and lock washer.
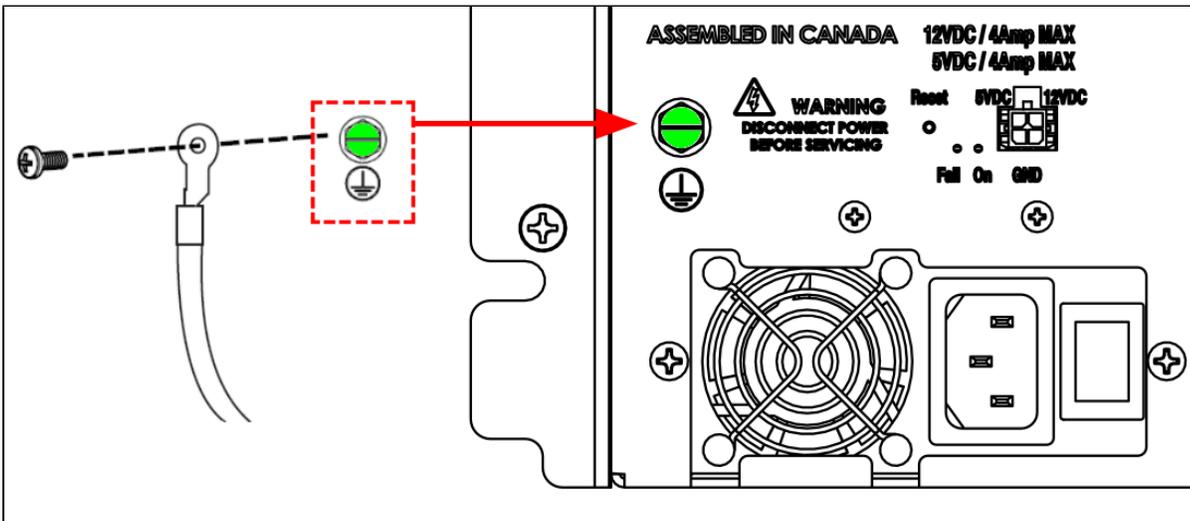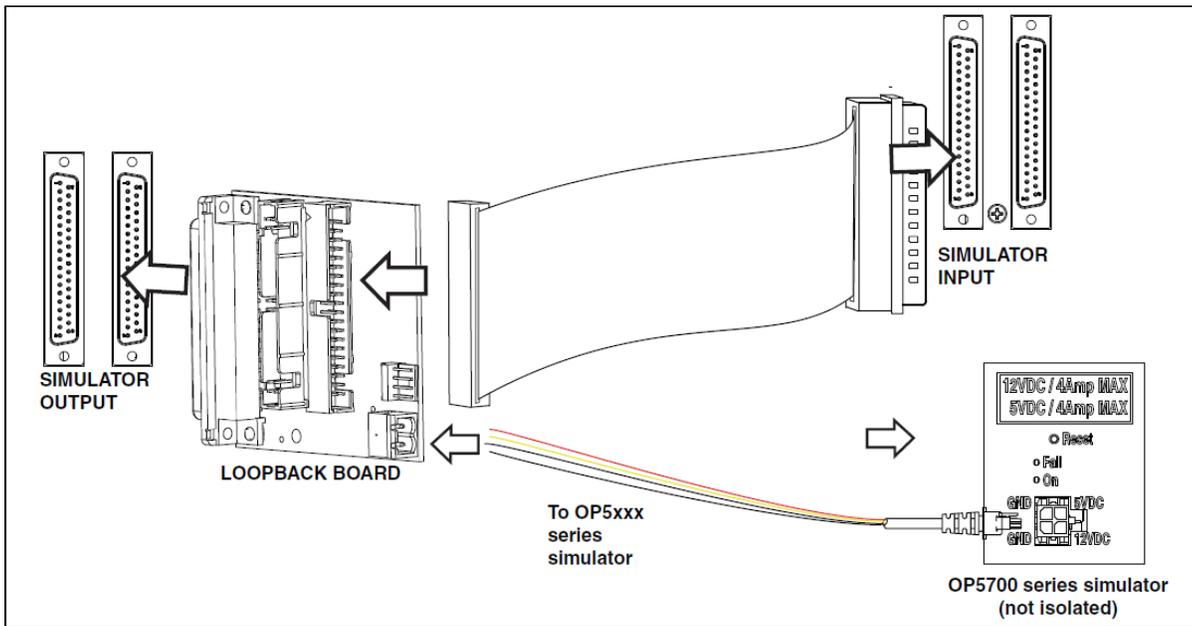

Connecting the I/O Loopback Kit

> ⚠ **Note**
>
> The following procedure is only used for test purposes when no external source is available.

The **loopback kit** included in the starter kit allows users to test system signals.
The connection is made easy with a **custom flat cable that matches OPAL-RT standard DB37 pin assignments**.

- Connect one end of the flat cable to the loopback board
- Connect the loopback board to the simulator DB37 Output signal
- Connect the other end (DB37 connector) of the flat cable to the simulator DB37 Input signal
- Connect the VUser (required to preserve isolation) from the loopback board to the OP5705XG

SIMULATOR INPUT

SIMULATOR OUTPUT

LOOPBACK BOARD

To OP5xxx series simulator

12VDC / 4Amp MAX
5VDC / 4Amp MAX

OP5700 series simulator
(not isolated)

> ⚠ **Note**
>
> Although some boards do provide a power source, using that would compromise the isolation.
> **OPAL-RT recommends using an external power source**: the user must connect the power wires (provided) to either a 5 or 12 V power source.
> Make sure that the **Vuser source switch** on the loopback board is set to "**External**".

The **breakout board** provided allows users to **access each pin of the DB37 separately through the screw terminals**.
Simply **insert the breakout board DB37 connector** onto the **desired DB37 connector** on the simulator.

OPAL-RT simulator DB37 connectors

Screw terminal
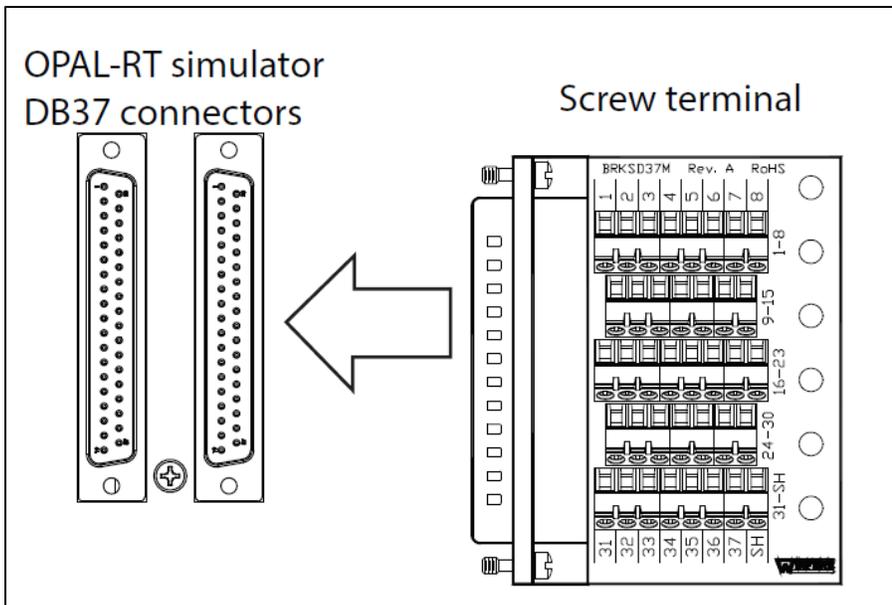
Refer to the **System Description Documentation** provided with your system or the user manual of the OP5300 Mezzanine Modules installed in the system for exact pin assignments.