

Test Procedure for Self-Assembled Units

Overview

If you are assembling Xorcom products you will need to license, configure and test the modules prior to shipment to your customer. This document details test procedures for modules of all types.

Note: Although the procedures below indicate methods for testing all activated ports, in our opinion *it will be sufficient to test one port per module only*. This procedure will confirm that the assembly was performed properly. If you suspect the module may have been damaged during assembly or shipping, you should perform the complete tests, as described below.

Preparing the Test Environment

The testing procedure takes place after the units are assembled, licensed and configured. When testing Astribank units, you need to connect them to an up-to-date active Asterisk server, and then configure the hardware.

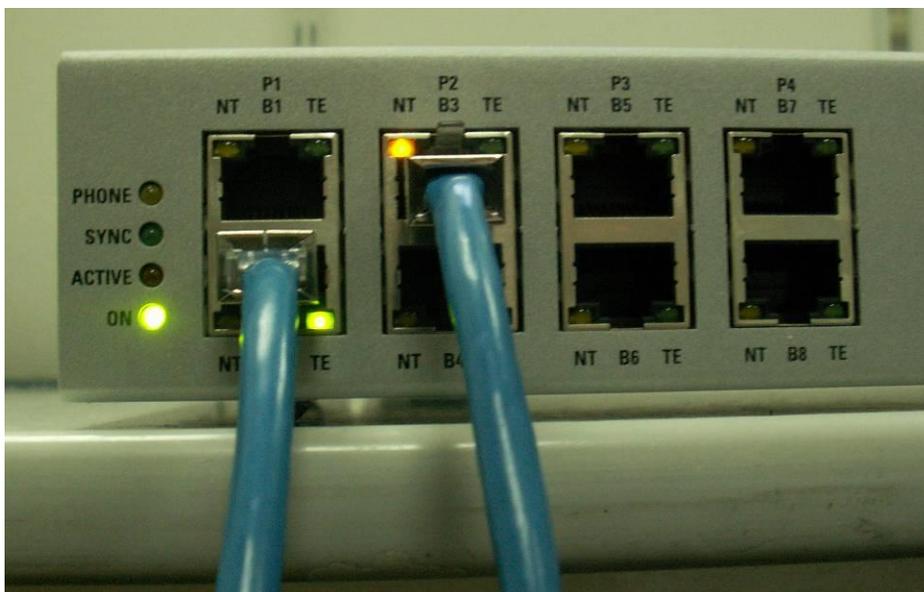
To configure the hardware for Astribanks and Xorcom IP-PBX, run `detect_zap` located in the `/var/lib/asterisk/bin/detect_zap` partition.

Note: If you do not have an active Asterisk server you should use the Xorcom Live CD or Live USB for this purpose.

Procedure for Testing Digital (PRI/BRI) Modules

For this test, you will need to use a standard CAT5 Internet cable to connect the active port(s).

1. Make sure that all the active ports have active LEDs. For example, if you licensed two ports (out of 4 for PRI or 8 for BRI), you should see the LEDs light up on the first two ports while the other ports remain unlit.
2. Place one end of the cable into the TE opening of an active port, and the other end into the NT opening of a different active port:



Note: If the assembled unit has only one activated port, you will need to use an auxiliary system to test the unit.

3. If the module is functioning correctly, you will see the LEDs flash, first quickly, and then slowly. This indicates that the ISDN Layer 2 is active.
4. Reposition the cable to test the next two ports (if applicable) and repeat until all the ports are tested.

Procedure for Testing FXS Modules

For this test, you will need two RJ11 cables and two analog telephones.

1. Attach the phones using the RJ11 cables to the first two analog ports in the module.



2. Place a call from the first telephone extension to the next available port and verify that:
 - a. the phone rings when called, and

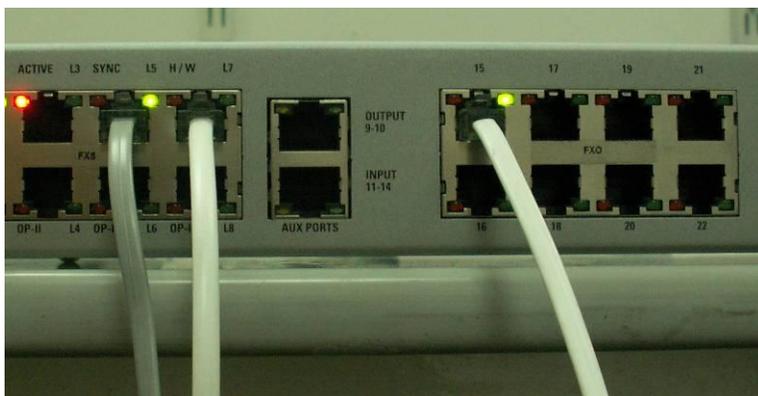
- b. the green LED flashes when the phone rings, and
 - c. the off-hook LED lights up when the telephone receiver is raised to answer the call, and
 - d. there is no static, distortion, or echo on the line.
3. Repeat step 2 for all remaining ports.
4. When all remaining ports have been tested, place a call to the phone connected to the first port and make sure it rings.

Procedure for Testing FXO Modules

For this test (Option 1), you will need one RJ11 cable, one analog phone, and at least two FXS ports (these ports may be on the same unit or on an auxiliary unit). For the second test (Option 2), you will need an additional RJ11 cable, and an additional analog phone.

Option 1: Set the Asterisk for echo test on all incoming calls (for advanced technicians)

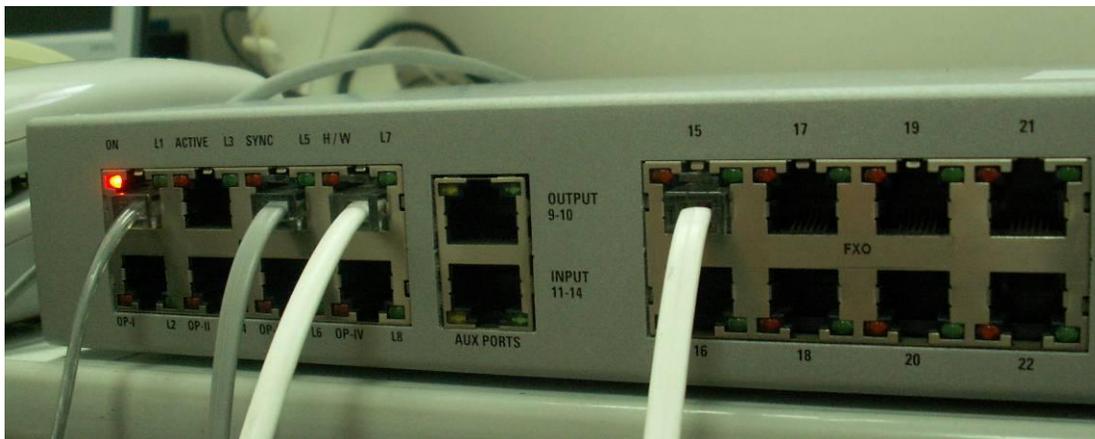
1. Insert one end of the RJ11 cable into the first port in the FXO module, and the other into an FXS port.



2. Place a call to the relevant FXS extension.
3. Verify that:
 - a. the (green) FXO LED flashes when the phone rings, and
 - b. the ring is detected, and
 - c. the (green) FXO off-hook LED lights up when Asterisk answers the call, and
 - d. there is no static, distortion, or echo on the line.
 - e. Dial a number - you should hear a very short DTMF as an echo
4. Repeat this procedure for all FXO ports in the unit.

Option 2: Route the incoming call to an FXS port

1. Attach the two phones using the RJ11 cables to two analog ports in the FXS module (one cable needs to connect to the first port in the module).



2. Insert one end of the RJ11 cable into the first port in the FXO module, and the other into a port on the FXS module.
3. Place a call to the relevant FXS extension.
4. Verify that:
 - a. the (green) FXO LED flashes when the phone rings, and
 - b. the ring is detected, and
 - c. the extension phone rings and the green LED flashes in the FXS module (first port), and
 - d. the FXO off-hook LED lights up when the telephone receiver is raised to answer the call, and
 - e. there is no static, distortion, or echo on the line.
 - f. voice is heard in both directions
5. Repeat this procedure for all FXO ports in the unit.