# How to configure the FXS PLAR in the IMACS

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## Scope

This document pertains to following products: IMACS 600, 800 and 900.

## Introduction

This document is a guide on how to configure the FXS PLAR in IMACS. The PLAR (Private Line Automatic Ringdown) is one of the mode options of FXS (Foreign Exchange Station). The PLAR provides point-to-point un-switched connections between two telephone sets. This configuration is usually not attached to any switch or exchange; rather it provides a “hot line” between two locations. The PLAR need be configured (identically) at both ends. So one side picks up the phone, another end automatically rings, without dialing any digits.

## Requirements

**Hardware:**

- Ring generator is required at both IMACS.
- FXS cards are needed at both IMACS.
- A private between two IMACS.

**Software:**

- VT-100 terminal software (such as Windows HyperTerminal).

## Configuration Steps

## 1. Configuring the FXS PLAR

***Note***: The configuration is identical on both side IMACS.

**1a.** From the IMACS main menu, move the curser to the proper FXS (2w*8) card, hit **`Enter`**.

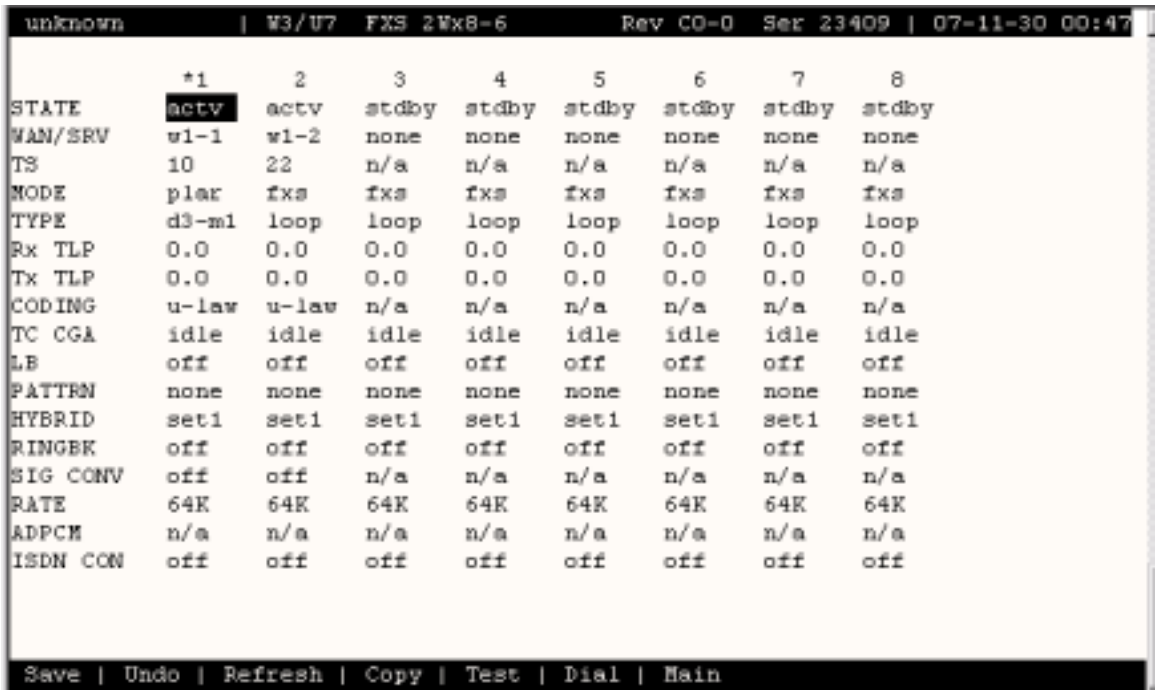
**1b.** Set STATE to **ACTV**.

**1c.** Set WAN/SERV to the proper source**.** For example, if the source is from WAN1-1, set WAN/SERV to **`W1-1`**.

**1d.** Set TS (time slot) of the channel. For example, if the channel is WAN1-1, time slot 10, set TS to **10**.

**1e.** Set MODE to **PLAR**.

**1f.** Choose one PLAR TYPE you prefer. The default is **d3-m1**, which is most commonly used. It doesn't matter which type you choose, as long as both side IMACS have the same type configured.




## 2. Testing the PLAR

***Note***: You should tell if the PLAR works if you hear the remote phone ringing. If you can't hear the remote phone or the phone does not ring, the following test procedures may help find the problem.

**1a.** From the FXS configuration screen, press **T** to Test window.

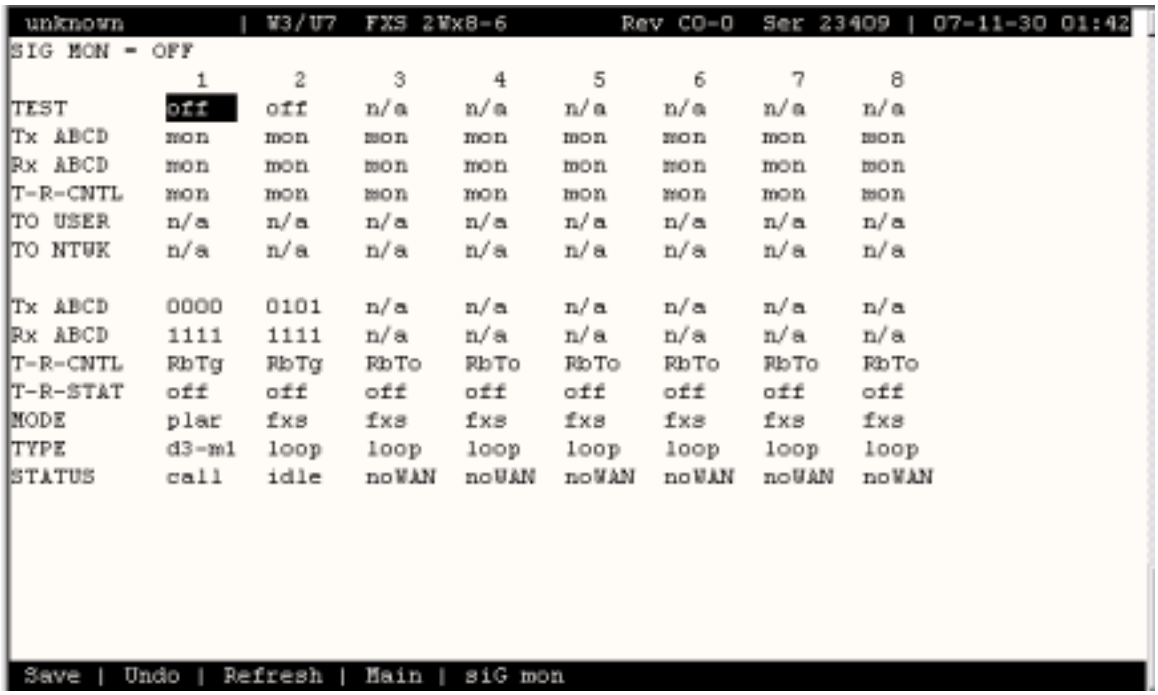
**1b.** Monitor the **Tx ABCD** and **Rx ABCD** bits. The tables below describe the call processing states for two different types of PLAR and the proper signaling bits respectively.

PLAR Type D3 Call Flow:

| State | Tx AB | Rx AB |
|---|---|---|
| IDLE | 00 | 00 |
| One side off hook | 11 | 00 |
| Other side answers | 11 | 11 |

PLAR Type D4 Call Flow:

| State | Tx AB | Rx AB |
|---|---|---|
| IDLE | 11 | 11 |
| One side off hook | 00 | 11 |
| Other side answers | 00 | 00 |




## Troubleshooting

**Problem:**

I pick up the phone, but don't hear anything.

**Answer:**

- If you don't even hear the talk battery, check if the ring generator is plugged in.
- Make sure the configurations at both ends are identical.
- Make sure you are using the same WAN and same channel at both ends.
- Monitor the Tx and Rx bits in the test screen to find which side does not transmit or receive properly.