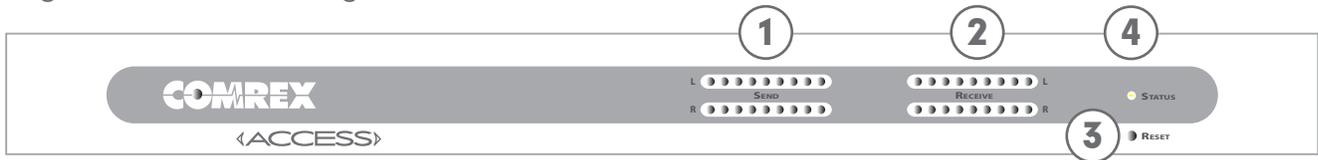


ACCESS

Quickstart Guide

ACCESS Rack Diagrams

Figure 1 – Front Panel Diagram



1) **Input audio peak meter** - Displays the level of audio being sent locally into the ACCESS, regardless of whether or not a connection is active. Proper level is indicated by peaks driving the yellow LEDs, while avoiding lighting the red LEDs (which indicates clipping).

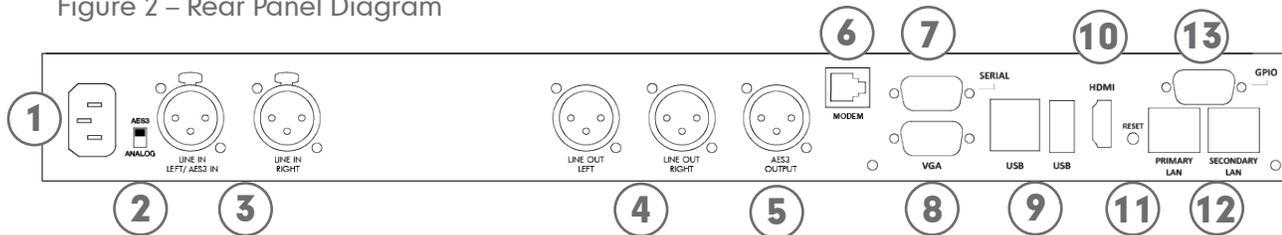
2) **Output audio peak meter** - Displays the level of audio being sent remotely when a connection is active. Adjustments to this level must be made on the far end of the link.

3) **Reset button** - Press this button to send ACCESS into hardware reset mode.

4) **Ready light** - Indicates several states of Ready:

- Off** = Network ready, not connected to remote
- Red** = Network unavailable
- Green** = Connected to remote
- Yellow** = Connected to remote but no network (i.e. network connectivity lost during connection)
- Slow Red Blink** = Software update in progress
- Fast Red Blink** = Displaying unit IP address

Figure 2 – Rear Panel Diagram



1) **IEC Power Connector** - ACCESS works on AC power at 110-240VAC 50-60Hz, auto detecting.

2) **Analog/AES3 Input Switch** - The switch determines whether the leftmost XLR connector is used for analog "send" audio to callers, or AES3

3) **Balanced Analog Audio Inputs** - Left channel is used for mono encoding modes. Level is set to 0dBu (0.775VRMS) nominal. Full scale Input is +20dBu.

4) **Analog Audio Output** - Balanced analog audio is available at these ports. Level is set to 0dBu (0.775VRMS). Full scale Output is +20dBu.

5) **AES3 Digital Audio Output** - AES3 Output is available simultaneously with analog. When the AES3 Input is active, the AES3 Output will lock to the sampling rate and clock signal of the Input.

6) **POTS/PSTN Jack** - Accepts analog telephone lines for POTS codec compatibility.

7) **Serial Port** - Connection for asynchronous ancillary data.

8) **Monitor Output** - Attach a VGA or better monitor here for obtaining IP addresses and accessing the **Console Connection Interface**.

9) **USB Ports** - For use with USB keyboards and mice. May also be used with some 3G/4G USB wireless modems.

10) **HDMI Output** - Attach an HDMI compatible monitor here.

11) **Reset** - This button will restart the rack's computer board.

12) **1000Base-T Ethernet Ports** - For connection to your network.

13) **Contact Closures** - Four sets of contact closure Inputs and Outputs are available on this port. Inputs can be used to send signals to the far end of the link or trigger connections. Outputs can be used to trigger remote control gear like automation equipment.

Setting up the Hardware

This document describes how to quickly set up and use ACCESS Rack. More detailed instructions are contained in the manual on the CD shipped with the unit. It may also be downloaded from the Comrex website at www.comrex.com.

At a minimum, ACCESS needs a source of power, an audio connection and a network or POTS connection.

The analog audio inputs and outputs are balanced XLR connections with a nominal input level of 0dBu

(+20 dBu full scale). Mono audio sources should be sent into the Left Audio Input.

The Ethernet connector is a standard 1000Base-T. A normal Cat5 Ethernet cable, such as one used with a computer, should be connected here.

The POTS connection should be used with a dedicated analog telephone line. Do not try to use digital telephone lines, as this may damage the ACCESS Hardware. VoIP telephone circuits are not supported.

IP Configuration - Console Connection Interface

To access the **Console Connect Interface**, connect a computer keyboard, mouse and monitor to the back panel of the ACCESS Rack. Using this interface, you have complete control over all aspects of the device, from configuration to making connections.

As shipped from the factory, ACCESS is configured for DHCP, which means it will automatically attempt to obtain an IP address from your network.

To change the IP Configuration, go to **Network > Manage Networks**, as shown in Figure 3. Select **Ethernet Port** and click **Configure**.

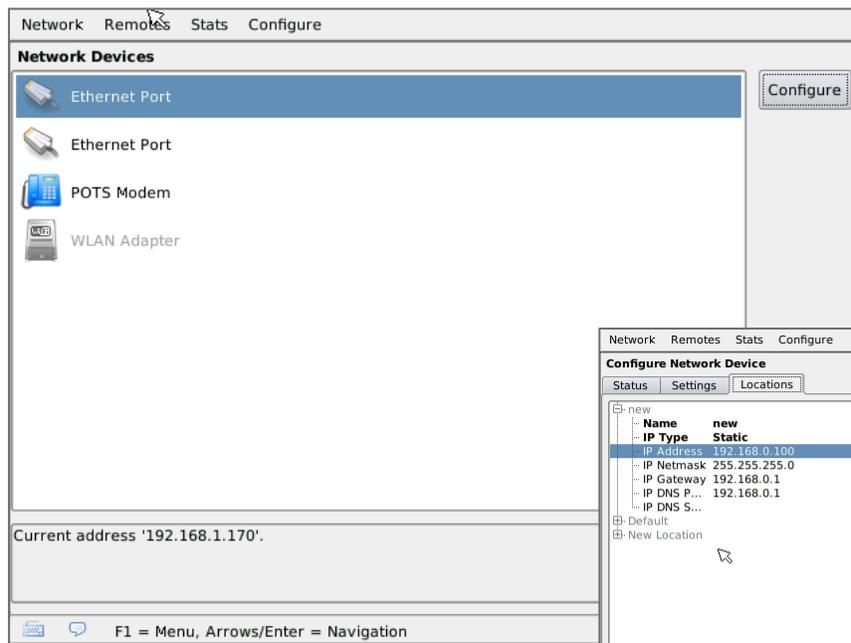


Figure 3 - Manage Networks

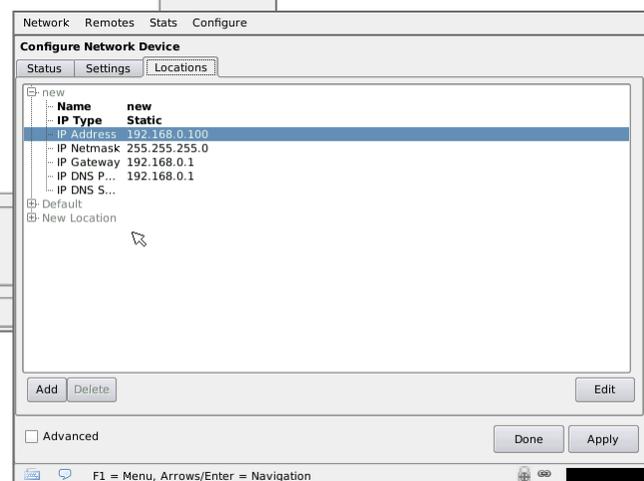


Figure 4 - Configure Network Device

IP Configuration - Device Manager

Initial IP configuration can also be handled using the Comrex **Device Manager** software. This program is provided on the CD included with the ACCESS hardware, and can also be downloaded from the Comrex website.

In order to configure ACCESS, the **Device Manager** must be run on a Windows PC or MAC located on the same physical LAN as the ACCESS hardware.

Once power is applied to ACCESS, you have five minutes to configure the IP settings. After five minutes, the power must be cycled on the ACCESS to be able to make changes via **Device Manager**.

As shown below, running the **Device Manager** and clicking the **Scan for Devices** button will produce a list of all Comrex IP codecs found on the LAN.

Choosing the codec that appears in the left hand list, followed by pressing the **Configure** button, allows you to set the IP parameters of the codec.

Once you know the IP address (or have changed it using **Device Manager**,) the rest of the setup and operation of ACCESS is done either through the built-in **Web-based Interface** or the **Console Connection Interface**.

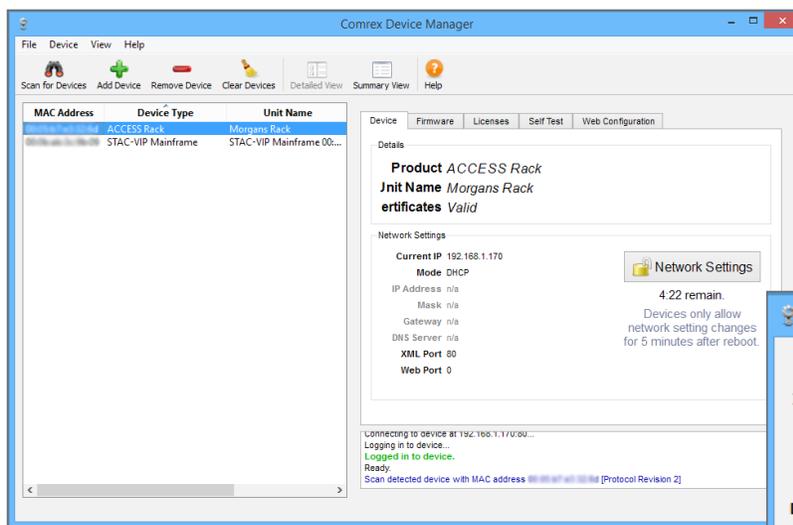


Figure 5 - Device Manager

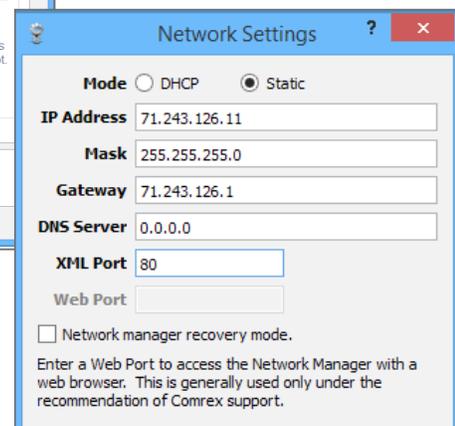


Figure 6 - IP Configuration

Network Configuration

By default, the ACCESS listens to IP port **UDP 9000** for incoming audio connections. **TCP port 80** is the default port for the **Web-based Interface** and remote control applications. These ports may be changed through the **Console Connect Interface** in **Configure > System Settings**.

In order to accept incoming calls, your network must be configured to pass incoming traffic over **UDP 9000** to the ACCESS. This can be accomplished by using port forwarding, a DMZ or by putting the

ACCESS directly on a public IP address. The use of a static public IP address is recommended.

The optional **Switchboard Traversal Server** may also be used in cases where you do not have control over the network in order to make the necessary configuration changes. This optional license allows the use of our dedicated **Switchboard TS** to make connections regardless of firewall or router settings. See the product manual for more information on **Switchboard TS**.

Making a Connection

ACCESS Rack can be controlled using the built-in **Web-based Interface**. To log into the interface, enter the IP address of the ACCESS into your computer's web browser. You can then enter any username and use the default password, **comrex**.

To make an outgoing connection, you must first create a new remote in the **Connections** tab. Using the **Web-based Interface**, click the **Store New Remote** button. Enter in a remote name for the connection, the IP Address or phone number of the unit you are calling, the audio connection password (if any is set) and choose a profile to use.

There are several factory Profiles available to use. The following are the most commonly used:

Opus Mono - This is the default choice of profiles for new remotes. It provides low delay, full duplex, 20KHz mono audio channel over a low (48Kb/s) data stream.

3G AAC-ELD - This mode is optimized for use over 3G/4G wireless networks like UMTS or LTE. Because cell networks are asymmetrical (they have higher download speeds), this profile delivers a robust, low delay mono stream in the upload direction, and a low delay, stereo stream in the reverse direction. This stream can be useful to send separate program and cueing channels, as an example.

POTS – This profile must be used when dialing a connection to another codec over POTS.

Once you are finished creating your new remote, click **OK**. To start the connection, select the remote from the list and press the **Connect** button. To disconnect, simply press the **Disconnect** button.

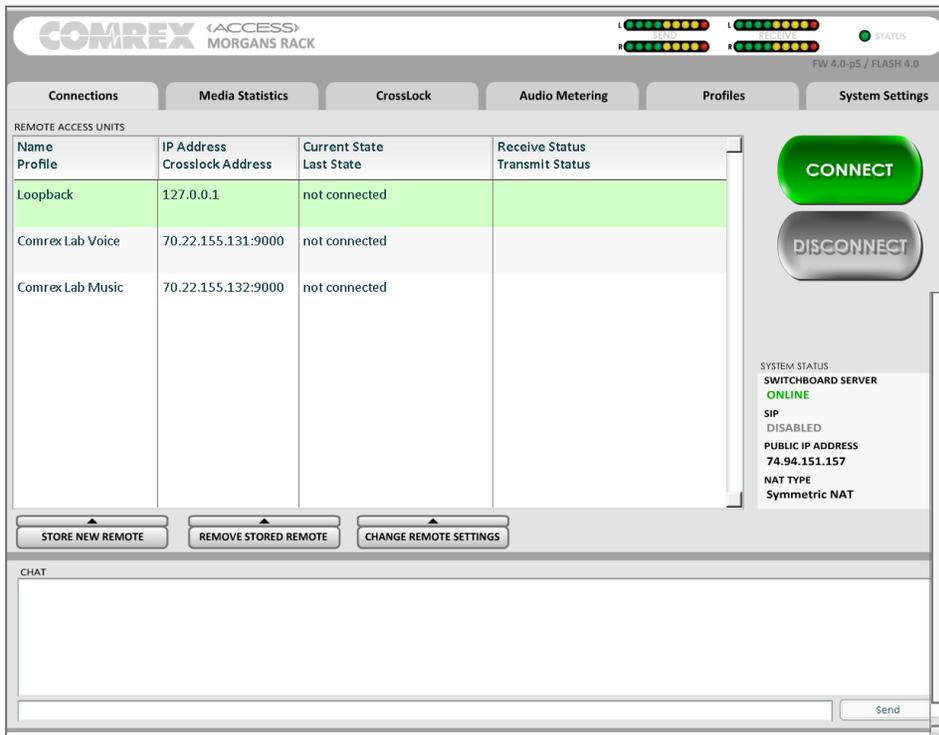


Figure 7 - Connections Tab

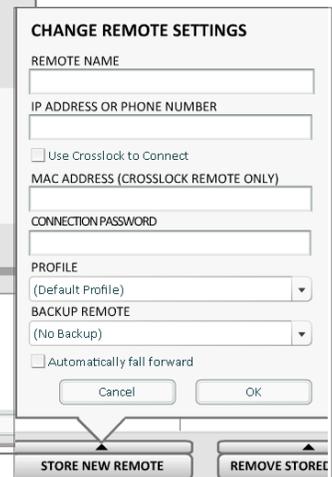


Figure 8 - Store New Remote