

In Review: The AOR ARL 2300 LAN Interface

By Ken Reiss, WPCØKR

“The ARL 2300 is a very cool application of computer and radio technologies coming together where the whole is much greater than the sum of the parts.”

The ARL2300 Ethernet Controller by AOR is a network interface that allows you to hook your AR 2300, **Photo A**, or AR 5001D receiver directly to a computer network, and then if you desire, to the Internet. While the radio selection is a bit narrow, if you have one of these high-end receivers, you’ll probably want this interface to go with it.

(IN DEPTH: See the AR 2300 receiver at <<http://bit.ly/A8owxO>>; the AR 5001D at <<http://bit.ly/Aor44e>>. – Ed.)

The interface provides over-the-network access and control to the basic functions of the receiver. All five VFOs are available, but no memory functions can be controlled. There is also a view of the spectrum display so you can find stations nearby.

Hardware Set Up Is a Snap

Hardware set up of the ARL 2300 is very simple, **Photo B**. You plug a cable from the AUX jack on your receiver to the receiver port on the LAN interface, and an audio connection from either the line out or speaker out jack. If you choose the line out jack, you will not have volume control through the software, but must rely on your computer’s audio settings to control volume. Finally, a LAN cable connects from the Ethernet port on the 2300 to an open port on your switch or router.

There is no option for wireless control, so you’ll need a wired network with an empty port. One other item that you’ll need to be aware of is

that a DIP switch on the receiver needs to be flipped so that power will be provided to the unit. There is a power jack on the rear panel, but a quick read of the manual explains why there’s no power supply included.

Bonjour . . .

Depending on the complexity of your local system, things may get interesting from there, or it may be very straightforward. In theory, the ARL 2300 will use the Bonjour protocol from Apple to make itself available on the network through a Web browser, **Figure 1**. This requires that you have the Bonjour software on your system. Macs, of course, will have it installed already. If you use Windows and the Safari browser, you’ll have it also. If you’re using something else — Internet Explorer or Firefox for instance — you may need to download and install an add-on before you can find the receiver.

One step that will make it much easier to find the unit is to use the Bonjour browser interface. I have used Safari since it first came out and never had a reason to use this, so I didn’t know it was there. Once I found it, everything was a piece of cake.

Click the bookmarks in Safari and then Bonjour in the collections. Look for the http on the Arlan-X device and follow the directions for logging in as the administrator. X will be replaced with a number representing the number of the device on your local network.



Photo A. The AOR ARL2300 Ethernet Controller provides connections for either the AR 2300 (shown) or the AR 5001D receiver and interfaces it to the Internet via the Ethernet. (Courtesy of AOR)



Photo B. Front and back views of the AOR ARL 2300 Ethernet Controller shows the simplicity of the unit. Its outward simplicity, though, covers a sophisticated interface that significantly enhances use of the AR 2300 and AR 5001D receivers. (Courtesy of AOR)

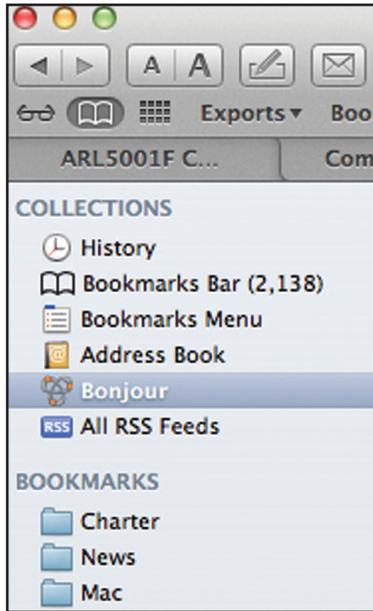


Figure 1. Finding the device through the Bonjour function on the browser makes for quick set up. Shown here is the Mac version of Safari, but the windows version is identical. The control software runs on the Mac too! (Courtesy of WPCØKR)

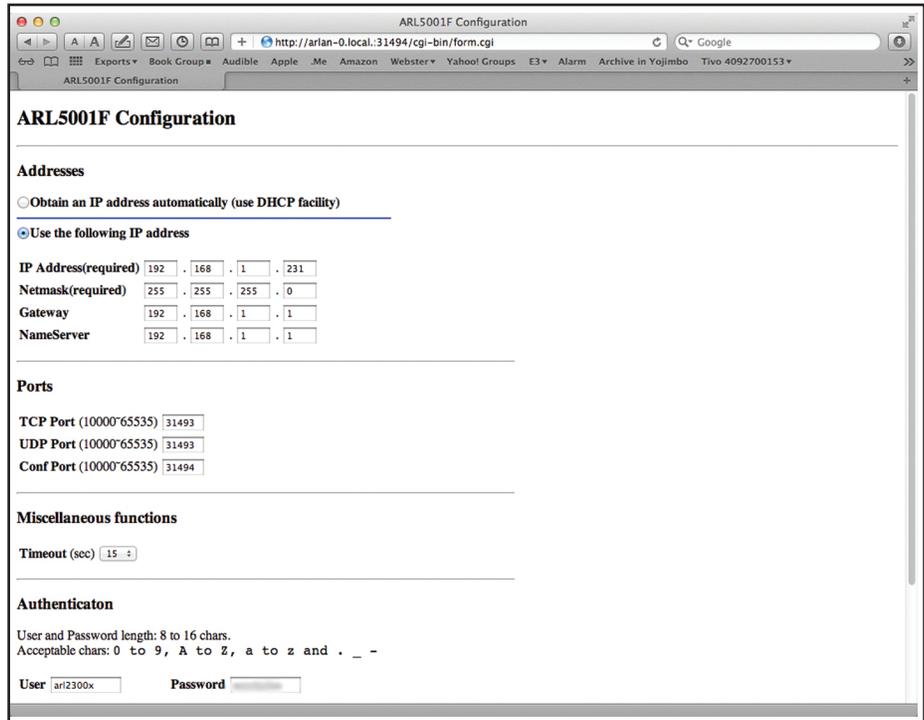


Figure 2. Configuring the settings on the ARL-2300 is done through a Web browser. Once you have the Bonjour connection established, set up a static IP address and ports for your network. (Courtesy of WPCØKR)

Once there, you'll need to configure a static IP address so you can reliably find the receiver with the control software, and a few other network settings, **Figure 2**. You'll also want to set a password and perhaps a new username from the default. Save your choices and you should be ready to go!

You may also run into firewall issues, as the ARL 2300 uses a few non-standard ports. Just remember that if at first you don't succeed, you're probably running about average and keep at it. It's worth it when you get it working!

If you want Internet access, you will probably need to configure your router to allow access to those ports, as well, or configure port forwarding to correctly redirect the incoming request to the receiver.

About the Software

Once you have the connection working, you get to use a remote-controlled receiver. Just being able to get the receiver

away from your computer has all kinds of advantages, but there's no reason it has to be local.

Even without memory control, the five VFOs of the receiver allow for a lot of flexibility. The control software is actually a Java applet, so it will run on any platform that supports Java including both Windows and Mac. This makes for a very versatile system! **Figure 3**.

The software also provides access to the receiver's SD card (if one is installed) for audio recording and playback. The limited experimenting I did with this worked quite well. The files are saved in standard WAV format, so it would be quite easy to transfer them to the computer from the card and convert them to another format or edit them with an audio program — an excellent add-on to any receiver!

If you don't have access to the receiver's SD card slot, however, all is not lost. You can record the audio in real time to the PC as well. This also creates standard WAV files stored on your computer that you can then playback or edit as desired.

It would be great if you could transfer the recordings back from the receiver's card so that unattended recordings could be made at remote locations, but the basic software does not allow that function.

The supplied application is relatively

simple, but certainly adequate for the task. It provides excellent remote control and monitoring capabilities, but no sophisticated functions like scanning or memory manipulation.

There is actually a second model, the

ARL 5001F, which is the unit we tested, **Figure 4**. The ARL5001F is specifically made for the AR 5001D receiver and includes the ability to control a rotator through the connection on the front panel. The jack is labeled Rotator rather than AUX, but the units appear to be identical outside of that. The rotator recommended is a Yaesu G-1000DXA, <<http://bit.ly/AoLf46>>, along with the GS-232B interface, <<http://bit.ly/x75tFQ>> for remote computer control. The software then provides a separate window for rotator control.

According to AOR, the 5001F was made specifically for the FAA which needed the directional control of a rotator and remote monitoring to help in finding interference sources that affect air traffic communications. Pretty slick system for that, and with enough remote stations in an area, I'm sure it's very effective! If there were a network of these worldwide, it would make for some very interesting DXing possibilities!

If you get the chance, even if you don't own the receiver, check this thing out. It's a very cool application of computer and radio technologies coming together where the whole is much greater than the sum of the parts. If you have one of the required receivers, you'll probably want to put this on your wish list!

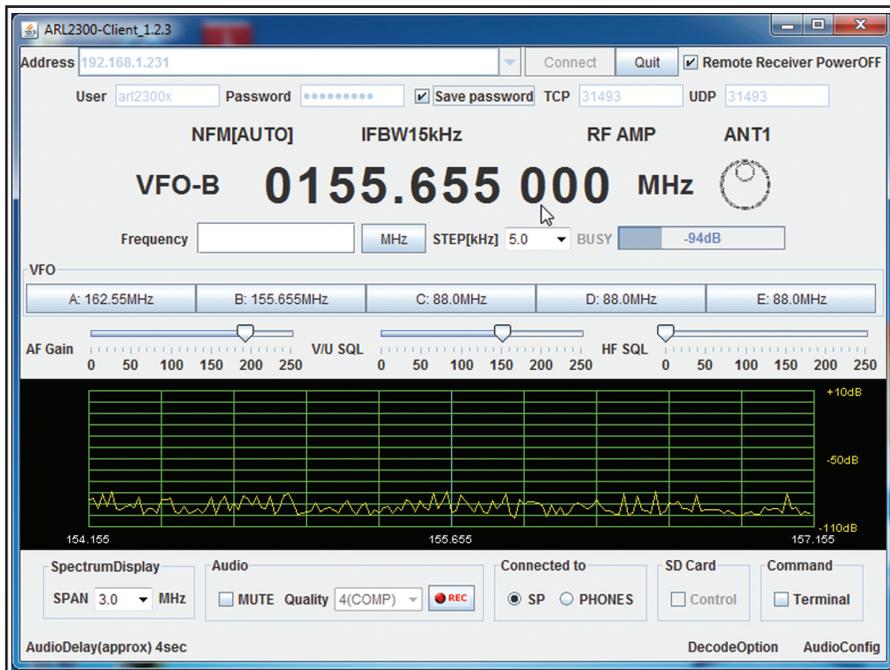


Figure 3. The Control screen of the ARL 2300 is slightly different and a bit more compact than the ARL-5100F. The 5100F can use either program that you prefer. (Courtesy of WPCØKR)

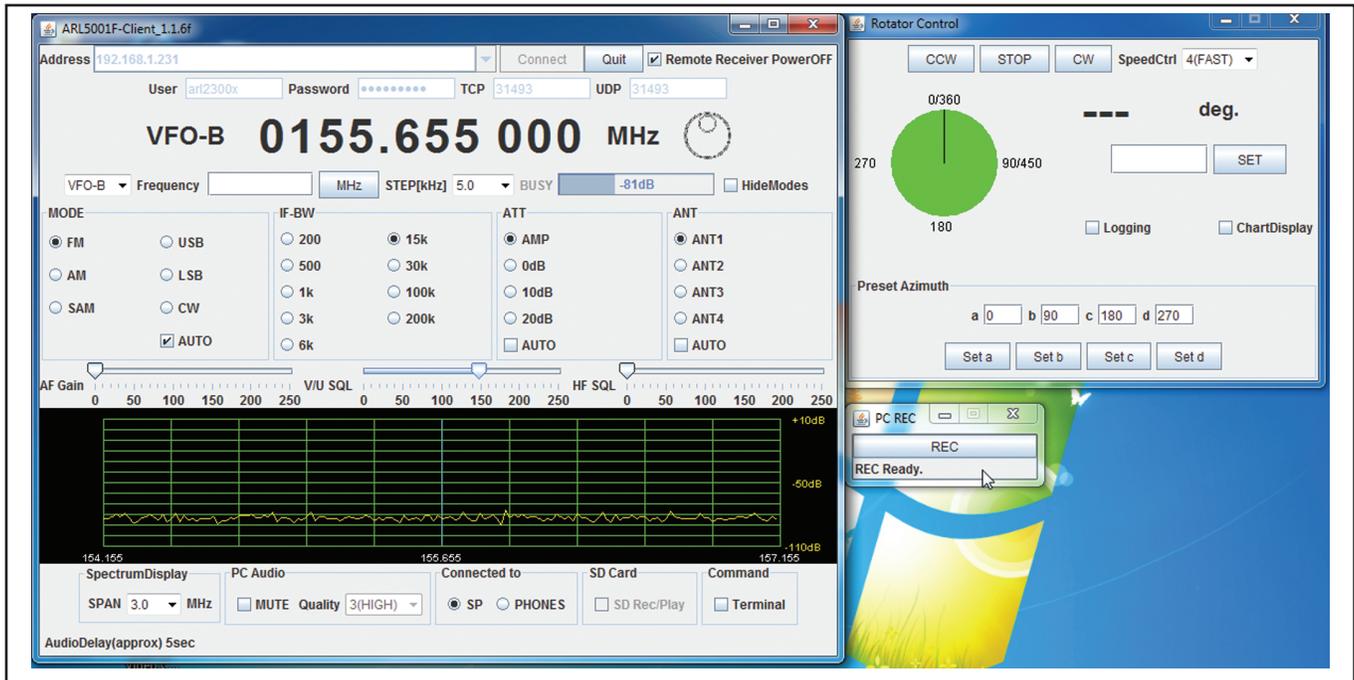


Figure 4. The ARL 5100F control screen features several windows for controlling the receiver, audio recording and the rotator control. Mode and settings are more immediately visible, but there is an option to hide them once you have them set. (Courtesy of WPCØKR)