

Using the LDG AT-1000Proll with Yaesu FT-991:

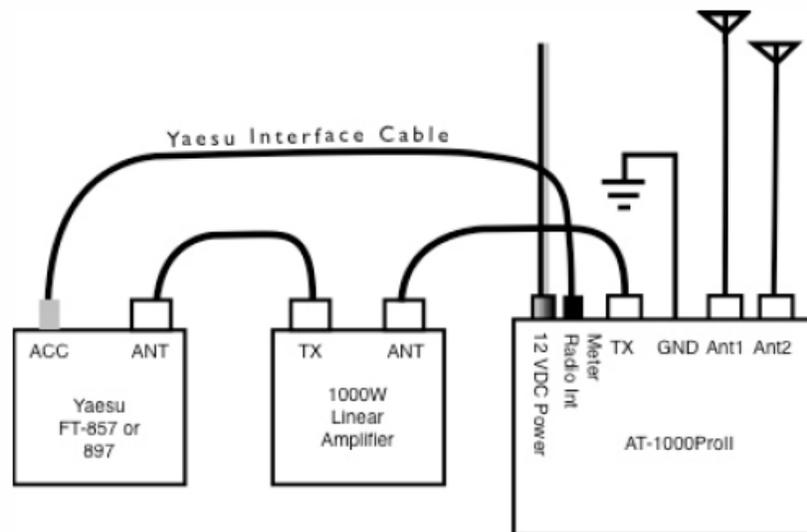
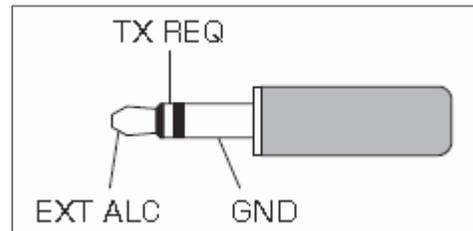
By KN5G:

31-December, 2015

After scratching my head for a few days and looking through the **FT-991's** manual and the **LDG AT-1000Proll's** manual, and perusing everything I could find on the Internet, I finally figured out how to use the LDG AT1000Proll with the Yaesu FT-991. I wanted to be able to press the TUNE button on the face of the AT1000Proll for a couple of seconds and have it initiate a tuning session like I was used to doing with my FT-857. With the FT-857, pressing the Tune button on the AT1000Proll for a couple of seconds would cause it to close an internal contact, which the FT-857 would sense at its **ACC** Jack, and switch to transmit mode while the tuner completed a tuning cycle.

The FT-991 does not have an **ACC**, "Accessory Jack" like the FT-857, but it does have a jack named **REM/ALC** on the back skirt. (See page 17 in the FT-991 manual). Fortunately, this jack accepts an **External ALC** signal and an **External TX REQ** signal, (Normally used by a linear amplifier with an internal tuner built into the amplifier, I suspect).

Basically the same two conductor cable, (LDG calls it an "Optional Y-ACC Cable"), used for the Yaesu FT-857 and FT-987 will work with the FT-991. But there is a **catch!**



FT-857/897 Installation

Note:

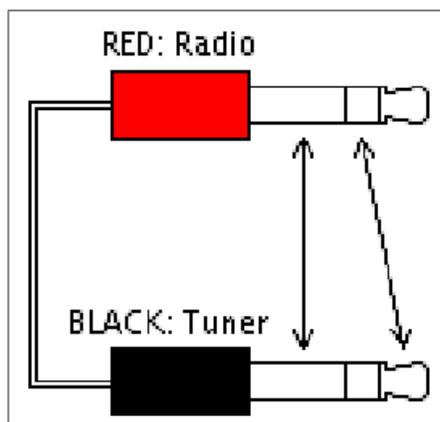
Optional Y-ACC cable has a red plug on the radio end of the cable and a black plug on the tuner end of the cable.

Using the LDG AT-1000ProII with Yaesu FT-991:

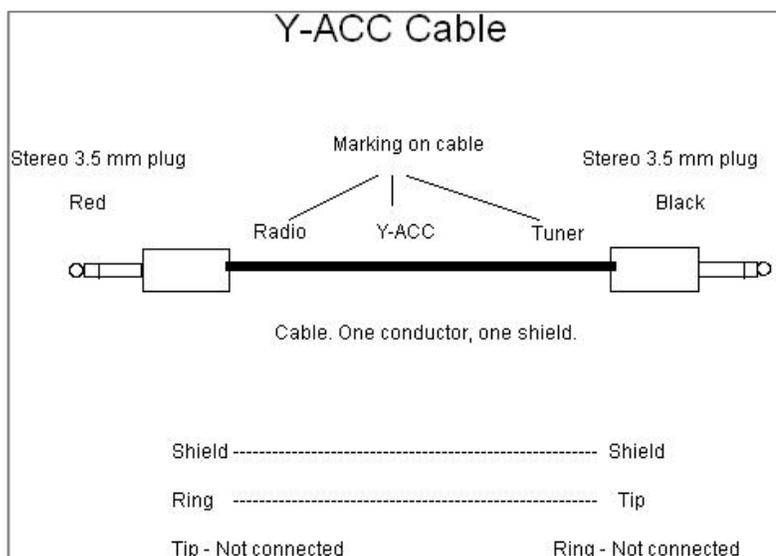
By KN5G:

The “catch” is that while it only seems logical to set the FT-991’s menu location **143 - Tuner Select**, to “EXTERNAL” that did not work, (or at least it did not work with my FT-991), which is running the **Main Firmware** version **V02-08**. With a VOM connected across **TX REQ** and **Ground**, there was no signal voltage read until the **menu location 143** was set to **LAMP**, (Linear Amp).

With **LAMP** selected in menu location **143**, a voltage of approximately **3.5 VDC** was read on the volt meter across the **TX REQ** line and **Ground**. When the TX REQ line was touched to ground, the FT-991 switched to transmit.



Two depictions of the control cable between the LDG tuner and the FT-991.



Using this arrangement the AT-1000ProII can be placed in the **Tune Mode** by pressing the Tune Button on the face of the tuner and holding it for more than two seconds. When the tuner closes its internal relay, the FT-991 senses the **TX REQ** from the tuner and goes into transmit mode. The FT-991 does not indicate what mode it is transmitting in on the TFT display. With LSB selected before a tuning cycle, the LSB indication never changes, but the radio does transmit and the tuner cycles its relays. You can see the SWR reading on the radio’s meter, if **SWR** is selected. You will also see the SWR indicated on the LED’s on the face of the tuner as it cycles through the various combinations to find a match.

If you want to use the **ALC** signal from your amp, to the FT-991, you will have to build up a “Y” cable, with one end plugged into the FT-991, the second end plugged into the Radio plug on the tuner and the third plugging into the ALC output port on your amp.

Below is the arrangement I am using at my QTH.

73, KN5G

