

**!** *Minimize installation time and problems by being prepared!*

## GETTING READY

Have the right tools and information before you begin:

### 1. Install Tuner Helper

software, available on the CR Catalog CD or download from [crwww.com](http://crwww.com). You can also use front-panel and RS-232 commands, but this is much easier and faster.

**2. Connect** your computer to the tuner with a null modem RS-232 cable. Available anywhere or build with two female DB-9 connectors, wire ground to pin 5, reverse wires to pins 2 and 3 on one end.

**3. Determine** the client's active system channels, channel names, and TV format (Broadcast, CATV, IRC, or HRC).

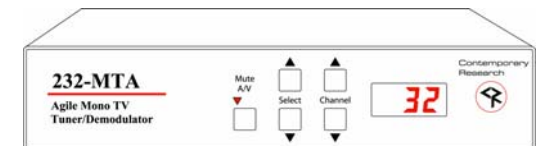
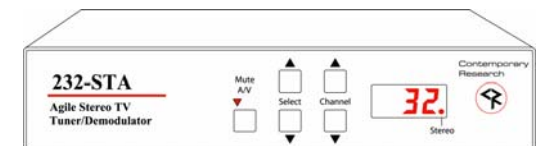
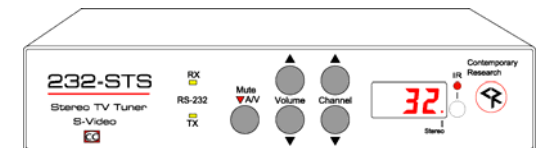
**4. Power** tuner using the included power supply.

*Most tuner problems are caused by selecting the incorrect TV format and using insufficient DC power.*



## QUICK START GUIDE

### *RS-232 Tuner Setup*



17630 Davenport, Suite 113  
Dallas, Texas 75252-5963  
Phone 972-931-2728  
[www.crwww.com](http://www.crwww.com)  
[support@crwww.com](mailto:support@crwww.com)

# Basic Installation

It's best to set up the tuner at the job site, so you can test operation on the client's cable system.

## HOOK UP TUNER

1. Connect DC power supply, at least 400 mA, do not power more than one tuner from the same supply.
2. Connect CATV cable to tuner.
3. Connect A/V Out cables from tuner to TV/Projector inputs.
4. Connect external AV inputs (if needed) to AV source outputs.

## START TUNER HELPER

1. Connect the null modem cable between your computer's COM port and CR RS-232 tuner.
2. Launch Tuner Helper.
3. Read the Help *Getting Started* section on how to set up and test RS-232 operation.

*This guide assumes you're using Tuner Helper—you can also use front-panel and RS-232 commands shown in the manual included with the tuner.*

## TUNING

1. From the **Setup** panel, select Off-Air, CATV(Cable), HRC, or IRC tuning mode.
2. Select **Control** and press Channel Up/Down or enter a known system channel.
3. Observe picture and sound quality. If TV mode is wrong, some channels will often have poor sound or picture.

## TUNING RING

1. Select **Setup** panel.
2. Enter list of active channels (tuning ring), add labels for 232-STS tuner.
3. Send new tuning ring to tuner and save Tuner Helper file for later use.
4. Select channels and desired text mode to test operation.

## OTHER TUNER FUNCTIONS

**To set audio options**, select the **Setup** panel to set bass, treble, and stereo/mono/SAP operation.

**To set captioning options**, select the **Text** panel to activate closed captioning and modes.

**To test CG operation**, go to the **Text** window to enter and send messages, use **Timeout** to set on-screen display timing, or press **Show ID** to see the tuner's ID number and firmware version on-screen.

**To send special commands**, (Tuner Helper does not have a button for every programming option) go to the **Text** panel, enter an RS-232 string and press the **String** button. Refer to the supplied tuner manual for programming codes and options.

**To save tuner settings**, channels, and labels, select **File/Save As** and name file. You can "clone" other tuners with the same file using the Make Clone selection.

**Call 972-931-2728 for help**