

# RDS Master™

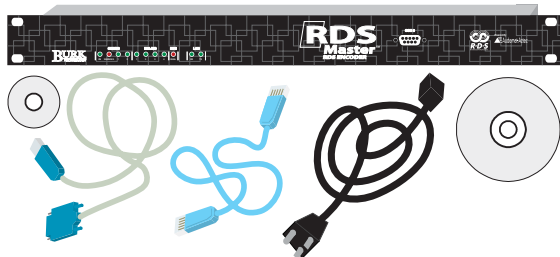
## RDS ENCODER

### Quick Start Guide

The RDS Master offers quick, intuitive setup. Follow the instructions in this Quick Installation and Setup Guide to get up and running quickly.

#### 1 UNPACKING

In addition to this Quick Start Guide, you will find each of the following in your RDS Master package.



- (1) RDS Master Encoder
- (1) Mini (2.5") CD-ROM containing Serial-to-USB drivers
- (1) Serial-to-USB Serial Cable
- (1) RJ-45 Network Cable
- (1) Power Cord
- (1) Audemat-Aztec CD-ROM containing FMB80 manual

*Note: If anything is missing, contact customer support at the phone number or email address below. In case of shipping damage, file a claim directly with the freight carrier.*

#### 2 SETTING THE JUMPERS FOR SCA SYNCHRONIZATION

There are two ways to integrate the RDS Master in your air chain, loop through mode and side chain mode. Start by setting the internal jumpers for your desired mode of operation.

##### Loop Through Mode

The default configuration is loop through mode, where the RDS Master automatically synchronizes the 19 kHz stereo signal with the 57 kHz RDS signal and combines the two onboard the RDS Master unit.

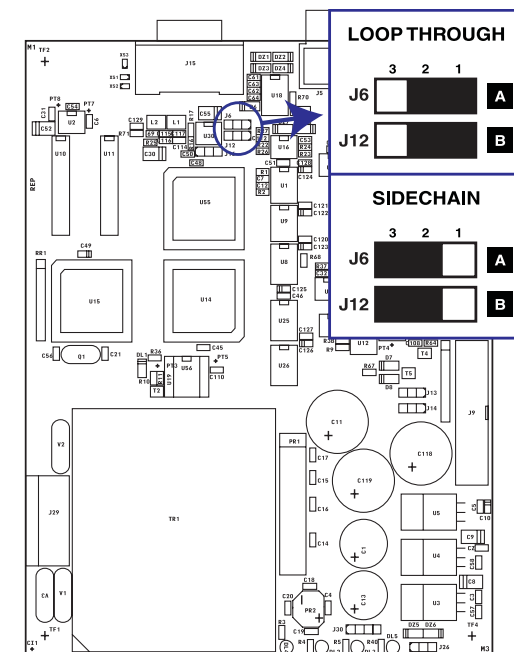
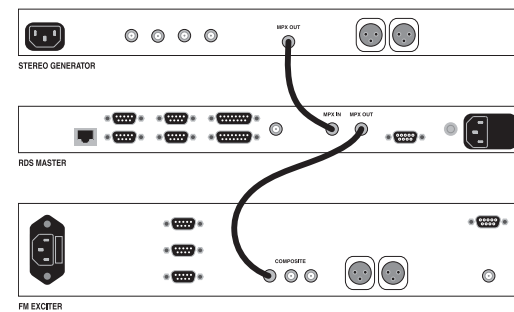
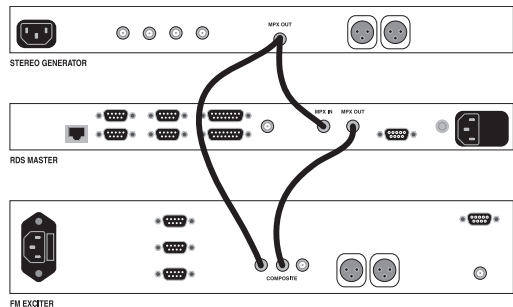
If you will use loop through mode, verify the internal jumpers are in their default locations. Remove the top cover from the RDS Master unit and locate the jumpers at J6 and J12, shown on the diagram below. The jumpers are on the FMB10 board, which is on the left side (with the power supply) when the front panel of the unit is facing you.

For loop through mode, the jumpers at diagram locations **A** and **B** should be connected to the **center** and the **right-hand pins**.

OR

##### Side-Chain Mode

In side chain mode, the 57 kHz RDS signal and the 19 kHz stereo/MPX signal are fed independently to the exciter. As in loop through mode, side-chain mode functions by using the MPX input from the stereo generator to synchronize the RDS signal onboard the RDS Master. However, only the 57 kHz signal is sent out the MPX OUT port. The stereo signal must be routed to the exciter independently.



If you will use side-chain mode, remove the RDS Master cover and connect the jumpers at **J6** and **J12**, shown above, to the **center** and **left-hand pins**. You do not have to adjust any other jumpers on the FMB10 board.



### 3 PC CONNECTION

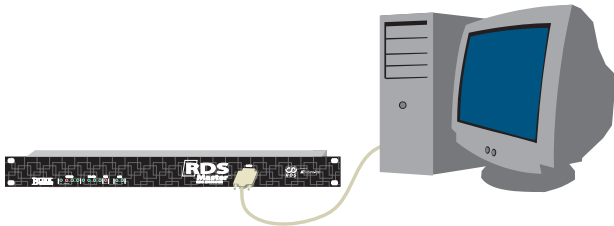
Before connecting with a web browser to set up your RDS Master, you must assign an IP address to the unit. This will require using the provided serial-to-USB cable and installing drivers for the cable using the provided 2.5" CD-ROM.

Once you run the driver CD, you may be prompted to install the Chinese language pack. Press cancel. When presented with a list of drivers to install, choose the "USB 1.1 to RS232 Cable". Clicking on the cable will give you a page with instructions and the setup files for this cable.

*Note: Do not connect the cable until after the drivers are installed.*

Click Setup.exe to install the driver. Choose "open" to run it from the CD and follow the on-screen prompts. A new COM port will be created for this cable.

When setup is complete, remove the cable's plastic cover and plug it into an available USB port on your computer. Windows will complete installation of this cable. Then connect the DB9M connector to the COM 0 port on the FRONT of the RDS Master.



Open a terminal application, such as HyperTerminal, and set up a new connection with the port settings as follows: 9600 bps, 8 data bits, no parity, 1 stop bit, with no flow control. Make sure the power switch on the RDS master is on and press OK to connect to the RDS Master.

Enter the command 'HELP' to call up a list of all the RDS parameters. Type "IP?" to see the current IP address. The default is 192.168.0.1.

Set the new IP address by typing "IP=" followed by the new IP address, and press ENTER. Example: "IP=xxx.xxx.xxx.xxx". A plus sign will appear to confirm the IP change. You must cycle power on the unit before it will be accessible using the new IP address.

You can now disconnect your PC from the COM 0 port.

**IMPORTANT!** The RDS Master must be assigned a static IP address on your network. If you do not know what to use for an IP address, contact your network administrator or ISP.

### 4 INTEGRATING AUTOMATION WITH THE RDS MASTER

If you are connecting automation software to the RDS Master, you can use a TCP/IP or a serial link between the automation computer and the RDS unit. If you use a serial link, connect the serial cable between the computer and the front panel COM 0 port. When you use TCP/IP, the automation data is routed via the same RJ-45 network cable used for web-based RDS Master configuration.

Once your automation computer is connected to the RDS Master, you will be able to set up scrolling characteristics as part of the setup process in the next step.

The RDS Master's scheduler function can be used to set up automatic changes to the RDS setup, including turning RDS on and off, changing format, or displaying specific messages at certain times of day. See the onboard help utility for more.

**IMPORTANT!** The RDS Master gives broadcasters the option to scroll text using the PS field that is intended by the NRSC RBDS standard for messages no longer than eight characters. Users should consult the standard for guidance on use of the PS field. For strict compliance with the standard, PS scrolling may be disabled.

### 5 RDS SETUP

To configure all of the RDS parameters, all you need is a PC connected on the same network as the RDS Master. Connect one end of the supplied network cable to the RJ-45 connector on the rear panel of the RDS Master. The other end should link to your network hub or switch.

Open your PC's Web browser and type the IP address of the RDS Master in the address field. The RDS Master home page will open, giving you access to all basic and advanced setup parameters. From here, you can navigate the setup menus and enter all RDS data as desired. If you need help, the onboard Help Guide provides more details about what kinds of information each field asks for.

When security is enabled, changes to RDS setup require a login before the new configuration can be saved. The default user name is "root" and the password is "root".

*Note: JavaScript must be enabled in your Web browser in order to complete RDS setup. If JavaScript is disabled, you can turn it back on in Internet Explorer by clicking Internet Options from the Tools menu. In the Security tab, select Custom Level and enable Active Scripting.*

### 6 CONNECTING THE RDS MASTER TO THE FM EXCITER

Now that you have set up your RDS parameters, you can integrate the RDS Master into your air chain. Refer to the diagrams in step 2 above for connecting the cables for side-chain or loop through mode. Once the RDS Master is connected, it is a good idea to verify the injection level with a modulation monitor. Recommendations for appropriate injections level vary, but we recommend 2%. You can make any adjustments by opening your Web browser and reconnecting to the RDS Master.

Note that different receivers may handle RDS functions slightly differently. This is especially true of scrolling. If your scrolling message is not displayed as you expected, sometimes changing the scrolling rate can make a difference.

You can find more detailed information in the onboard help guide once you connect to the RDS Master using your Web browser. We have also included the CD-ROM containing manuals for Audemat-Aztec's FMB80 RDS encoder, on which the RDS Master is based. If you have questions along the way, our Customer Support department is ready to help.