FMB50 / FMB80

Quick Start

1. Unpacking

Check that all these accessories are present:

- 1 power supply cable
- 1 straight Ethernet cable (letter A on the cable)
- 1 USB-serial adapter cable
- 1 box including : 1 Audemat CD with the product documentation, 1 Quick Start notice, 1 Quality Control form

2. Network configuration using the console

Before connecting your encoder to the broadcast chain, check network parameters and modify them if needed.
Connect a PC to the COM0 serial port on the front panel of the encoder and the power supply cable to the rear panel.

Connect the encoder to the mains and start it.

On your PC, open a terminal session (with Hyperterminal, Tera Term…).

If you don 't know which COM port to select for your terminal session:
Press the Windows and Pause keys at the same time and select **Hardware** or **System** and **Device manager** (depending on the Windows version).
Click on "Ports (COM & LPT)" to list physical and virtual COM ports installed on the PC and select "USB-to-serial" to view the COM port used for your connection to the encoder. This is the port you will need to select for your terminal session.

Enter the following parameters: 9600 bits per second, 8 data bits, no parity, 1 stop bit, no flow control.
Once connected to your encoder, enter the command:

```
IP?
```

Press the <Enter> key and the encoder sends the current IP address, for instance:

```
192.168.0.1
```

To set a new IP address, enter the command and press the <Enter> key:

```
IP=x.x.x.x
```

Where x.x.x.x is the new IP address.
You might in the same way check and reset the network mask (press the <Enter> key after each command):

```
MASK?
MASK=x.x.x.x
```

the gateway:

```
GATEWAY?
GATEWAY=x.x.x.x
```

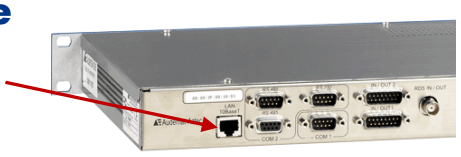
You will then need to restart the encoder to apply the new network parameters:

```
RESET
```

DOC00393

3. Connecting to the embedded Web site

1. Connect the Ethernet cable between the RJ45 and the network..



2. Open a Web browser (Internet Explorer, Mozilla…) and enter the encoder IP address you just set in the previous step. The home page of the embedded web site is displayed:

4. Configuring the PSN using the embedded Web site

1. On the embedded web site home page, click “Main PSN of RDS datasets”:

Main Program Service (PSN) of DataSet (DSN) 1		
	Update	Value
Program Identification (PI)	F000	XXXX
Program Service name (PS)	my radio	XXXXXXXX
Decoder Identification (DI)	0,Mono,Not Artificial Head,Not Compressed,Static PTY	
Traffic Announcement (TA)	ON OFF	
Music / Speech (MS)	Music Speech	
Clock Time (CT)	ON OFF	
Program Type (PTY)	1,News	RDS: News RBDS: News
Program Type Name (PTYN)		XXXXXXXX
RDS Group sequence	0A,0A,0A,2A,3A,6A	

2. Set the PI code, the PS and other parameters as needed.
3. Click the “Update” button to lock in your changes.

5. Activating the RDS using the embedded Web site

1. On the embedded web site home page, click "RDS encoder parameters”.
2. Set the RDS subcarrier parameter to ON to activate the RDS.
3. Click the “Update” button to lock in your changes.

The default injection level is 465 mV @ + 12 dB. It corresponds to a 4 kHz deviation. Since exciters and transmitters vary, the injection level may need to be adjusted. We highly recommend you measure your RDS level on the air using accurate metering equipment (Audemat NAVIGATOR10/100/1000 or FM-MC4).

RDS Signal configuration			
Settings	Update	Value	Typical
RDS subcarrier	ON		
RDS output level (mVpp)	465	1 to 3199 mVpp	465
RDS phase (°)	90	0 to 359 °	90
Local time offset (CT.OFFSET)	0		
Synchro	AUTO		
Pilot	Not detected		

6. Configuring the radiotext using the embedded Web site

1. On the embedded web site home page, click “Radiotext parameters”:

2. Set the default radiotext (64 characters max) and click “Set”.

Default settings:

- Number of repetitions = 1
- A/B Flag = Toggle.
- Group sequence = 0A,2A,0A,0A

7. Configuring the scrolling PS using the embedded Web site

Some car receivers cannot display radiotext. They can however display the PS by decoding the 0A group. The Scrolling PS feature thus allows broadcasters to address messages to their listeners.

1. On the embedded web site home page, click “PS scrolling parameters”.

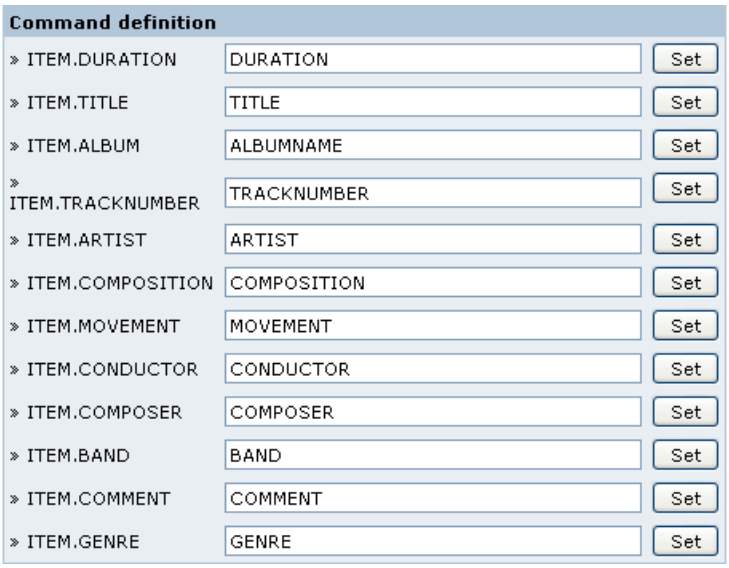
2. Enter the scrolling text you want to display.
3. Set display parameters (number of characters per screen, pause time between 2 displays…)
4. Click the “Set” button for each section where parameters have been changed.

8. Setting you encoder for a connection to the automation software using the embedded Web site

The automation software generally sends an ASCII string with titles of songs, artist information, program information...
The commands sent by the automation software have to be defined in the encoder to be properly understood.

1. To connect the encoder to your automation software, use either the serial port or the Ethernet port.
2. On the embedded web site home page, click “PS and RT tags commands definition ", 4 configuration pages enable you to update TAG commands to match your automation software:

3. On each page, update each command with the name used by the automation software and click the “Set” button.



PS & RT ITEM tags command definition

Tags can then be used for dynamic radiotext and scrolling PS.

9. Note regarding synchronization of RDS and 19 kHz signal

There are two ways to set up the encoder, **Loop Through** and **Sidechain**.
The default configuration of the jumpers inside the encoder enables the **"Loop through”** mode, In this mode, the output of the stereo generator is fed directly into the MPX IN/SYNC input of the encoder. The encoder will automatically detect the 19 kHz signal to ensure a good synchronization of the RDS SCA.

Please check the user manual for more information on how to communicate with your encoder and how to configure it.

Audemat is certified ISO 9001 and 14001 and our quality department welcomes your feedback. For any question, do not hesitate to contact directly our quality manager: **quality@worldcastsystems.com**

For technical questions, please contact: **support@audemat.com** or **ussupport@audemat.com**