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RDS300/RDS500/RDS1000
Quick Start

1. Unpacking

Check that all these accessories are present:

- 1 power supply cable
- 1 straight ethernet cable
- 1 quick start notice

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 COM serial port of the encoder and the power supply cable to the rear panel. 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. 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:

        192.168.2.3 (this is the default IP)

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

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. Login with the default username and password (admin/admin). The home page of the embedded web site is displayed:

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4. Configuring the RDS using the embedded Web site

1. On the embedded web site home page, click "RDS Config":

RDS General Configuration

PI (Program Identification)	0000
PS (Program Service)	BG RADIO
PIN (Program Identification Number)	0000
DI (Decoder Identification)	15 Help
TP (Traffic Program)	OFF
TA (Traffic Announcement)	OFF
MS (Music/Speech)	MUSIC
PTY (Program Type)	0 Help
ECC (Extended Country Code)	E0 Help
PTYN (Program Type Name)	HELLO
LINK	0000
Group sequence	0A,0A,2A

Save

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

5. Activating the RDS using the embedded Web site

1. On the embedded web site go to "RDS Config" > "System":
2. Set the RDS Subcarrier to ON and adjust the Output level.

RDS System Configuration

RDS Subcarrier	ON
Output level (0 - 2500mVpp)	400
Output phase (0 - 359°)	90
CT (Clock Time)	ON
CT offset 30 min units (-24 to +24)	+6
AF (Alternative Frequencies):	
Device name (Location):	RDS Encoder
UTC	10/05/2011 08:04:45
Local time	10/05/2011 11:04:45
Pilot	Not detected

Save

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.

3. You could also configure Alternative Frequencies, Local clock time offset in half hours.
4. Click the "Save" button to lock in your changes.

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6. Configuring the radiotext using the embedded Web site

1. On the embedded web site go to "Dynamic Text" > "Radiotext":

Default RT

Default RT: BG RADIO ONLY BULGARIAN MUZIK

[Save]

2. Set the default radiotext (64 characters max) and click "Save".

7. Configuring the scrolling PS using the embedded Web site

1. On the embedded web site go to "Dynamic Text" > "Dynamic PS":

Default Scrolling text

Default PS Scroll:

[Save]

Scrolling Options

Scrolling:	ON
Pause time:	3 seconds
Scrolling type:	word scrolling
Scroll default PS:	☑ (adds default PS(8 chars) to the scrolling string)
Truncate words:	☑ (truncates words longer than 8 chars)
Center words:	☑ (centers small words(Ex.:"goes "->" goes ")
Leading spaces:	0 chars (adds leading spaces for better char scrolling)
Trailing spaces:	0 chars (adds trailing spaces for better char scrolling)
Default PS Scroll repetitions:	0 (0 for continuous)
PS Tagged String repetitions:	0 (0 for continuous)

[Save]

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 "Save" button for each section where parameters have been changed.

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8. Setting your 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 "Dynamic Text" > "Commands", 4 configuration pages enable you to update TAG commands to match your automation software (Item, Info, Program, Other):

ASCII Configuration

Dynamic PS	Radiotext	Commands	
ITEM	INFO	PROGRAM	OTHER

3. On each page, update each command with the name used by the automation software and click the "Save" button.

Command definition

<ITEM.DURATION>	DURATION	Save
<ITEM.TITLE>	SONGTITLE	Save
<ITEM.ALBUM>	ALBUMNAME	Save
<ITEM.TRACKNUMBER>	TRACKNUMBER	Save
<ITEM.ARTIST>	ARTISTNAME	Save
<ITEM.COMPOSITION>	COMPOSITION	Save
<ITEM.MOVEMENT>	MOVEMENT	Save
<ITEM.CONDUCTOR>	CONDUCTOR	Save
<ITEM.COMPOSER>	COMPOSER	Save
<ITEM.BAND>	BAND	Save
<ITEM.COMMENT>	COMMENT	Save
<ITEM.GENRE>	GENRE	Save

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 switch at the rear panel of 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.

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