

## *Quick User Guide*

# SmartGen 3.1

## Basic RDS/RBDS Encoder

### → **BEFORE YOU USE THIS PRODUCT** ←

In order to be able to enjoy all the benefits of owning your new DEVA product, please verify first that the latest software and firmware release were installed.

Visit [www.devabroadcast.com/downloads](http://www.devabroadcast.com/downloads) for the most recent software and firmware downloads, prior the installation.

This Quick user guide will make the installation of the RDS/RBDS Encoder SmartGen 3.1 quick and easy. Applying these principles, you can simplify the process and save yourself extra time and effort. **For more information about the Safety precautions and the Operating environment recommendations please refer to the complete User Manual.**

## STEP 1

### Connection

1. Install the unit on its operation place;
2. Before connecting the AC Power, make sure that the mains supply at your location matches SmartGen 3.1 Power Supply Factory Settings - 100-240 V / 50-60 Hz;
3. Configure the desired operating mode - sidechain or loop-through before the device is installed in the signal path (*For more information refer to Step 4 & Step 5*);
4. Before connecting SmartGen 3.1 to other air-chain equipment, use the SmartGen Basic Encoder Manager to confirm that the encoder is properly configured.;
5. In order to program the 'static' message registers and operating defaults, install the operating software, before connecting the device to the computer (*Refer to Step 2*)

**NOTE:** We recommend testing the encoder with the controlling interface (computer, terminal, automation, etc.) before SmartGen 3.1 joins the air chain. This will confirm whether the encoder is properly initialized and two-way communication can be established.

## STEP 2

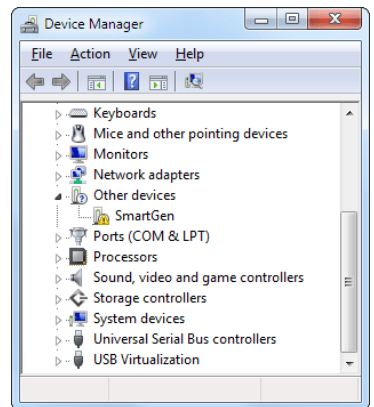
### SmartGen Basic Manager Installation

1. Use the Installation file which can be found on the supplied CD or downloaded from [www.devabroadcast.com/downloads](http://www.devabroadcast.com/downloads);
2. Find SmartGen 3.1 folder and double click on the installation file to launch the Wizard;
3. Accept the default recommendations and select "Next>" in the end of each step;
4. When asked to place an icon on the Desktop of your computer, make sure that the check box is enabled and click "Next> Finish";
5. Finally select NOT to launch the program.

## STEP 3

### USB Drivers Installation for Windows® 7

1. Connect the front-panel USB port to the computer. A "**New Hardware**" notification will appear. Click on the Status balloon or proceed with the next step;
2. If an installation failure occur, a notification status will appear. Close the status window and proceed with the next step;
3. To start the Device manager go to Start> Control Panel> Device Manager> Other devices;
4. Right click on "SmartGen" and select "Update Driver Software". The Update Driver Wizard will appear;
5. Click on "Browse my computer for driver software" and select the drivers folder (usually: C:\Program Files \SmartGen Basic Encoders Manager\Drivers) then click "OK" and "Next";
6. Windows® 7 will advise that this driver is 'unsigned'. Disregard the message and click 'Install this driver software anyway';
7. After the installation process is completed a notification message will be displayed.



**NOTE:** During the installation process a USB RS-232 Emulation will be made. Administrator rights might be needed in order for the USB drivers to be installed. Upon completion of the USB installation process, the USB will be referred to as COM port. The COM port number varies depending on the number of COM connections.

**STEP 4****Sidechain operating mode**

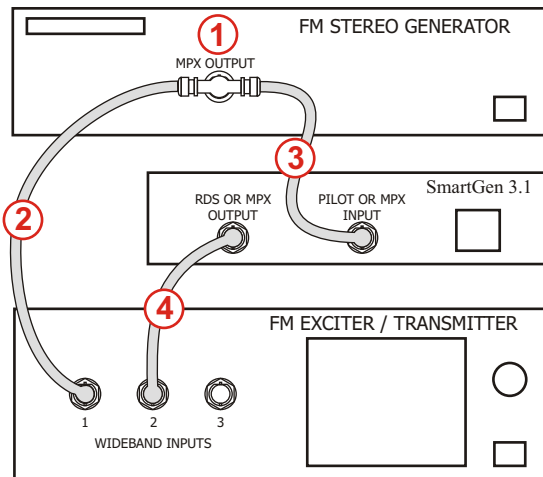
In order to derive timing information from the 19kHz stereo pilot, the rear-panel PILOT OR MPX INPUT connector monitors the output of the stereo generator. When sidechain operation mode is chosen the RDS OR MPX OUTPUT contains only the RDS sub carrier, the composite MPX signal is not routed through SmartGen 3.1. This operating mode preserves the multiplex signal integrity and assures uninterrupted program transmission, in case of encoder failure event.

Originally SmartGen 3.1 is configured for sidechain operation.

**"Sidechain" Encoder Connection**

1. Connect a BNC 'T' adapter to the composite/MPX output of the stereo generator;
2. Using a suitable cable, connect one side of the 'T' adapter directly to the wideband (composite/MPX) input of the FM exciter;
3. Using a suitable cable, connect the other side of the 'T' adapter to the PILOT OR MPX INPUT of SmartGen 3.1;
4. Cable the RDS OR MPX OUTPUT of the encoder to the second wideband (subcarrier) input of the FM exciter.

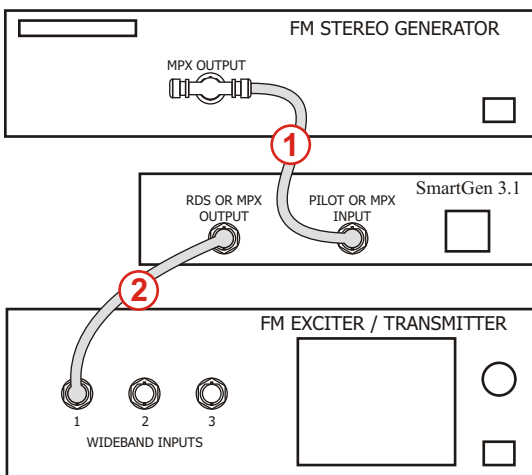
**NOTE:** We strongly recommend the usage of Sidechain operating mode.

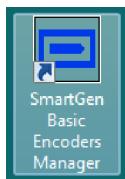
**STEP 5****Loop-through operation mode**

If Loop-through operation mode is chosen the RDS OR MPX OUTPUT includes the composite MPX program signal to the RDS sub carrier. In loop-through mode the internal bypass relay will pass-through the multiplex signal in case of an encoder power failure event.

**"Loop-through" Encoder Connection**

1. Connect the output of the stereo generator directly to the PILOT OR MPX INPUT of SmartGen 3.1;
2. Connect the RDS OR MPX OUTPUT of the encoder to the composite/MPX wideband input of the FM exciter.

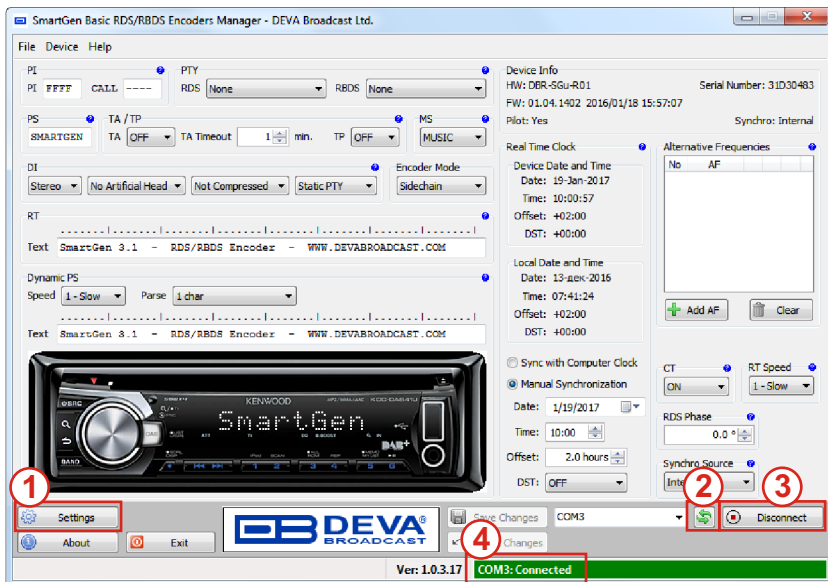


**STEP 6****SmartGen Basic Encoder Manager**

Upon completion of the installation process, a shortcut to the software will appear on the desktop of your PC. A double click on the shortcut will open the main application window.

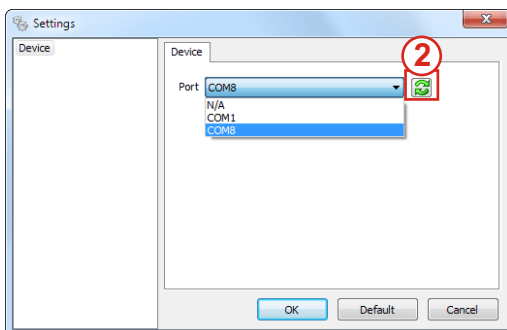
Most of the functions will be disabled. In order to enable them, a connection with the device should be established.

See below the control window representation:

**STEP 7****Communication Mode Configuration**

Before connecting to SmartGen 3.1 encoder, the software should be configured in the proper communication mode:

1. Press the 'Settings' button, located on the bottom-left part of the screen (1). Settings dialog window will appear;
2. Click on the *Refresh button* (2) and using the drop down menu select the proper COM Port;
3. Press OK and exit the Settings Menu;
4. Press the Connect button placed on the bottom left corner (3);
5. The connection status is visible on the bottom-right part of the screen (4). Once read, the Hardware configuration will be visible and ready for editing.



*Please refer to the User manual for detailed information on how to configure and explore your device.*