



SDC200/RDS

USER MANUAL



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29/11/2011	1.0	First Version	J. H. Berti
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SDC200/RDS - User Manual
Version 1.1

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Declaration of Conformity

Hereby, R.V.R. Elettronica SpA, declares that this FM transmitter is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.



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IMPORTANT


The symbol of lightning inside a triangle placed on the product, evidences the operations for which is necessary gave it full attention to avoid risk of electric shocks.




The symbol of exclamation mark inside a triangle placed on the product, informs the user about the presence of instructions inside the manual that accompanies the equipment, important for the efficacy and the maintenance (repairs).


1. Preliminary Instructions

• General Warnings


This equipment should only be operated, installed and maintained by "trained" or "qualified" personnel who are familiar with risks involved in working on electric and electronic circuits. "Trained" means personnel who have technical knowledge of equipment operation and who are responsible for their own safety and that of other unqualified personnel placed under their supervision when working on the equipment. "Qualified" means personnel who are trained in and experienced with equipment operation and who are responsible for their own safety and that of other unqualified personnel placed under their supervision when working on the equipment.

 **WARNING: Residual voltage may be present inside the equipment even when the ON/OFF switch is set to Off. Before servicing the equipment, disconnect the power cord or switch off the main power panel and make sure the safety earth connection is connected. Some service situations may require inspecting the equipment with live circuits. Only trained and qualified personnel may work on the equipment live and shall be assisted by a trained person who shall keep ready to disconnect power supply at need.**


R.V.R. Elettronica S.p.A. shall not be liable for injury to persons or damage to property resulting from improper use or operation by trained/untrained and qualified/unqualified persons.


 **WARNING: The equipment is not water resistant. Any water entering the enclosure might impair proper operation. To prevent the risk of electrical shock or fire, do not expose this equipment to rain, dripping or moisture.**

Please observe local codes and fire prevention rules when installing and operating this equipment.

 **WARNING: This equipment contains exposed live parts involving an electrical shock hazard. Always disconnect power supply before removing any covers or other parts of the equipment.**

Ventilation slits and holes are provided to ensure reliable operation and prevent overheating; do not obstruct or cover these slits. Do not obstruct the ventilation slits under any circumstances. The product must not be incorporated in a rack unless adequate ventilation is provided or the manufacturer's instructions are followed closely.

 **WARNING: This equipment can radiate radiofrequency energy and, if not installed in compliance with manual instructions and applicable regulations, may cause interference with radio communications.**

 **WARNING: This equipment is fitted with earth connections both in the power cord and for the chassis. Make sure both are properly connected.**

Operation of this equipment in a residential area may cause radio interference, in which case the user may be required to take adequate measures.

The specifications and data contained herein are provided for information only and are subject to changes without prior notice. R.V.R. Elettronica S.p.A. disclaims all warranties, express or implied. While R.V.R. Elettronica S.p.A. attempts to provide accurate information, it cannot accept responsibility or liability for any errors or inaccuracies in this manual, including the products and the software described herein. R.V.R. Elettronica S.p.A. reserves the right to make changes to equipment design and/or specifications and to this manual at any time without prior notice.

• Notice concerning product intended purpose and use limitations.

This product is a radio transmitter suitable for frequency-modulation audio radio broadcasting. Its operating frequencies are not harmonised in designated user countries. Before operating this equipment, user must obtain a licence to use radio spectrum from the competent authority in the designated user country. Operating frequency, transmitter power and other characteristics of the transmission system are subject to restrictions as specified in the licence.

2. Warranty

La R.V.R. Elettronica S.p.A. warrants this product to be free from defects in workmanship and its proper operation subject to the limitations set forth in the supplied Terms and Conditions. Please read the Terms and Conditions carefully, as purchase of the product or acceptance of the order acknowledgement imply acceptance of the Terms and Conditions. For the latest updated terms and conditions, please visit our web site at WWW.RVR.IT. The web site may be modified, removed or updated for any reason whatsoever without prior notice. The warranty will become null and void in the event the product enclosure is opened, the product is physically damaged, is repaired by unauthorised persons or is used for purposes other than its intended use, as well as in the event of improper use, unauthorised changes or neglect. In the event a defect is found, follow this procedure:

- 1 Contact the seller or distributor who sold the equipment; provide a description of the problem or malfunction for the event a quick fix is available.

Sellers and Distributors can provide the necessary information to troubleshoot the most frequently encountered problems. Normally, Sellers and Distributors can offer a faster repair service than the Manufacturer would. Please note that Sellers can pinpoint problems due to wrong installation.

- 2 If your Seller cannot help you, contact R.V.R. Elettronica S.p.A. and describe the problem; if our staff deems it appropriate, you will receive an authorisation to return the equipment along with suitable instructions;
- 3 When you have received the authorisation, you may return the unit. Pack the unit carefully before shipment; use the original packaging whenever possible and seal the package perfectly. The customer bears all risks of loss (i.e., R.V.R. shall not be liable for loss or damage) until the package reaches the R.V.R. factory. For this

reason, we recommend insuring the goods for their full value. Returns must be sent on a C.I.F. basis (PREPAID) to the address stated on the authorisation as specified by the R.V.R. Service Manager.



Units returned without a return authorisation may be rejected and sent back to the sender.

- 4 Be sure to include a detailed report mentioning all problems you have found and copy of your original invoice (to show when the warranty period began) with the shipment.

Please send spare and warranty replacement parts orders to the address provided below. Make sure to specify equipment model and serial number, as well as part description and quantity.



R.V.R. Elettronica S.p.A.
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40138 BOLOGNA ITALY
Tel. +39 051 6010506

3. First Aid

All personnel engaged in equipment installation, operation and maintenance must be familiar with first aid procedures and routines.

3.1 Electric shock treatment

3.1.1 If the victim is unconscious

Follow the first aid procedures outlined below.

- Lay the victim down on his/her back on a firm surface.
- the neck and tilt the head backwards to free the airway system (**Figure 1**).

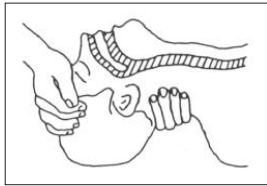


Figure 1

- If needed, open the victim's mouth and check for breathing.
- If there is no breathing, start artificial respiration without delay (**Figure 2**) as follows: tilt the head backwards, pinch the nostrils, seal your mouth around the victim's mouth and give four fast rescue breaths.



Figure 2

- Check for heartbeat (**Figure 3**); if there is no heartbeat, begin chest compressions immediately (**Figure 4**) placing your hands in the centre of the victim's chest (**Figure 5**).

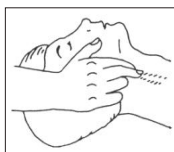


Figure 3

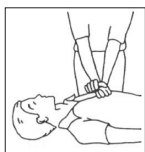


Figure 4

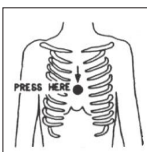


Figure 5

- One rescuer: give 2 quick rescue breaths after each 15 compressions.
- Two rescuers: one rescue breath after each 5 compressions.
- Do not stop chest compressions while giving artificial breathing.
- Call for medical help as soon as possible.

3.1.2 If the victim is conscious

- Cover victim with a blanket.
- Try to reassure the victim.
- Loosen the victim's clothing and have him/her lie down.
- Call for medical help as soon as possible.

3.2 Treatment of electric burns

3.2.1 Large burns and broken skin

- Cover affected area with a clean cloth or linen.
- Do not break any blisters that have formed; remove any clothing or fabric that is stuck to the skin; apply adequate ointment.
- Administer adequate treatment for the type of accident.
- Get the victim to a hospital as quickly as possible.
- Elevate arms and legs if injured.

If medical help is not available within an hour, the victim is conscious and is not retching, administer a solution of table salt and baking soda (one teaspoon of table salt to half teaspoon of baking soda every 250 ml of water).

Have the victim slowly drink half a glass of solution for four times during a period of 15 minutes.

Stop at the first sign of retching.

Do not administer alcoholic beverages.

3.2.2 Minor burns

- Apply cold (not ice cold) strips of gauze or dress wound with clean cloth.
- Do not break any blisters that have formed; remove any clothing or fabric that is stuck to the skin; apply adequate ointment.
- If needed, have the victim change into clean, dry clothing.
- Administer adequate treatment for the type of accident.
- Get the victim to a hospital as quickly as possible.
- Elevate arms and legs if injured.

4. General Description

The **SDC200/RDS**, manufactured by **R.V.R. Elettronica SpA**, is a **RDS + Stereo Coder model with display**.

The **SDC200/RDS** are designed to being contained into a 19" rack box of 1HE.

4.1 Unpacking

The package contains:

- 1 **SDC200/RDS**
- 1 User Manual
- 1 Mains power cable

The following accessories are also available from Your R.V.R. Dealer:

- **Accessories, spare parts and cables**

4.2 Features

Il **SDC200/RDS** is fully digital, it use only high quality components like A/D and D/A 24 bit converters and numerical processing (DSP) at 32 bit.

The input section includes XLR (R&L) and analogical BNC, as well as the optical and coaxial digital inputs.

It is present a rescue system for R&L and MPX audio inputs (changeover).

The stereo coding is realized digitally, as well as the low-pass filters and the preemphasis.

The RDS coder manages n. 6 data set and dynamic services TMC, TDC, IH and EWS.

All functioning and programming parameters are managed through dedicated software.

The equipment firmware can be updated through serial port without the need of hardware settings and without interruption of the service.

Two major features of **SDC200/RDS** are compact design and userfriendliness. Design is based on a modular concept: the different functions are performed by modules that, for the most part, are connected through male and facilitates maintenance and module replacement.

This Stereo Coder uses a frequency synthesized internal digital circuitry that allows very linear modulation, high stereo separation, high input level capability.

The input/output analog section of good quality integrates oneself with digital system answering for high input dynamics, high signal/noise rate and very low distortion.

4.2.1 RDS System Description

The Radio-Data-System is proper for the transmission of information in mono/ stereo programs of VHF/MF (87.5-108 Mhz).

It satisfies the requested requirements to the transmission of supplementary data on radio programs:

- 1) Compatibility with the current mono/stereo transmissions;
- 2) Absence of interferences towards the adjacent programs;
- 3) Compatibility with other identification systems which are already working.

The system, selected by an international specialistic team, allows the data transmission at a speed of 1187.5 bit/sec with phase modulation at two levels , carrier wave 57 Mhz and range ± 2 KHz.

The broadcasted binary signal is in advance put out on a differential codification.

The registry of transmission is at packages of length 104 bits (87.6 ms) named GROUPS, each of them composed of 4 blocks of 26 bits.

Every block is composed of 16 bits of information and of 10 bits of protection, which are properly studied to allow the recovery of an erroneous word with a maximum of 5 wrong bits.

They are provided with 16 separate blocks of which 6 are still not defined; every group begins with a PI identification code (Program Identification) which has the double intent to synchronize the receiver and to identify the channel which transmits the signal.

The purpose of the encoder **SDC200/RDS** is to manage the principal services defined by the standard CENELEC EN 50067 as: PI, PS, PTY, TP, AF, TA, DI, M/S, PIN, RT, EON, TDC, IH, CT.

As follows, we'll mention a short description about the function of each of these services.

PI - PROGRAM IDENTIFICATION: it's the identification code of the radio. Its more important application is to allow the receiver, in case of bad reception, to implement the "Automatic Frequency Change"; this happens when there is a signal with the same PI and of better level than the syntonized one.

PS - PROGRAM SERVICE: it's the visualized text on the receiver display, which has to be of maximum 8 characters, as this is the standard dimension of receivers displays.

The **SDC200/RDS** characteristic is to store up to 8 messages and the time of transmission of each of them. Every message can be composed from 1 to 16 words of 8 characters, and it's possible to select the permanence time on the display of each of the 16 separate words.

PTY - PROGRAM TYPE: it's the identification of the "Program Type" which is on air (example News, Sport, Rock, etc.) It's used to qualify on the receiver the automatical research of the program type desired.

TP - TRAFFIC PROGRAM IDENTIFICATION: this service indicates with a signal on the receiver display that the program we're receiving includes traffic news.

AF - ALTERNATIVE FREQUENCIES: it's the frequencies list of different transmitters which transmit the same program in the adjacent receiving areas. The list is memorized by the receiver and used to reduce the commutation time beetwen the different transmitters of the same program.

TA - TRAFFIC-ANNOUNCEMENT IDENTIFICATION: it' used to indicate to the car-driver that the traffic news are on air. The receiver could use the signal in one of the following modes:

- a) To switch automatically from the Tape (or from the Compact Disk) to the radio;
- b) To automatically switch on the radio when the traffic news begin;
- c) To automatically change over from a station which doesn't transmit traffic news.

M/S - MUSIC/SPEECH SWITCH: it's used to modify the music and the spoken volume one by one.

PIN - PROGRAM- ITEM NUMBER: it's used to plan the receiver to receive certain programs at preselected date and hour.

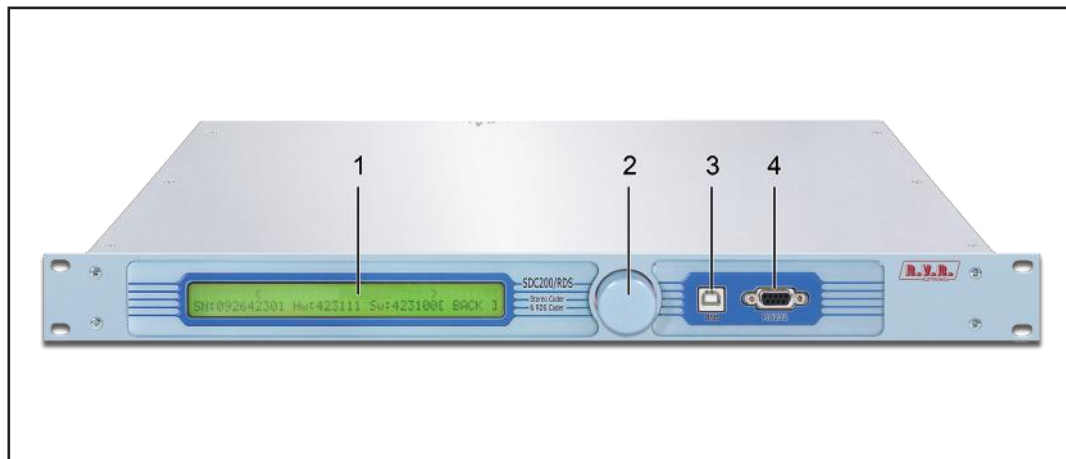
RT - RADIOTEXT: it's used to transmit the text trasmission; this function is mainly for the domestic application (house receivers).

EON - ENHANCED OTHER NETWORKS: it's used to transmit the PI,PS,AF,PTY to the PIN of other radios.

TDC - TRANSPARENT DATA CHANNEL: it's used for the data transmission and it could be free used, for example, to send messages on a brightly sign.

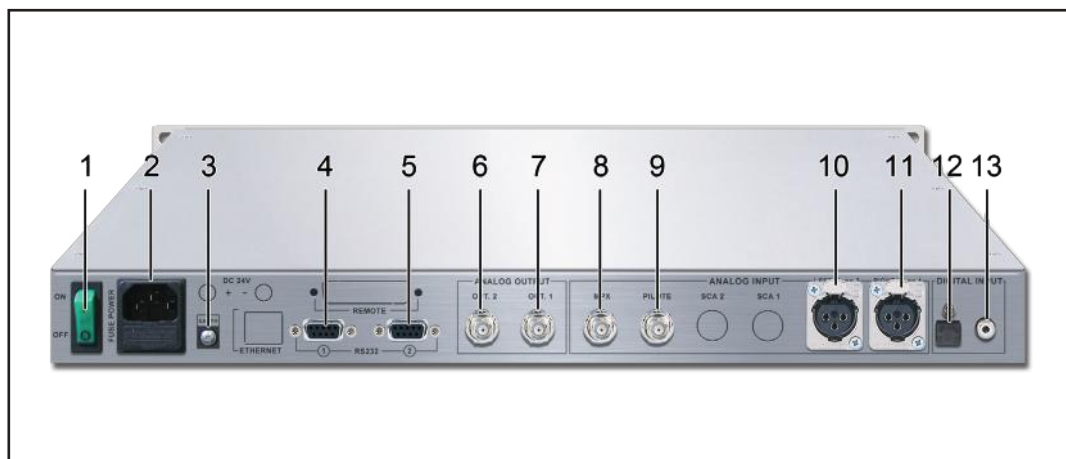
IH - IN HOUSE APPLICATION: it's used to transmit data of exclusive use of the broadcaster and it can be utilized , for example, to send telemetry data, software, etc...

4.3 Frontal Panel Description



- | | |
|-------------|---|
| [1] DISPLAY | Liquid Crystal Display |
| [2] ENCODER | Knob and button to control the software |
| [3] USB | USB/B port |
| [4] RS232 | RS232 serial port |

4.4 Rear Panel Description

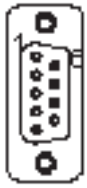


- | | |
|---------------------------|--|
| [1] ON/OFF | Green bright power switch |
| [2] PLUG & A.C. LINE FUSE | Power supply socket, 110-230V 50-60Hz and fuse block. Use a small screwdriver to remove the block and replace with 250mA delayed fuses |
| [3] EARTH | Ground clamp |
| [4] RS232 1 | RS32 serial port, DB9 female connector |
| [5] RS232 2 | RS32 serial port, DB9 female connector |
| [6] OUT.2 | Analogical output 2 , BNC connector |
| [7] OUT.1 | Analogical output 1 , BNC connector |
| [8] MPX | MPX analogic input connector, BNC type |
| [9] PILOTE | PILOT TONE analogic input connector, BNC type |
| [10] LEFT/Mono 2 | Balanced analogical audio input, 3 poles XLR connector |
| [11] RIGHT/Mono 1 | Balanced analogical audio input, 3 poles XLR connector |
| [12] DIGITAL INPUT 2 | TOS-LINK digital optical input |
| [13] DIGITAL INPUT 1 | Unbalanced coaxial digital input, PIN-RCA connector |

4.5 Connectors Description

4.5.1 RS232

Type: DB9 Female



1	NC
2	TX_D
3	RX_D
4	NC
5	GND
6	+12V
7	NC
8	CTS
9	NC



NOTE: Normally, the SDC200/RDS is configured as DCE (Data Communication Equipment) for serial communications.

4.5.2 DIGITAL INPUT 2

Type: TOS-LINK Female



4.5.3 DIGITAL INPUT 1

Type: RCA Female



1	GND
2	Positive

4.5.4 LEFT/Mono 2 & RIGHT/Mono 1

Type: XLR Female




1	GND
2	Positive
3	Negative

4.6 Technical Description

<i>Parameters</i>	SDC200/RDS
GENERALS	
User Interface	LCD - 2 x 40 with Encoder
Primary Power	115 - 230 VAC \pm 10%
Physical Dimensions (W x H x D)	483 x 44 x 280 mm
Weight	3,5 kg
Environmental working temperature	-10 to + 40 °C
ANALOGUE AUDIO INPUTS	
Conversion	24 Bit
Connector	XLR 3P. Fem. Balanced
Impedance	600ohm/10 kohm
Input level	-12dBu to +12dBu - step 0,1dB (Adj.-Sw)
Maximum input level	+16dBu
PILOTE INPUTS	
Connector	BNC unbalanced
Pilot frequency synch.	19KHz +/- 2Hz
Input level	-30 / +12dBu (Sinusoid. o TTL)
DIGITAL AUDIO INPUTS	
Connector	Optical TOS-LINK + Pin RCA
Data format	AES/EBU - S/PDIF - EIAJ340
Sampling frequency	32 to 96KHz
ANALOGUE MPX INPUTS	
Connector	BNC unbalanced
Impedance	10 Kohm
Input level	Gain 0dB / Out.MPX
Maximum input level	+20dBu
OUTPUTS 1 & 2	
D/A converter	24 bit
Connector	BNC unbalanced
Impedance	50 ohm
Output level	-12dBu to +12dBu - step 0,1dB (Adj - Sw) (Gain0dB / inp.MPX)
Maximum Output level	+20dBu
STEREO CODER OPERATION	
Pilot Tone	19 KHz \pm 0.1 Hz
Pilot frequency level	-8dBu to -32 dBu - step 0,1 dB
Pilot frequency phase	- 12° to +12° - 0.1° step
Attenuation with 38 KHz suppressed	min. -90 dB
MPX output noise	-90 dBu
Preemphasis	50/75 microsec.
Preemphasis linearity + Low-Pass	From 30 Hz to 15 KHz \pm 0.15 dB
15 KHz low-pass filter	Ripple from 30 HZ to 15 KHz \pm 0.1 dB
Low-pass filter 19 KHz attenuation	Min. -56 dB
Clipper	
Limiter	Right and Left Channel
AGC	Right and Left Channel
Stereo S/N FM Ratio	> 81 dB RMS (typical 84dB)
Total Harmonic Distortion	< 0.05% 30 Hz \pm 15 kHz
Intermodulation distortion	\leq 0.03% with 1 kHz and 1,3 kHz tones
Stereo separation	68 dB, 30 Hz to 15 kHz
RDS OPERATION	
Standards	Cenelec 50067 Specification
Command formats	UECP - SPB490 Ver.6.1 / 2003
Static services	DI,PI,M/S,TP,TA,TP,TPY,RT,CT, AF,PIN,EON,PSN
Dynamic service	TMC,TDC,EWS,IH
RDS Groups	0A, 1A, 2A, 3A, 5A, 6A, 8A, 9A, 14A
Data Set	N° 6

5. Software Description

5.1 Symbology Guide

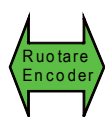


```
SDC 200 RVR
SDCL - 000104 [ BACK ]
```



ENTER

Indicates the request of a pressure on encoder to proceed in the confirmation of parameter or to a page shift.



ROTATION

Indicates the request of a rotation on encoder to proceed in the variations of parameter or visualization.

[BACK]

The bold font indicates that the flashing field is ready for editing or confirmation.

5.2 Visualization of levels and Main Menu

```

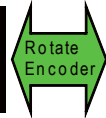
SDC 2 0 0   R V R
SDCL - 0 0 0 1 0 4   [ B A C K ]
    
```

Press enter to access the display of levels and the Main Menu.



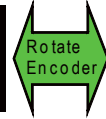
```

O U T - 1 [ - 2 0 . 0 0 ] ||||| :
O U T - 2 [ - 2 0 . 0 0 ] ||||| :
    
```



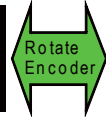
```

A N L - 1 [ < - 6 0 . 0 0 ] ||||| :
A N L - 2 [ < - 6 0 . 0 0 ] ||||| :
    
```



```

I - M P X [ < - 3 5 . 0 0 ] ||||| :
A G C _ X [ 0 . 0 0 ] |
    
```



```

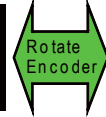
{ M a i n M e n u :           } [ B A C K ] [ V E R S . ]
[ A U D I O ] [ R D S   ] [ S Y S T E M ] [ C L O C K ] [ - - - - - ]
    
```



Press enter to access the Main Menu.

```

{ M a i n M e n u :           } [ B A C K ] [ V E R S . ]
[ A U D I O ] [ R D S   ] [ S Y S T E M ] [ C L O C K ] [ _ _ _ _ _ ]
    
```



```

{ M a i n M e n u :           } [ B A C K ] [ V E R S . ]
[ A U D I O ] [ R D S   ] [ S Y S T E M ] [ C L O C K ] [ _ _ _ _ _ ]
    
```

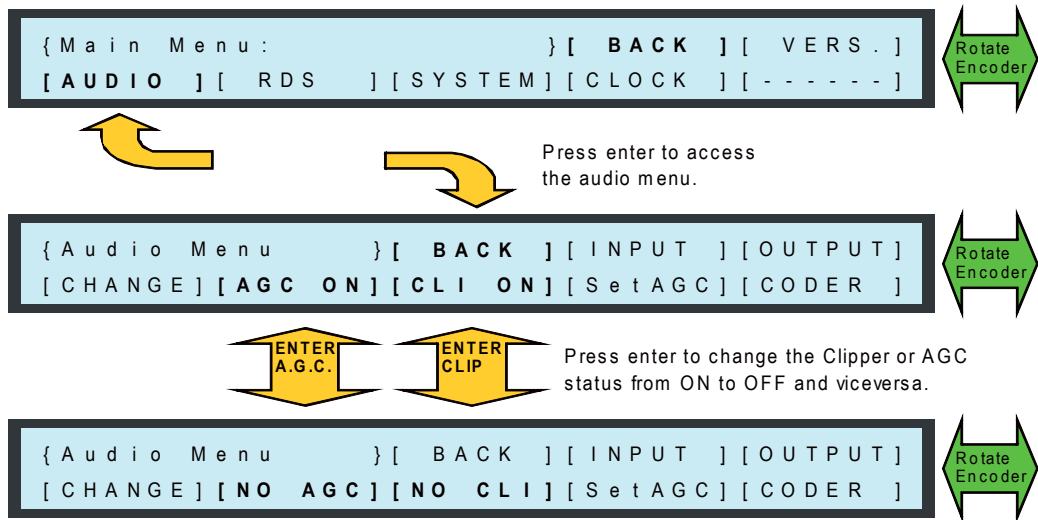
Press enter on VERS field to return the Main Menu that shows the data regarding the software and the equipment model.



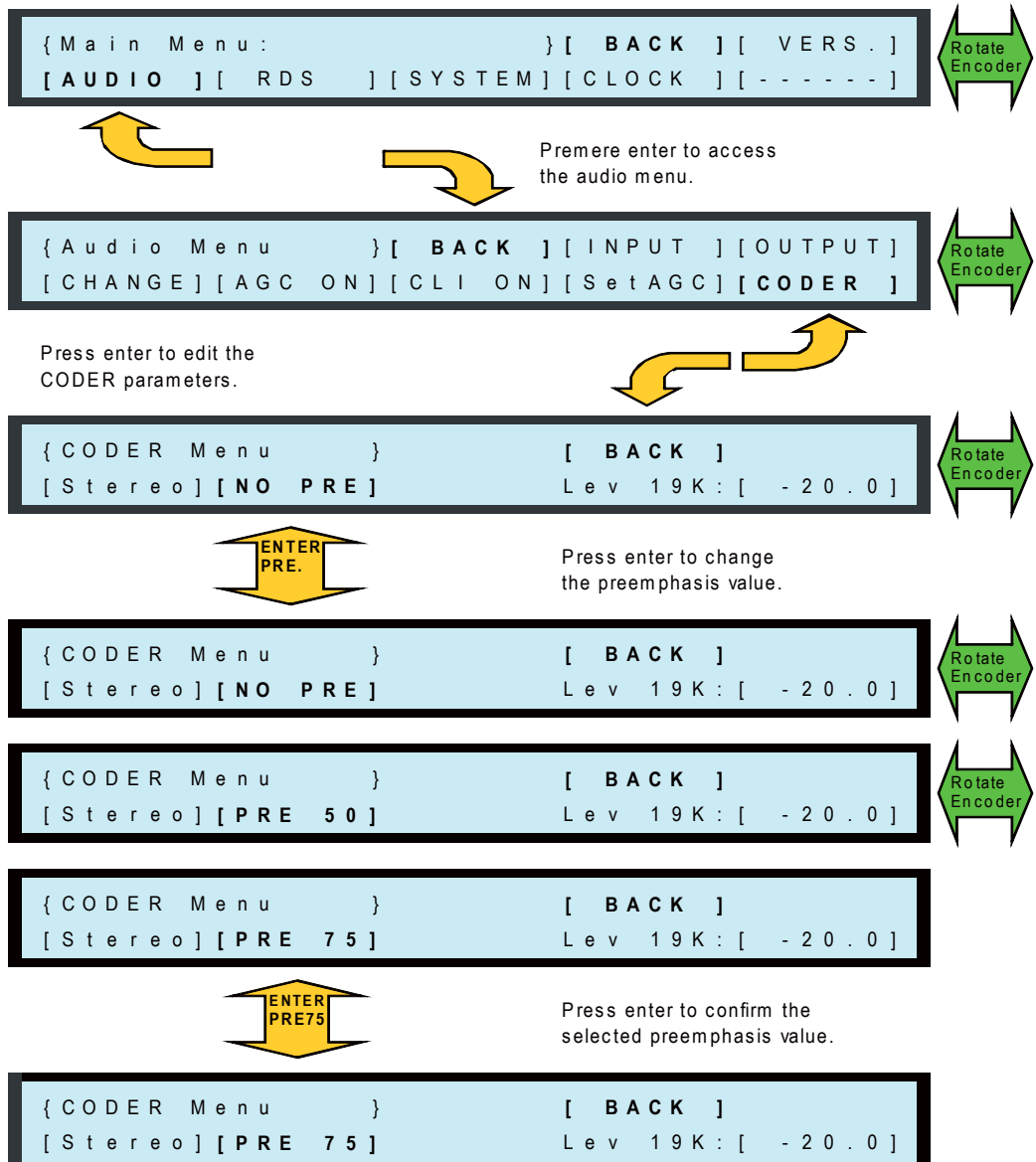
```

SDC 2 0 0   R V R
SDCL - 0 0 0 1 0 4   [ B A C K ]
    
```

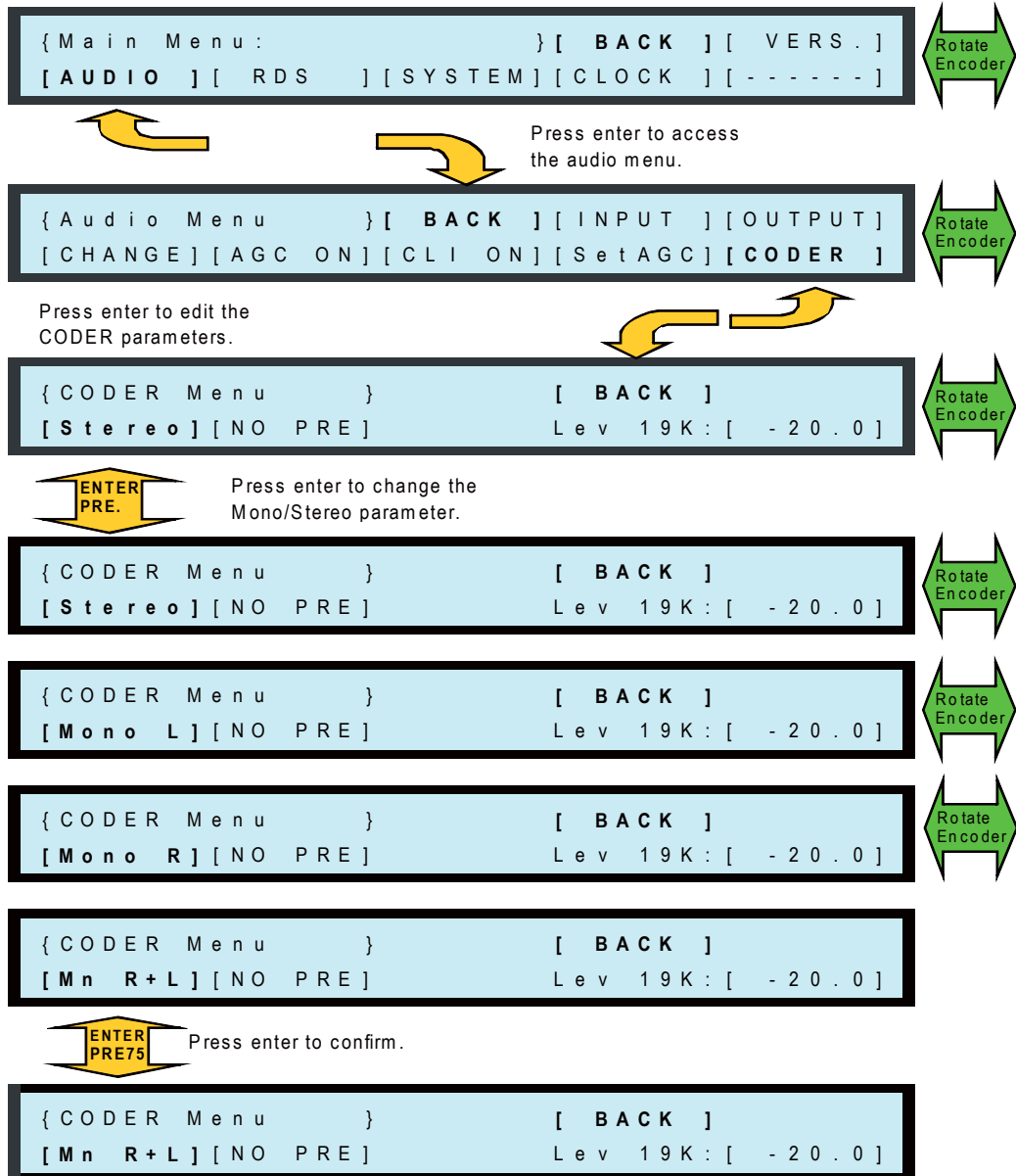
5.3 CLIPPER and AGC - ON/OFF



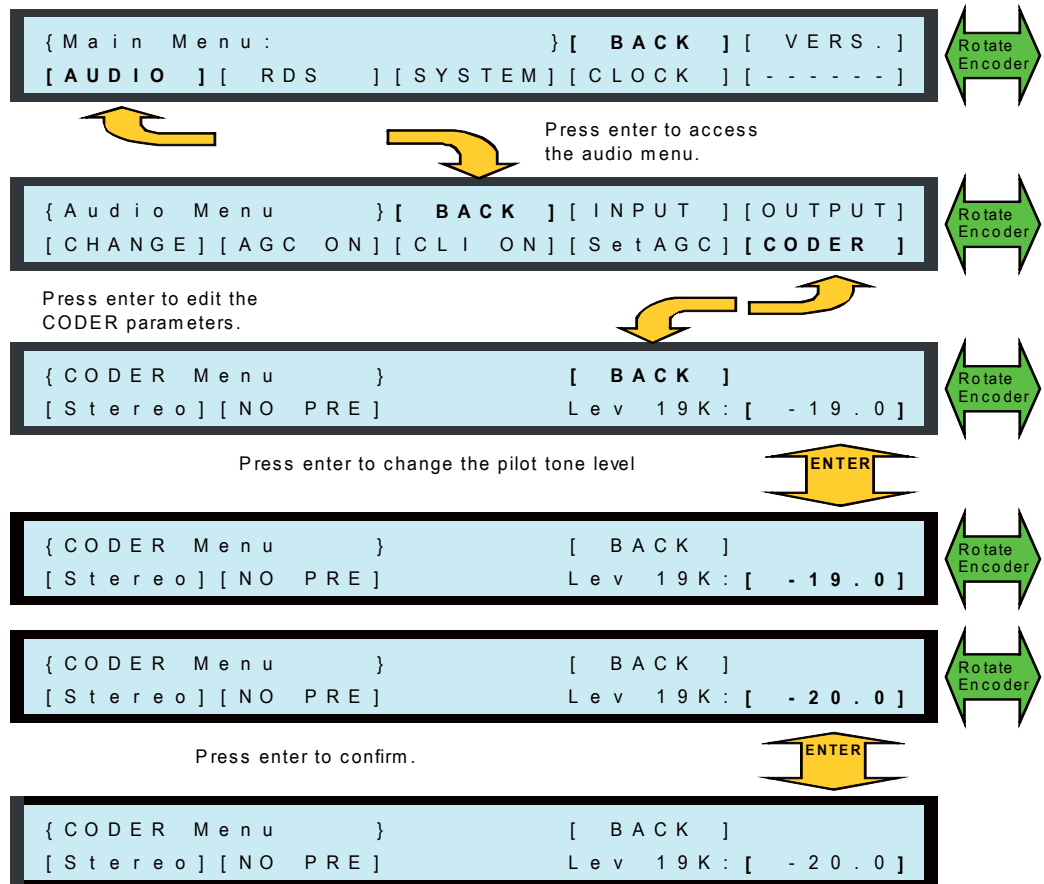
5.4 CODER - Selection of preemphasis



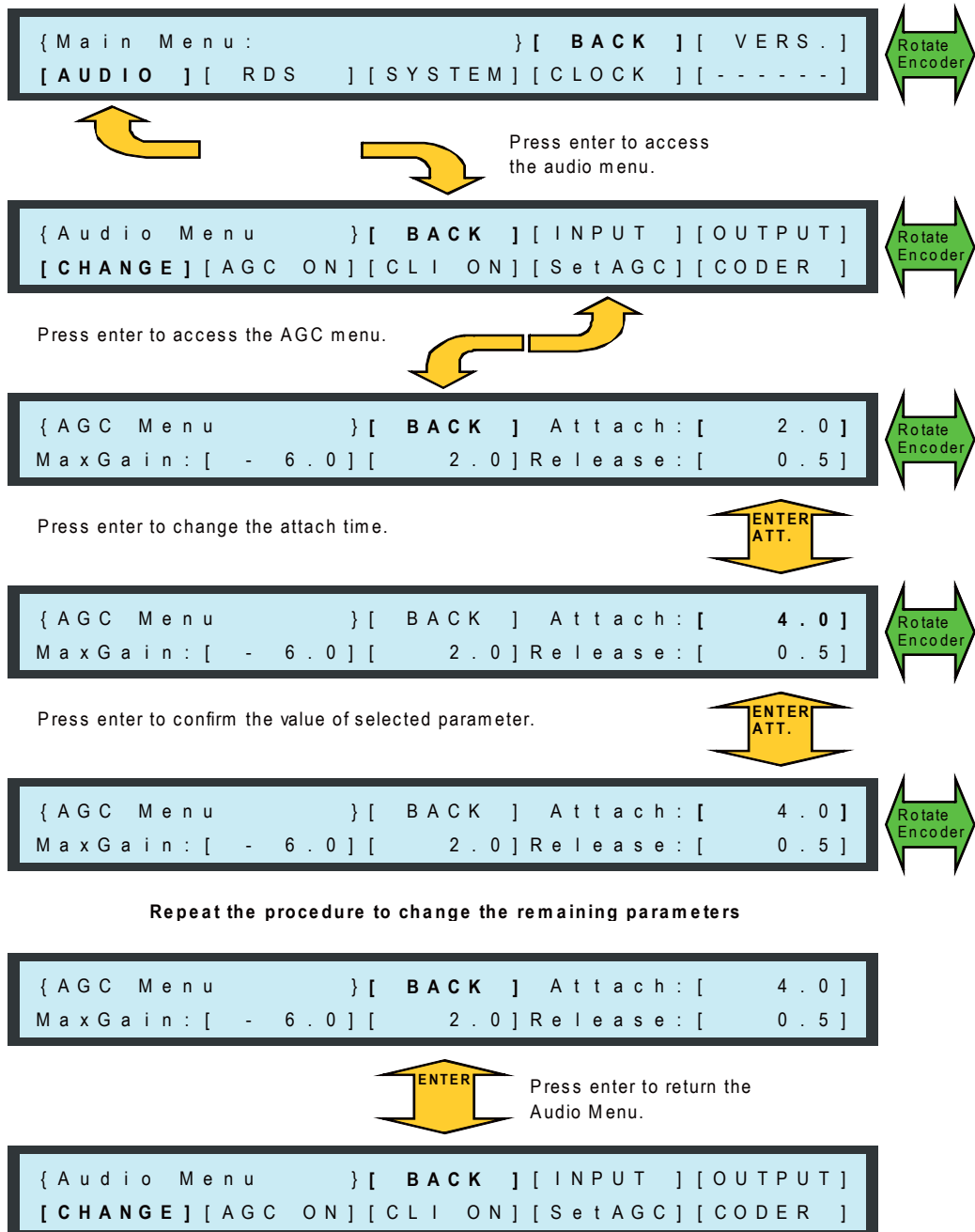
5.5 CODER - Selection of mono/stereo



5.6 CODER - Modification of pilot tone level



5.7 AGC - Adjustment of parameters

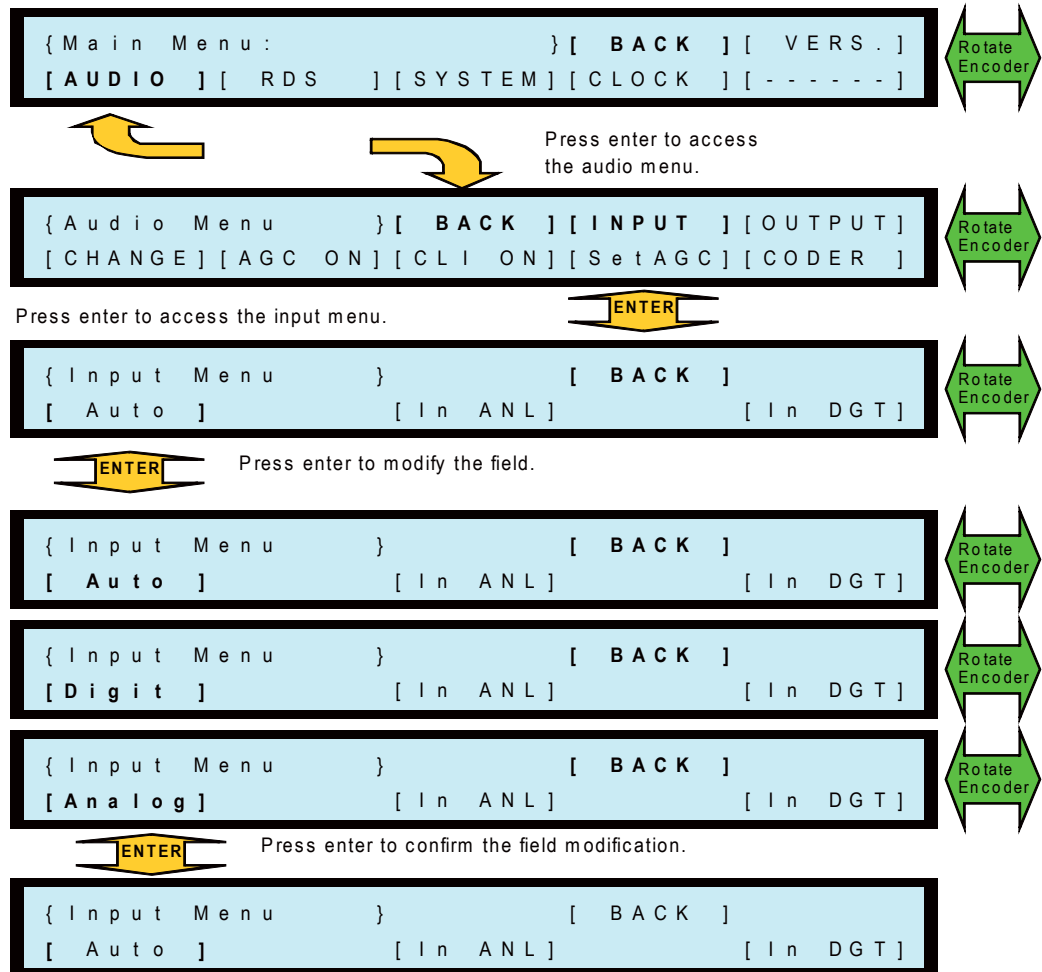


The first field to the right of MaxGain represents the maximum attenuation that the AGC system can operate and it can have only negative values.

The second field to the right of MaxGain represents the maximum gain that the AGC system can operate and it can has only positive values.

The values entered in "Attach and Release" are expressed in dB/Sec.

5.8 CODER INPUT - Selection of Analogic / Digital



The **SDC200/RDS** equipment is equipped with analogical balanced R&L inputs and digital inputs both optical and coaxial, and you can select them from Input Menu.

Selecting [Auto] in presence of signal, both analogical and digital inputs, will be activated the digital source; in absence of digital signal on input will be activated the R&L analogical inputs. So the device provides automatic switching of inputs with digital priority.

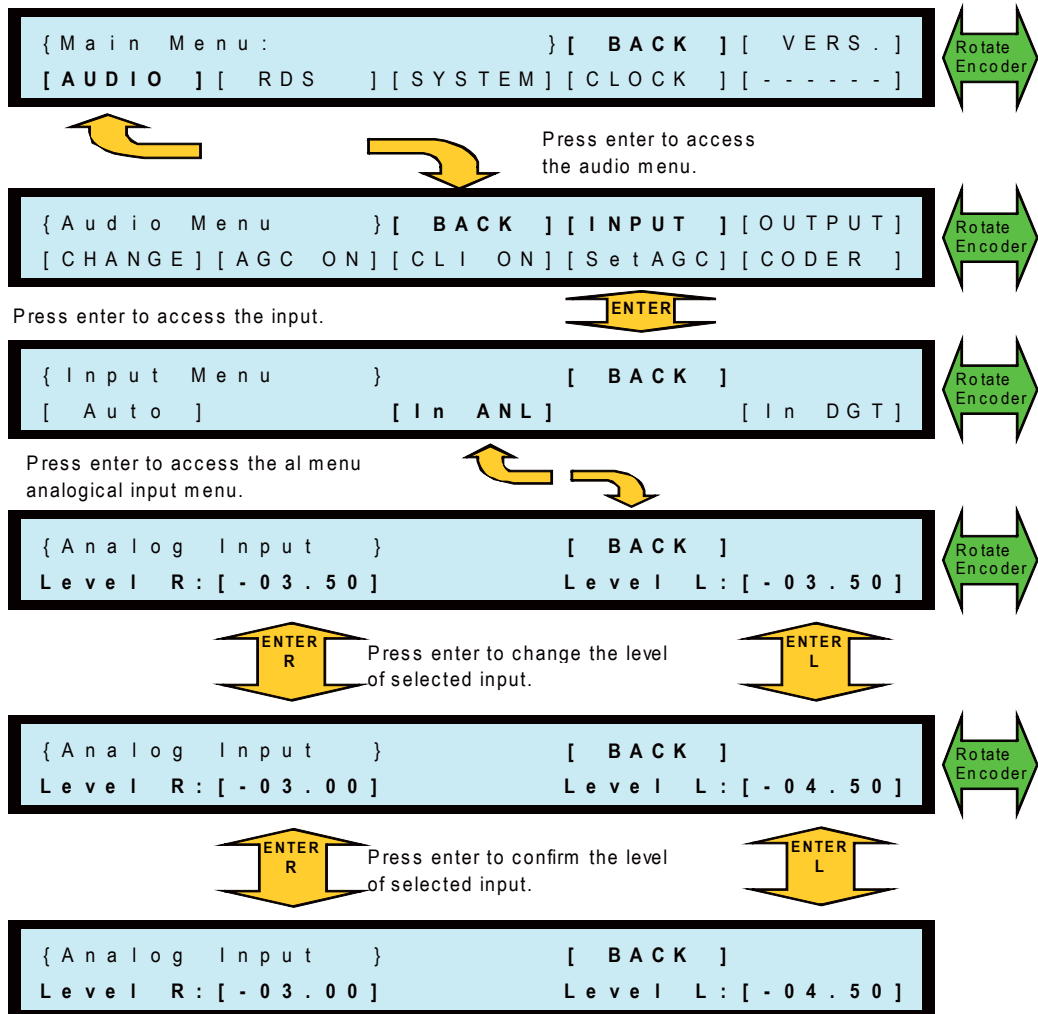


NOTE: “absence of digital signal” means the lack of AES/EBU plot or means errors on the same, and not regards to a possible lack of audio information within it.

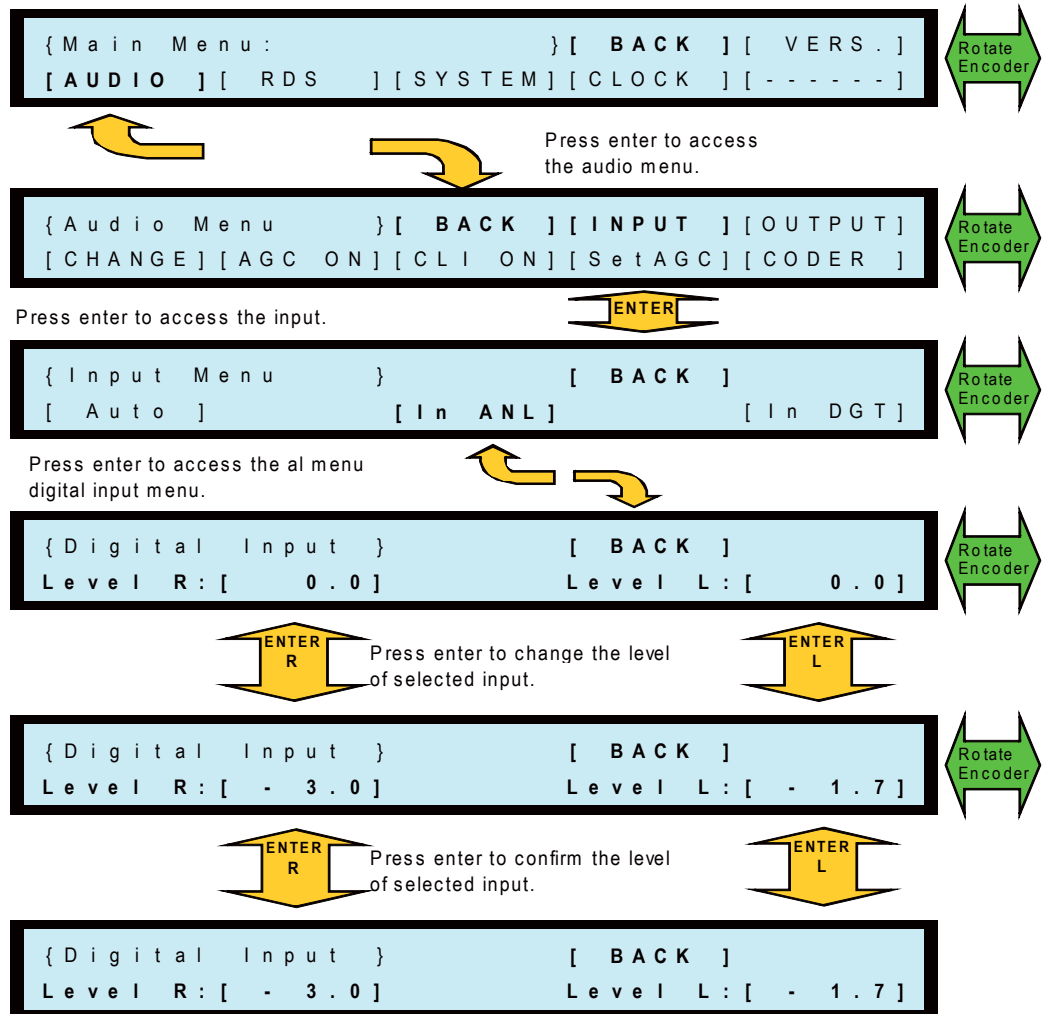
Selecting [Digit] will be permanently active only the digital input.

Selecting [Analog] will be permanently active only the analogical input.

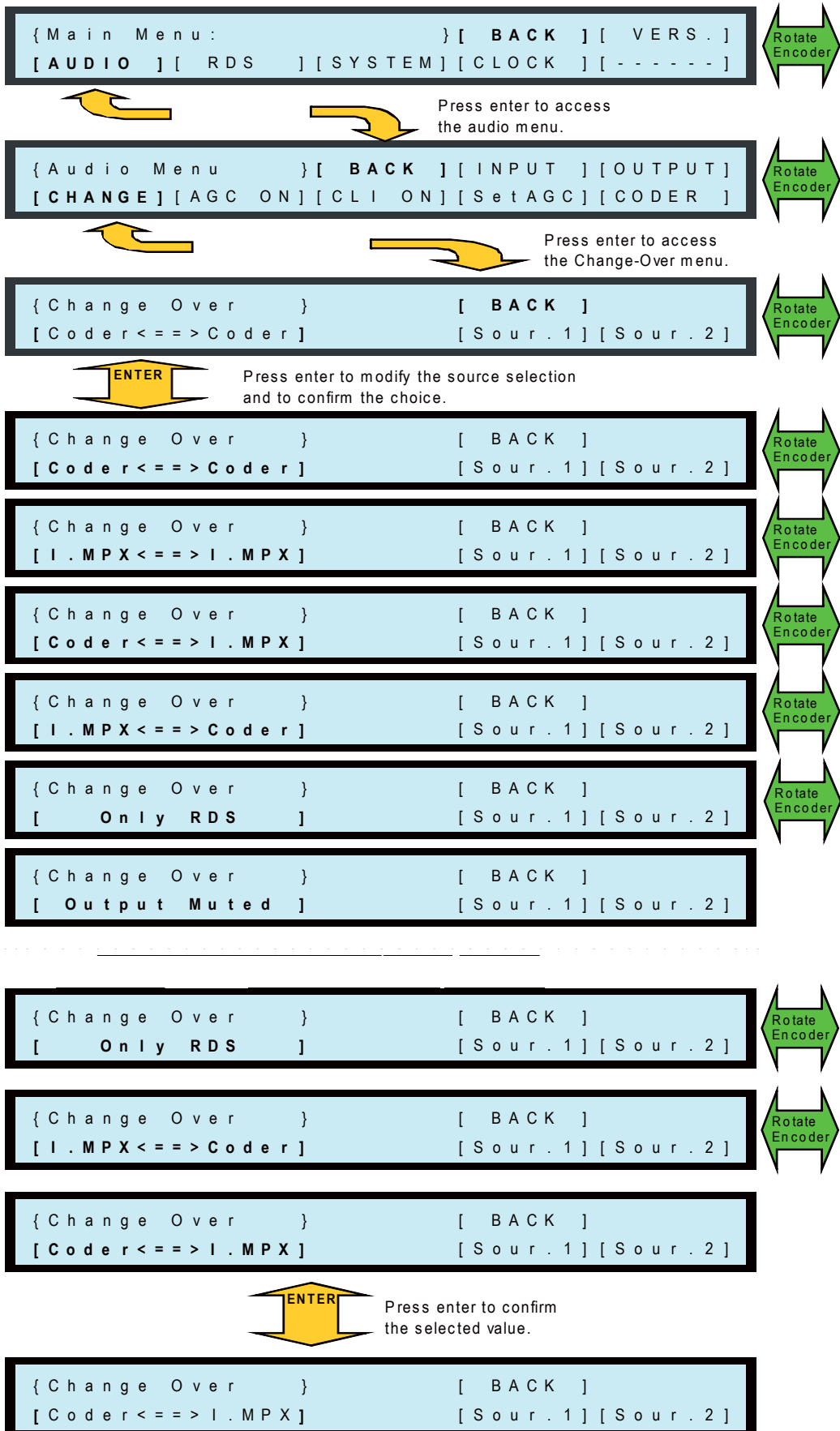
5.9 ANALOGICAL INPUTS - Adjustment of levels



5.10 DIGITAL INPUTS - Adjustment of levels



5.11 INPUT SELECTION AND RESCUE SYSTEM



The **SDC200/RDS** is able to manage two sources, user selected among several combinations, that will be analyzed and eventually switched. The primary source is always 1 and, for example, it may be the stereo coder; source 2 will be the secondary and it could be for example the MPX. In case R&L input signal of stereo coder falls below the level set for a time greater than one defined (see Rescue System - Adjust timing and levels) and if secondary source is valid, the **SDC200/RDS** will commutate on MPX input. It will return on stereo coder once the primary source level will be restored and will be elapsed time set. In case both sources were not valid, there will be no commutation and the primary source stay on. When you turn on the **SDC200/RDS** the source 1 will be considered immediately valid. In the following the association of source input.

```
[ Coder <==> I.mpx ]
Source1      Source2
```

In case source 1 is equal to source 2, the rescue system will be deactivated and the specified source will be activated. Example: [I.mpx < > I.mpx] mpx input source is working and rescue system is not working.

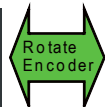
If [rds only] is selected, only the RDS signal will be present on output.

If [output muted] is selected, no signal will be present on output.

It is also possible manage the mixing of RDS signal in according to the validity of the source (see “Rescue system - RDS Activation / Deactivation”).

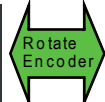
5.12 RESCUE SYSTEM - Time and level adjustment

{ Main Menu : } [BACK] [VERS .]
 [AUDIO] [RDS] [SYSTEM] [CLOCK] [- - - - -]



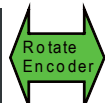
Press enter to access the audio menu.

{ Audio Menu } [BACK] [INPUT] [OUTPUT]
 [CHANGE] [AGC ON] [CLI ON] [Set AGC] [CODER]



Press enter to access the Change-Over menu.

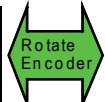
{ Change Over } [BACK]
 [Coder <=> Coder] [Sour . 1] [Sour . 2]



Press enter to access the Source1 or Source2 menu.

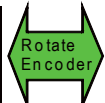


{ Source1 Menu } [BACK] RDS : [NO]
 Level : [- 10 . 00] T (sec) : [10]



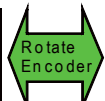
Press enter to change the source level.

{ Source1 Menu } [BACK] RDS : [NO]
 Level : [- 12 . 00] T (sec) : [10]



Press enter to confirm the source level.

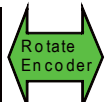
{ Source1 Menu } [BACK] RDS : [ON]
 Level : [- 12 . 00] T (sec) : [10]



Press enter to change the switching time.



{ Source1 Menu } [BACK] RDS : [ON]
 Level : [- 12 . 00] T (sec) : [20]



Press enter to confirm the switching time.

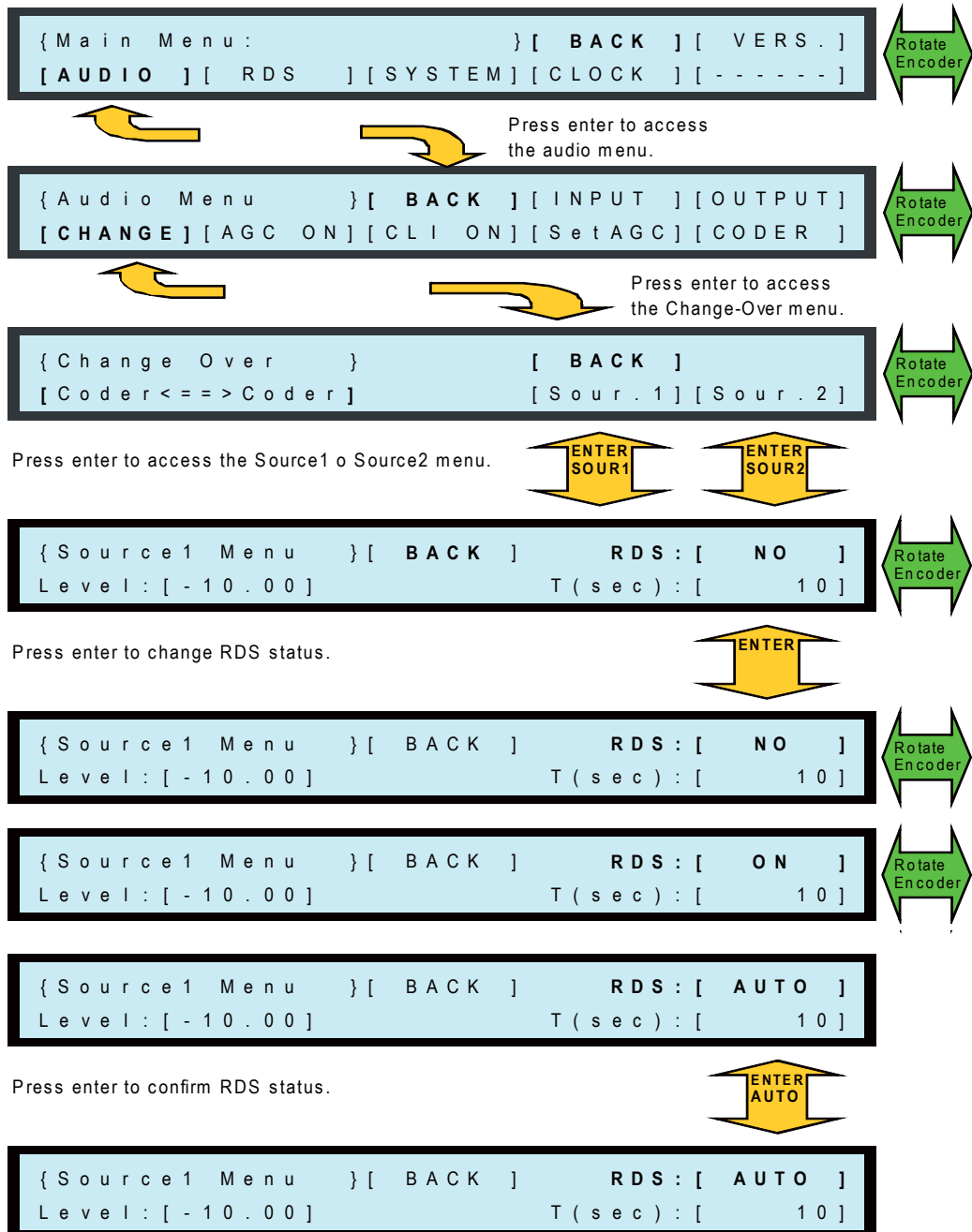


{ Source1 Menu } [BACK] RDS : [ON]
 Level : [- 12 . 00] T (sec) : [20]

The source level defines the value below which the source is considered invalid. The source, to be valid, must have a greater or equal level than that defined by this parameter.

The time defines the validity or invalidity of the source. In case the source will remain below the level previously defined, for a time equal or greater to than set, will be considered invalid. In case the source will stay higher than the level previously defined, for a time equal or greater to than set, will be considered valid. The time to retain valid or invalid the source is the same.

5.13 RESCUE SYSTEM - RDS Activation / Deactivation



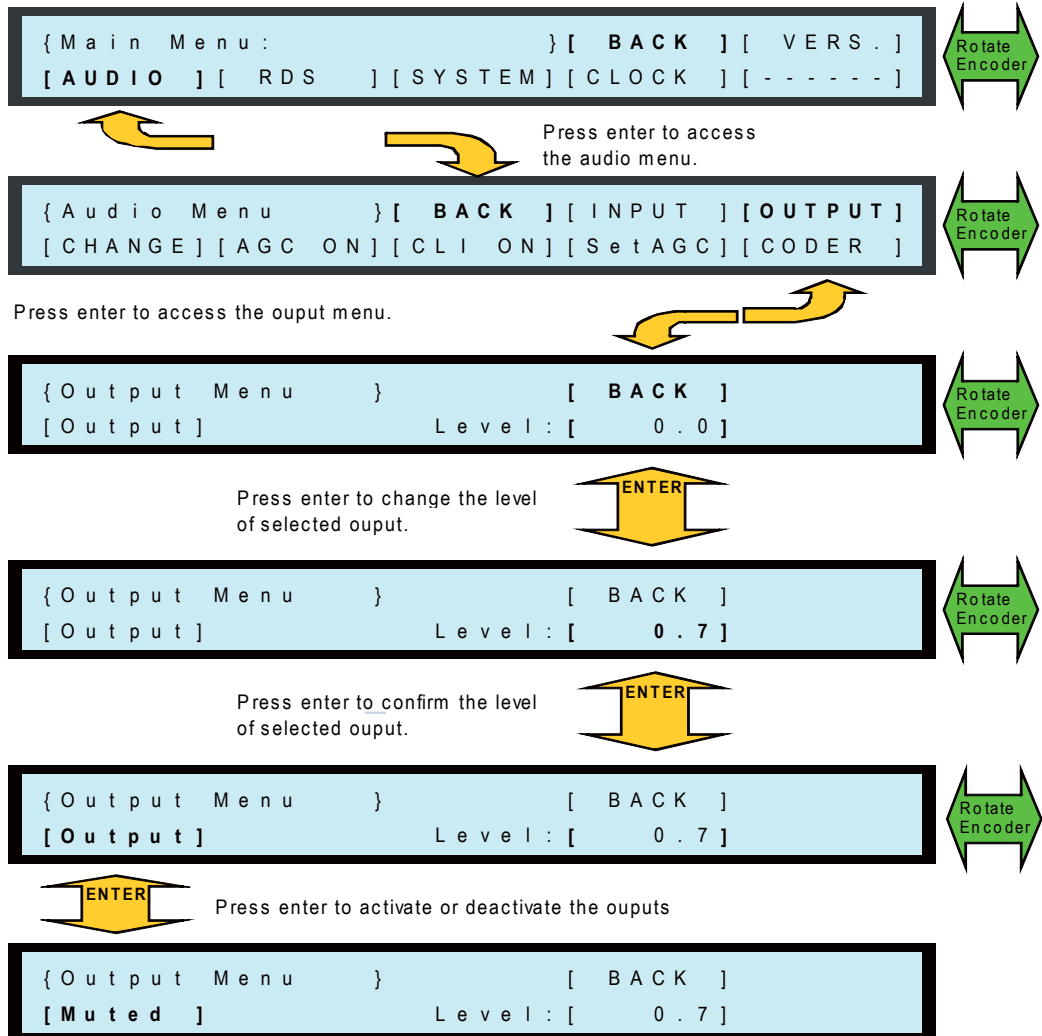
It is possible to define if RDS signal the RDS signal has to be mixed at the source, and if the mixing is dependent on the validity of status. The possible status are:

[NO] = RDS not mixed

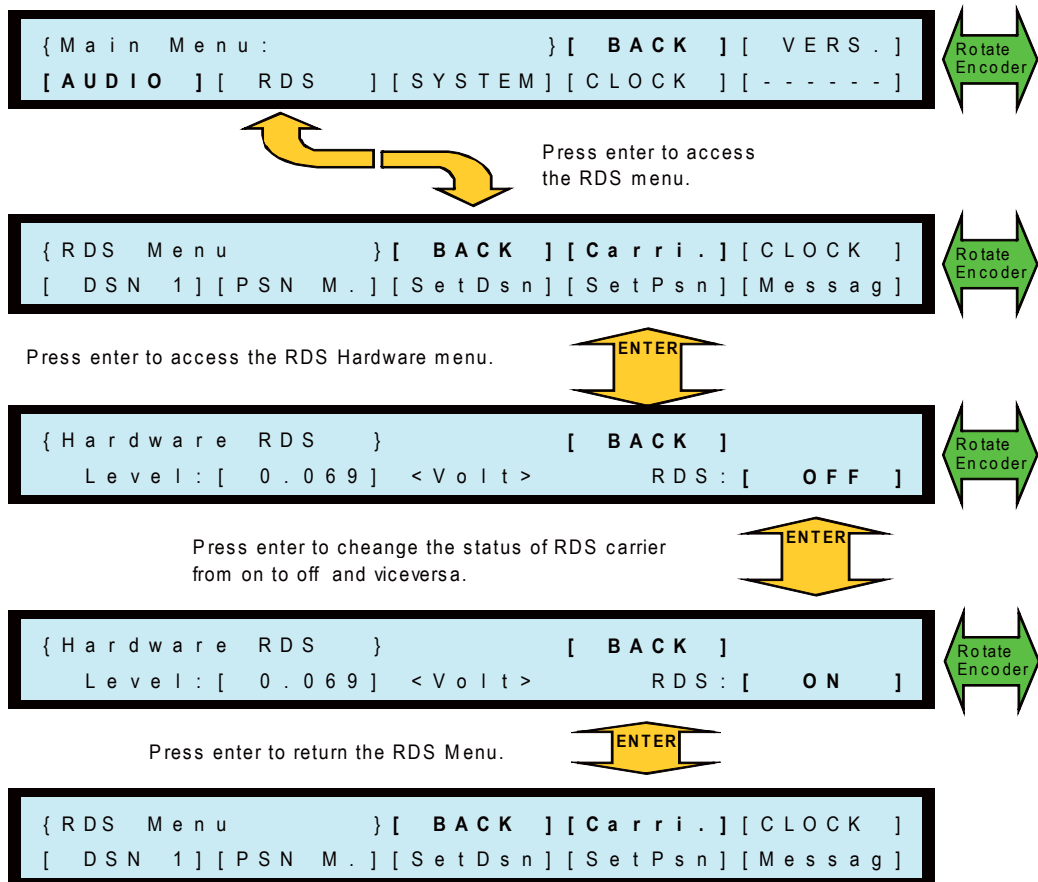
[ON] = RDS mixed

[AUTO] = RDS mixed only if the source is valid; in case of switching, between valid source and invalid source, the carrier will be turned off after 10 seconds.

5.14 ANALOGICAL OUTPUT - Adjustment of audio level

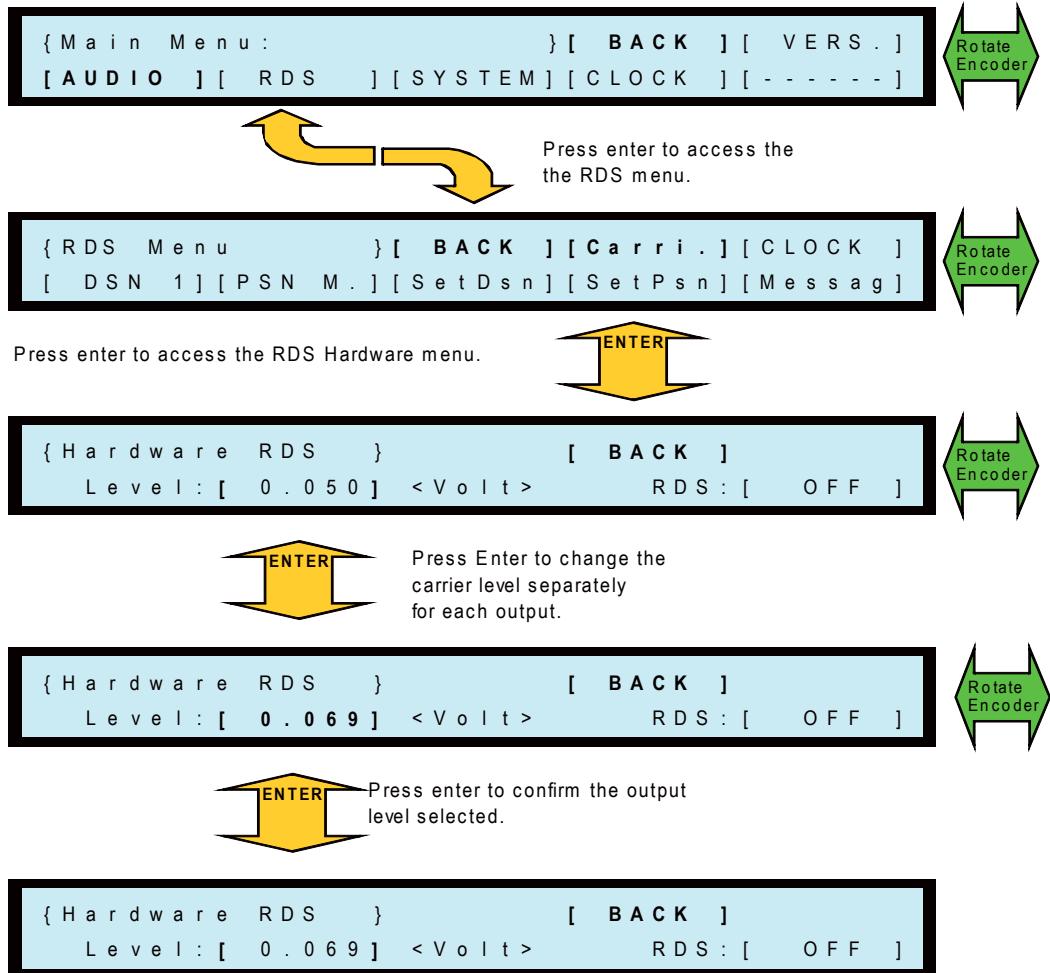


5.15 RDS – Carrier Activation / Deactivation



The deactivation of RDS carrier from this menu will make it impossible to switch on of the same from change menu (sour.1 and sour.2). To activate the RDS carrier management menu from change menu is essential that the carrier is activated.

5.16 RDS – Adjustment of carrier level



5.17 RDS – Adjustment of clock time

{ Main Menu : } [BACK] [VERS .]
 [AUDIO] [RDS] [SYSTEM] [CLOCK] [- - - - -] 

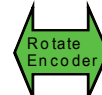


Press enter to access the RDS menu.

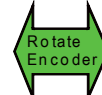
{ RDS Menu } [BACK] [Carri .] [CLOCK]
 [DSN 1] [PSN M .] [Set Dsn] [Set Psn] [Messag] 

Press enter to access the Clock Menu
 During the modify to hour or date, the clock will be freeze.

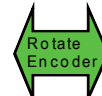


{ Clock Menu } [BACK]
 11 : 41 : 09 08 - 09 - 2009 [+00 . 0] 

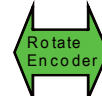
Hour selection.

{ Clock Menu } [BACK]
 11 : 41 : 09 08 - 09 - 2009 [+00 . 0] 

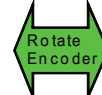
Minute selection.

{ Clock Menu } [BACK]
 11 : 41 : 09 08 - 09 - 2009 [+00 . 0] 

Seconds selection.

{ Clock Menu } [BACK]
 11 : 41 : 09 08 - 09 - 2009 [+00 . 0] 

Day selection.

{ Clock Menu } [BACK]
 11 : 41 : 09 08 - 09 - 2009 [+00 . 0] 

Month selection.

{ Clock Menu } [BACK]
 11 : 41 : 09 08 - 09 - 2009 [+00 . 0] 


Year selection.

{ Clock Menu } [BACK]
 11 : 41 : 09 08 - 09 - 2009 [+01 . 0] 

Selection of Greenwich Mean Time GMT Offset


Press enter to confirm the selected parameter.



{ Clock Menu } [BACK]
 11 : 41 : 09 08 - 09 - 2009 [+01 . 0] 

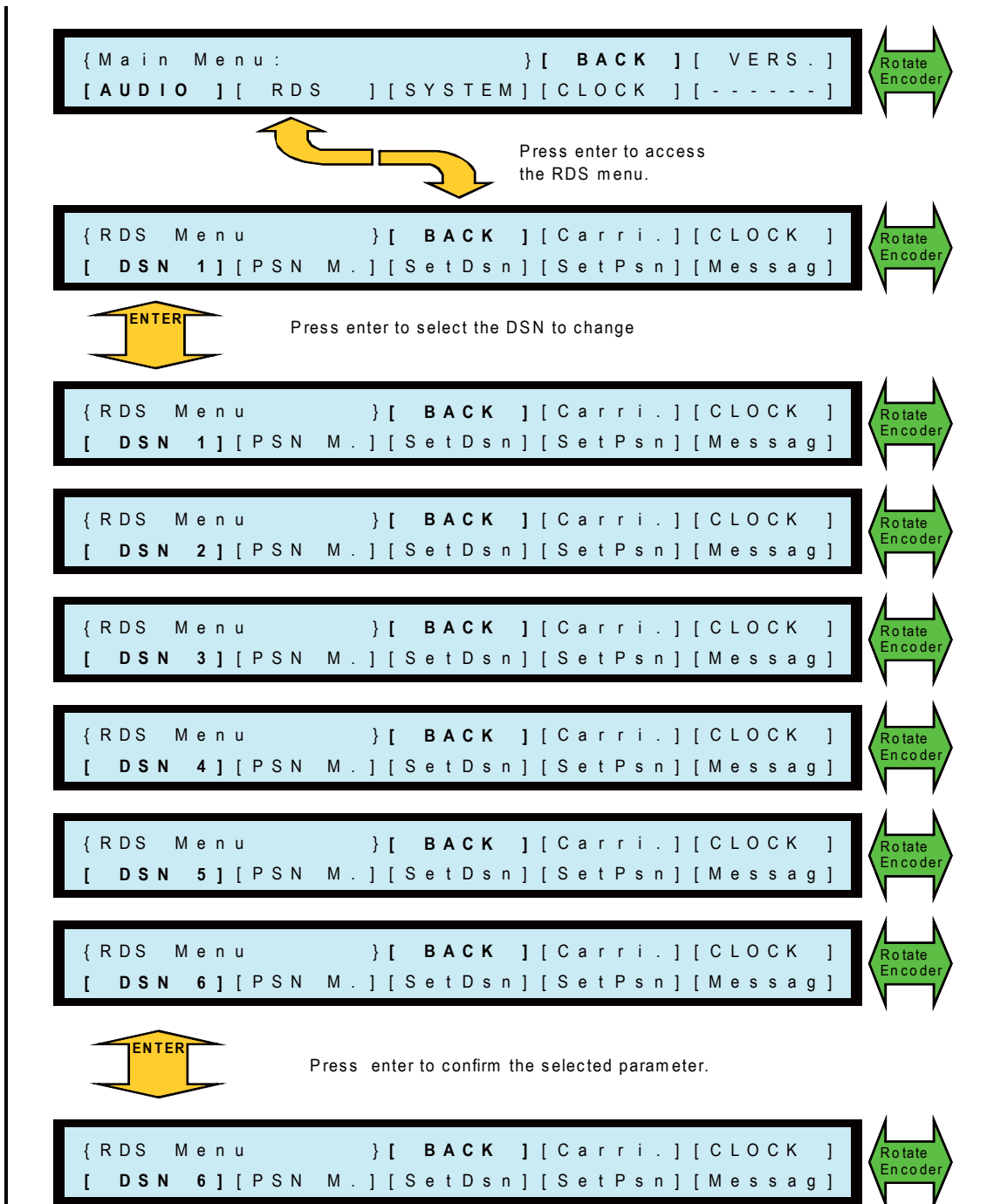
Press enter to return the RDS menu.



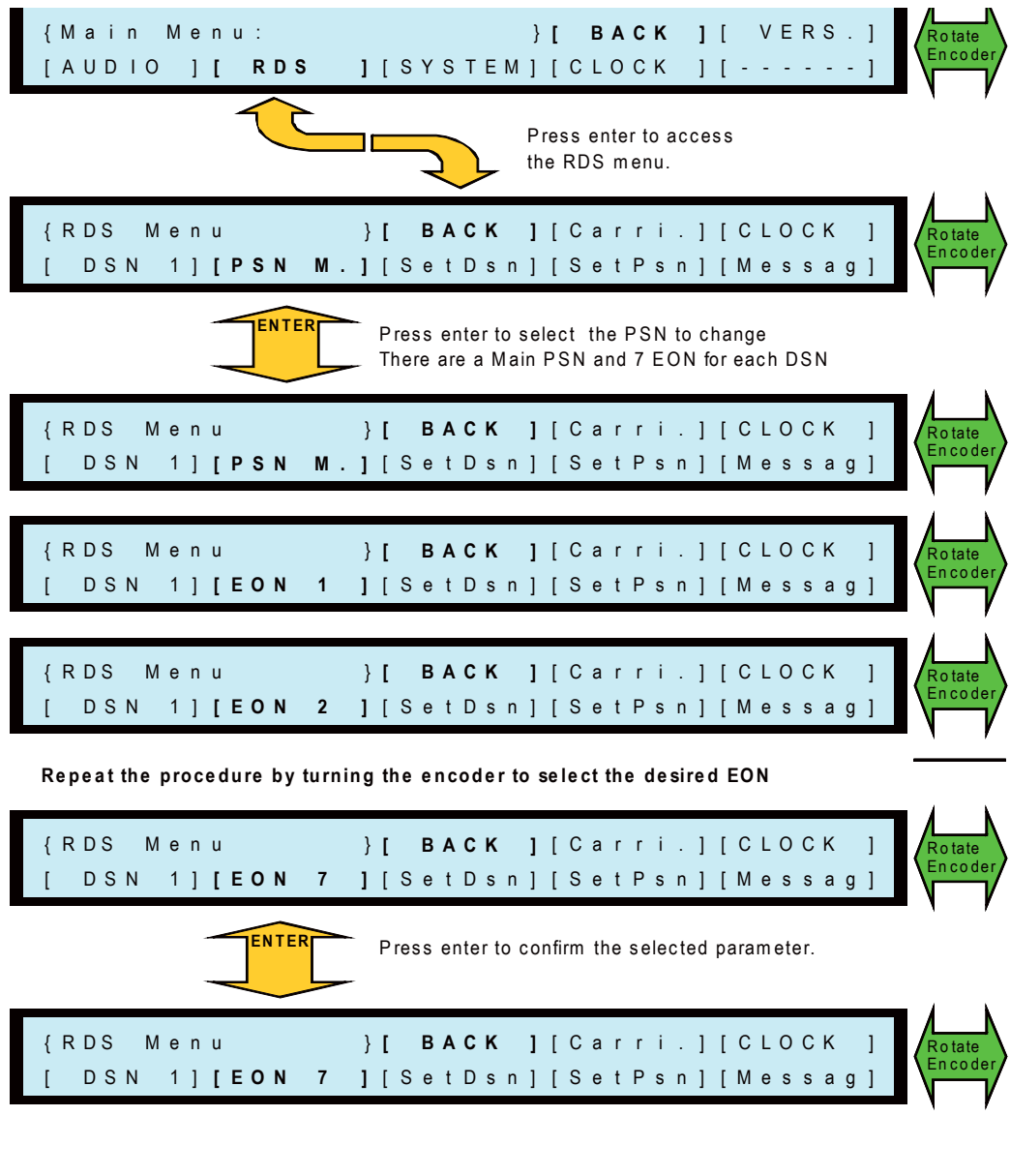
{ RDS Menu } [BACK] [Carri .] [CLOCK]
 [DSN 1] [PSN M .] [Set Dsn] [Set Psn] [Messag] 

Italy ,being a country with a single time zone, can have time offset equal to 00.0.

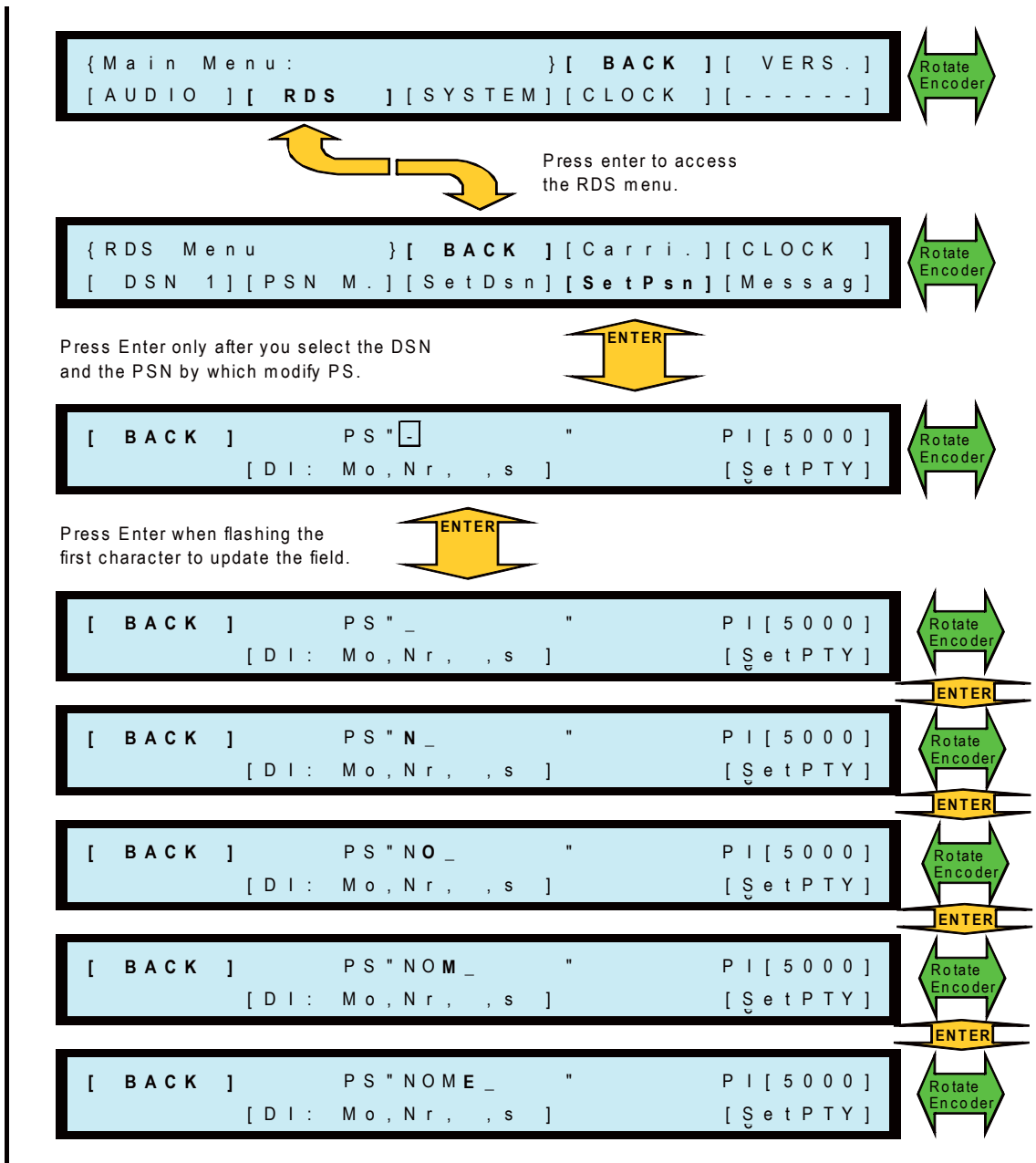
5.18 RDS – Selection of DSN

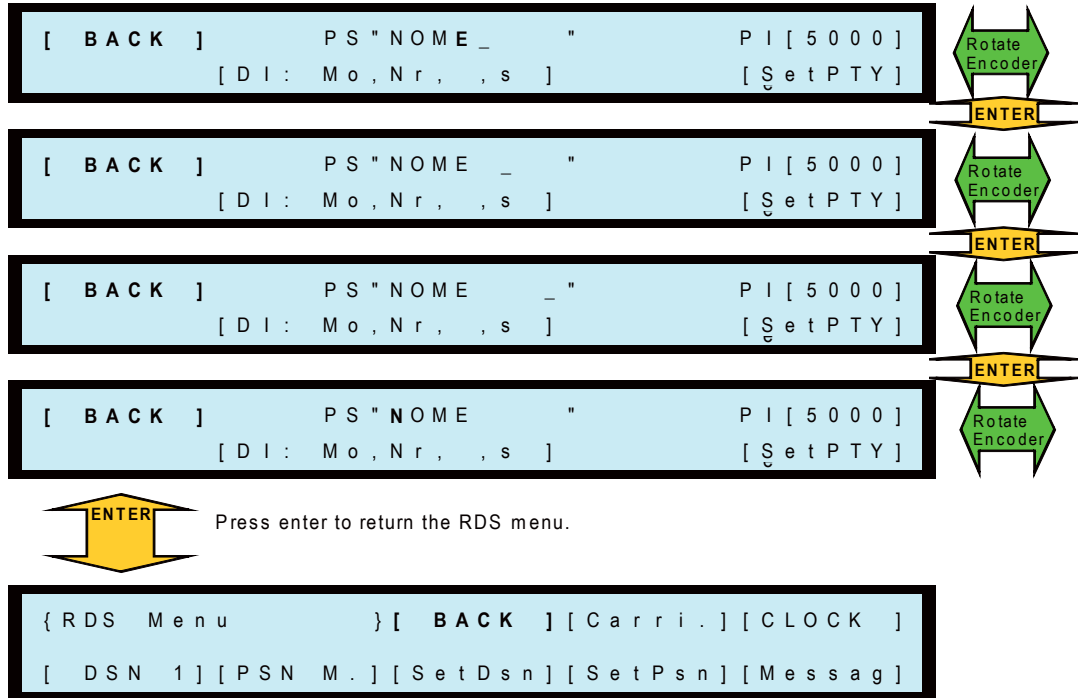


5.19 RDS – Selection of PSN



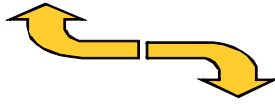
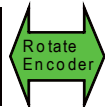
5.20 RDS - Entering or editing of the PS in Main PSN





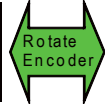
5.21 RDS - Entering or editing of the DI in Main PSN

{ Main Menu : } [BACK] [VERS .]
 [AUDIO] [RDS] [SYSTEM] [CLOCK] [- - - - -]



Press enter to access the RDS menu.

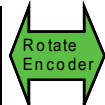
{ RDS Menu } [BACK] [Carri .] [CLOCK]
 [DSN 1] [PSN M .] [Set Dsn] [Set Psn] [Messag]



Press Enter only after you select the DSN and the PSN by which modify DI.



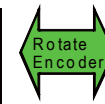
[BACK] PS " RADIO " PI [5000]
 [DI : Mo , Nr , , s] [Set PTY]



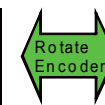
Press Enter to change DI by turning encoder you get all 16 possible combinations.



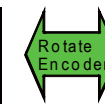
[BACK] PS " RADIO " PI [5000]
 [DI : Mo , Nr , , s] [Set PTY]



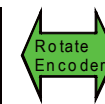
[BACK] PS " RADIO " PI [5000]
 [DI : St , Nr , , s] [Set PTY]



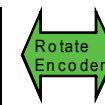
[BACK] PS " RADIO " PI [5000]
 [DI : St , Ar , , s] [Set PTY]



[BACK] PS " RADIO " PI [5000]
 [DI : St , Ar , C , s] [Set PTY]



[BACK] PS " RADIO " PI [5000]
 [DI : St , Ar , C , d] [Set PTY]



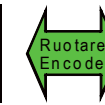
[BACK] PS " RADIO " PI [5000]
 [DI : St , Ar , C , d] [Set PTY]



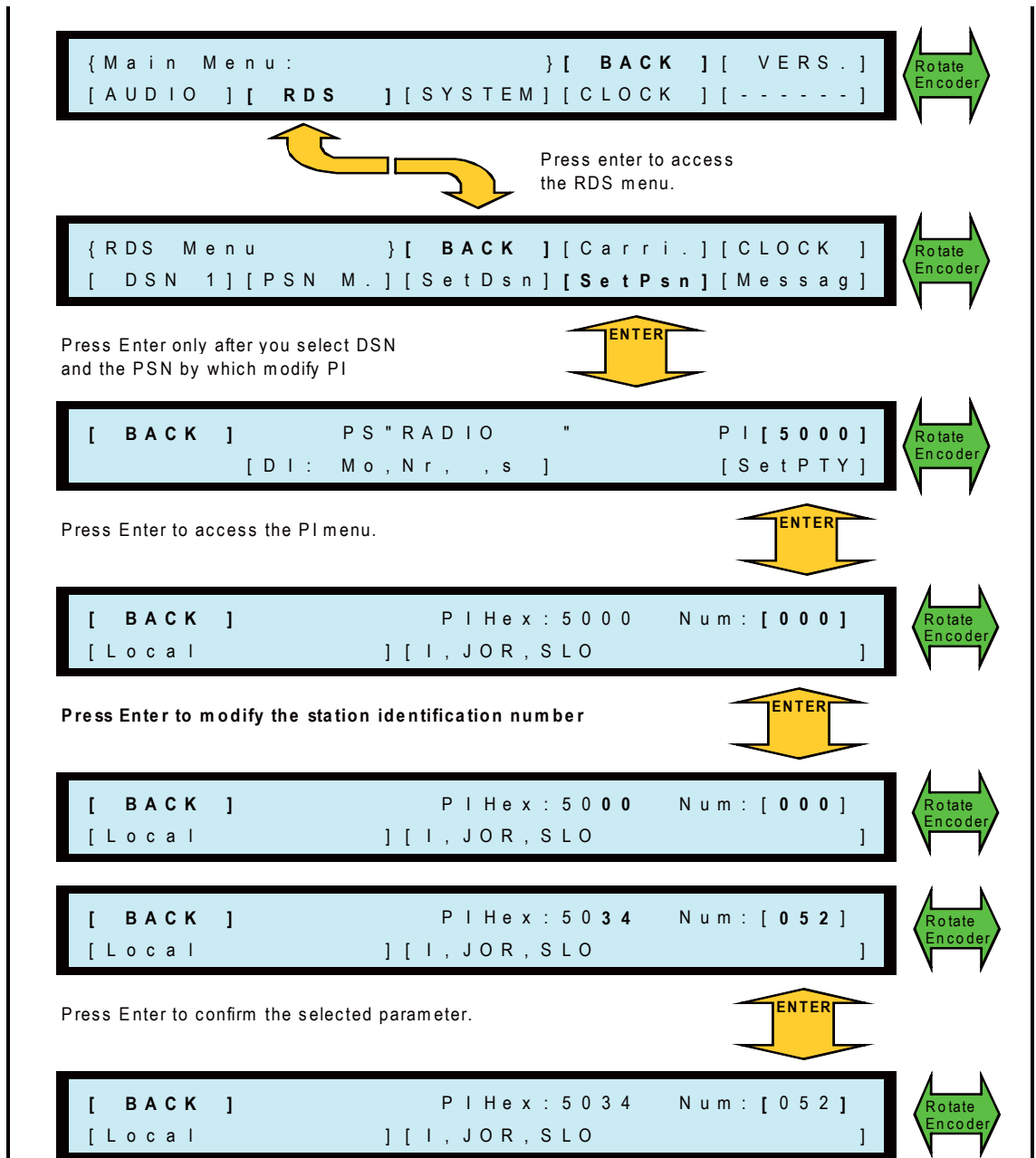
Press Enter to confirm
 Mo/St => Mono or Stereo
 Nr/Ar => Normale or artificiale
 C => Compressed Audio
 s/d => Static or dynamic PTY



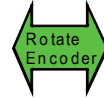
[BACK] PS " RADIO " PI [5000]
 [DI : St , Ar , C , d] [Set PTY]



5.22 RDS - Entering or editing of the PI in Main PSN

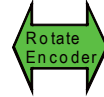


[BACK] P I H e x : 5 0 3 4 N u m : [0 5 2]
 [L o c a l] [I , J O R , S L O]

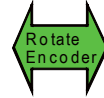


Press Enter to insert or to modify the coverage area.

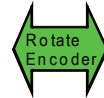
[BACK] P I H e x : 5 0 3 4 N u m : [0 5 2]
 [L o c a l] [I , J O R , S L O]



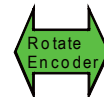
[BACK] P I H e x : 5 1 3 4 N u m : [0 5 2]
 [I n t e r n a t i o n a l] [I , J O R , S L O]



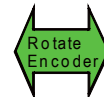
[BACK] P I H e x : 5 2 3 4 N u m : [0 5 2]
 [N a t i o n a l] [I , J O R , S L O]



[BACK] P I H e x : 5 3 3 4 N u m : [0 5 2]
 [E x t r a r e g i o n .] [I , J O R , S L O]

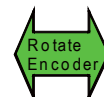


[BACK] P I H e x : 5 4 3 4 N u m : [0 5 2]
 [R e g i o n 1] [I , J O R , S L O]

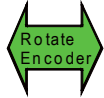


Press Enter to confirm the selected parameter.

[BACK] P I H e x : 5 4 3 4 N u m : [0 5 2]
 [R e g i o n 1] [I , J O R , S L O]



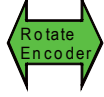
[BACK] P I Hex : 5 4 3 4 Num : [0 5 2]
 [Region 1] [I , J O R , S L O]



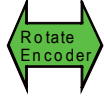
Press Enter to change the nation of station between 16 choice.



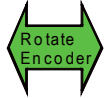
[BACK] P I Hex : 5 4 3 4 Num : [0 5 2]
 [Region 1] [I , J O R , S L O]



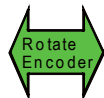
[BACK] P I Hex : 6 4 3 4 Num : [0 5 2]
 [Region 1] [B E L , F N L , S Y R , Y U G]



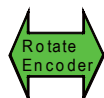
[BACK] P I Hex : 7 4 3 4 Num : [0 5 2]
 [Region 1] [B L R , L U X , U K R , T U N , U S S R]



[BACK] P I Hex : 2 4 3 4 Num : [0 5 2]
 [Region 1] [A L G , C Y P , T C H , I R L]



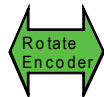
[BACK] P I Hex : 5 4 3 4 Num : [0 5 2]
 [Region 1] [I , J O R , S L O]



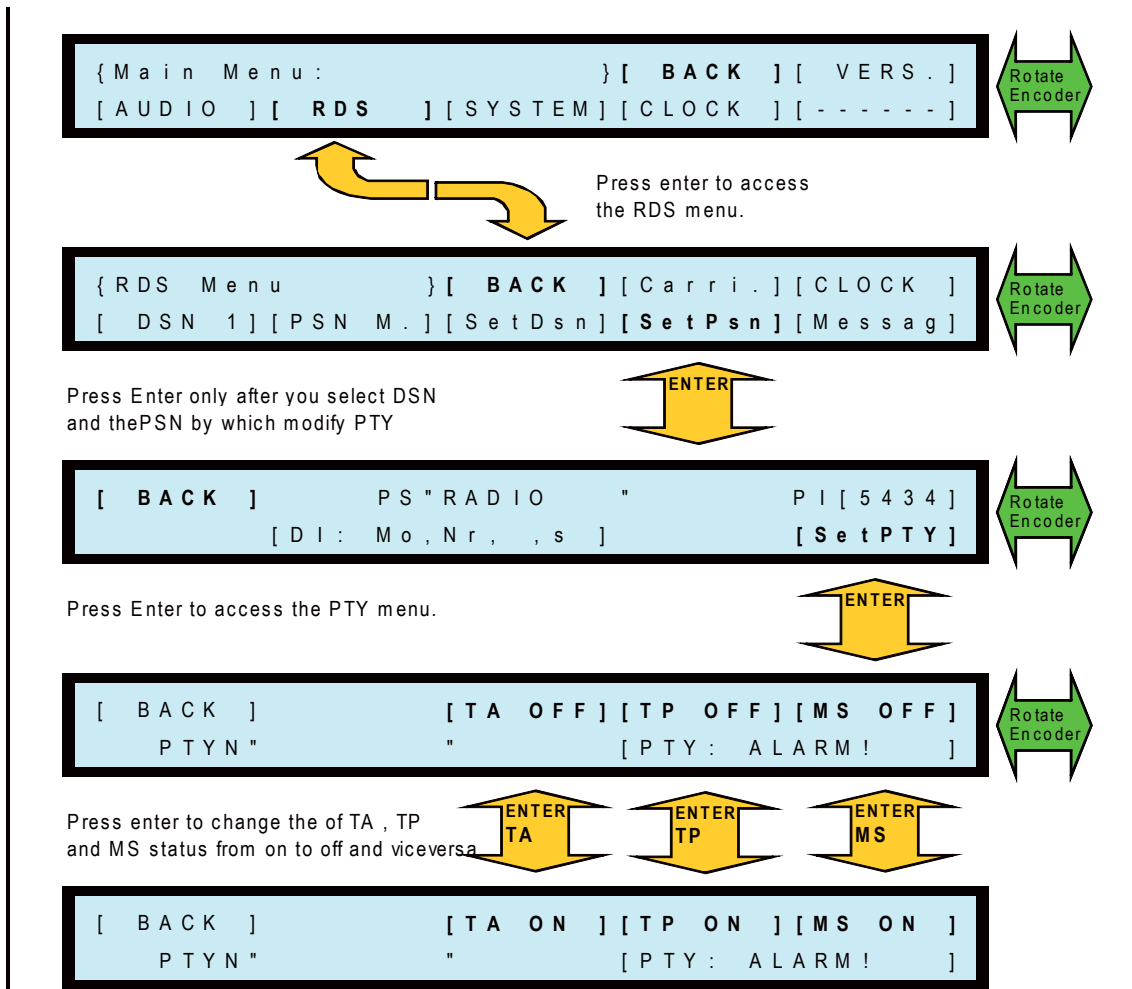
Press Enter to confirm the selected parameter.



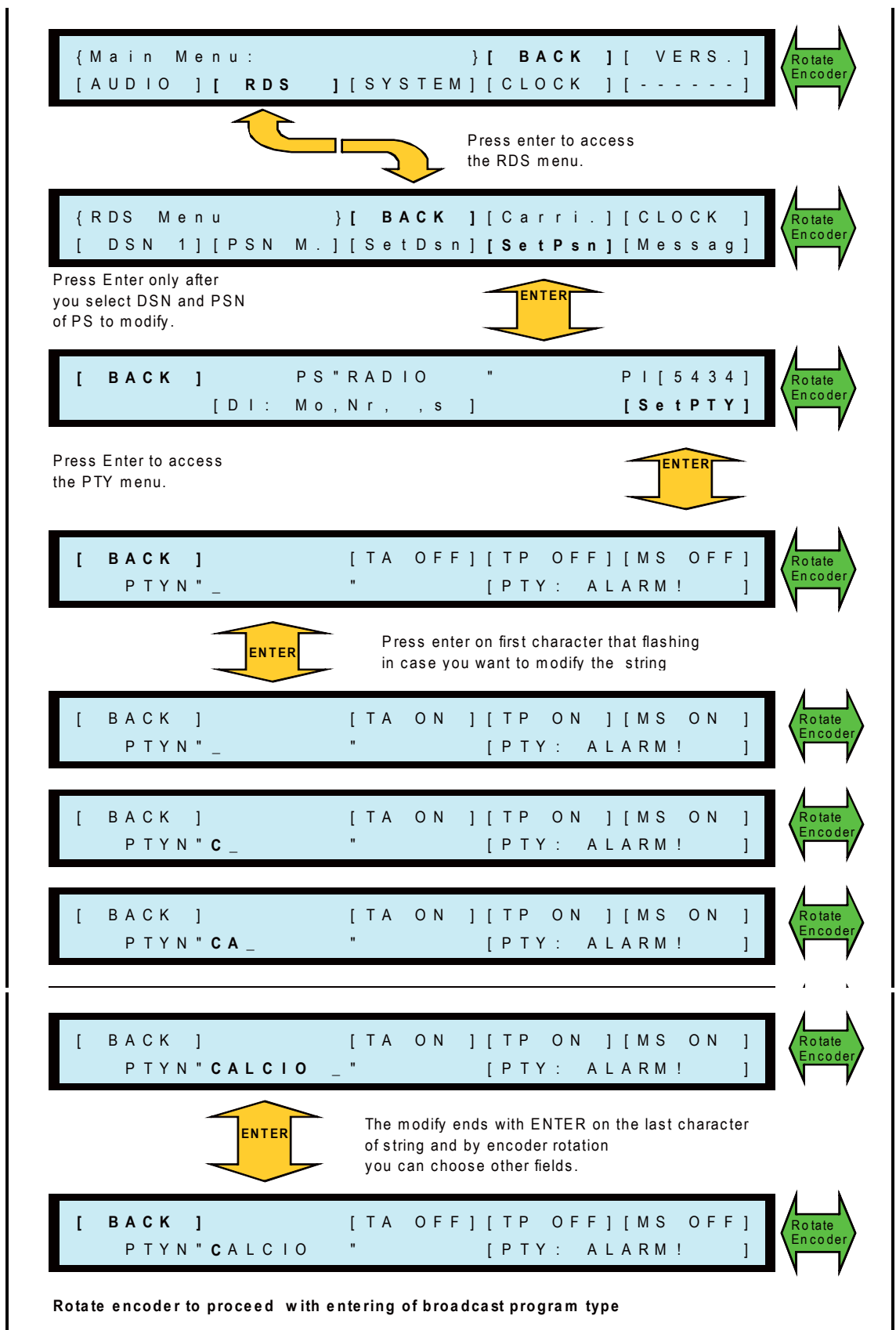
[BACK] P I Hex : 5 4 3 4 Num : [0 5 2]
 [Region 1] [I , J O R , S L O]



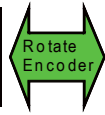
5.23 RDS - Entering or editing of the TA, TP and MS in Main PSN



5.24 RDS - Entering or editing PTYN in Main PSN



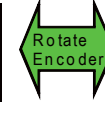
[BACK] [TA ON] [TP ON] [MS ON]
 PTYN" CALC IO " [PTY: ALARM!]



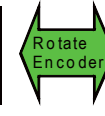
Press Enter to change the program type.



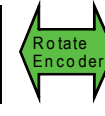
[BACK] [TA ON] [TP ON] [MS ON]
 PTYN" CALC IO " [PTY: ALARM!]



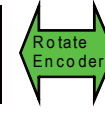
[BACK] [TA ON] [TP ON] [MS ON]
 PTYN" CALC IO " [PTY: NEWS]



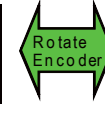
[BACK] [TA ON] [TP ON] [MS ON]
 PTYN" CALC IO " [PTY: BUSINNES]



[BACK] [TA ON] [TP ON] [MS ON]
 PTYN" CALC IO " [PTY: INFORMAT.]



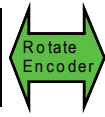
[BACK] [TA ON] [TP ON] [MS ON]
 PTYN" CALC IO " [PTY: SPORT]



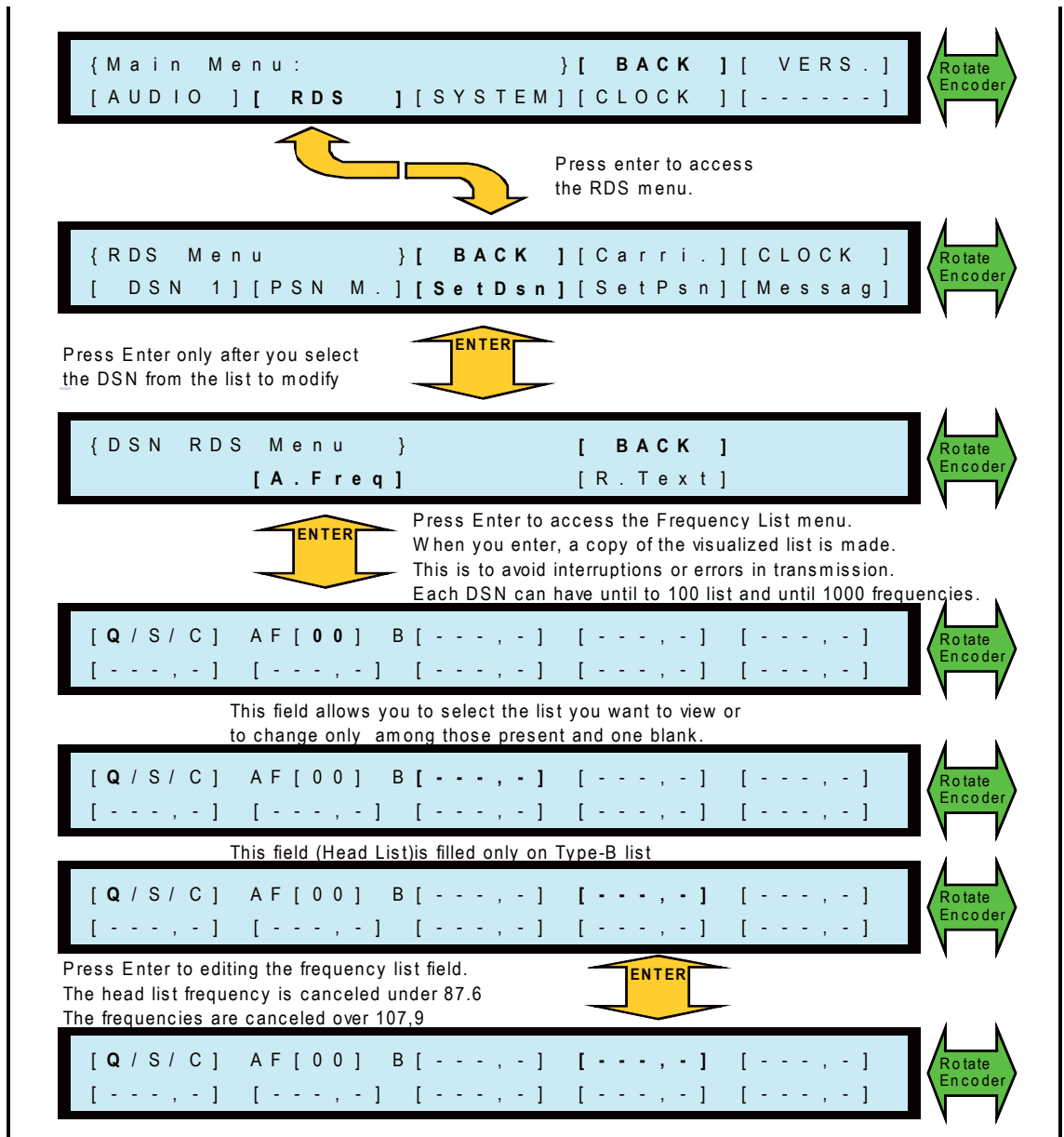
Press Enter to confirm the selected parameter.



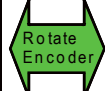
[BACK] [TA ON] [TP ON] [MS ON]
 PTYN" CALC IO " [PTY: SPORT]



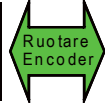
5.25 RDS - Insertion of Alternative Frequencies



```
[ Q / S / C ] AF [ 0 0 ] B [ - - - , - ] [ - - - , - ] [ - - - , - ]
[ - - - , - ] [ - - - , - ] [ - - - , - ] [ - - - , - ] [ - - - , - ]
```



```
[ Q / S / C ] AF [ 0 0 ] B [ - - - , - ] [ 1 0 1 , 5 ] [ - - - , - ]
[ - - - , - ] [ - - - , - ] [ - - - , - ] [ - - - , - ] [ - - - , - ]
```

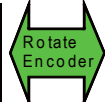


Press ENTER at the end of modification.

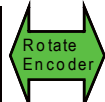
The changes take effect only when you save before exit



```
[ Q / S / C ] AF [ 0 0 ] B [ - - - , - ] [ 1 0 1 , 5 ] [ - - - , - ]
[ - - - , - ] [ - - - , - ] [ - - - , - ] [ - - - , - ] [ - - - , - ]
```



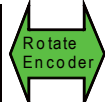
```
[ Q / S / C ] AF [ 0 0 ] B [ - - - , - ] [ 1 0 1 , 5 ] [ - - - , - ]
[ 0 9 7 , 0 ] [ - - - , - ] [ 0 8 8 , 2 ] [ 1 0 0 , 0 ] [ - - - , - ]
```



You can edit the lists in the order that you prefer also with blank fields.

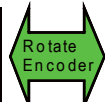
The type-A list can have 25 frequencies, while those type-B list can have only 12 over the head list.

```
[ Q / S / C ] AF [ 0 0 ] B [ - - - , - ] [ 1 0 1 , 5 ] [ - - - , - ]
[ 0 9 7 , 0 ] [ - - - , - ] [ 0 8 8 , 2 ] [ 1 0 0 , 0 ] [ - - - , - ]
```

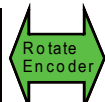


Using ENTER you change the list, but the first movement of the encoder **ARRANGES** the list as follows.

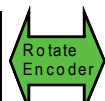
```
[ Q / S / C ] AF [ 0 0 ] B [ - - - , - ] [ 0 8 8 , 2 ] [ 0 9 7 , 0 ]
[ 1 0 0 , 0 ] [ 1 0 1 , 5 ] [ - - - , - ] [ - - - , - ] [ - - - , - ]
```



```
[ Q / S / C ] AF [ 0 1 ] B [ - - - , - ] [ - - - , - ] [ - - - , - ]
[ - - - , - ] [ - - - , - ] [ - - - , - ] [ - - - , - ] [ - - - , - ]
```



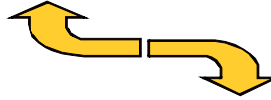
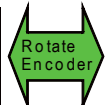
```
[ Q / S / C ] AF [ 0 1 ] B [ - - - , - ] [ - - - , - ] [ - - - , - ]
[ - - - , - ] [ - - - , - ] [ - - - , - ] [ - - - , - ] [ - - - , - ]
```



- Q => need to exit the menu without saving any changes to the lists
- S => need to exit the menu saving the changes made to the lists.
- C => need to erase all fields in the list displayed.

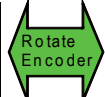
5.26 RDS - Radio Text entry

```
{ Main Menu :                } [ BACK ] [ VERS . ]
[ AUDIO ] [ RDS ] [ SYSTEM ] [ CLOCK ] [ - - - - - ]
```



Press enter to access the RDS menu.

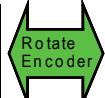
```
{ RDS Menu                } [ BACK ] [ Carri . ] [ CLOCK ]
[ DSN 1 ] [ PSN M . ] [ Set Dsn ] [ Set Psn ] [ Messag ]
```



Press Enter only after you select the DSN of radio-text to modify.



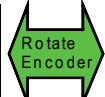
```
{ DSN RDS Menu          } [ BACK ]
[ A . Freq ] [ R . Text ]
```



Press Enter to access the radio-text menu.

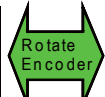


```
[ Q / S ] RT00 B[00]P7003 - Mono + RDS - Bro
adcast Signal Digital Processor
```



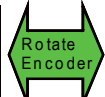
Q => need to exit the radio-text menu without saving any changes to the menu.

```
[ Q / S ] RT00 B[00]P7003 - Mono + RDS - Bro
adcast Signal Digital Processor
```



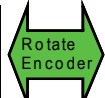
S => need to exit the radio-text menu saving the changes made to the menu.

```
[ Q / S ] RT00 B[00]P7003 - Mono + RDS - Bro
adcast Signal Digital Processor
```



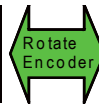
This field allows you to select the radio-text you want to view or to change only among those present and one blank.

```
[ Q / S ] RT00 B[00]P7003 - Mono + RDS - Bro
adcast Signal Digital Processor
```



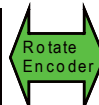
This field allows you to select the radio-text type
A => the receiver updates the display without deleting the previous message.
B => the receiver updates the display after deleting the previous message.

[Q / S] RT00 B [0 0] P 7 0 0 3 - Mono + RDS - Bro
adcast Signal Digital Processor



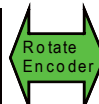
This field allows you to select the repetitions number of radio-text, before moving to next. "0" means infinite.

[Q / S] RT00 B [0 0] P 7 0 0 3 - Mono + RDS - Bro
adcast Signal Digital Processor



This field, like the following 63, are all characters of the message that can be edited individually. You get a special character that represents the end of the radio-text, by turning the knob to the left from the space.

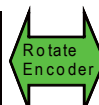
[Q / S] RT00 B [0 0] P 7 0 0 3 - Mono + RDS - Bro
adcast Signal Digital Processor



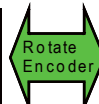
This terminator character is useful if you want to shorten the message.



[Q / S] RT00 B [0 0] P 7 0 0 3 - Mono + RDS - Bro
adcast Signal Digital Processor



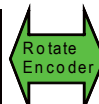
[Q / S] RT00 B [0 0] P 7 0 0 3 - Mono _ RDS - Bro
adcast Signal Digital Processor



The double ENTER is used to exit from editing before reaching the 64th character of the string.

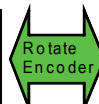


[Q / S] RT00 B [0 0] P 7 0 0 3 - Mono _ RDS - Bro
adcast Signal Digital Processor

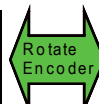


To test the effect of the terminator go next message in way that the edited message is edited.

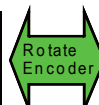
[Q / S] RT00 B [0 0] P 7 0 0 3 - Mono _ RDS - Bro
adcast Signal Digital Processor



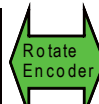
[Q / S] RT01 A [0 0]



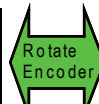
[Q / S] RT00 B [0 0] P 7 0 0 3 - Mono



[Q / S] RT00 B [0 0] P 7 0 0 3 - Mono



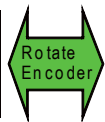
[Q / S] RT00 B [0 0] P 7 0 0 3 - Mono



Q => need to exit the text-radio menu without saving any changes to the menu.
S => need to exit the text-radio menu saving the changes made to the menu.

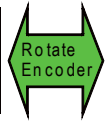
5.27 RDS - Block Custom Messages entry

```
{ Main Menu :                } [ BACK ] [ VERS . ]
[ AUDIO ] [ RDS ] [ SYSTEM ] [ CLOCK ] [ - - - - - ]
```

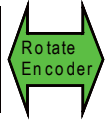


Press enter to access the RDS menu.

```
{ RDS Menu                    } [ BACK ] [ Carri . ] [ CLOCK ]
[ DSN 1 ] [ PSN M . ] [ Set Dsn ] [ Set Psn ] [ Messag ]
```

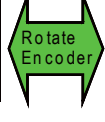


```
[ Q / S ] Msg [ 0 1 ] Type [ - ] Time [ 0 0 : 0 0 ]
          B i k [ 0 0 ] R i p [ 0 0 ] " " "
```



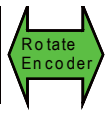
Q => need to exit the menu without saving any changes to the message.

```
[ Q / S ] Msg [ 0 1 ] Type [ - ] Time [ 0 0 : 0 0 ]
          B i k [ 0 0 ] R i p [ 0 0 ] " " "
```



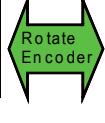
S => need to exit the menu saving the changes made to the message.

```
[ Q / S ] Msg [ 0 1 ] Type [ - ] Time [ 0 0 : 0 0 ]
          B i k [ 0 0 ] R i p [ 0 0 ] " " "
```



This field is used to select the message that you want to see and / or to change. Each message is independent from the others, changing message you will lose any unsaved changes.

```
[ Q / S ] Msg [ 0 1 ] Type [ - ] Time [ 0 0 : 0 0 ]
          B i k [ 0 0 ] R i p [ 0 0 ] " " "
```



This field is used to choose the type of message.

- => The message is not enabled for transmission.

B => The message is enabled for block transmission.

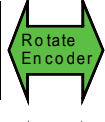
< => The message is enabled for transmission with left scroll.

> => The message is enabled for transmission with right scroll.

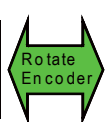
=> The message is enabled for transmission with alternating scroll.



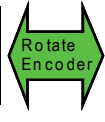
```
[ Q / S ] Msg [ 0 1 ] Type [ - ] Time [ 0 0 : 0 0 ]
          B i k [ 0 0 ] R i p [ 0 0 ] " " "
```



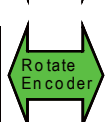
```
[ Q / S ] Msg [ 0 1 ] Type [ B ] Time [ 0 0 : 0 0 ]
          B i k [ 0 0 ] R i p [ 0 0 ] " " "
```



```
[ Q / S ] Msg [ 0 1 ] Type [ B ] Time [ 0 0 : 0 0 ]
          B i k [ 0 0 ] R i p [ 0 0 ] " " "
```

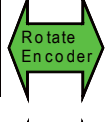


```
[ Q / S ] Msg [ 0 1 ] Type [ - ] Time [ 0 0 : 0 0 ]
          B i k [ 0 0 ] R i p [ 0 0 ] " " "
```



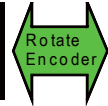
This field is used to select the start time of message transmission.

```
[ Q / S ] Msg [ 0 1 ] Type [ - ] Time [ 0 0 : 0 0 ]
          B i k [ 0 0 ] R i p [ 0 0 ] " " "
```



This field is used to select the start minute of message transmission.

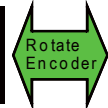
```
[ Q / S ] M s g [ 0 1 ] T y p e [ - ] T i m e [ 0 0 : 0 0 ]
      B l k [ 0 0 ] R i p [ 0 0 ] " "
```



This field represents the number of repetitions before moving on to the next block. WARNING, values lower than 3 may not guarantee the display on some receivers. This field to zero excludes the transmission block.



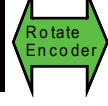
```
[ Q / S ] M s g [ 0 1 ] T y p e [ - ] T i m e [ 0 0 : 0 0 ]
      B l k [ 0 0 ] R i p [ 0 5 ] " "
```



Press ENTER to enter and exit the change of repetitions number.



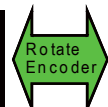
```
[ Q / S ] M s g [ 0 1 ] T y p e [ - ] T i m e [ 0 0 : 0 0 ]
      B l k [ 0 0 ] R i p [ 0 5 ] " - "
```



This field is composed of 8 editable characters. A terminator erases the characters after the current block.



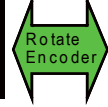
```
[ Q / S ] M s g [ 0 1 ] T y p e [ - ] T i m e [ 0 0 : 0 0 ]
      B l k [ 0 0 ] R i p [ 0 5 ] " B L O C C O 1 "
```



After the editing of the character, press again ENTER.

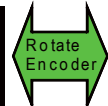


```
[ Q / S ] M s g [ 0 1 ] T y p e [ - ] T i m e [ 0 0 : 0 0 ]
      B l k [ 0 0 ] R i p [ 0 5 ] " B L O C C O 1 "
```



After the editing of the character, press again ENTER.

```
[ Q / S ] M s g [ 0 1 ] T y p e [ - ] T i m e [ 0 0 : 0 0 ]
      B l k [ 0 1 ] R i p [ 0 0 ] " "
```

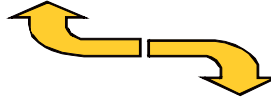
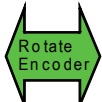


After the editing of the character, press again ENTER.

Continuing to turn the encoder after the eighth character of block 0 you pass to the repetitions of block 1 and so on until the sixteenth block.

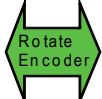
5.28 RDS - Scrolling Custom Messages entry

```
{ Main Menu :                } [ BACK ] [ VERS . ]
[ AUDIO ] [ RDS ] [ SYSTEM ] [ CLOCK ] [ - - - - - ]
```

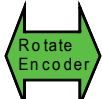


Press enter to access the RDS menu.

```
{ RDS Menu                    } [ BACK ] [ Carri . ] [ CLOCK ]
[ DSN 1 ] [ PSN M . ] [ SetDsn ] [ SetPsn ] [ Messag ]
```

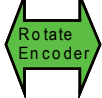


```
[ Q / S ] M s g [ 0 1 ] T y p e [ - ] T i m e [ 0 0 : 0 0 ]
B i k [ 0 0 ] R i p [ 0 0 ] " " "
```



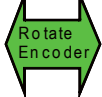
Q => need to exit the menu without saving any changes to the message.

```
[ Q / S ] M s g [ 0 1 ] T y p e [ - ] T i m e [ 0 0 : 0 0 ]
B i k [ 0 0 ] R i p [ 0 0 ] " " "
```



S => need to exit the menu saving the changes made to the message.

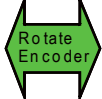
```
[ Q / S ] M s g [ 0 1 ] T y p e [ - ] T i m e [ 0 0 : 0 0 ]
B i k [ 0 0 ] R i p [ 0 0 ] " " "
```



This field is used to select the message that you want to see and / or to change.

Each message is independent from the others, changing message you will lose any unsaved changes.

```
[ Q / S ] M s g [ 0 1 ] T y p e [ - ] T i m e [ 0 0 : 0 0 ]
B i k [ 0 0 ] R i p [ 0 0 ] " " "
```



This field is used to choose the type of message.

- => The message is not enabled for transmission.

B => The message is enabled for block transmission.

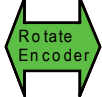
< => The message is enabled for transmission with left scroll.

> => The message is enabled for transmission with right scroll.

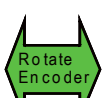
=> The message is enabled for transmission with alternating scroll.



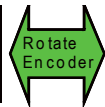
```
[ Q / S ] M s g [ 0 1 ] T y p e [ - ] T i m e [ 0 0 : 0 0 ]
B i k [ 0 0 ] R i p [ 0 0 ] " " "
```



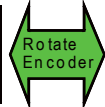
```
[ Q / S ] M s g [ 0 1 ] T y p e [ < ] T i m e [ 0 0 : 0 0 ] R i p [ 0 0 ]
```



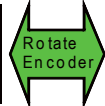
[Q / S] M s g [0 1] T y p e [<] T i m e [0 0 : 0 0] R i p [0 0]



[Q / S] M s g [0 1] T y p e [<] T i m e [0 0 : 0 0] R i p [0 0]

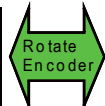


[Q / S] M s g [0 1] T y p e [<] T i m e [0 0 : 0 0] R i p [0 0]



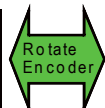
This field is used to select the start time of message transmission.

[Q / S] M s g [0 1] T y p e [<] T i m e [0 0 : 0 0] R i p [0 0]



This field is used to select the start minute of message transmission.

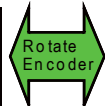
[Q / S] M s g [0 1] T y p e [<] T i m e [0 0 : 0 0] R i p [0 0]



This field represents the number of repetitions before moving on to the next block
WARNING, values lower than 3 may not guarantee the display on some receivers.
This field to 0 is equal to 1



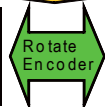
[Q / S] M s g [0 1] T y p e [<] T i m e [0 0 : 0 0] R i p [0 5]



Press ENTER to enter and exit the change of repetitions number.



[Q / S] M s g [0 1] T y p e [<] T i m e [0 0 : 0 0] R i p [0 5]

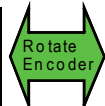


-

Turning the encoder, after the repetitions, you pass to the first of 128 characters from which can be made the the scrolling message.



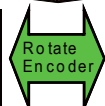
[Q / S] M s g [0 1] T y p e [<] T i m e [0 0 : 0 0] R i p [0 5]
E s e m p i o d i M e s s a g g i o s c o r r e v o l e



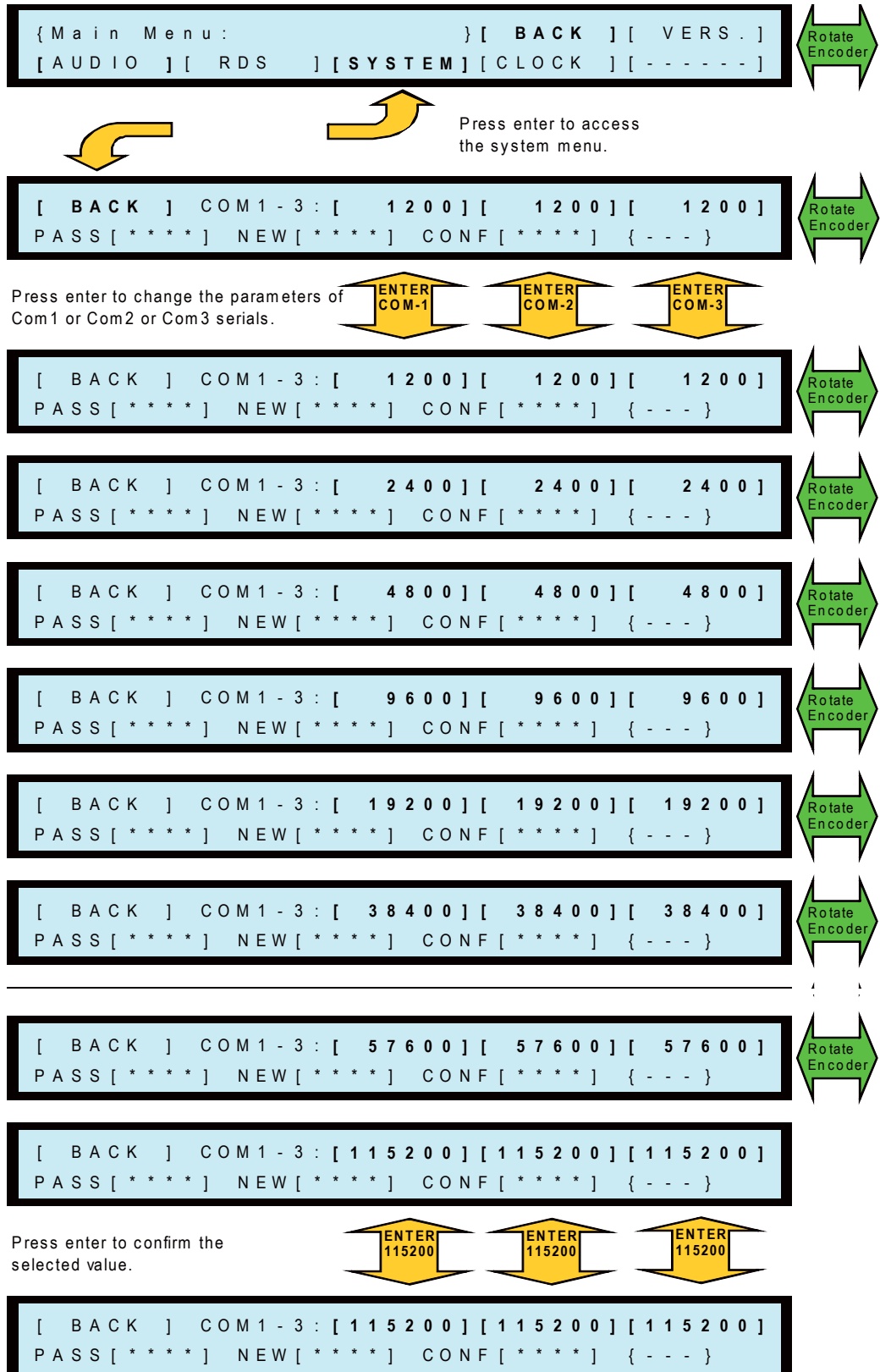
After the editing of the character, press again ENTER.



[Q / S] M s g [0 1] T y p e [<] T i m e [0 0 : 0 0] R i p [0 5]
E s e m p i o d i M e s s a g g i o s c o r r e v o l e



5.29 RS232 - COM1, COM2 and COM3 Serial Configuration



5.30 User PASSWORD - First entry

```
{ Main Menu :                               } [ BACK ] [ VERS . ]
[ AUDIO ] [ RDS ] [ SYSTEM ] [ CLOCK ] [ - - - - - ]
```

Press enter to access the System menu.

```
[ BACK ] COM1 - 3 : [ 1200 ] [ 1200 ] [ 1200 ]
PASS [ * * * * ] NEW [ * * * * ] CONF [ * * * * ] { - - - }
```

Rotate Encoder

Press enter to access the edit mode of parameters.

```
[ BACK ] COM1 - 3 : [ 1200 ] [ 1200 ] [ 1200 ]
PASS [ ! * * * ] NEW [ * * * * ] CONF [ * * * * ] [ ]
```

Rotate Encoder

Press enter to confirm the selected parameter.

Repeat the procedure by placing "!" instead of remained free fields.

```
[ BACK ] COM1 - 3 : [ 1200 ] [ 1200 ] [ 1200 ]
PASS [ ! ! ! ! ] NEW [ * * * * ] CONF [ * * * * ] [ ]
```

Rotate Encoder

Press enter to confirm the selected parameter.

```
[ BACK ] COM1 - 3 : [ 1200 ] [ 1200 ] [ 1200 ]
PASS [ * * * * ] NEW [ * * * * ] CONF [ * * * * ] { U P }
```

Press enter to access the edit mode of parameter.

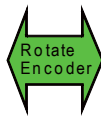
```
[ BACK ] COM1 - 3 : [ 1200 ] [ 1200 ] [ 1200 ]
PASS [ * * * * ] NEW [ A * * * ] CONF [ * * * * ] [ U P ]
```

Rotate Encoder

Press enter to confirm the selected parameter.

Repeat the procedure by placing the characters of the password in free fields.

```
[ BACK ] COM1 - 3 : [ 1 2 0 0 ] [ 1 2 0 0 ] [ 1 2 0 0 ]
PASS [ * * * * ] NEW [ A B C D ] CONF [ * * * * ] [ U P ]
```



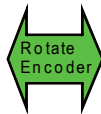
Press enter to confirm the selected parameter.

```
[ BACK ] COM1 - 3 : [ 1 2 0 0 ] [ 1 2 0 0 ] [ 1 2 0 0 ]
PASS [ * * * * ] NEW [ * * * * ] CONF [ * * * * ] { U P }
```

Press enter to access the edit mode of parameter.



```
[ BACK ] COM1 - 3 : [ 1 2 0 0 ] [ 1 2 0 0 ] [ 1 2 0 0 ]
PASS [ * * * * ] NEW [ * * * * ] CONF [ A * * * ] [ U P ]
```



Press enter to confirm the selected parameter.



Repeat the procedure by placing the new characters of password.

```
[ BACK ] COM1 - 3 : [ 1 2 0 0 ] [ 1 2 0 0 ] [ 1 2 0 0 ]
PASS [ * * * * ] NEW [ * * * * ] CONF [ A B C D ] [ U P ]
```

Press enter to confirm the selected parameter.



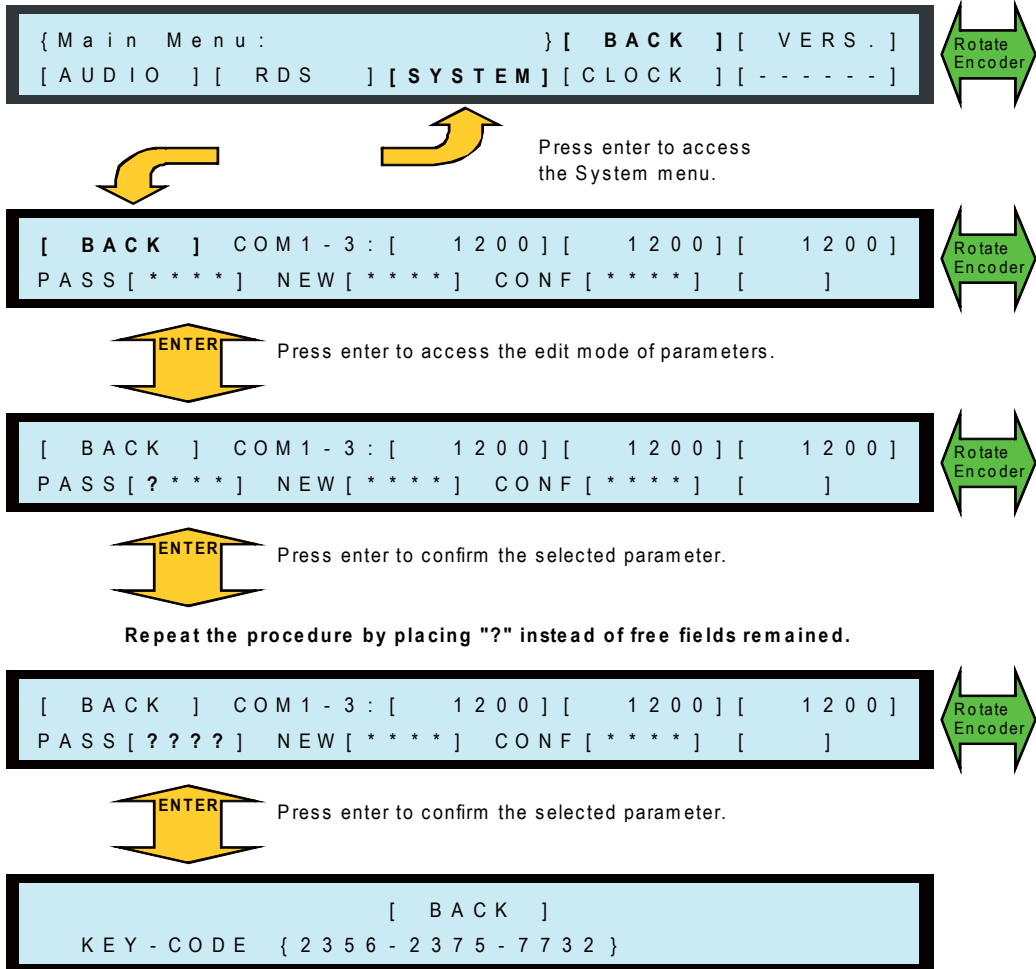
```
[ BACK ] COM1 - 3 : [ 1 2 0 0 ] [ 1 2 0 0 ] [ 1 2 0 0 ]
PASS [ * * * * ] NEW [ * * * * ] CONF [ * * * * ] [ U P ]
```

Password Entry succeeded

```
[ BACK ] COM1 - 3 : [ 1 2 0 0 ] [ 1 2 0 0 ] [ 1 2 0 0 ]
PASS [ * * * * ] NEW [ * * * * ] CONF [ * * * * ] [ E R R ]
```

Password Entry failed

5.31 User PASSWORD - Forgotten Password Recovery



Entered in their respective fields the characters (?) will appear the code for password recovery.
Sent via FAX the code to constructor to receive the forgotten password.

6. Identification of the Modules

The **SDC200/RDS** is made up of various modules linked to each other through connectors so as to make maintenance and any required module replacement easier.

6.1 Upper View

The figure below shows the equipment upper view with the various components pointed out.

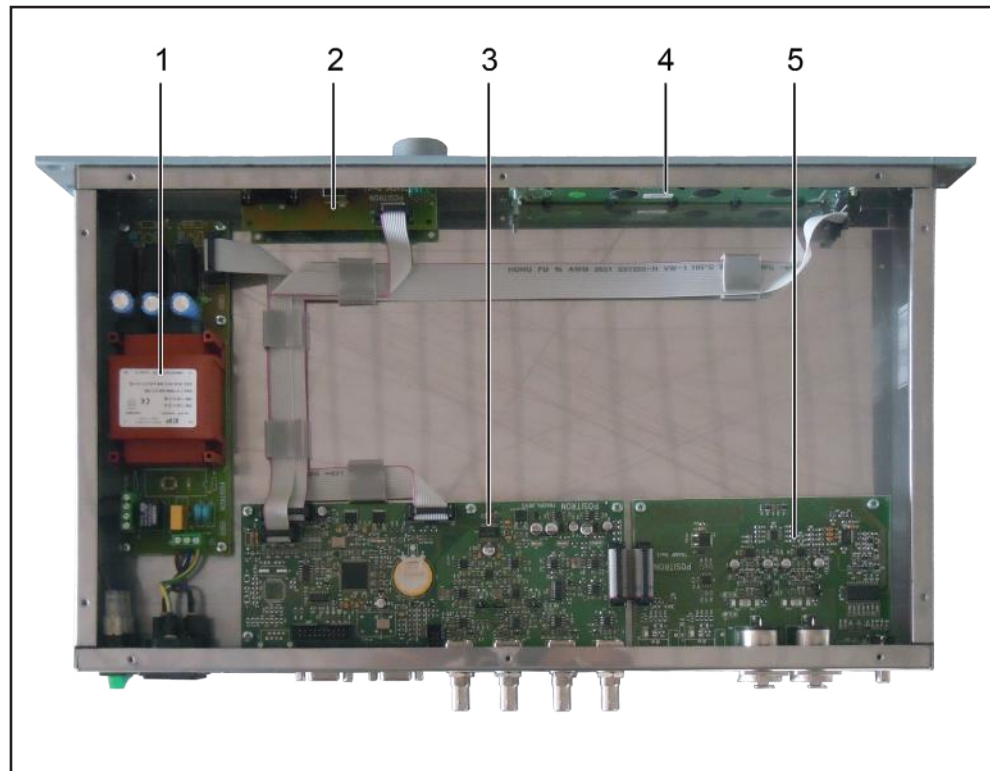
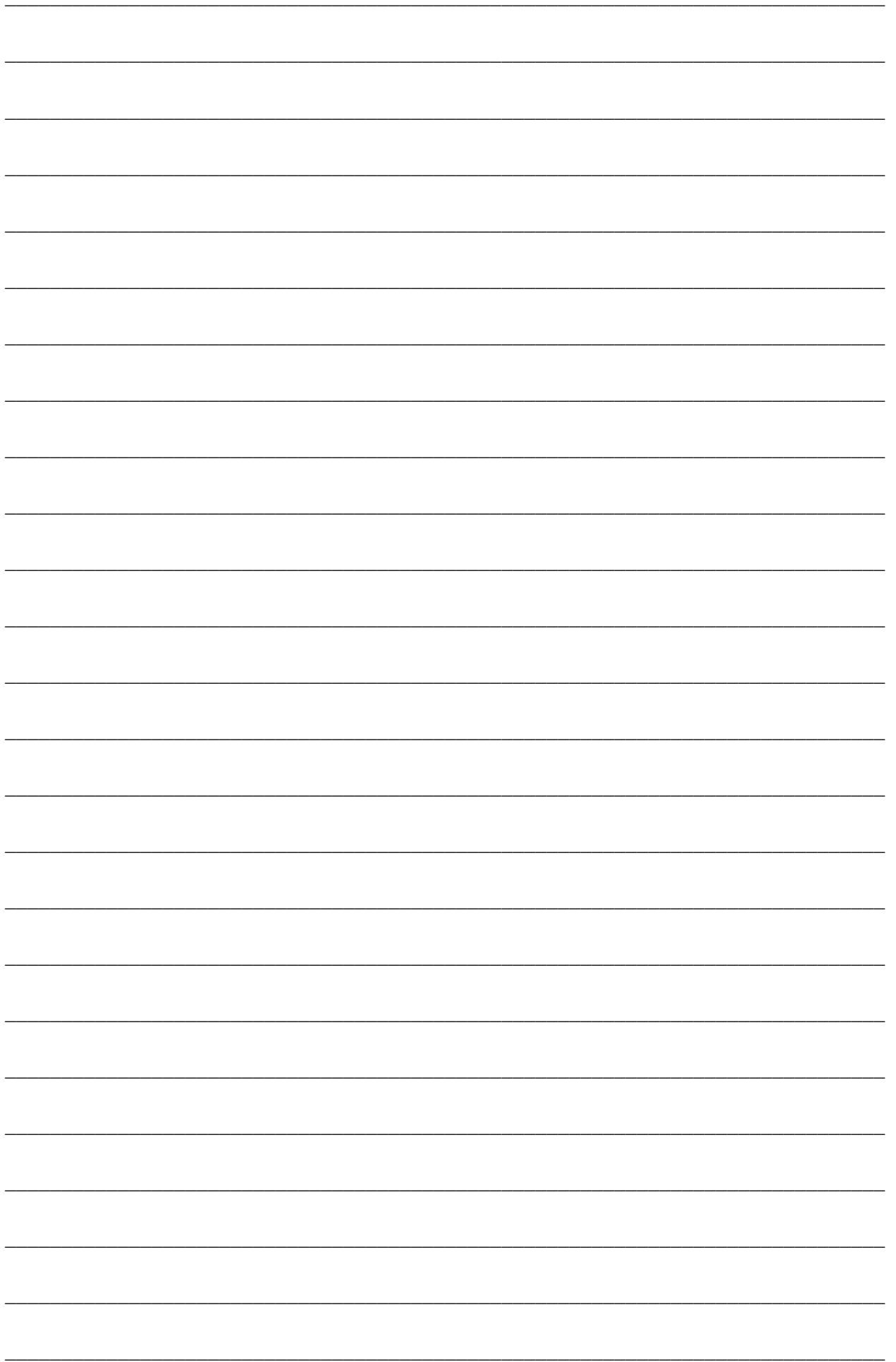


figure 6.1

- [1] Power Supply
- [2] Panel Card
- [3] CPU & I/O Card
- [4] Display Card
- [5] Audio Input Card

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