

QUICK START

THIS QUICK GUIDE IS DIVIDED INTO TWO PARTS:	2
FIRST TIME OPERATION / RECORDING	2
POWERING	2
THE DISK	2
SWITCH-ON	2
RECORDING	3
PLAYBACK	3
ACCESSORIES, SETTINGS AND THINGS TO BE AWARE OF	4
1.0 DELIVERED WITH	4
2.0 OPTIONS NOT INCLUDED WITH THE BASIC NAGRA-V	4
3.0 FIRST REQUIREMENTS	5
3.1 IF THE NA-BB8B BATTERY BOX IS AVAILABLE	5
3.2 IF THE NV-LIB (Lithium Ion) POWER PACK AND THE AC SUPPLY NV-PSU ARE AVAILABLE	5
3.2 IF ONLY A 4 PIN EXTERNAL DC SUPPLY IS AVAILABLE	5
4.0 SWITCHING ON FOR THE FIRST TIME	5
5.0 SETTING TIME AND DATE OF THE REAL TIME CLOCK (RTC)	6
6.0 INSTALLING THE HDD FOR THE FIRST TIME	7
6.1 HDD DRAWER	7
7.0 MAKING THE FIRST RECORDING USING 1 MICROPHONE	7
7.1 MICROPHONE CONNECTION CONFIGURATION	7
7.2 MICROPHONE INPUT CONFIGURATION	7
MATRIX (ROUTING) SELECTION	8
REFERENCE FREQUENCY (internal clock generator)	8
SAMPLING FREQUENCY	8
MODULOMETER	8
LINE POT. ASSIGN SELECTION	9
MONITORING SELECTION	9
FORMAT	9
TAKE NUMBER AND TAKE LENGTH INDICATION	9
7.3 SETTINGS CHECK	9
7.4 MICROPHONE LEVEL ADJUSTMENT IN TEST MODE	10
7.5 HEADPHONE CONTROL	10
7.6 RECORD	10
7.7 RECORD WITH MARKERS	10
8.0 PLAYING BACK FROM THE FRONT PANEL	10
9.0 STARTING THE NEXT RECORDING AFTER PLAYBACK	11

THIS QUICK GUIDE IS DIVIDED INTO TWO PARTS:

A quick start for a first time recording on a new NAGRA V

A rapid explanation of accessories, settings and things to be aware of upon receiving your NAGRA V.

All the points covered here are explained in great detail in the reference manual.

FIRST TIME OPERATION / RECORDING

POWERING

Depending on the power options available, one of the following must be done first:

- Charge the Lithium Ion NV-LIB using the NV-PSU charger
- Install 8 "D" cells into the NA-BB8B battery box
- Connect a 12V supply to the 4-pin XLR on the rear of the machine

THE DISK

If delivered by NAGRA, the HDD inside the DN-BOY will already be formatted and ready to go. If purchased elsewhere, please format the disk (chapter 4 Page 2).

Slide the DN-BOY into the slot on the right side and move the power / locking switch of the drawer to the ON position.

SWITCH-ON

Move the main function selector to the TEST position. The machine will perform the "BOOT" procedure (about 25 seconds). Once the booting is complete the front display will indicate "SET LOST" meaning that the default factory settings are going to be restored, Press "SHIFT" to remove this display. Scroll through the current settings of the machine by pressing the BATT switch by the modulometer briefly. The default factory settings are:

MASTER	Reference frequency is the internal master clock
48 KHZ	Sampling rate selected
BWF 24	Record format and bit rate on the cartridge
ANALOG	Analogue input selection
POT OUT	Aux IN / Line pot selection set for Line Output
LEV AUTO	Modulometer selection in automatic (Single modulometer machines only)
LINE OUT	Monitoring via Line Output
SPK AUTO	Loudspeaker mode selection in automatic

If the BATT position is pressed twice then the LCD display will scroll through the Time Code settings. The default TC settings are:

25 FPS	Selected Time Code frame rate
INT. GEN.	Record source
TC. EXT.	Reference for chase mode
FIX. CLK	Internal clock for sync mode

After this scrolling the machine will be in the stand-by mode, and the display will indicate the number of indexes on the disk (000 indexes) on a new disk. If any of the above settings need to be changed, make the necessary changes in the MENU mode.

In the TEST position all the circuits of the machine are powered and levels can be adjusted. Connect the microphone(s) to the input connectors and adjust the powering accordingly. Using the sensitivity switches on the front panel, select the sensitivity according to the microphone type. Adjust the levels using the potentiometers on the front panel. The potentiometers can be ganged together using the mechanical clutch if needed.

Connect a pair of headphones and adjust the level.

RECORDING

Move the main function selector to one of the two record positions. If the NV-LIM internal limiters are installed then they will be activated in the first record position only. On machines without the limiter option both record positions are the same.

The recording will begin immediately and the track / take number will be automatically recorded along with the time code from the internal time code generator (if fitted)

Select TEST or STOP at the end of the recording.

PLAYBACK

Select PLAYBACK with the main function selector and the last recorded take will immediately be played back. Selecting RECORD again during playback will start a new recording at the end of the first take without damage to the track being played back.

The following is a quick reference to the relevant location in this manual to change / activate urgent features. All other settings can be found as required once a certain experience with the machine is acquired:

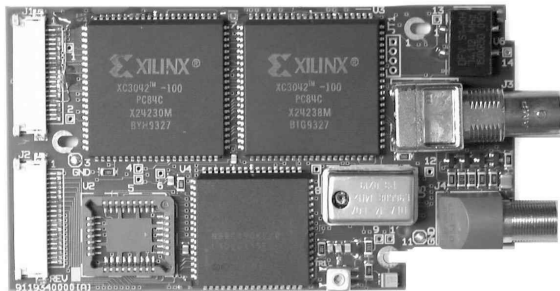
Front panel display selection	Chapter 4	page 4
Audio Inputs selection and matrixing	Chapter 4	page 15
Time code / synchronizer settings	Chapter 4	page 5
Sampling frequency selection	Chapter 4	page 14
File format selection	Chapter 4	page 14
Pre-record settings	Chapter 4	page 17
Real time clock settings	Chapter 4	page 18

ACCESSORIES, SETTINGS AND THINGS TO BE AWARE OF

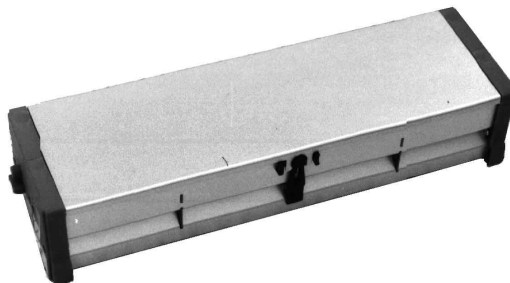
1.0 DELIVERED WITH

One Nagra-V without battery box (3 different choices are available)
One user manual (English or French version depending on country)
One carrying strap

2.0 OPTIONS NOT INCLUDED WITH THE BASIC NAGRA-V



-7031 130 000 NV-TC: Time code option
(delivered with universal time code cable)



-7019 111 000 NA-BB8B: Battery box for 8 "D" cells



- 7031 110 000 NV-LIB: Battery box with Lithium Ion pack
(with operating manual in English)

-2031 150 000 NV-PSU: Mains power supply for NV-LIB



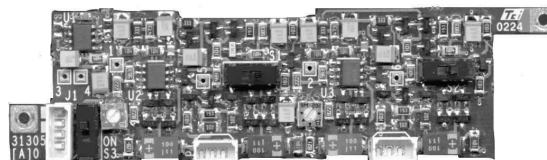
- 2099 185 000 NV-SCC: Soft carrying case for Nagra-V
with NV-LIB

- 7031 004 000 Nagra-VHT: Nagra-
equipped with double modulometer



V

- 7031 130 000 NV-LIM: Internal audio limiter for mike inputs



- 7031 145 000 NV-96K: High sampling frequency option

- 7031 100 000 NV-COM: PC software for Nagra-V
(requires ND-PCA RS 232 / 422 adapter # 7010 540 000)

A full list of available accessories can be found at the end of chapter 6 of this manual.

3.0 FIRST REQUIREMENTS

3.1 IF THE NA-BB8B BATTERY BOX IS AVAILABLE

Remove the battery box (type 8 “D” cells) from the NAGRA-V by lifting the two grey side levers upwards on the left and right rear sides.

Open the battery box by pushing together the two finger shape plastic clamps and remove the top cover.

Install 8 dry cells type “D” or 8 fully charged NiCd or NimH type “D” cells taking care of the polarity indicated and refit the cover.

Re-install the battery box on the rear of the NAGRA-V and lock the two grey levers.

Jump to paragraph 4.0

3.2 IF THE NV-LIB (Lithium Ion) POWER PACK AND THE AC SUPPLY NV-PSU ARE AVAILABLE

Install the Lithium Ion box with or without the Lithium Ion pack on the Nagra-V and lock the two grey levers. Connect the DC connector. Connect the AC power supply to the AC outlet. Once this is done, a green led must light on the NiCd power pack, indicating that a correct DC voltage is received from the AC power supply. If the red light comes on, disconnect the battery compartment from the NAGRA v and the red light will go off and the green light will come on.

3.2 IF ONLY A 4 PIN EXTERNAL DC SUPPLY IS AVAILABLE

Connect the external 12V supply to the four pin XLR connector located behind the battery box on the rear of the machine.

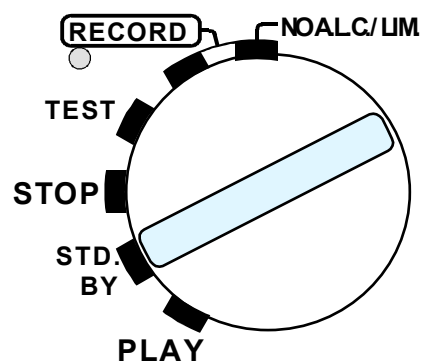
4.0 SWITCHING ON FOR THE FIRST TIME

Verify that the MAIN selector knob on the front right side of the NAGRA-V is set to “STOP” (horizontal position).

The NAGRA-V will not switch on if new batteries have been installed and the main selector was not in the “STOP” position. Set to “STOP” after changing the batteries, then wait a few seconds before switching “ON” again.

This is also valid if a Lithium Ion battery pack was used in place of the standard battery box.

After a few seconds, set the “MAIN” selector to “TEST”. The display of the NAGRA-V will show “Booting” for about 20 seconds. After this, if a HDD was already inserted, the display will scroll through the main settings of the NAGRA-V.



If no HDD was inserted in the NAGRA-V, the display will show “Set Lost” or “No Disk” (see paragraph 6.0).

Set L o s t

OR

No Disk

“Set Lost” appears when the machine was stored without a battery connected to it for a long time. In this case, the machine has lost all internal user selected settings.

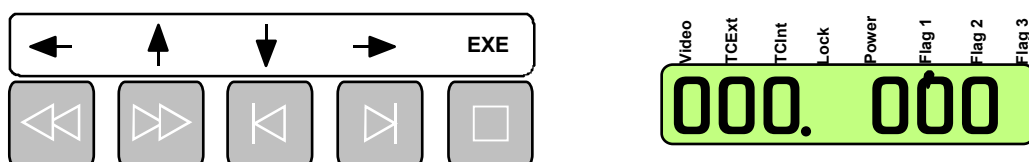
By pushing the “BATT” switch, located on the bottom left corner of the front panel, the modulometer will indicate the voltage level (the needle must be in the green area). If this voltage drops below the minimum voltage, the NAGRA-V will automatically switch off.

5.0 SETTING TIME AND DATE OF THE REAL TIME CLOCK (RTC)

Set the Main function selector on the front panel to the “STD.BY” position. The Nagra-V must have a HDD drawer inserted before power ON.

Press the shift key twice and verify that the Flag 1 is lit.

This activates the menu mode to go through the settings of the machine using the arrows above the scroll keys.



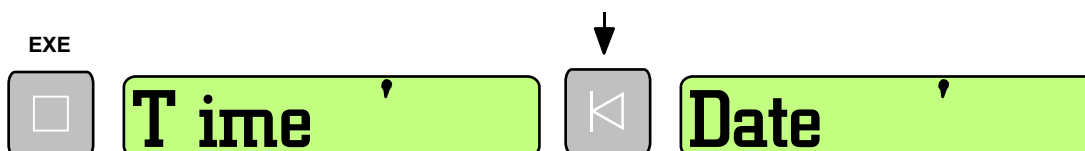
Start to scroll downwards until “OTHER” appears on the display. Scroll once to the right until “Date Time” appears. The next scroll to the right side shows “Time”. Again one step to the right shows the following display: (example)

T 00.02.34

The RTC will be incrementing. Do not confuse this clock with the optional Time Code clock. The format of the RTC is according to the international 24Hr format of HH.MM.SS

The first digit starts blinking. By using the up or down arrow keys the correct hour can be adjusted.

By using the right arrow key the next digit starts blinking. Continue the adjustments until the seconds are entered and press the EXE key. The following display appears again:



To find the “Date” menu, push the down arrow key once. Repeat the same principals as for the time settings.

As an example this display shows “June 26th, 2002”

26.06.2002

Please note that the date format corresponds to the DD.MM.YYYY format.

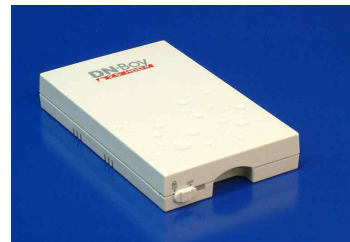
6.0 INSTALLING THE HDD FOR THE FIRST TIME

6.1 HDD DRAWER

Insert the HDD drawer, taking care that the Nagra-V as well as the power switch on the drawer is OFF. Once fully inserted, turn ON the drawer power switch. This automatically secures mechanically the drawer inside the bay and turn ON the Nagra-V.

Attention: The HDD must be formatted FAT 16 (Max. 1GB) or FAT 32 DOS. All other formats are not accepted.

Once the cartridge is inserted and the machine is switched ON, the led on the drive starts blinking red, green. After about approximately 30 seconds, the led should become green and the "No Disk" on display will be replaced by:



000. 000

This indicates actually 0 recordings on the cartridge.

7.0 MAKING THE FIRST RECORDING USING 1 MICROPHONE

If it is preferable to go through the settings later and the machine showed "Date Lost", the Nagra-V has the following factory settings:

MASTER, 48 KHZ, BWF 24, ANALOG, POT. OUT, LEV. AUTO, LINE OUT, SPK. AUTO.

LEV. AUTO will not appear if the modulometer was set before the line output potentiometer (factory standard setting for the box motherboard 9131 300 000 B)

In this case when making a recording with one microphone, only the left or the right channel will be recorded.

For recording immediately, jump to paragraph 7.4.

7.1 MICROPHONE CONNECTION CONFIGURATION

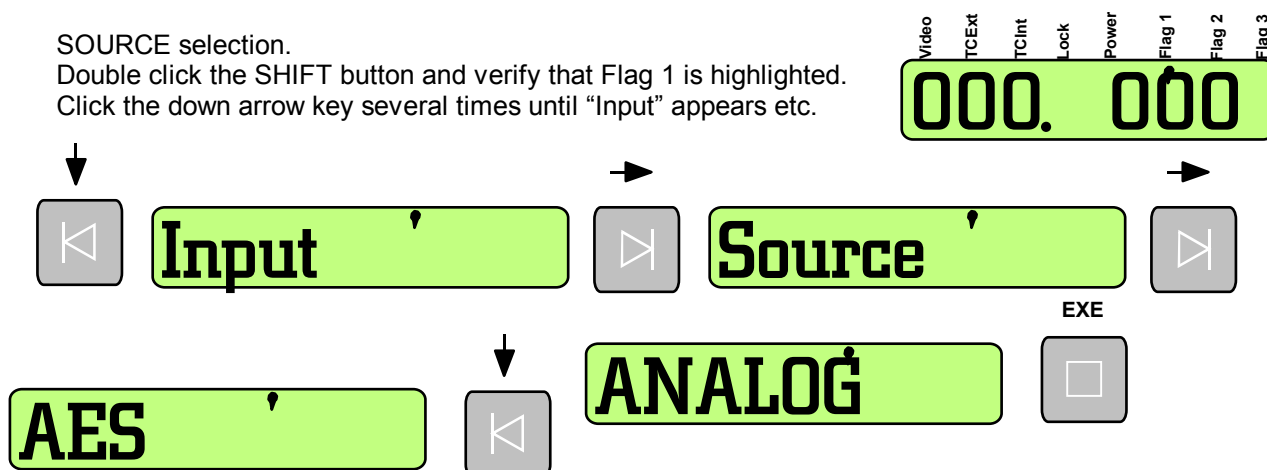
Connect a microphone to the left Mike input. Depending on the type of microphones used, select with the switch above the Mike connector the corresponding power supply ("dyn.", "T12" or "Ph+48").

7.2 MICROPHONE INPUT CONFIGURATION

SOURCE selection.

Double click the SHIFT button and verify that Flag 1 is highlighted.

Click the down arrow key several times until "Input" appears etc.



Once "ANALOG" found, push the EXE button.

Important: ONLY displays appearing in "CAPITAL LETTERS" can be executed.

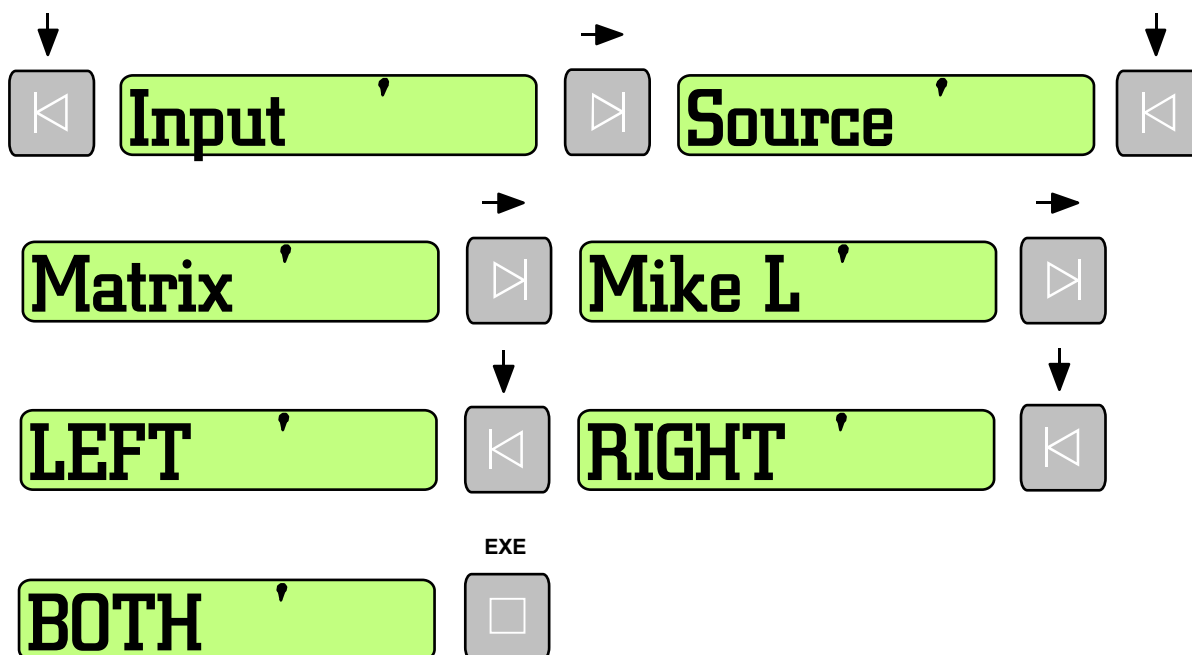
Depending upon previous settings, the first executable display that appears is the one for which the Nagra-V was already set. Example: In the case above, the "AES" display came first, so the machine was set to AES input.

To go backwards in the scrolling use the left, up and down arrow keys.

To leave the menus, press the "SHIFT" key or move the main selector.

MATRIX (ROUTING) SELECTION

As the microphone is connected to the left Mike input, the routing should be that left and right channel will record the left Mike. Follow next steps. Click the down arrow key until "Input" is displayed:



Repeat the same steps for the "Mike R" and select this time "OFF" followed by execute.

Also in the "Matrix" menu, repeat the same steps for the line input "Aux L" and "Aux R" and also select "OFF" followed by execute.

REFERENCE FREQUENCY (internal clock generator)

MASTER

Scroll through the menu until "Ref. Freq" appears, scroll one step to the right and by scrolling up or down, select "MASTER" and execute.

SAMPLING FREQUENCY

48 KHZ

Scroll through the menu until "Sam. Freq" appears, scroll one step to the right and by scrolling up or down, select "48 kHz" and execute.

MODULOMETER

LEV. AUTO

The modulometer indication can be selected to be active for the input level or for the output level. In the case of recording a signal, it is advised to set this selection to automatic. **If the "Modulom." is not appearing, it is because the machine is equipped with the box motherboard 9131 300 000 B and the modulometer is by hardware configured before the line output potentiometer.**

Scroll through the menu until "Modulom," appears, scroll one step to the right and by scrolling up or down, select "LEV. AUTO" followed by execute.

LINE POT. ASSIGN SELECTION

POT. OUT

The next selection that needs to be made is the choice for the "AUX. IN & LINE OUT" potentiometer. As the Line input is not used, the selection can be output adjustment only or selective combined with the SHIFT key.

Scroll through the menu until "Line Pot" appears, scroll one step to the right and by scrolling up or down, select "POT. OUT" and execute.

MONITORING SELECTION

Scroll through the menu until "Monitor" appears, scroll one step to the right and by scrolling up or down, select "Mode" followed by "STEREO" and execute.

STEREO

Scroll through the menu until "Monitor" appears, scroll one step to the right and by scrolling up or down, select "Source" followed by "LINE OUT" and execute.

LINE OUT

Scroll through the menu until "Monitor" appears, scroll one step to the right and by scrolling up or down, select "Loud. Spk" followed by "SPK. AUTO" and execute.

SPK. AUTO

This selection is similar to the modulometer. During record or test, the speaker is automatically switched off and during play or edit, it is switched on.

FORMAT

BWF 16

Scroll through the menu until "Format" appears, scroll one step to the right and by scrolling up or down, select "BWF 16" and execute.

TAKE NUMBER AND TAKE LENGTH INDICATION

000. 0.00

Once leaving the menus, by pushing the SHIFT key once, the main display can show different types of information. Time Code, remaining time, take number and delta TC. To select one push twice the SHIFT key to highlight the flag 1. Push the right or left arrow key until "TAKE" appears and execute.

7.3 SETTINGS CHECK

To check if all main settings just executed are correct, it is easy to recall them by just pushing the modulometer switch "BATT" a single time downwards and the display will scroll through them.

The list appearing on the display will be the following:

MASTER, 48 KHZ, BWF 16, ANALOG, POT. OUT, LEV. AUTO, LINE OUT, SPK. AUTO

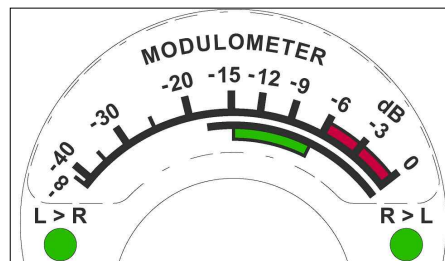
LEV. AUTO will not appear if the modulometer was set before the line output potentiometer (factory standard setting for the box motherboard 9131 300 000 B)

7.4 MICROPHONE LEVEL ADJUSTMENT IN TEST MODE

Verify that the “EE, AUTO, TAPE” selector is in the “AUTO” position.

Verify first of all that the modulometer selector (below the meter) is in the middle position (max.) and the next selector to the right is in the “NORM” position.

While speaking into the microphone, adjust the left “MIKE LEVEL” potentiometer until the meter is oscillating close to the -6dB mark. If this is not possible, change the position of the corresponding “SENSITIVITY” (1mV/hPa, 4mV/hPa, 0.2mV/hPa) selector below the potentiometer. **The sector from -6 dB to 0 dB is the headroom area for the AD converter.** This means that the input signal may be increased with max. 6 dB before the AD converter starts to saturate.



7.5 HEADPHONE CONTROL


Connect a stereo headphone to the jack connector. Adjust the front AUX. IN & LINE OUT potentiometer to approx. 0dB on the potentiometer scale. While speaking in the microphone, adjust the phones level potentiometer (next to the headphone jack connector) to obtain a correct headphone level.

7.6 RECORD

Put the main selector in the “RECORD” position. Automatically the red led on the front display will light. This indicates that the NAGRA-V is in the record mode. The display shows the number “001” on the left side which indicates the take number and on the right side an increments counter indicating in minutes and seconds the instantaneous length of the recording in progress.


To stop the recording, set the main selector back to the “TEST” position. The display now shows the take number “001” on the left side and 000 on the right side (beginning of take when starting playback).

7.7 RECORD WITH MARKERS

Now that the first recording has been made, let us try a second one in which a marker will be inserted. Set the main selector back to “RECORD” and observe that the take number on the display now indicates “2” instead of “1”. Simultaneously, on the right side of the front display, the counter restarted from “000”. At the moment that a marker needs to be inserted during record, just push the button  once (below the EXE sign) and automatically take “3” starts. During playback of take “2” and “3” afterwards, no interruption will be detected.

8.0 PLAYING BACK FROM THE FRONT PANEL

During a record session, it happens sometimes that a short playback of the last part of a take or a previous take is asked.

Once the recording has been finished, the main selector can be immediately set to the “PLAY” mode. Instantaneously, the last recorded take will be played back from the beginning (counter 000). By using the function keys,  it becomes possible to start the same take over, to skip to previous takes as well as playing back at four times the nominal speed forwards or backwards. This time, the function keys themselves, are active rather than the features indicated in the rectangular box above the keys.

The single left arrow button permits, if briefly pushed, to start the play of the same take from the beginning.

The single left arrow button also permits, if pushed twice, to skip to the beginning of the previous take and playing back immediately.

The single right arrow button permits, if pushed briefly, to skip to the next take and play back immediately.

The double right arrow button permits to playback the take at 4 times the nominal speed.

The double left arrow button permits to reverse playback the take at 4 times the nominal speed.

If a "PAUSE" is needed during playback, just put the main selector to the "STB.BY" position or push the "STOP" button once. The playback stops automatically and will restart from the same point once the main selector is set back to the "PLAY" mode or the "STOP" button is pressed again.

9.0 STARTING THE NEXT RECORDING AFTER PLAYBACK

If suddenly during playback of any recorded take, a new recording needs to be started immediately, just put the main selector back to "RECORD" without worrying where the playback was located. No previous recordings can be accidentally erased by doing this. The new recording will start from the end of the last recorded take located on the card.