NAGRA ARES-P / RCX220 MANUAL

Version: June 2003

WARNING: The ARES-P/RCX220 has a built-in charger (charge current = 100 mA). NiCd or Ni-Metal-Hydride cells can be used.

WHEN USING THE EXTERNAL POWER SUPPLY, CHECK THE SWITCH POSITION INSIDE THE BATTERY COMPARTIMENT BEFORE INSTALLING DRY CELLS.

PN 2019 600 150

CONTENTS Page

1.0 DELIVERED WITH ARES-P 4

1.1 DELIVERED WITH RCX220 4

2.0 INSTALLING BATTERIES 4

3.0 INSTALLING FLASHCARD 4

4.0 POWER ON, POWER OFF 4

5.0 CONTRAST 4

6.0 BUTTONS 4

7.0 MAIN DISPLAY DESCRIPTION 5

8.0 RECORD, REWIND & FORWARD, STOP, PLAY KEYS 6
- 8.1 RECORD KEY 6
- 8.2 REWIND AND FORWARD KEY 6
- 8.3 STOP KEY 7
- 8.4 PLAY KEY 7

9.0 LEVEL ADJUSTMENT 7
- 9.1 OUTPUT LEVEL ADJUSTMENT 7
- 9.2 INPUT LEVEL ADJUSTMENT 7
- 9.3 THRESHOLD ADJUSTMENT 7

10 CENTER & ARROW KEYS 7

11 LED MODULOMETER 7

12 MAIN MENU 8
- 12.1.0 DIRECTORY MENU 8
  - 12.1.1 HORIZONTAL SCROLLING 9
  - 12.1.2 VERTICAL SCROLLING 9
  - 12.1.3 QUIT DIRECTORY 10
  - 12.1.4 TITLING 10
  - 12.1.5 ERASING TAKE(S) 10

CONTENTS Page

12.2.0 TOOLS 12
12.2.1 DATE AND TIME 12
12.2.2 CARD FORMATTING 12
12.2.3 FORMAT REPAIRING 12
12.2.4 VERSION 13
12.3.0 SETTINGS MENU 14
12.3.1 INPUT FILTER 14
12.3.2 ALC 14
12.3.3 ALC THRESHOLD 14
12.3.4 ALC SPEED 15
12.3.5 BEEP 15
12.3.6 COMPRESSION 15
12.3.7 BACKLIGHT 15
12.3.8 OUTPUT MODE 15
12.3.9 OUTPUT LEVEL 16
12.3.10 SECOND RECORD KEY 16

13 LOCKING THE SETTINGS 16

14 AUTO POWER OFF 16

15 MESSAGES 17

16 SOFTWARE UPDATE 17

17 DIFFERENCE ARES-P/RCX220 17

18 MENU TREE 18

19 ARES-P & RCX220 SOFTWARE & INSTALLATION 20
19.1 ARES-P SOFTWARE 20
19.2 RCX220 SOFTWARE 20

20 INPUT CONNECTOR, DIN 12 PIN 22

21 FLASH CARDS COMPATIBILITY LINEAR AND STRATA 23

22 FLASH CARDS COMPATIBILITY ATA AND COMPACT ATA 24

23 SAFETY/COMPLIANCE 26

1.0 DELIVERED WITH ARES-P.

5 dry cells “AA”, 1 DIN connector 12 pin, 1 carrying strap, 1 user manual.

1.1 DELIVERED WITH RCX220.

5 dry cells “AA”, 1 DIN connector 12 pin, 1 carrying strap, 1 user manual, 1 USB cable, 1 CDR with npRuntime (RCX220 driver),RcxLoad and Xtrack software.

2.0 INSTALLING BATTERIES.

To open the machine, push the button on the right side. Inside the battery compartment, push down the black button and remove the inner cover.
Install the 5 “AA” cells and put the inner cover back on.

Important note:

Verify the position of the little switch inside the battery compartment.

In the OFF position, the charger circuitry is not activated and if an external power supply is connected, the machine will run from external supply and not from the batteries.

In the ON position, the NiCd or Ni-Metal-Hydride cells will be continuously charged with a current of 100mA. This corresponds to a slow charge rate. (charge cycle: 10 to 12 hours). Charging does not stop automatically.

3.0 INSTALLING FLASHCARD.

Open the machine and insert the flashcard until the eject button is pushed fully out. The software version 1.20 and higher permits to use linear flash cards and **ATA** cards.

4.0 POWER ON, POWER OFF.

Press the “**POWER ON**” button (1) for 1 second and the machine switches on. To switch “**OFF**” the machine push the same button again for 1 second.
Attention: the machine can not be switched OFF during RECORD.

5.0 CONTRAST.

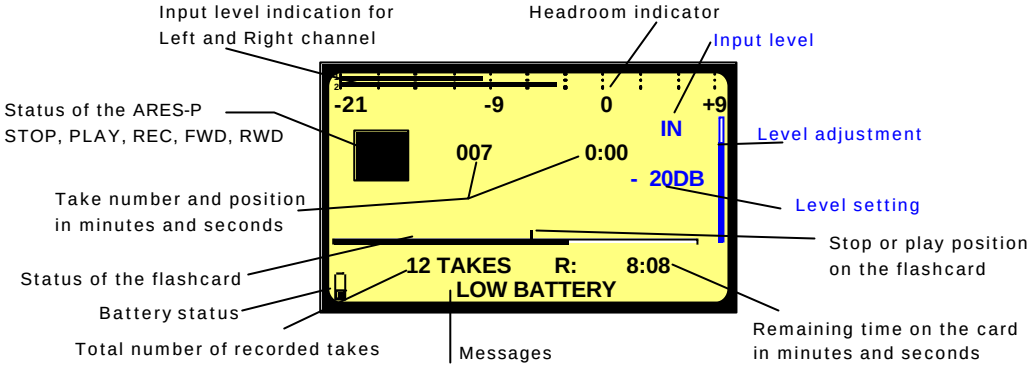
If the display contrast is not set properly at power on, adjust step by step with the “**RIGHT**” or “**LEFT**” arrow keys (12 or 10) to increase or decrease accordingly. The contrast setting is not saved in the memory.

6.0 BUTTONS.

1	Power ON / OFF
2	+ 2 bis Record key
3	Rewind, skip backwards key
4	Stop key
5	Play key
6	Forward, skip forwards key
7	Reducing input sensitivity or playback level key
8	Increasing input sensitivity or playback level key
9	Up arrow key or increasing output level key
10	Contrast or left arrow key
11	Down arrow key or reducing output level key
12	Contrast or right arrow key
13	Other menu or execute key

7.0 MAIN DISPLAY DESCRIPTION.

Attention: At power on, the display below is shown, but without the level bargraph indications on the right side. This bargraph appears when the "**+**" or "**-**" button (8 or 7) is pressed. It disappears after a few seconds, this to obtain a better overview during record or play.



Status of the ARES-P

■	"**STOP**"	ARES-P is in STAND BY mode
●	**"RECORD"**	ARES-P is in RECORD mode
▶	**"PLAY"**	ARES-P is in PLAY mode
▶▶	**"SEARCH FORWARD"**	ARES-P is playing fast forwards
◀◀	**"SEARCH BACKWARD"**	ARES-P is playing fast backwards

Take number and position in minutes and seconds
This is the physical playback position. The example shows that playback will start at the beginning of take 7 (0 minutes, 0 seconds).

Stop or play position on the flashcard
The marker shows the exact playback position, take 7 at 0 minutes, 0 seconds.

Status of the flashcard
The full length of the bargraph corresponds to the total memory of the inserted flashcard. The black area shows how much memory was already used for recording. The clear area shows the remaining memory.

Total number of recorded takes
This area shows the total number of takes already recorded on the flashcard.

Remaining time on the card in minutes and seconds
This indicates how much recording time is left on the card. In this example, it shows 8minutes, 8 seconds. If the bit-rate is changed, it will automatically be adapted. Example 8:08 if 128kb/s was set, it will become 16:16 if the bit-rate was changed to 64kb/s.

Input level indication for Left and Right channel
In the stereo mode, bargraph 1 corresponds to the left channel and 2 to the right channel. In mono mode, both bargraphs indicate the input level. From 0db, the bargraph shows the headroom up to +9dB. +9dB corresponds to "FF" for the AD converter.

Messages
This is the area for any kind of messages, like "**LOW BATTERY**", **CARD FULL**, **NO CARD**, etc.
A beep in the headphones corresponds to an arrival of a message on the display.

Battery status
When the battery icon is full, it indicates the cells are charged. Full corresponds to a voltage measurement of 6.28V or higher. Each step corresponds to 0.256V. When the voltage drops below 5V, a beep is heard in the headphones and the message "**LOW BATTERY**" appears. The machine switches automatically to below 4.5V. Using Ni Metal Hydride cells (1200 mA) delivers approximately 3 hours and 15 minutes of autonomy.

Level Adjustment
This bargraph only appears on the screen during the adjustment of the input sensitivity, the output level or the ALC threshold adjustment. If no adjustment is made it will disappear after a few seconds. Simultaneously, the level setting in dB's as well as the kind of adjustment "**IN**", "**OUT**" or "**THR**" will appear on the display.

8.0 RECORD (2, 2bis), REWIND (3), STOP (4), PLAY (5), FORWARD (6) KEYS

8.1 RECORD KEY (2, 2bis)
Once the machine is switched ON and a valid card is inserted, to start recording, the "**RECORD**" key (2) or (2bis) can be pressed, even if the machine was in "**PLAY**" mode or is in one of the sub-menus. The "**RECORD**" keys will not work if the machine is deleting a take or formatting the card.
If during record the "**RECORD**" key is pressed again, a new take is automatically created. This function is used for "**MARKING**" the audio during record.

During record, the front LED as well as the red LED on the keyboard turns ON.

During record, the "**POWER**" key is not active.

8.2 REWIND KEY (3) AND FORWARD KEY (6)
These keys have two functions called "**SKIP**" backwards or forwards and "**REWIND**" or "**FORWARD**".

SKIP.
During "**STOP**" mode: To jump take by take, pressing briefly on the "**<<**" or "**>>**" keys will decrement or increment the take position.
During "**PLAY**" mode: To jump to other takes on the card, press twice in quick succession the "**<<**" to decrement the take number or press the "**>>**" to increment the take number.
IMPORTANT: Only takes with the same compression as the current settings of the machine can be played back using the SKIP buttons. All other takes with a different compression can not be selected.

FORWARD SEARCH.
This function can be executed during the "**STOP**" or "**PLAY**" mode. Once the "**>>**" key is pressed for more than 0.5 seconds, the ARES-P starts "**FORWARD SEARCH**" at 4 times nominal speed. The longer the button is pressed, the search speed increments up to 128 times nominal speed. When the button is released, the search stops and the ARES-P goes back to its previous function (STOP or PLAY).

BACKWARD SEARCH.
This function can be executed during the "**STOP**" or "**PLAY**" mode. Once the "**<<**" key is pressed more than 0.5 seconds, the ARES-P starts "**BACKWARD SEARCH**" at 4 times nominal speed. The longer the button is pressed, the search speed increments up to 128 times nominal speed. When the button is released, the search stops and the ARES-P goes back to its previous function (STOP or PLAY).

8.3 STOP KEY (4)

When this key is pressed during record, the machine stops recording and returns to the "**EE**" mode. When the same key is pressed during playback, the machine stops playing back and returns to the "**EE**" mode. The "**EE**" mode means that the input signal is available at the output. This button can also be used as the "**PAUSE**" key during playback.

8.4 PLAY KEY (5)

When after a record session the "**PLAY**" key is pressed the machine immediately plays back the last recorded take. If the machine was just switched ON and the "**PLAY**" key is pressed, it remembers the position before it was switched OFF and will start playback from that position, as long as power was available.

9.0 LEVEL ADJUSTMENT

9.1 OUTPUT LEVEL ADJUSTMENT

During the "**STOP**" or "**RECORD**" mode, the output level can be adjusted by the "**UP ARROW**" (9) key to increase or the "**DOWN ARROW**" (11) key to decrease. Once one of those keys is pressed, an additional bargraph on the right side of the display appears, indicating "**OUT**", showing the current position of the adjustment. "**0dB**" corresponds to maximum output level, "**-59dB**" corresponds to minimum output level and "**OFF**" corresponds to mute of the output signal.
The setting of the output level can also be stored in the machine in such a way that every time the machine is switched ON, it will take the same "**DEFAULT LEVEL**" output adjustment (See "**SETTINGS MENU, OUTPUT LEVEL**"). During the "**PLAY**" mode, the output level can be adjusted either by the "**UP & DOWN ARROW**" (9 & 11) keys or the "**+**" and "**-**" (8 & 7) keys.

9.2 INPUT LEVEL ADJUSTMENT

During "**STOP**" or "**RECORD**", the input level can be adjusted by pressing the "**+**" (8) or "**-**" (7) keys to increase or decrease the input sensitivity. Once one of these keys is pressed, an additional bargraph on the right side of the display appears, indicating "**IN**", corresponding to the current setting. "**74dB**" corresponds to maximum input gain, "**133dB**" corresponds to minimum input gain and "**OFF**" corresponds to mute of the input signal. If the input sensitivity is adjusted for "**74dB**", it means that if the input signal at 74dB SPL will be recorded at a 0dB level.

9.3 THRESHOLD ADJUSTMENT

The "**THRESHOLD**" adjustment permits to select the size of the compression zone. It is the lower limit setting of the zone that will be automatically amplified during a silent period. The "ALC" is working in a range of 42dB (from 74dB to 116dB). If the "**THRESHOLD**" is set to 104dB, it means that a signal of 104Db and higher (max. 116dB) will be recorded at 0dB level (between –2dB and –6dB for a stable signal). A signal of 90dB will be recorded at –14dB (104dB – 90dB). If "**ALC**" (Automatic Level Control) is "**ON**" and the "**ALC THRESHOLD**" is set to "**USING +/- KEYS**" (see SETTINGS MENU, ALC THRESHOLD), the threshold during "**RECORD**" or "**STOP**" can be adjusted by pressing the "**+**" or "**-**" (8 or 7) keys. Once one of these keys is pressed, an additional bargraph on the right side of the display, indicating "**THR**" appears, showing the current position of the adjustment. "**74dB**" corresponds to maximum threshold level, "**104dB**" corresponds to minimum threshold level.

10 CENTER & ARROW KEYS

By pushing the "**CENTER**" (13) key, the machine gives access to the "**DIRECTORY**", "**TOOLS**" and "**SETTINGS**" sub-menus. Using the "**ARROW**" keys (9 to 12), you navigate between those sub-menus. To move back to the initial display, press the "**LEFT ARROW**" (10) key (except in the "**DIRECTORY**" where "**CENTER**" (13) key needs to be pressed first to return to the sub-menus).

11 LED MODULOMETER

The LED modulometer shows when the machine is set to Stereo operation, the sum of both channels. The green LED turns on from **–21dB** input level. The yellow LED turns on from **–9dB** input level. The red LED turns on from **0dB** input level. Normal operation is with the yellow led on and occasionally the red led peaks.

12.0 MAIN MENU.

By pressing the "**CENTER**" key (13), the main menu appears on the display.

The "**DIRECTORY**" gives access to all the information of the recorded files on the flashcard.

If "**TOOLS**" is selected, 4 other sub menus can be selected: "**DATE & TIME**", "**CARD FORMATTING**", "**FORMAT REPAIRING**" and "**VERSION**".

If "**SETTINGS**" is selected, several other sub-menus can be selected such as: "**OUTPUT LEVEL**", "**INPUT FILTER**", "**BEEP**" and "**COMPRESSION**".

Scrolling through the different sub-menus is done by pressing the "**DOWN ARROW**" (11) or "**UP ARROW**" (9) keys.
Escaping from the sub-menu's is done by pushing the "**LEFT" ARROW**" key (10).
Entering a sub-menu is done by pushing the "**RIGHT ARROW**" key (12).
Inside a sub-menu, execute the selected setting by pressing the "**CENTER**" key (13).

12.1.0 DIRECTORY MENU.

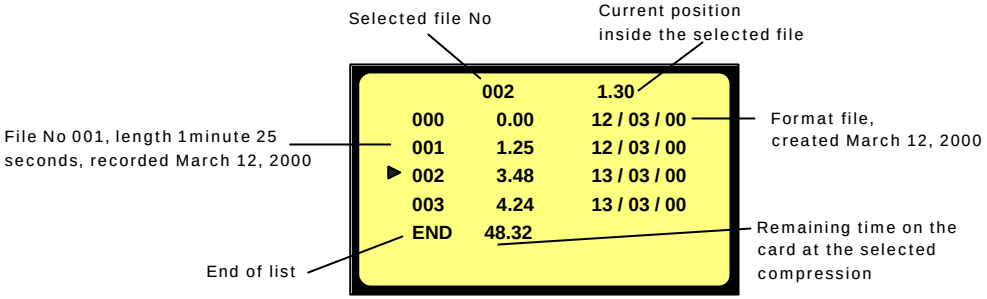
By using the "**UP**", "**DOWN**", "**LEFT**", "**RIGHT ARROW**" keys (9, 11, 10, 12), once "**DIRECTORY**" has been selected, it becomes possible to scroll vertically and horizontaly to view all the recorded files and their specifications.

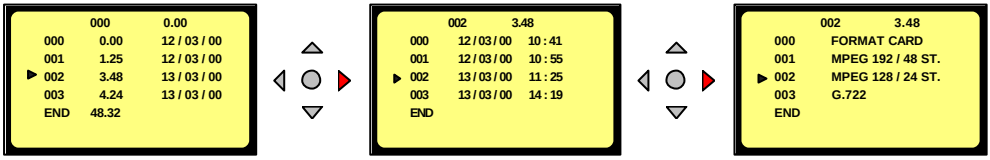
If the marker has a ▶ shape, it means that the take compression is the same as the current settings of the ARES-P.
If the marker has a > shape, it means that the take compression is different from the current settings of the ARES-P.
In the latter case, if the "**PLAY**" button" (5) is pressed, the corresponding compression will be automatically loaded in the DSP, and play starts.
If the marker is in front of one of the audio takes, the "**PLAY**", "**STOP**", "**FWD**" and "**RWD**" function keys (3,4,5 &6) become active.

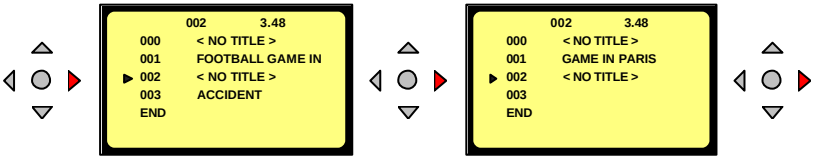
If the "**RECORD**" button (2 or 2bis) is pressed, the display returns to the main screen and the recording starts.

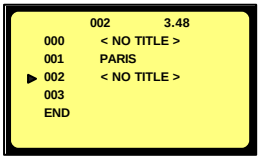
12.1.1 HORIZONTAL SCROLLING.

Use the **"LEFT"** (10) and **"RIGHT"** (12) **"ARROW"** keys.



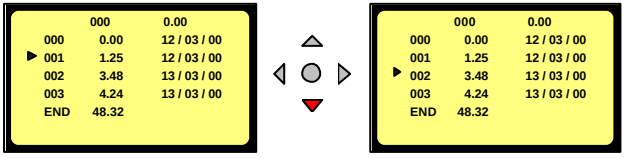






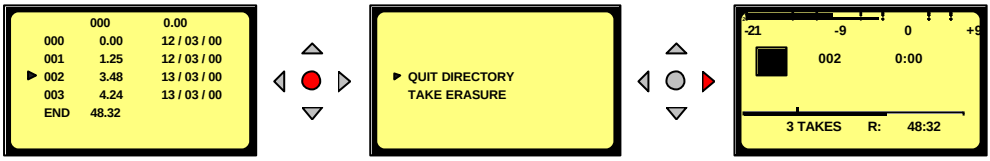
The display shows the length, the date of recording, the time at the record start, the type of compression and the title of each take. The title can be maximum 31 characters long and scrolls over the display in 3 stages.

12.1.2 VERTICAL SCROLLING.



Pushing the "**UP**" (9) or **"DOWN"** (11) **"ARROW"** keys makes the vertical scrolling.
The take number 000 is the format take. It shows the time and date when the card was last formatted.

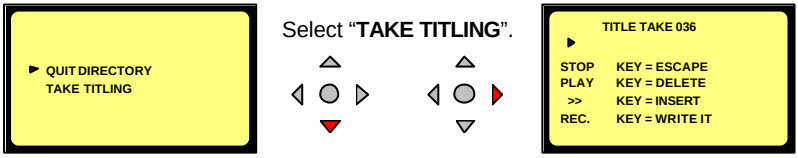
12.1.3 QUIT DIRECTORY.



To escape from the "**DIRECTORY**", press the "**CENTER**" button (13) once followed by the "**RIGHT**" arrow key (12). The display returns to "**STATUS**" display.

12.1.4 TITLING.

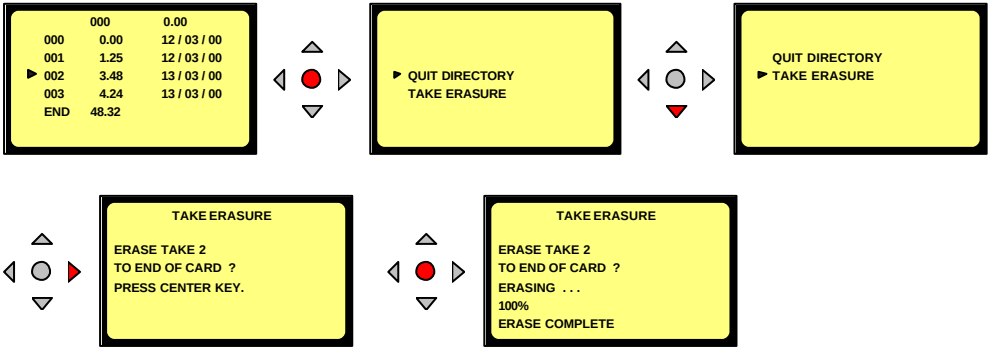
Titles can be added to the format file (000) and each sound file for identification purposes.
In the "**DIRECTORY**", select the take for a new title.
Press the "**CENTER**" key once and the following display appears:



Pressing the "**STOP**" key returns the display to the "**DIRECTORY**".
Characters can be selected with the "**UP**" and "**DOWN**" keys. To enter the selected character, press the "**CENTER**" key.
To delete a character, highlight the corresponding character with the "**LEFT ARROW**" or "**RIGHT ARROW**" keys and press the "**PLAY**" key.
To insert a character, highlight the corresponding character for the insertion area and press the "**>>**" key. All characters from the highlight position will be shifted one space.
To record the title on the flashcard, press the "**RECORD**" key once.

ATTENTION:
Once a title is added to a recording, it cannot be altered in any way on a linear flash card. Titles on ATA cards can be modified. If during titling, the "**RECORD**" key is pressed twice, the title will be recorded and the machine starts a new audio record.
If during "**TITLING**" the "**RECORD**" button on the side of the machine is pressed, audio record starts immediately and the title is not recorded.

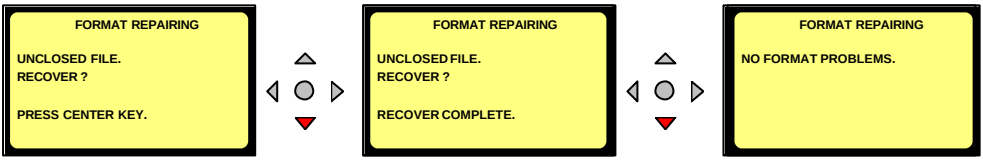
12.1.5 ERASING TAKE(S). **Example: take 2 and higher take numbers**



To delete one or more takes, select in the directory the lowest take number that needs to be deleted, press the "**CENTER**" button (13) and select the "**TAKE ERASURE**" menu. Once the selection confirmed by pressing the "**CENTER**" button (13), the erasing starts.
To escape from the sub-menu, press the "**LEFT**" (10) or "**RIGHT**" (12) key once.

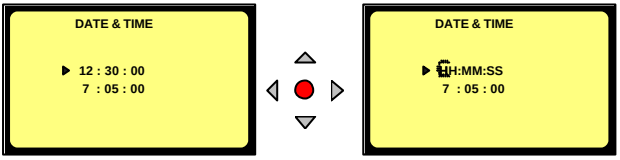
NOTE:
Erasing takes in the middle of the "**DIRECTORY**" is not possible. The erase feature will always erase from the selected take to the end of the card.

12.2.0 TOOLS.



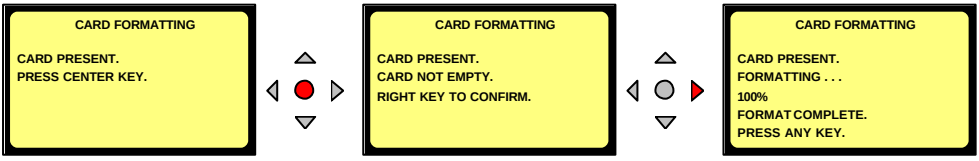
4 additional sub-menus are available.

12.2.1 DATE AND TIME.



Selecting "**DATE & TIME**' gives access to change the time and date of the real time clock. Once the "**CENTER**" button (13) is pressed, the first digit starts blinking. The number can be modified by pushing the "**UP**" or "**DOWN**' (9 or 11) keys. Pressing the "**RIGHT**" arrow key (12) jumps to the next digit. Once the last number is introduced, the clock starts running. (Hours, Hours, Minutes, Minutes, Seconds, Seconds)
Introducing the date uses the same procedure.
Once the last number is introduced, the date is memorized.
To escape from the sub-menu, press the "**LEFT**" (10) or "**RIGHT**" (12) key once.

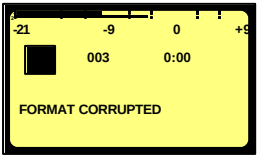
12.2.2 CARD FORMATTING.

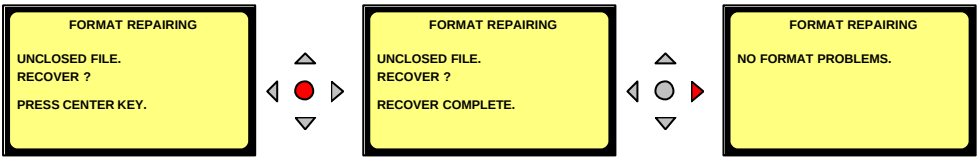


Execute by pressing the "**RIGHT**" (12) arrow key and the card formatting will begin.
Once the formatting is finished, the display returns to the previous menu.
To escape from the sub-menu, press the "**LEFT**" (10) or "**RIGHT**" (12) key once.
When the format command is executed, "**CARD NOT EMPTY**" appears if one or more takes are on the card (including format take 000).

12.2.3 FORMAT REPAIRING.

If during record, the card was removed (or batteries removed), an "**UNCLOSED FILE**" will be left on the card. This utility allows the user to close this file correctly.
"**FORMAT CORRUPTED**" will be shown (see below)

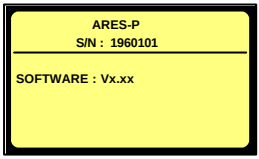




Follow the instructions on the display to recover the take. The last recorded file will be closed at the end of the memory of the card. The remaining time becomes 0 min. 0 sec.
To escape from the sub-menu, press the "**LEFT**" (10) or "**RIGHT**" (12) key once.

12.2.4 VERSION.

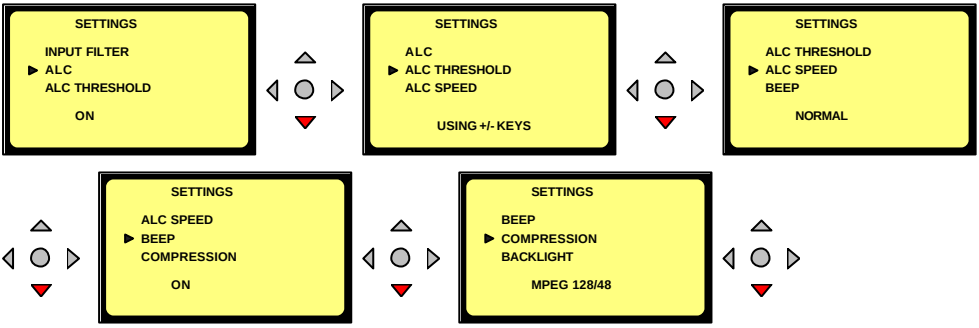
Selecting the "**VERSION**" sub-menu shows the serial number as well as the installed software version.



To escape from the sub-menu, press the "**LEFT**" (10) key once.

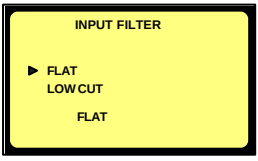
12.3.0 SETTINGS MENU.

The settings menu gives access to 8 sub-menus.



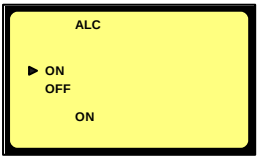
The current setting of each is always shown at the bottom of the display.

12.3.1 INPUT FILTER.



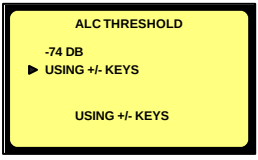
Two possibilities are available: "**FLAT**" or "**LOW CUT**".

12.3.2 ALC.



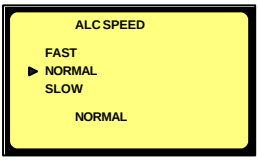
From this sub-menu, the "**ALC**" can be switched "**ON**" or "**OFF**".

12.3.3 ALC THRESHOLD.



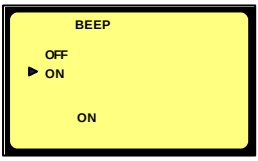
The "**THRESHOLD**" can be adjusted from –104 dB to –74 dB.
In this case the "**+**" (8) button and the "**-**" (7) button are disabled. If "USING +/- KEYS" is selected, the "**+**" (8) button and "**-**" (7) button are enabled during "**STOP**" and "**RECORD**" mode, which allows the "**THRESHOLD**" level to be adjusted without returning in the "**SETTINGS**" menu.

12.3.4 ALC SPEED.



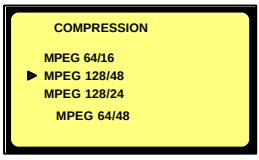
The "**ALC SPEED**" can be set to a "**FAST**", "**NORMAL**" or "**SLOW**" reaction time.

12.3.5 BEEP.



The beep signal is only available at the output and is not recorded. It can be switched "**ON**" or "**OFF**".

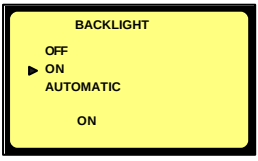
12.3.6 COMPRESSION.



17 different types of compression can be selected.
Use the "**UP**" (9) or "**DOWN**" (11) arrow keys to select the type of compression to be used and press the "**CENTER**" (13) key to select one. The display returns to the previous menu.

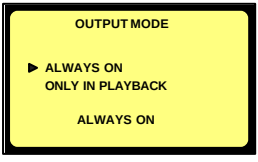
Example: MPEG 64/48 stands for: MPEG 1Layer II MONO compression at a total bit-rate of 64kb/s using a sampling frequency of 48kHz.
MPEG 192/48 ST stands for: MPEG 1 Layer II STEREO compression at a total bit-rate of 192kb/s (96kb/s per channel) using a sample rate of 48kHz.

12.3.7 BACKLIGHT.



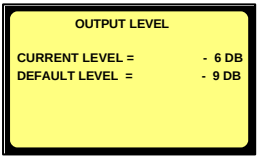
The backlight can be set to always "**OFF**", always "**ON**" or "**AUTOMATIC**".
In the "**AUTOMATIC**" mode, the backlight turns on for 15 seconds, each time a key is pressed.

12.3.8 OUTPUT MODE.



This sub-menu permits to turn on or off the sound to the output connector in the case that a little speaker is used instead of a headphone. "**ALWAYS**" means that the output sound is always present. "**ONLY IN PLAYBACK**" means that the output sound is present only during playback but not present in the record mode or EE mode.

12.3.9 OUTPUT LEVEL.

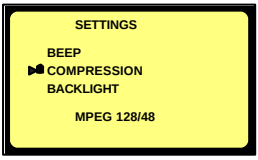


The "**CURRENT LEVEL**" corresponds to the setting before entering the sub-menu. To modify this level, press the "**UP**" or "**DOWN**" (9 or 11) keys.
The "**DEFAULT LEVEL**" is the level that has been saved in the memory. To modify the "**DEFAULT LEVEL**" to the value of the "**CURRENT LEVEL**", press the "**CENTER**" Key (13). The default value will be remembered even if the unit loses power.

12.3.10 SECOND RECORD KEY.

This sub-menu permits to select different modes for the red record side button. When selecting "**RECORD/NEW TAKE**", the action on the side button stays identical as for the keyboard record key. When selecting "**RECORD/STOP**", every time the red button is pressed once, the Ares-P/RCX220 toggles between record and stop mode.
If "**START/STOP**" is selected, the record starts when the red button is pressed and stops when the button is released.
This mode is also handy if a microphone with a start/stop button is used. Simultaneously in this mode, during record, the keyboard record and stop key are disabled.

13 LOCKING THE SETTINGS.



By introducing a combination of keys when powering on the machine, the settings can be locked step by step. This to prevent, by inadvertance, any settings were changed by the user. To obtain the combination code, contact your local **NAGRA** dealer.

An additional menu will appear.
Once the "**SETTINGS**" menu is selected, any sub-menu can be locked by pressing the "**STOP**" button or unlocked by pressing the "**PLAY**" button. When the sub-menu has been locked, a closed padlock appears in front of the selected sub-menu. When the sub-menu has been unlocked, the closed padlock dissapears. To remove the password, switch off and on again the machine.

14 AUTO POWER OFF

When the machine stays in the "**STOP**" mode for 10 minutes, it will automatically switch off. During the last 14 seconds of that period, the beep sounds every second. When any key is pressed, the power counter will be reset.
To disable the auto power off, **from the power off status**, press and hold the center key while pressing the power key.
In the case that the machine is turned on with the auto power disabled, the message "NO AUTO POWER OFF" appears during a few seconds.

15 MESSAGES

"**LOW BATTERY**"	Battery voltage dropped below 4.5V
"**NO CARD**"	No card is inserted
"**FORMAT CORRUPTED**"	Occurs if the card was removed during record or power lost abruptly
"**CARD FULL**"	No more record memory is available
"**INVALID CARD**"	The card is not recognized by the machine
"**UNFORMATTED CARD**"	The card is recognized but not formatted
"**CARD WRITE PROTECTED**"	Write protection switch on the card is ON
"**OPEN WRITE ERROR**"	Defective card
"**WRITE ERROR**"	Defective card
"**CARD NEARLY FULL**"	60 seconds recording time left on the card
"**ERASE COMPLETED**"	At the end of erasure of one or several takes
"**FORMAT COMPLETED**"	At the end of a card formatting
"**CARD READ ERROR**"	Impossible to read the directory due to a defective card or a read error
"**READ ERROR**"	Read error during playback
"**UNKNOWN FORMAT**"	The card is recognized but not the type of format (Example FAT16 or 32)

16 SOFTWARE UPDATE

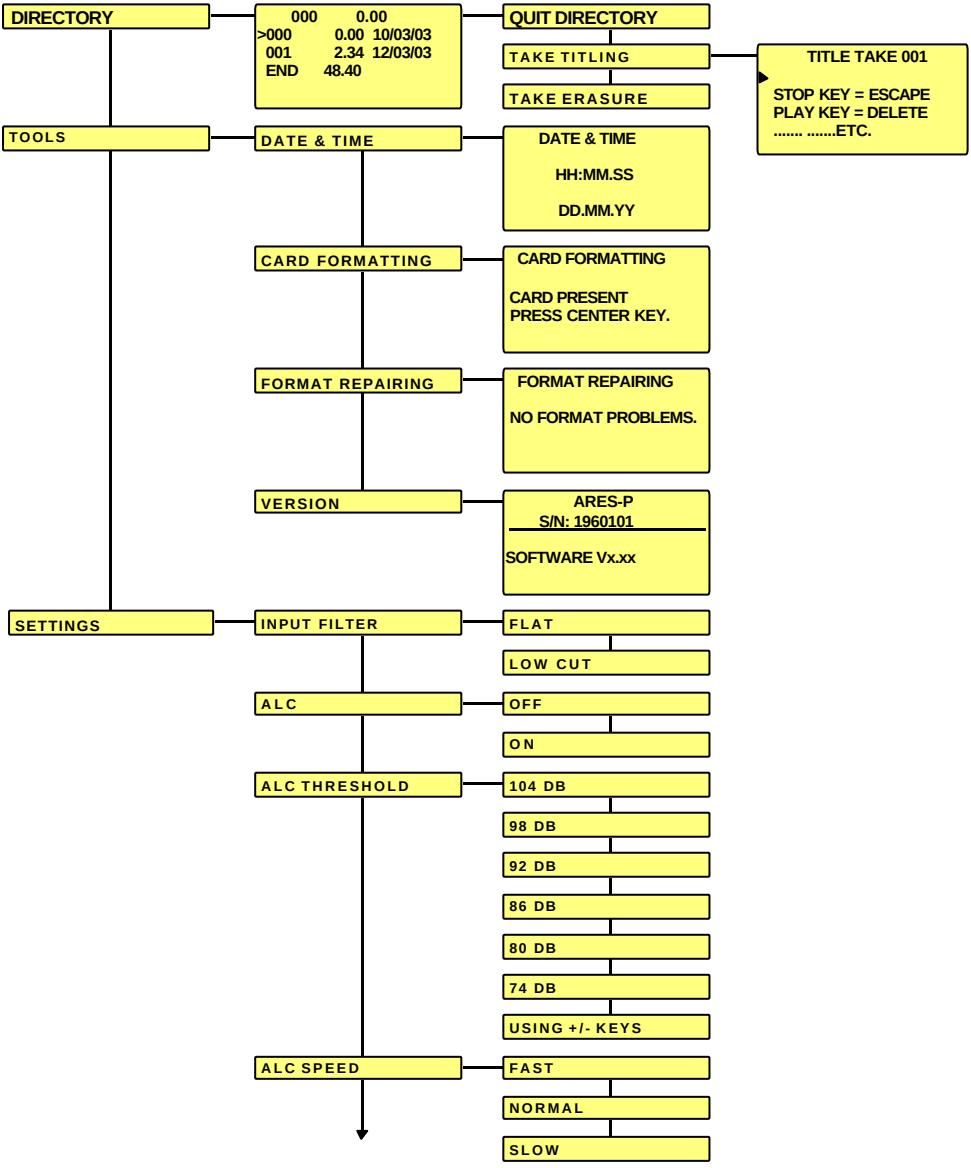
When opening the machine, a small black 6 pin connector becomes visible located just under the flashcard. This connector is a RS232 connector. A special adapter "**NP-PCA**" is needed to connect the RS232 from the machine to a PC or laptop.
When new software from NAGRA becomes available, it can be delivered by Email or it can be downloaded from the NAGRA web site. Thanks to a software called "**PuserLoader**" the machine can be updated with the new software version. This takes about 2 minutes.

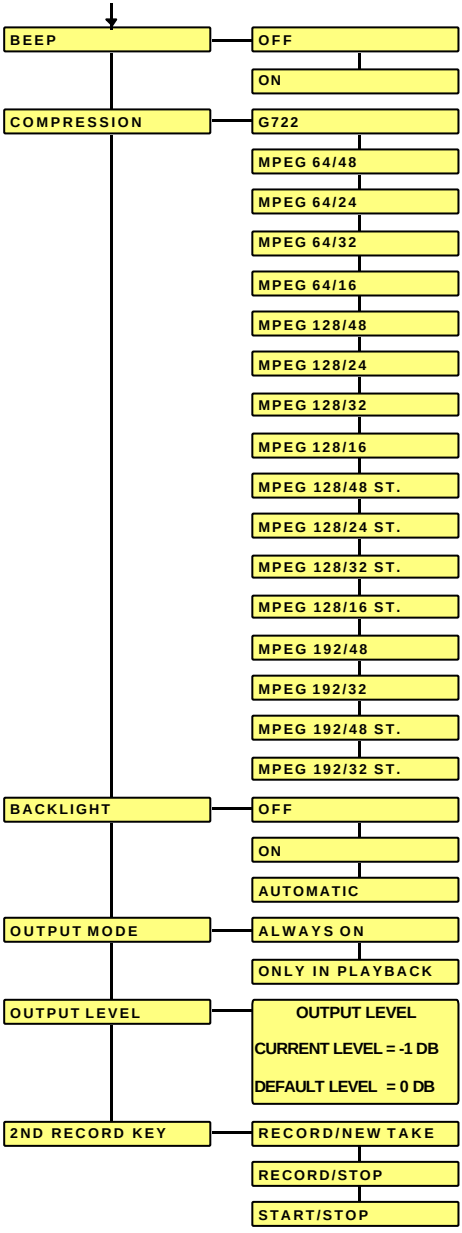
17 DIFFERENCE ARES-P/RCX220

The **RCX220** has exactly the same functions as the **ARES-P,** and in addition a **USB** connector as well as a built-in **Digigram PCX card** emulation.
Transferring takes with the **ARES-P** is done by removing the card and inserting it into a PCMCIA slot of a PC or a laptop.
Transferring takes with the **RCX220** can be made via the USB connection with the PC. Running an Xtrack editor does not require an additional PCX card in the PC. The RCX220 pcx card is seen from the PC via the USB connection.

Attention: For running the **RCX220** with a PC the Windows environment must be minimum **Windows 98 Second Edition** or **Windows 2000**. Older Windows NT versions do not accept USB connections.

18 MENU TREE

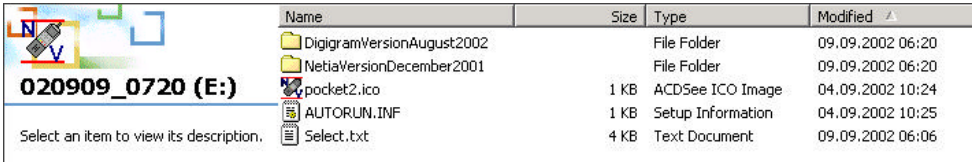

DIRECTORY
000 0.00
>000 0.00 10/03/03
001 2.34 12/03/03
END 48.40
QUIT DIRECTORY
TAKE TITLING
TITLE TAKE 001
STOP KEY = ESCAPE
PLAY KEY = DELETE
....ETC.
TAKE ERASURE
TOOLS
DATE & TIME
DATE & TIME
HH:MM.SS
DD.MM.YY
CARD FORMATTING
CARD FORMATTING
CARD PRESENT
PRESS CENTER KEY.
FORMAT REPAIRING
FORMAT REPAIRING
NO FORMAT PROBLEMS.
VERSION
ARES-P
S/N: 1960101
SOFTWARE Vx.xx
SETTINGS
INPUT FILTER
FLAT
LOW CUT
ALC
OFF
ON
ALC THRESHOLD
104 DB
98 DB
92 DB
86 DB
80 DB
74 DB
USING +/- KEYS
ALC SPEED
FAST
NORMAL
SLOW


BEEP
OFF
ON
COMPRESSION
G722
MPEG 64/48
MPEG 64/24
MPEG 64/32
MPEG 64/16
MPEG 128/48
MPEG 128/24
MPEG 128/32
MPEG 128/16
MPEG 128/48 ST.
MPEG 128/24 ST.
MPEG 128/32 ST.
MPEG 128/16 ST.
MPEG 192/48
MPEG 192/32
MPEG 192/48 ST.
MPEG 192/32 ST.
BACKLIGHT
OFF
ON
AUTOMATIC
OUTPUT MODE
ALWAYS ON
ONLY IN PLAYBACK
OUTPUT LEVEL
OUTPUT LEVEL
CURRENT LEVEL = -1 DB
DEFAULT LEVEL = 0 DB
2ND RECORD KEY
RECORD/NEW TAKE
RECORD/STOP
START/STOP

19 ARES-P & RCX220 SOFTWARE & INSTALLATION

These softwares add several features when the RCX220 is connected to the USB port of a PC or if the flashcard from the ARES-P is inserted in a PC PCMCIA slot:
Display the directory of the flash card
Playback of the recorded files
Import recorded files into the computer's hard disk
Edit the recorded files.

Insert the CD in your PC or laptop and follow the instructions.



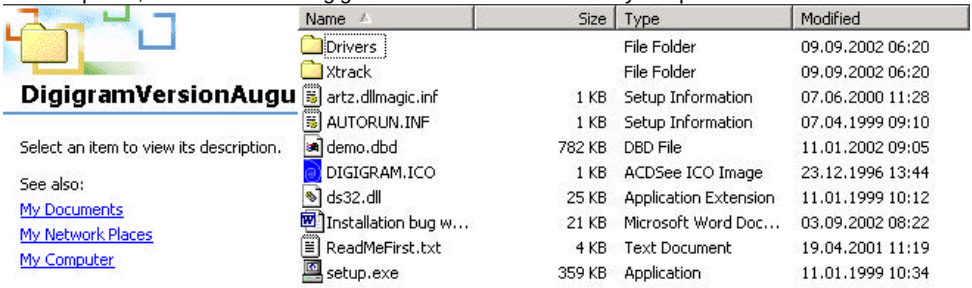
19.1 ARES-P SOFTWARE

Carefully read the text file in the root directory before any installation.
From explorer, double click the NetiaVersion folder followed by the AresImport folder.

Double click “SETUP.EXE” file to start the installation.
If the PCMCIA slot is based on an ISA or PCI bus or buit-in to a laptop, the Elan drivers need also to be installed. If the PCMCIA slot is connected via SCSI, the Elan drivers may not be installed.

19.2 RCX220 SOFTWARE

Carefully read the text file in the root directory before any installation.
From explorer, double click the DigigramVersion folder followed bysetup.exe.



AresImport:
AresImport permits to read the directory from the flash card as well as playback and or import and conversion.

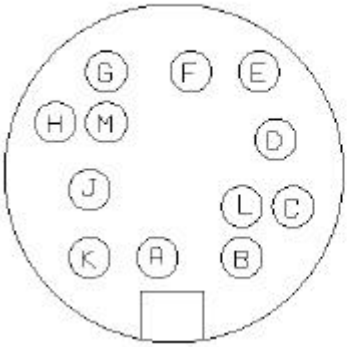
RCXLoad :
Display the files located on the memory card with their characteristics (date, duration, encoding format) in an MS explorer fashion.
Playing back a selected file, using RCX220 audio output.
Using Drag and Drop, import one or several files with format conversion to MPEG Layer 2 or PCM format.

XtrackLE (a Limited Edition of Xtrack):
Uses the physical I/O of the RCX220 as well as any other standard device.
Offers two fully independent mono or stereo tracks where records can be uploaded via RCXload.
Provides you with of a complete set of tools to cut, copy, paste, trim any portion of a track, as well as level editing functions such as fade in and fade out.
Once the edit finished, it can be processed into a single sound file (**MPEG** or **PCM**) with automatic sampling frequency and bit rate conversion.

To obtain full multi-track editing capabilities including mp3 export, the full Xtrack version can be purchased at Digigram.

20 INPUT CONNECTOR, DIN 12 PIN

TOP VIEW



A- MIKE [R] Hi
B- GROUND
C- MIKE [L] S2
D- MIKE [L] S1
E- MIKE [L] Lo
F- MIKE [L] Hi
G- + 50V MIKE
H- MIKE [R] S2
J- MIKE [R] S1
K- MIKE [R] Lo
L- +5V
M- SPARE

Inputs:
Pin “A” and “K” corresponds to the right Hi and Lo microphone input.
Pin “F” and “E” corresponds to the left Hi and Lo microphone input.

Sensitivity:
When “H” and “J” are shorted, max. gain is obtained for the right microphone input (0.2mV/hPa).
When “H” and “J” stays open, min. gain is obtained for the right microphone input (4mV/hPa).
Pin “H” and “J” corresponds to the sensitivity inputs for the right microphone.
Pin “C” and “D” corresponds to the sensitivity inputs for the left microphone.

Attention:
If the machine is in the mono mode, only the left input is used, the right input is muted.
The 50V available on the connector is **NOT** for Phantom applications but for electro-static microphone powering.

21 FLASH CARDS COMPATIBILITY, LINEAR AND STRATA.

TYPE		CAP.	MANUF.	TEC.	IDENTIFICA.	ARES-C	ARES-P	ARES	ARES	ARES	RCX
							RCX220	95	NT	IMPORT	LOAD
PCMCIA	1	20	INTEL	Linear	IMC020FLSA-15	Yes	Yes	Yes	Yes	Yes	Yes
PCMCIA	2	20	EDI	Linear	FLA2800C15	Yes	Yes	Yes	Yes	Yes	Yes
PCMCIA	3	10	INTEL	Linear	IMC010FLSA-15	Yes	Yes	Yes	Yes	Yes	Yes
PCMCIA	4	20	EDI	Linear	FLA3200C15	Yes	Yes	Yes	Yes	Yes	Yes
PCMCIA	5	20	EDI	Linear	FLA2400C15	Yes	Yes	Yes	Yes	Yes	Yes
PCMCIA	6	40	EDI	Linear	FLA3200C15	Yes	Yes	Yes	Yes	Yes	Yes
PCMCIA	7	64	EDI	Strata	FLF1200C25	Yes	Yes	Yes	Yes	Yes	Yes
PCMCIA	8	64	EDI	Strata	FLF1203C25	Yes	Yes	Yes	Yes	Yes	Yes
PCMCIA	9	128	EDI	Strata	FLF1203C25	Yes	Yes	No	No	No	Yes
PCMCIA	10	80	EDI	Strata	FLF0203C25	Yes	Yes	No	No	No	Yes
PCMCIA	11	192	EDI	Strata	FLF1203C25	Yes	Yes	No	No	No	Yes
PCMCIA	12	48	EDI	Strata	FLF0203C25	Yes	Yes	Yes	Yes	Yes	Yes
PCMCIA	13	64	EDI	Strata	FLF0203C25	Yes	Yes	Yes	Yes	Yes	Yes
PCMCIA	14	128	PRETEC	ATA	AFH128	Yes	Yes	No	No	Yes	Yes
PCMCIA	15	64	PRETEC	ATA	AFH064	Yes	Yes	No	No	Yes	Yes
PCMCIA	16	64	SANDISK	ATA	AB0120JR-USA	Yes	Yes	No	No	Yes	Yes
PCMCIA	17	48	SANDISK	ATA	V0004GW-USA	Yes	Yes	No	No	Yes	Yes
PCMCIA	18	64	EDI	ATA	ATA2500C25	Yes	Yes	No	No	Yes	Yes
PCMCIA	19	96	EDI	ATA	ATA2500C25	Yes	Yes	No	No	Yes	Yes

22 FLASH CARDS COMPATIBILITY, ATA AND COMPACT ATA.

All ATA type & compact ATA type cards with this background color are accepted and sold by Nagra
AresImport test was done using an external PCMCIA SCSI adapter on NT-4
All cards went into the record mode for at least 1 minute at 192kb/s 48kHz stereo at ambient temperature
Nagra does not warranty the correct functionality of the machine if other cards than the yellow ATA cards are used

TYPE		CAP.	MANUF.	TEC.	IDENTIFICA.	ARES-C	ARES-P	ARES	ARES	ARES	RCX
							RCX220	95	NT	IMPORT	LOAD
PCMCIA	14	128	PRETEC	ATA	AFH128	Yes	Yes	No	No	Yes	Yes
PCMCIA	15	64	PRETEC	ATA	AFH064	Yes	Yes	No	No	Yes	Yes
PCMCIA	16	64	SANDISK	ATA	AB0120JR-USA	Yes	Yes	No	No	Yes	Yes
PCMCIA	17	48	SANDISK	ATA	V0004GW-USA	Yes	Yes	No	No	Yes	Yes
PCMCIA	18	64	EDI	ATA	ATA2500C25	Yes	Yes	No	No	Yes	Yes
PCMCIA	19	96	EDI	ATA	ATA2500C25	Yes	Yes	No	No	Yes	Yes
PCMCIA	20	128	EDI	ATA	ATA2500C25	Yes	Yes	No	No	Yes	Yes
PCMCIA	21	256	PRETEC	ATA	AFH256	Yes	Yes	No	No	Yes	Yes
PCMCIA	22	128	FEIYA	ATA	TS128MFLASHB	No	No	No	No	No	No
PCMCIA	23	48	PRETEC	ATA	AFH048	Yes	Yes	No	No	Yes	Yes
PCMCIA	24	96	PRETEC	ATA	AFH096	Yes	Yes	No	No	Yes	Yes
PCMCIA	25	80	CENTENIAL	Strata	ES00080	No	No	No	No	No	No

TYPE		CAP.	MANUF.	TEC..	IDENTIFICA.	ARES-C	ARES-P	ARES	ARES	ARES	RCX
							RCX220	95	NT	IMPORT	LOAD
COMPACT	C1	64	EMTEC	ATA	347629AI	No	No	No	No	No	No
COMPACT	C2	64	RIDATA	ATA	RITEK 06415006D	No	Yes	No	No	Yes	Yes
COMPACT	C3	128	ACE	ATA	FFC128	Yes	Yes	No	No	Yes	Yes
COMPACT	C4	64	SANDISK	ATA	AB0105LEI	Yes	Yes	No	No	Yes	Yes
COMPACT	C5	128	NAGRA(ACE)	ATA	FFC128	Yes	Yes	No	No	Yes	Yes
COMPACT	C6	64	ACE	ATA	FFC064	Yes	Yes	No	No	Yes	Yes
COMPACT	C7	64	NAGRA(ACE)	ATA	FFC064	Yes	Yes	No	No	Yes	Yes
COMPACT	C8	48	PRETEC	ATA	ACT048	Yes	Yes	No	No	Yes	Yes
COMPACT	C9	64	PRETEC	ATA	ACT064	Yes	Yes	No	No	Yes	Yes
COMPACT	C10	128	PRETEC	ATA	ACH128	Yes	Yes	No	No	Yes	Yes
COMPACT	C11	32	ACE	ATA	FFC032	Yes	Yes	No	No	Yes	Yes
COMPACT	C12	32	DATAFAB	ATA	922022134	Yes	Yes	No	No	Yes	Yes
COMPACT	C13	128	MEMORY CARD	ATA	TS128MFLASHCP	Yes	Yes	No	No	Yes	Yes
COMPACT	C14	48	SANDISK	ATA	V0006GP-CHINA	Yes	Yes	No	No	Yes	Yes
COMPACT	C15	256	PRETEC	ATA	ACH256	Yes	Yes	No	No	Yes	Yes
COMPACT	C16	96	PRETEC	ATA	ACH096	Yes	Yes	No	No	Yes	Yes

DECLARATION DE CONFORMITE
DECLARATION OF CONFORMITY

FABRICANT: NAGRAVISION SA, 1033 CHESEAUX SUISSE
MANUFACTURER: *NAGRAVISION SA, 1033 CHESEAUX, SWITZERLAND*

APPAREIL : ARES- P/RCX220
MODEL: *ARES-P/RCX220*

Par la présente nous déclarons l'équipement conforme à toutes les exigences fixées dans les normes:

We hereby declare that the equipment conforms to the all the requirements outlined by the following norms:

NORMES GENERIQUES APPLICABLES :
APPLICABLE GENERIC NORMS:

CENELEC EN 61000-3-2
61000-3-3
50081-1
50082-1

Avertissement.

Bien qu'étant conforme aux normes, cet appareil peut, dans des cas exceptionels, provoquer des interférences. Dans ce cas, il peut être demandé à l'utilisateur de prendre des mesures appropriées.

Warning.

Althought this equipment conforms to the stated norms, under certain exceptional circumstances it may provoke interference. In this event the user may be asked to take appropriate measures.

Other electrical regulatory certification pending.

Cheseaux 1er trimestre 2000
Cheseaux 1st quarter 2000

NAGRAVISION SA KUDELSKI GROUP
Route de Genève 22
CH-1033 Cheseaux
Switzerland

Phone +41 (0)21 732-0101
Fax +41 (0)21 732-0100
E-mail info@nagra.com