N*ext*

NAVIGATOR 2012
PROGRAMMABLE DMX CONTROLLER

GB *USER'S MANUAL*

INDEX

We congratulate you on your purchase of NAVIGATOR 2012.
Before proceeding of the use of this product it should be necessary to read carefully the following user's manual to install it correctly and to make the most of its potentialities.

1 To activate/deactivate the controller storing all the settings.

2 To activate the PROGRAM mode.

3 To activate the SCENE mode.

4 To activate the PROG+MAN / SCENE+MAN function.

5 To activate the MUSIC function for the change of the scene to the beat of the music.
(during MENU functions it becomes ESC key)

6 To activate the SHIFT function and select the second function of 1/12 keys.
(during MENU functions it becomes OK key)

9

255

CH20 COLOUR2 255

11

LENGTH **3**

REPEAT **4**

7

8

0

BLACKOUT **11**

BLACKOUT **12**

9

10

CHANNEL SELECT

12

13
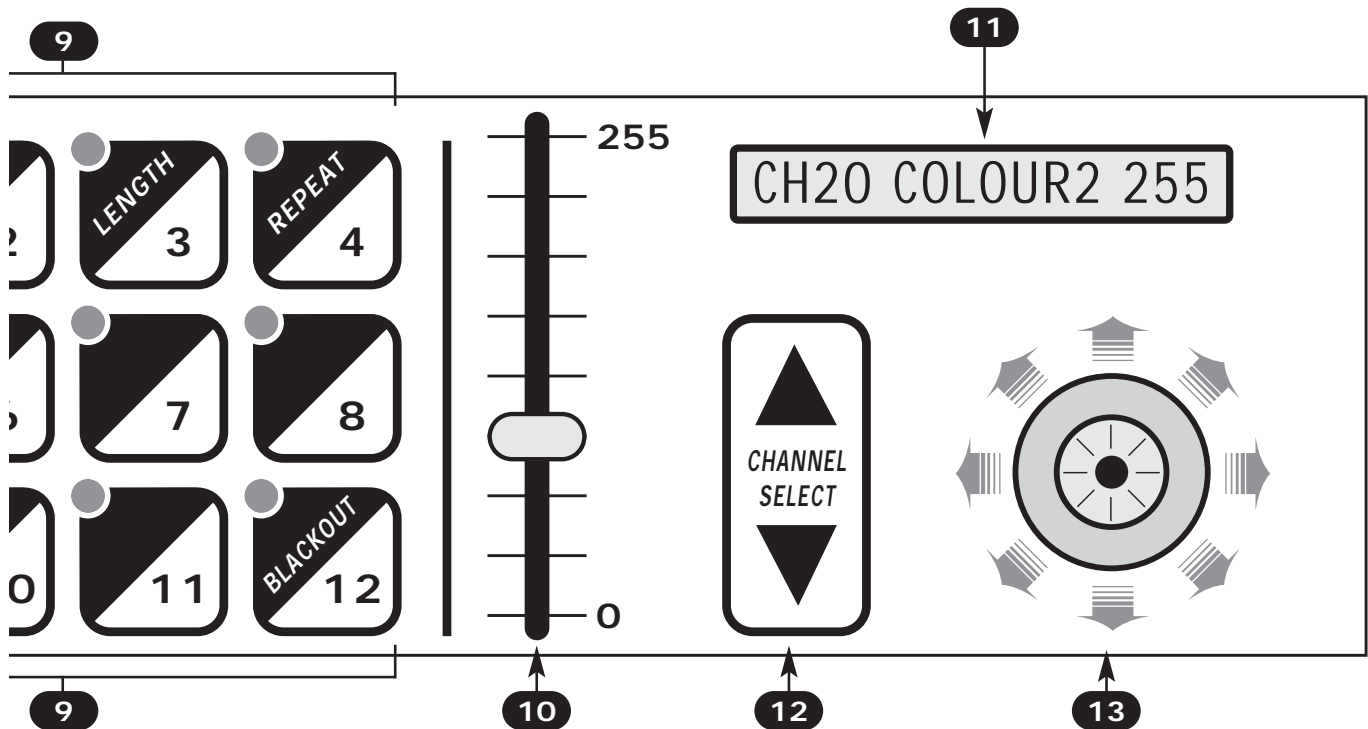
7 To increase / reduce the SPEED value.
(during PROG+MAN and SCENE+MAN functions it select joystick speed)

8 To increase / reduce the RATE value.

9 To select a program / scene / scanner depending on the working function.

10 Slider: it changes the value from 0 to 255 of the selected channel.

11 Display LCD, it shows all the informations on the controller functions.

12 To select the channel on which the slider acts.

13 Joystick: it allows an easy positioning of the scanners.

1.2 UNPACKING OF THE EQUIPMENT

Open the box; take the ballast and the documentation out.

Take the equipment out of the box as shown in the picture below.
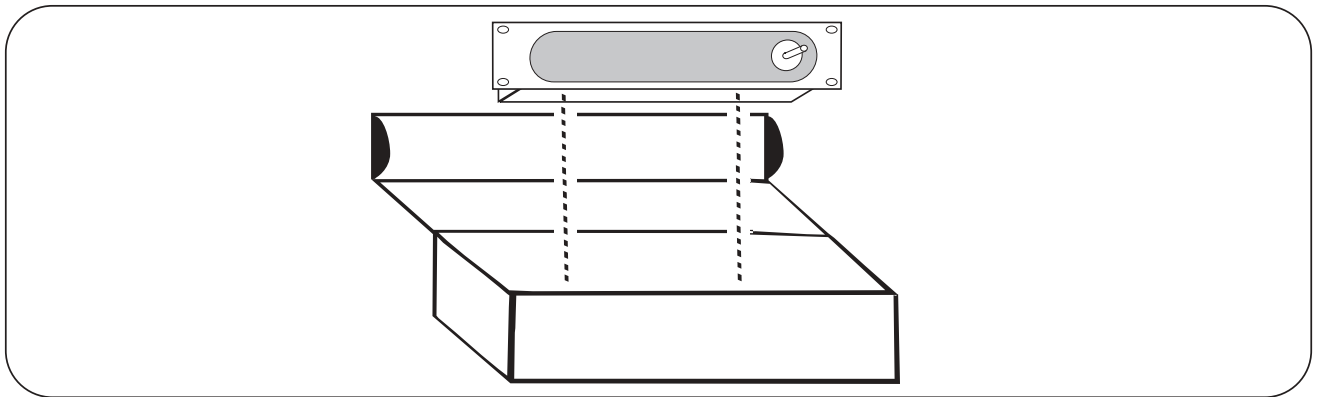
1.3 ACCESSORIES ISSUED WITH THE EQUIPMENT AND RELATIVE DOCUMENTATION

Verify the contents of the packing.
If one of the following parts of the packing is missing or damaged, please, contact your dealer immediately.

A) User's manual
B) AN-612 Ballast

A	B

2.1 DESCRIPTION OF THE REAR PANEL AND INSTALLATION

1 Standard DMX 512 signal OUTPUT with a 5-pin cannon connector.

2 0 dB audio signal INPUT with a mono/stereo jack connector.
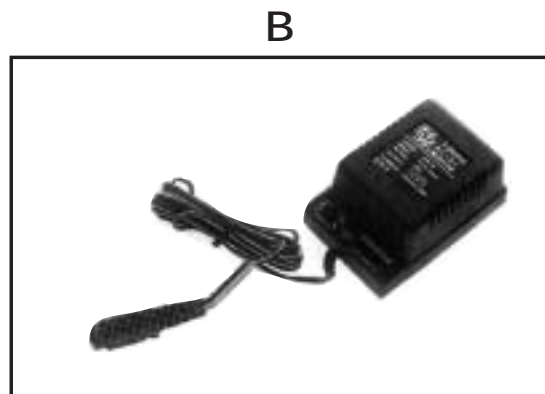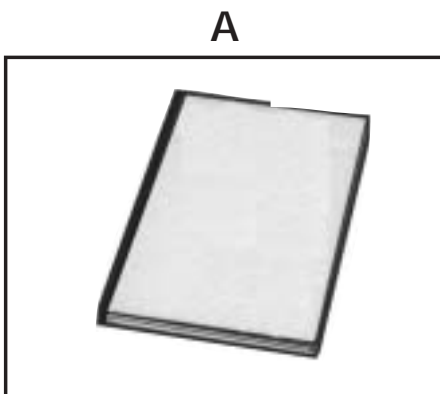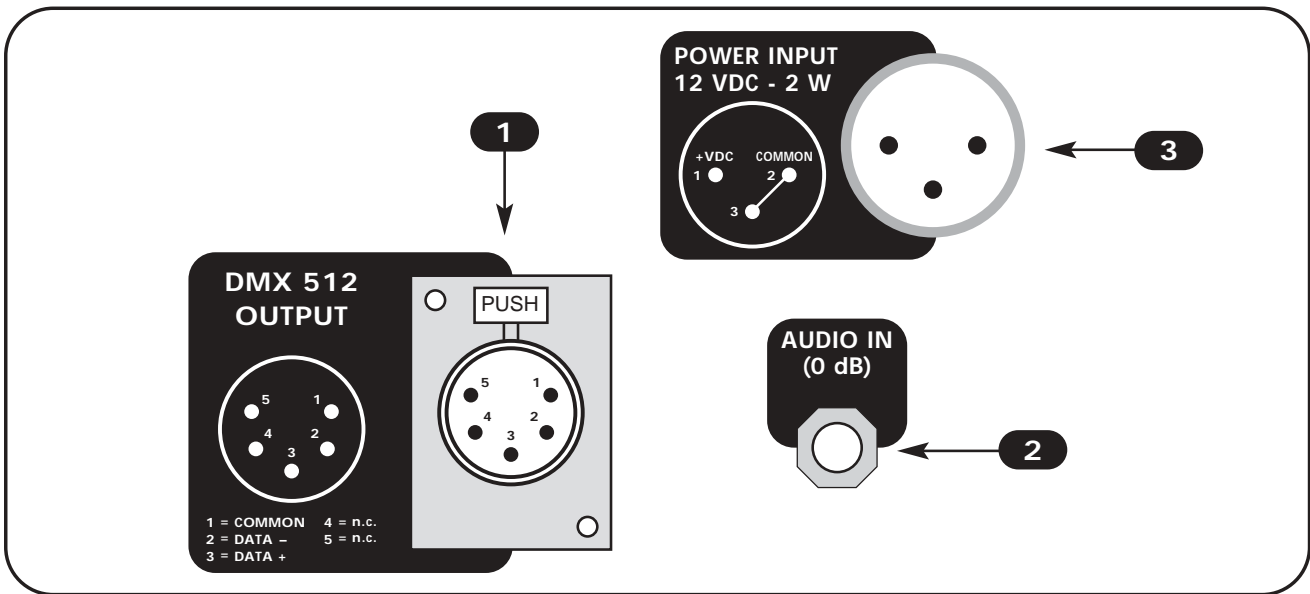
3 12 Vdc power INPUT with a 3-pin cannon connector.

2.2 DMX 512 OUTPUT CONNECTION

Make sure you are using shielded twisted cables suitable for the transmission of the DMX 512 signal with connectors of good quality and connection as shown on the side of the connector.

Plug the 5-pin cannon connector coming from the projectors completly in the DMX 512 output **1**

Use the "push" safety hook to disconnect it and than extract it gently.

ATTENTION: the shielded part of the cable must never be connected to the ground of the electrical system as this could cause faults during the working of the controller.

The "start" channel of the controller is channel n°1, for other DMX address you can follow the tabel below.

SCANNER N° 1	DMX address:	1	SCANNER N° 7	DMX address:	121
SCANNER N° 2	DMX address:	21	SCANNER N° 8	DMX address:	141
SCANNER N° 3	DMX address:	41	SCANNER N° 9	DMX address:	161
SCANNER N° 4	DMX address:	61	SCANNER N° 10	DMX address:	181
SCANNER N° 5	DMX address:	81	SCANNER N° 11	DMX address:	201
SCANNER N° 6	DMX address:	101	SCANNER N° 12	DMX address:	221

2.3   INPUT CONNECTION FOR POWER SUPPLY

Plug the 3-pin cannon connector of the ballast completly in the power input **3**

Use the "push" safety hook to disconnect it and extract it gently.

ATTENTION: do not use ballast different from the one supplied, it could cause serious damages at the internal circuitation.

Do not connect the 3-pin cannon connector in other appliances, it has been studied to be used only in this controller.

2.4   CONNECTION OF THE BALLAST TO THE ELECTRIC SYSTEM

MAKE SURE THAT VOLTAGE AND POWER FREQUENCY CORRESPOND TO WHAT IS REPORTED ON THE BALLAST PLATE.

The supplied ballast has a plug, therefore you should only plug it in the socket.

Press *POW* key to verify the correct installation.

If pressing the *POW* key no leds light up, please check if there is tension in the electric socket or check the connection between ballast-controller and ballast-electric socket.

If the problem persists, please consult your dealer.

3.1 PROGRAM MODE

This function allows to activate a program or a range of programs

Pressing **PROG** key the *PROGRAM* function is activated (Fig.1)

Fig. 1

The red led of **PROG** key will light up to indicate the activation of this function.

The LCD display indicates the program working at moment.
If no program is activated, the controller goes in **BLACKOUT MODE** and the LCD display indicates "BLK".
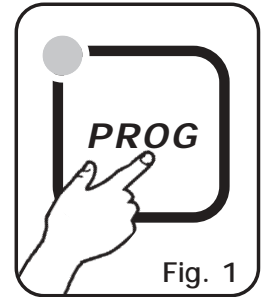
Press 1÷12 keys to activate/deactivate the programs which will be performed in succession.
All selected programs have a lighted up led, while the active program has a flashing led.

N.B. Each program is repeated for a number of times established through the *REPEAT* function (see par. 5.4)

The speed of change between the scenes can be controlled by **RATE ▲** and **RATE ▼** keys (see par. 4.1).
The relation between the movement of the scanners and the pause between scenes is controlled by **SPEED ▲** and **SPEED ▼** keys (see par. 4.2).

When the maximum or minimum speed is reached the led of the **SHIFT** key flashes.

3.2 SCENE MODE

This function allows to see one of the 12 scenes of the program in action.
N.B. If no programs are selected the SCENE function is not active.

Pressing **SCENE** key the *SCENE* function is activated (Fig.2)

Fig. 2

The red led of **SCENE** key will light up to indicate the activation of this function.

When you pass from *PROGRAM* mode to *SCENE* mode, the scene active in that moment is selected.

The LCD display indicates the scene working at moment.
If no scene is activated, the controller goes in **BLACKOUT MODE** and the LCD display indicates "BLK".
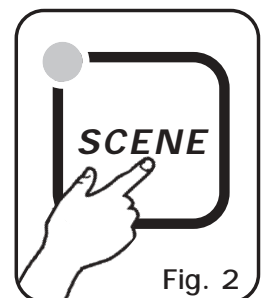
Press any 1÷12 keys to activate/deactivate the scene.

The speed of change between the scenes can be controlled by **RATE ▲** and **RATE ▼** (see par. 4.1).
When the maximum or minimum speed is reached the led of the **SHIFT** key flashes.

N.B. In this function **SPEED ▲** and **SPEED ▼** keys are not activated

3.3 MAN+PROGRAM MODE

This function allows to activate manually one or more scanners while the not selected ones go on performing the PROGRAM function.

When *PROGRAM* function is working, pressing **MAN** (Fig.3) key the *MAN+PROGRAM* function is activated.

The red led on **PROG** and **MAN** keys will light up to indicate the activation of this function.

Pressing **MAN** key once more you come back in *PROG* mode.
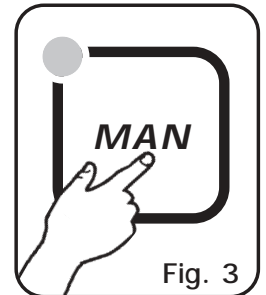
Fig. 3

Press 1÷12 keys to activate/deactivate the scanners manually controlled.

The selected scanners (with ligthed up led) do not follow anymore the program, but are manually controlled through the joystick, the selection of the channel and the slider.

Once it has been deactivated, the scanner performs again the working program.

3.4 MAN+SCENE MODE

This function allows to activate manually one or more scanners to create or to modify a scene.

When *SCENE* function is working, pressing **MAN** key (fig. 4) the *MAN+SCENE* function is activated.

The red led of **SCENE** and **MAN** keys will light up to indicate the activation of this function.

Pressing **MAN** key once more you can come back to the *SCENE* mode.

Fig. 4

Pressing one of the 1÷12 keys the scanner manually controlled is activated. To select more scanners press in sequence 1÷12 keys very quickly. The selected scanners (with lighted up led) can be manually controlled using the joystick, the channel selection and the slider.

Once another scanner has been selected, the previous one keeps all made sets.

4.1 ADJUSTMENT OF THE RATE SPEED

The adjustment of the RATE is activated only in *PROG* and *SCENE* function. The two settings of the value are indipendent as passing from one mode to the other you find the same previous set value.

The **RATE** value is simply the time that the scene takes to arrive at the end, therefore it is also the speed of the change between the scenes.

Using the *RATE* ▲ key (Fig.5) the speed increases, i.e. the scene takes less time to arrive at the end position, while using the *RATE* ▼ key (Fig.5) the speed reduces up to a value of 30 seconds to end the scene.

When the maximum and minimum speed is reached the led on the **SHIFT** key flashes.
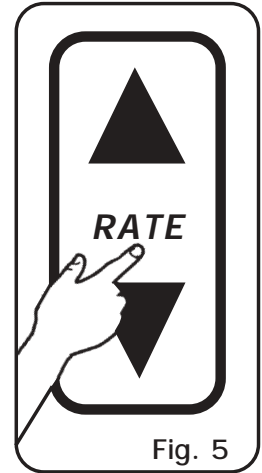
Fig. 5

4.2 ADJUSTMENT OF THE SPEED

The SPEED adjustment is activated only in PROG function, while it is deactivated in SCENE and MUSIC function.

The **SPEED** value is the ratio between the time of the scanner's movement and the total length of the scene.

The **SPEED** value are 10: from 10% to100%.

Using the *SPEED* ▲ key (Fig.6) the speed increases and the time of pause, too, while using the *SPEED* ▼ key (Fig.6) the speed reduces and the movement becomes continuous, without pauses.

Fig. 6

For instance, if you set a **RATE** of 30 seconds and the **SPEED** has the minimum value, the scene has a length of 30 seconds and the movement of the mirror has a length of 30 seconds,too. If you set the previous **RATE** value but you increase the **SPEED** value up to 50%, the length of the scene is always 30 seconds instead the movement of the mirror has a length of 15 seconds (as the speed is doubled in comparison with the previous one) and a pause of 15 seconds.

When the maximum and minimum speed are reached the led on the **SHIFT** key flashes.
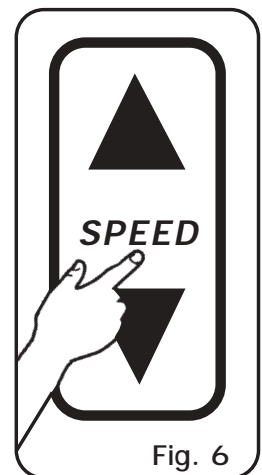
Using the joystick the PAN and TILT channels of the scanner's mirror can be adjusted (Fig. 7).
The type of joystick used is with central return and it allows an easy and exact positioning even thanks to the sophisticated software of management.
The speed of the mirror can be adjusted by **SPEED ▲** and **SPEED ▼** keys. The selected speed is displayed on the LCD display every time we change speed. With **SPEED 01/09** the joystick moves the mirror with a fixed speed, with **SPEED PROP** joystick become proportional type, i.e. if you keep the joystick in central position the mirror keeps still; whereas the more you move it away from the centre the more the movement of mirror increases. To make a movement of a step it will be enough to give some small strokes to the joystick in the desired direction.

Joystick movement change the **PAN/PAN LOW** and **TILT/TILT LOW** output channels.
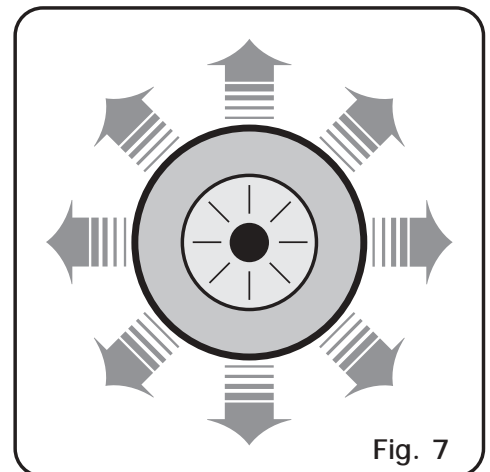
Fig. 7

The adjustment of the channels is made with only one slider (Fig.8).

The value of the slider is connected with the channel which is selected through the **CHANNEL SELECT** keys (Fig.9a) and it is indicated by the LCD display (Fig.9b).

To change the channel on which the slider is working press the **CHANNEL SELECT** keys (Fig.9a) till the display shows you the desired channel.

Every time you change the channel, the previous value of each channel is not modified till you do not move the slider. If you select more scanners together, the name and the value of the channel is referred to the first one selected. If you want to give ALL the selected scanners the same value you must move the slider.

NOTE: You can not modify manually the value of the channels: PAN LOW / TILT LOW / LAMP / LAMP-RES

255

0

Fig. 8

CHANNEL
SELECT

Fig. 9a

CH20 COLOUR2 255

It shows the number of the selected channel

It shows the name of the selected channel

It shows the value of the selected channel
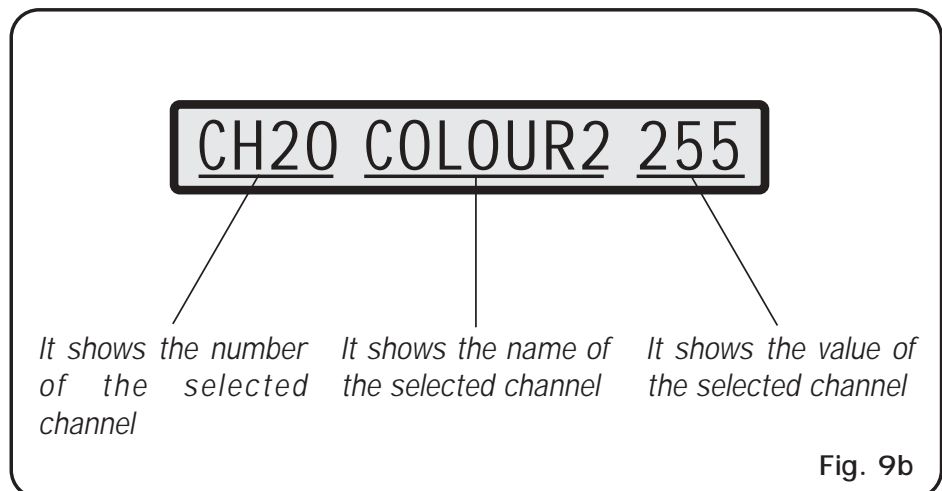
Fig. 9b

4.5   MUSIC FUNCTION

This function performs the program to the rhythm of the music, synchronising the change of the scene with the bass beats.

Pressing the **MUSIC** key (Fig.10) the *MUSIC* function is activated.

This function can be activated only during the PROGRAM and MAN+PROGRAM mode.

The green led on the key lights up to indicate the starting of this function.
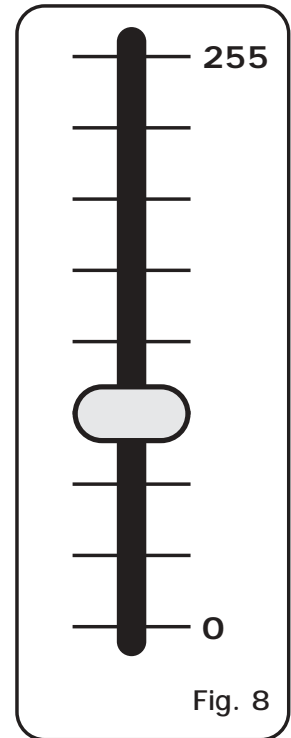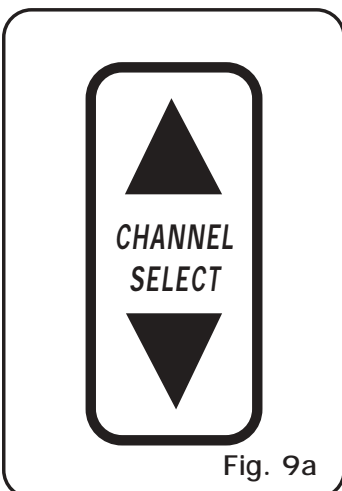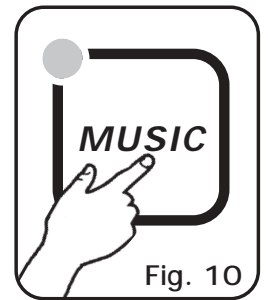

Fig. 10

Using this function the change of the scenes occurs only when the musical sensor receives the audio signal from the rear audio input or from the built-in microphone. (If to the rear input you connect a jack the built-in microphone is deactivated).

The speed of the change between the scenes is controlled by the *RATE* ▲ and the *RATE* ▼ keys: when the maximum or minimum speed is reached the led on the **SHIFT** key flashes.

Usually, during the **MUSIC** function, the speed of the change between the scenes should be not so low otherwise the movement of the scanner will be very slow.

N.B. In this function the *SPEED* ▲ and the *SPEED* ▼ keys are deactivated.

The internal music sensor has an automatic gain adjustment which allows to have a signal level good for the *NAVIGATOR 2012* working.

The input music signal is a 0dB mono/stereo so it could be taken from sound sources like Mixer, CD, Dat etc.

N.B. Only one channel of the jack stereo connector placed on the rear of the controller is connected to the music sensor.

IT IS ABSOLUTELY FORBIDDEN TO CONNECT TO THIS INPUT ANY POWER SIGNALS FOR ACOUSTIC SPEAKER COMING FROM AMPLIFIED MIXER OR AMPLIFIER!!

THIS FUNCTION IS AVAILABLE ONLY IN *MAN* MODE

This function stores in a scene the present situation of the scanners.

To activate the *MEM* function you have to activate the **second function of the keys** pressing once **SHIFT** key (Fig.11). (a yellow led on the **SHIFT** key lights up).

If the led on the SHIFT key does not light up, the *MEM* function cannot be activated as no scene has been selected previously.

Then press *1/MEM* key (Fig.12).

Now, the settings of the channels and the PAN and TILT position of all scanners are stored in a permanent way in the selected scene of the active program.

If all the operations have been done correctly, the mode of working pass from *MAN* mode to *SCENE* mode so that any other scene can be selected, created or modified.
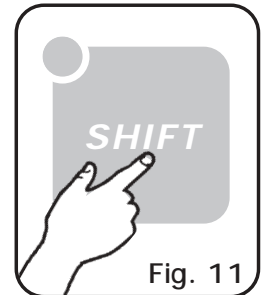
Fig. 11
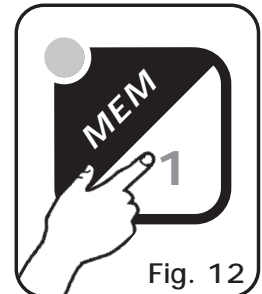
Fig. 12

THIS FUNCTION IS AVAILABLE ONLY IN *SCENE* MODE

This function allows to copy the present active scene in another one.

To activate the **COPY** function you have to activate the **second function of the keys** pressing once **SHIFT** key (Fig.13). (a yellow led on the **SHIFT** key lights up).

If the led on the SHIFT key does not light up, the COPY function cannot be activated as no scene has been selected previously.

Then press *2/COPY* key (Fig.14).

Now, the led of the active scene is flashing; press any 1÷12 keys to select the scene of destination.

Pressing a different key the copy function is cancelled.

If all the operations have been done correctly, the active scene becomes now the scene of destination.

Fig. 13
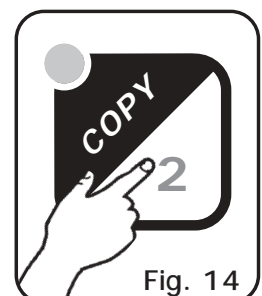
Fig. 14

5.3   LENGTH FUNCTION

THIS FUNCTION IS AVAILABLE ONLY IN *PROG* MODE

This function allows to choose the length of the active program, or rather the last performed scene of the program.

To activate the **LENGTH** function you have to activate the **second function of the keys** pressing once **SHIFT** key (Fig.15).
(a yellow led on the **SHIFT** key lights up).

If the led on the SHIFT key does not light up, the *LENGTH* function cannot be activated as no program has been selected previously.

Fig. 15

Then press *3/LENGTH* key (Fig.16).

Now, the led of the the selected length is flashing; press any 1÷12 keys to select a new length of the program.

Pressing a different key the operation is cancelled.
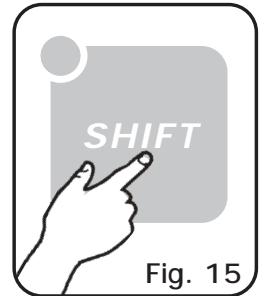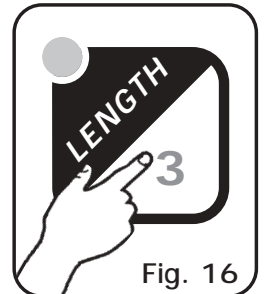
Fig. 16

5.4   REPEAT FUNCTION

THIS FUNCTION IS AVAILABLE ONLY IN *PROG* MODE

This function allows to select the number of repetitions for each program.

To activate the *REPEAT* function you have to activate the second function of the keys pressing once **SHIFT** key (Fig.17).
(a yellow led on the **SHIFT** key lights up).

If the led on the SHIFT key does not light up, the *REPEAT* function cannot be activated as no program has been selected previously.

Fig. 17

Then press *4/REPEAT* key (Fig.18).

Now, the led corresponding to the selected number of repetitions is flashing; press any 1÷12 keys to select a new value.

Pressing a different key the operation is cancelled.

Fig. 18

5.5   BLACKOUT FUNCTION

This function allows to black-out all the scanners.
Press 12/BLACKOUT key to start again the normal working.

To activate the *BLACKOUT* function you have to activate the **second function of the keys** pressing once **SHIFT** key (Fig.19).
(a yellow led on the **SHIFT** key lights up).

Then press *12/BLACKOUT* key (Fig.20).

Now, all leds of the controller are switched off, while the led on 12/**BLACKOUT** key is flashing.

Fig. 19

Pressing *12/BLACKOUT* key (Fig.20) the controller returns to the previous working.

Fig. 20
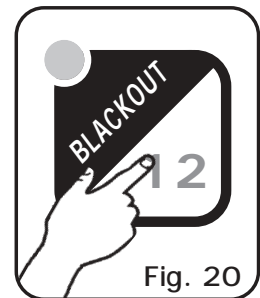
6.1 EXAMPLE OF WORKING - CREATION OF A PROGRAM

A program is a range of scenes (max 12) performed in succession. To create (or to modify) a program follow all steps listed below:

1) If the controller is switched off, switch it on pressing **POW** key.

2) Press **PROG** key to activate the *PROGRAM* function.
   (the red led on the same key will light up).

3) Using 1÷12 keys select only the program that you want to modify.
   (only one program is flashing).

4) Press **SCENE** key to activate the *SCENE* function.
   (the red led on the same key will light up).

5) Using 1÷12 keys select the scene that you want to modify.

6) Press **MAN** key to activate the *MAN+SCENE* function.
   (the red leds on the **MAN** and **SCENE** keys will light up).

7) Using 1÷12 keys select one or more scanners and modify the position with the joystick and the sets of the channels with the **CH.SEL.** key and the slider.

8) Once the scanners have been selected and the scene has been completed, it can be stored using the *MEM* function: press **SHIFT** key and than **1/MEM** key (see par. 5.1).

9) Now the controller is again in the *SCENE* function in order that you can select another scene or copy the scene already done in another one (see par. 5.2)..

10) Once the creation of the scenes has been finished press **PROG** key to come back to the *PROGRAM* function.
    (the red led on the same key will ligth up).

11) Finally, you should set the length of the program using the *LENGTH* function: press once **SHIFT** key than the **3/LENGTH** key followed by the number of the last stored scene (see par. 5.3).

The program is finished; to create or modify others repeat again all the above steps.

This function activates some special functions for the control of the scanners and the setting of the NAVIGATOR controller.

To activate the *MENU* function you have to activate the **second function of the keys** pressing once **SHIFT** key (Fig.21).
(a yellow led on the **SHIFT** key lights up).

Fig. 21

Then press *9/MENU* key (Fig.22).

Now all the lights of the controller are switched off, while the leds on *MUSIC* and *SHIFT* keys stay on to indicate that in the **MENU** functions these keys become **ESC (MUSIC)** and **OK (SHIFT).**

As soon as this function is activated, the LCD display shows the first function available..

By *CHANNEL SELECT* keys or by the slider you can select between the **MENU** functions available, which are:

Fig. 22
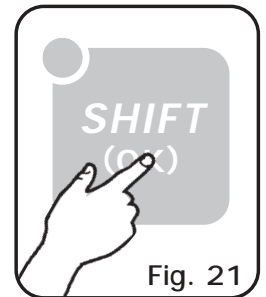
RESET SCANNER: It activates **RESET** function for one or more scanners * (par.7.2)
LAMP ON: It turns ON the lamp of one or more scanners * (par.7.3)
LAMP OFF: It turns OFF the lamp of one or more scanners * (par.7.3)
CLEAR PROG/SCENE: It clears the contents of a program or a scene (par.7.4)
EDIT SETUP: It allows to modify all the active **SETUP** parameters ** (par.7.5)
LOAD LIBRARY: It loads a **SETUP** from internal scanner library ** (par.7.6)

To exit from **MENU** function press **ESC** (MUSIC) key.
To activate the selected function press **OK** (SHIFT) key.

For the specific description of the MENU functions, see the related sections.

* It will work only if the scanner is predisposed for this function.
** This function modify the working parameters of the controller, so **IT MUST BE USED ONLY BY QUALIFIED PERSONNEL.**

AVAILABLE ONLY AFTER THE ACTIVATION OF THE **MENU** FUNCTIONS (par.7.1)

ALLOWS TO RESET ONE OR MORE SCANNERS.
(only if the selected scanner are predisposed for this function).

This function must be performed when the scanners lose synchronization or they don't perform the commands of the controller in a correct way.

To activate this function you have to enter the **MENU** functions (v.par.7.1).
Through the *CHANNEL SELECT* keys or by the slider you must select on the display the "**RESET SCANNER**" function.

Pressing **OK** (SHIFT) the function is entered.

"**SELECT SCANNER**" appears on the display, through the 1/12 keys **you must select the scanners (1/12) on which you want to perform the function.**

The lights on the 1/12 keys indicates the selected scanners.

The scanners selected will remain in memory, so that when we will perform this function again, we will already have the same selected scanners.

Pressing **ESC** key you exit from **MENU** functions without performing any operation.

Pressing **OK** key the **RESET** function is activated for 6 seconds.

TECHNICAL NOTES:
RESET function sends for 6 seconds a defined reset value to all the 20 channels of the selected scanners.
To modify the reset value for each channel you must perform **EDIT SETUP** function.
ATTENTION: If the scanner is not predisposed for this function, it will never perform a reset.

AVAILABLE ONLY AFTER THE ACTIVATION OF THE **MENU** FUNCTIONS (par.7.1)

ALLOWS TO TURN ON / TURN OFF THE LAMP OF ONE OR MORE SCANNERS.
(only if the selected scanners are predisposed for this function).

NOTE: If the lamp is "discharge" type and it is still hot, before its lighting you will need to wait that it gets cold.

To activate this function you have to enter the **MENU** functions (v.par.7.1).
Through the *CHANNEL SELECT* keys or by the slider you must select on the display the "**LAMP ON**" or the "**LAMP OFF**" function.

Pressing **OK** (SHIFT) the function is entered.

"**SELECT SCANNER**" appears on the display, through the 1/12 keys **you must select the scanners (1/12) on which you want to perform the function.**

The lights on the 1/12 keys indicates the selected scanners.

The scanners selected will remain in memory, so that when we will perform this function again, we will already have the same selected scanners.

Pressing **ESC** key you exit from **MENU** functions without performing any operation.

Pressing **OK** key the function is activated and the controller exit from **MENU** functions..

TECHNICAL NOTES:
LAMP ON and **LAMP OFF** functions send to the defined channel **LAMP** or **LAMP/RES** a lamp on or lamp off value.
To modify the **LAMP ON/LAMP OFF** value for each scanner or to change the **LAMP** or **LAMP/RES** channel you must perform **EDIT SETUP** function.

ATTENTION: If the scanner is not predisposed for this function, it will never perform a lamp control.

As soon as turn the controller is turned on and if you do not perform LAMP ON or LAMP OFF functions, the LAMP or LAMP/RES channel are forced with an hysteresys value equal to: (LAMP ON value - LAMP OFF value) /2.

This value does not modify the lamp status, so when you turn on and off the controller, the lamp status is not affected.

7.4 MENU FUNCTIONS: CLEAR PROG/SCENE

AVAILABLE ONLY AFTER THE ACTIVATION OF THE **MENU** FUNCTIONS (par.7.1)

ALLOWS TO CLEAR A PROGRAM IF ENTERED FROM PROGRAM MODE OR TO CLEAR A SINGLE SCENE IF ENTERED FROM SCENE OR SCENE+MAN MODE.

NOTE: activating this function while the controller is performing **PROGRAM** mode a whole program is cleared (12 scenes).
Activating this function while the controller is performing **SCENE** or **SCENE+MAN** mode a single scene is cleared.

To activate this function you have to enter the **MENU** functions (v.par.7.1).
Through the *CHANNEL SELECT* keys or by the slider you must select on the display the "**CLEAR PROG/SCENE**" function.

Pressing **OK** (SHIFT) the function is entered.

"**SELECT PROGRAM**" or "**SELECT SCENE**" appears on the display, through the 1/12 keys **you must select the program/scene (1/12) to clear.**

The lights on the 1/12 keys indicates the selection.

On the display "**CLEAR ? ESC/OK**" appears.

Pressing **OK** key the program/scene will be cleared.

Pressing **ESC** key you exit from **MENU** functions without performing any operation.

AVAILABLE ONLY AFTER THE ACTIVATION OF THE **MENU** FUNCTIONS (par.7.1)

This function allows to modify manually the name of each channel and its parameters (reset value, blackout value, hard/soft cross) it also allows to assign special functions to the channel (pan/tilt,pan low/tilt low, lamp control).
ATTENTION ! MODIFICATION OF THE SETUP PARAMETERS, IF NOT EFFECTED IN AN APPROPRIATE WAY, PREVENTS THE CONNECTED SCANNERS TO WORK CORRECTLY.

To activate this function you have to enter the **MENU** functions (v.par.7.1).
Through the *CHANNEL SELECT* keys or by the slider you must select on the display the **"EDIT SETUP"** function.

Pressing **OK** (SHIFT) the function is entered.

"SELECT SCANNER" appears on the display; through the 1/12 keys **you must select the scanners (1/12) on which you want to perform the function.**

The lights on the 1/12 keys indicates the selected scanners.

Pressing **OK** key the function is activated.

NOTE: The displayed SETUP for the modify is that of the FIRST SCANNER SELECTED.
If you select more scanners even of different models, when modifications will be memorized ALL THE SELECTED SCANNERS WILL HAVE THE SAME SETUP.

When the name of the scanner appear on the display (setup name), you can select the channel on which act. Through the *CHANNEL SELECT* keys or by the slider you can display sequentially the name of all the 20 channels, returning back to the first position we can display the name of the scanner again.

TO MODIFY SCANNER NAME

Through the *CHANNEL SELECT* keys or by the slider select the name of the scanner on the display.

-> Press **OK** to modify the name (a line under the first letter appears); through the *CHANNEL SELECT* keys or by the slider you can select the desired letter, press **OK** to select next letter to modify. When you finish the modification of the last letter (16 total) you return back to the channels selection (the name of the scanner is displayed without the line under the letters).

TO MODIFY THE NAME AND THE PARAMETERS OF THE CHANNEL

NOTE: to exit from this function without modification read "TO EXIT FROM EDIT SETUP FUNCTION" section.

Through the *CHANNEL SELECT* keys or by the slider select the number of the channel to modify

-> Pressing **OK** the arrow ">" is positioning on the left of the name of the channel and "*" appears, which shows that the channel displayed is the one selected at the moment.

Through the *CHANNEL SELECT* keys or by the slider you can substitute this channel with one among those memorized. Putting the slider on **0** position you display the channel actually active "*", putting the slider on **255** position ***CUSTOM*** appears on the display (only now we can write manually the name of the channel, pressing **OK** a line appears under the first letter, through the *CHANNEL SELECT* keys or by the slider you select the letter, pressing **OK** you select the next letter, until the end of the name).

-> Pressing **OK** the channel displayed becomes active and we start to modify the channel parameters.

The controller uses these special channels for predefined functions, you must use them for the specific functions assigned to them.

NOT USED -> Not used channel.
PAN   -> Pan channel (SOFT CROSS/HARD CROSS).
PAN   LOW -> Pan channel LOW.
TILT   -> Tilt channel (SOFT CROSS/HARD CROSS).
TILT   LOW -> Tilt channel LOW.
LAMP   -> Lamp control channel.
LAMP/RES -> Like LAMP.

The value change between two scenes can be immediate **(HARD CROSS)** or gradual **(SOFT CROSS)**.

-> Through the *CHANNEL SELECT* keys or by the slider you can modify change mode, **HARD CROSS** or **SOFT CROSS**. (except for the special function channels, in which you jump directly to modification of the **BLKOUT** value).

-> Press **OK** to modify "**BLKOUT VAL**" that is the value of the channel when the **BLACKOUT** function is active (par.5.5).
You can select === (unchanged) value or **0 / 255** value. The === value is selected putting the slider to **0** and it allows to maintain unchanged the output value (no blackout for this channel).

-> Press **OK** to modify "**RESET VAL**" that is the value of the channel when the **MENU: RESET** function is active (v.par.7.2).
You can select === (unchanged) value or **0 / 255** value. The === value is selected putting the slider to 0 and it allows to maintain unchanged the output value (no reset for this channel).

Only if the **LAMP** or **LAMP/RES** channel is selected; press **OK** to modify **LAMP ON** value. Press **OK** again to modify **LAMP OFF** value.

-> Pressing **OK** again you return back to the channels selection, and the arrow "**>**" is positioned on the left of the channel number.
Now you can select another channel for the modification.

NOTE: Pressing OK key without moving *CHANNEL SELECT* keys and the slider you can scroll between channel parameters without any modification.

TO STORE ALL THE MODIFICATIONS, READ THE SECTION BELOW.

TO EXIT FROM EDIT SETUP FUNCTION

To exit from this function you need to press **ESC** key when you are in the channel selection when the arrow "**>**" is on the left of the number of channel (pressing **ESC** key when you are modifying channel parameters, you return back to the channels selection, so you have to press **ESC** key again).

When "**SAVE ? ESC/OK**" appears on the display ; **Pressing OK all the modifications ARE STORED IN MEMORY and the controller exits from the EDIT SETUP function.**

Pressing **ESC**, "**EXIT ? ESC/OK**" appears on the display; if you want to exit from this function **WITHOUT STORING THE MODIFICATIONS** press **OK**, otherwise press **ESC** to return to the channel selection.

NOTE: EDIT SETUP function acts on the controller's memory and **DOES NOT** modify the library of scanner setups.

AVAILABLE ONLY AFTER THE ACTIVATION OF THE **MENU** FUNCTIONS (par.7.1)

ALLOWS TO LOAD A SETUP FROM LIBRARY AND STORE IT IN MEMORY.

To activate this function you have to enter the **MENU** functions (v.par.7.1). Through the *CHANNEL SELECT* keys or by the slider you must select on the display the "**LOAD LIBRARY**" function.

Pressing **OK** (SHIFT) the function is entered.

"**SELECT SCANNER**" appears on the display, through the 1/12 keys **you must select the scanners (1/12) on which you want to perform the function.**

The lights on the 1/12 keys indicates the selected scanners.

Pressing **ESC** key you exit from **MENU** functions without performing any operation.

Pressing **OK** key the function is activated.

The display shows the first scanner in the library, through the *CHANNEL SELECT* keys or by the slider you can select the right type of scanner (or an equivalent) from the library.

Once selected the scanner, pressing **OK** appears on the display "**SAVE ? ESC/OK**".

Pressing **OK** the **SETUP** of the selected scanner is loaded in the memory of the controller and activated for all the selected scanner.

Pressing **ESC** appears on the display "**EXIT ? ESC/OK**"; if you want to exit from this function **WITHOUT ANY MODIFICATION** press **OK** key, otherwise pressing **ESC** key you return back to the selection of the scanner.

NOTE: If inside the **SETUP** library there isn't your scanner or a compatible type, you must configure manually the **SETUP** of the controller, using the **EDIT SETUP** function (par.7.5).

The **SETUP LIBRARY** is a range of **SETUP** (scanner) that can not be modified, but only read.

Through **LOAD LIBRARY** function you can copy the **SETUP** of the scanner from the library to the internal memory of the controller.

To modify a **SETUP** you must store it in memory through the **LOAD LIBRARY** function and after modify it through the **EDIT SETUP** function.

TECHNICAL FEATURES OF NAVIGATOR 2012

Technical features:

Number of scanners controlled separately: **12**
Number of channels for each scanner: **20**
Number of stored programs: **12**
Number of scenes for each program: **12**
Total number of scenes: **144 (12 programs x 12 scenes)**
Positioning way of the mirror: **through a Joystick (fix or proportional mirror speed)**
Channel features: **Pan-Tilt 8/16 bit - Hard/Soft cross - Reset - Lamp**
Setup: **Load from internal library or manual setup.**

Technical features: output signal

Kind of output signal: **DMX512/ 1990**
Output connector: **5-pin cannon connector**
Max number of scanners connected to the DMX output: **32**
Number of DMX channels: **240 (20 ch. x 12 scanners)**

Technical features: storage of program and settings

Kind of storage / size: **FLASH memory 2 Mbit**
Data maintenance without power supply: > **40 years**

Climatic condition for the use

Humidity: **35% ÷ 80%**
Temperature: **5 ÷ 50 °C**

Power supply

Voltage/current: **12 Vdc / 240 mA**

Technical features: audio input

Source: **Inside through a built-in microphone / outside through a stereo jack**
Sensitivity / input impedance: **0 dB (775 mV) / 50 Kohm**
Kind of level adjustment: **Automatic**

Dimensions and weight

Dimension (W x L x H) / Weight: **482 x 88 x 65 mm (2U rack) / 1,6 Kg.**