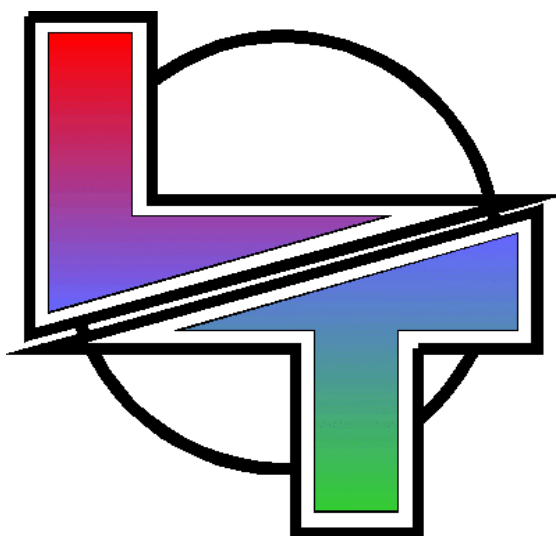

TITAN

www.dimmer.de

NATURAL AND POWERFUL CONTROL

48CH / 72CH / 96CH



USER MANUAL

Version 1.5n

1 - OVERVIEW	1-1
GENERAL.....	1-1
TITAN LAYOUT	1-2
<i>MANUAL FIELD or "A" FIELD</i>	1-2
MASTERS.....	1-3
GENERAL CONTROL.....	1-4
CHASER.....	1-4
SEQUENCE.....	1-5
MASTER GENERAL & BLACK-OUT KEY.....	1-5
2 - TECHNICAL CHARACTERISTICS	2-1
TECHNICAL CHARACTERISTICS	2-1
CONNECTIONS.....	2-3
DMX:	2-3
AUDIO INPUT:.....	2-4
SMPTE INPUT:.....	2-4
EXTERNALS TRIGGERS:	2-4
MIDI IN -THRU-OUT:	2-5
MEMORY CARD.....	2-5
RS-232 SERIAL PORT.....	2-5
VIDEO.....	2-5
WORKING LIGHTS	2-5
REMOTE INPUT	2-6
MAIN SUPPLY.....	2-6
TECHNICAL SERVICE	2-6
3 - BASIC OPERATION.....	3-1
INSTALLATION.....	3-1
<i>Cold Reset:</i>	3-1
THE MANUAL FIELD – CHANNELS EDITION.....	3-2
<i>Channels Edition using the Control Faders</i>	3-2
<i>Channels Edition using the functions keys</i>	3-3
<i>How eliminate the manual field information?</i>	3-4
<i>Double mode for the "A" Field</i>	3-4
<i>Channels TEST in the manual field</i>	3-6
CHANNELS GROUPS.....	3-7
<i>How can I do a channel group in a Master?</i>	3-7
<i>How can I release the master assignment?</i>	3-7
THE PRESETS.....	3-8
<i>How can I erase a Preset?</i>	3-8
<i>How can I obtain information about the Preset?</i>	3-8
ASSIGNING PRESETS IN THE MASTERS	3-9
<i>Assigning a recorded preset in a Master</i>	3-9
<i>Freeing the Master assignment</i>	3-9
ASSIGNING FADING-TIME IN MASTERS	3-10
THE PAGES	3-11
<i>To erase pages:</i>	3-11
<i>To load a recorded page:</i>	3-11

INDEX

<i>To free a loaded page, we have 2 ways:</i>	3-11
<i>To exam pages:</i>	3-11
MASTERS WITH GROUPS OR PRESETS	3-13
FUNCTION KEYS AND MASTERS	3-13
ACTIVATE A MASTER.....	3-13
<i>MANUALLY</i>	3-14
<i>AUTOMATED WITHOUT TIMES</i>	3-14
<i>AUTOMATED WITH TIMES</i>	3-14
MASTER FLASH.....	3-15
NOTES ABOUT THE MASTERS	3-15
4 - THE SEQUENCE	4-1
THE SEQUENCE.....	4-1
SEQUENCE EDITION.....	4-2
<i>Step number, St</i>	4-3
<i>Preset number, Pr</i>	4-3
<i>Output Time, T⁻</i>	4-4
<i>Input Time, T⁻</i>	4-4
<i>Auto Time, T⁺</i>	4-5
<i>Jump, J</i>	4-5
<i>Text</i>	4-6
<i>Command</i>	4-7
WORKING WITH THE SEQUENCE.....	4-8
<i>MANUAL PLAYBACK</i>	4-9
<i>AUTOMATIC PLAYBACK</i>	4-10
<i>DISPLACEMENTS IN THE SEQUENCE ORDER</i>	4-12
<i>EL CROSSFADE EN TITAN</i>	4-13
‘LEARNING’ TIMES IN THE SEQUENCE.....	4-13
SPEED CONTROL.....	4-14
ERASE THE SEQUENCE.....	4-14
5 - THE CHASES	5-1
THE CHASES	5-1
EDITING A CHASE.....	5-6
<i>WORKING IN THE CHASE EDITION TABLE</i>	5-6
MODIFYING A CHASE.....	5-8
COPYING A CHASE.....	5-8
DELETING A CHASE.....	5-9
EXAMINING A CHASE.....	5-9
ACCESS TO THE CHASE EDITION TABLE	5-9
CHASES INFORMATION.....	5-10
STATUS AND PLAYBACK MODES OF THE CHASES	5-11
WORKING WITH THE CHASES	5-11
‘LEARNING’ TIMES IN THE CHASES	5-15
LTP CHANNELS. ATTRIBUTES & MODES	5-15
6 - MENU.....	6-1
THE PATCH - MENU / PATCH	6-1
<i>PATCH EDITION - Menu / Patch / Edit</i>	6-2
<i>EXAMPLES FOR PATCH EDITIONS</i>	6-4
CHANNEL ATTRIBUTES - MENU / ATR	6-6

INDEX

<i>ATTRIBUTES EDITION</i> – Menu / Atr / Edit.....	6-6
<i>BY DEFAULT ATTRIBUTES</i> – Menu / Atr / Default.....	6-7
<i>LTP CHANNELS, BEHAVIOUR</i> – Menu / Atr / Pon - Poff.....	6-7
EXTERNAL TRIGGERS - MENU / TRIGGER	6-7
THE MIDI - MENU / MIDI.....	6-8
<i>ON/OFF</i>	6-9
<i>IN/OUT</i>	6-9
<i>CH</i>	6-9
<i>CODE</i>	6-9
THE SOUND INPUT - MENU / SOUND	6-12
PREHEAT - MENU / PRHT	6-12
<i>LEVEL</i>	6-13
<i>CAPTURE</i>	6-13
<i>DELETING THE PREHEAT</i>	6-14
<i>USING THE ARROWS TO ADJUST THE PREHEAT LEVEL</i>	6-14
DATA & MEMORY CARD - MENU / MCARD	6-14
<i>EXAM</i>	6-14
<i>LOAD</i>	6-15
<i>REC</i>	6-15
<i>DEL</i>	6-16
<i>TEXT</i>	6-16
<i>FORMAT</i>	6-17
<i>SysexRXD and SysexTXD</i>	6-17
MENU / MACRO	6-19
MENU / RS232	6-19
INITIALISATIONS - MENU / PB-ZERO	6-19
<i>STATUS</i>	6-20
<i>ALL-PB</i>	6-20
<i>MASTERS</i>	6-20
<i>SEQ</i>	6-20
DELETE THE SEQUENCE - MENU / DEL-SEQ	6-21
7 - SYSTEM CONFIGURATION.....	7-1
THE SEQUENCE PARAMETERS – SETUP / SEQ	7-1
<i>FIXED / FREE</i>	7-2
<i>FON/FOFF</i>	7-2
<i>TON/TOFF</i>	7-2
THE CROSSFADE MODES – SETUP / XF.....	7-3
THE REMOTE CONTROL – SETUP / RMT.....	7-3
<i>DISABLE/ENABLE</i>	7-4
<i>ID</i>	7-4
<i>DMX</i>	7-4
THE GENERAL MASTER – SETUP / GM	7-5
<i>100%/200%</i>	7-5
<i>BKON/BKOFF</i>	7-6
<i>CH</i>	7-6
ACOUSTIC WARNING – SETUP / BEEP.....	7-6
THE MANUAL FIELD LEDS – SETUP / LEDS	7-7
<i>A</i>	7-7
<i>STAGE</i>	7-7
LANGUAGE SELECTION – SETUP / LNG.....	7-8
THE WORKING LIGHTS – SETUP / LIGHT	7-8
THE DMX OUTPUT SPEED – SETUP / SPD-DMX.....	7-8
THE DMX INPUT – SETUP / DMX-IN	7-9

INDEX

MONITOR LOOK - SETUP / VGA	7-10
8 - MODIFICATION EDITOR.....	8-1
PRESETS MODIFICATIONS	8-1
THE MASTER ASSIGNATION EDITION	8-3
THE SCENE EDITION.....	8-3
ABSOLUTE OR RELATIVE MODIFICATION	8-5
MODIFY THE FIELD “A” IN DOUBLE MODE	8-6
EDIT PRESETS IN THE EDITOR	8-6
9 - TEST.....	9-1
<i>Test of the DMX outputs. DMXoUT.....</i>	<i>9-1</i>
<i>Test of the system channels. UPdOWN.....</i>	<i>9-2</i>
<i>Search a channel in scene. BLNK.....</i>	<i>9-2</i>
<i>Test of the free data memory. MEM.....</i>	<i>9-3</i>
<i>Test of the software version. VER.....</i>	<i>9-3</i>
<i>Test of the DMX input. DMXiN.....</i>	<i>9-3</i>
HARDWARE TEST.....	9-4
<i>Test of the data memory. MEM.....</i>	<i>9-4</i>
<i>Test of the video output. VGA.....</i>	<i>9-5</i>
<i>Test of the keys, faders... INPUTS</i>	<i>9-5</i>
<i>Test of the Leds, Display... OUTPUTS</i>	<i>9-6</i>
<i>Test of the MIDI port. MIDI.....</i>	<i>9-6</i>
<i>Test of the RS232 port. RS232.....</i>	<i>9-6</i>
<i>Test of the memory card. MCARD.....</i>	<i>9-6</i>
10 - SPECIAL CHANNELS, LTP & LINKS	10-1
LTP CHANNELS	10-1
BEHAVIOUR OF THE LTP CHANNELS	10-1
<i>LTP CHANNEL IN “PRIORITY: OFF” MODE</i>	<i>10-3</i>
<i>LTP CHANNEL IN “PRIORITY: ON” MODE.....</i>	<i>10-3</i>
<i>COMPARATIVE EXAMPLE</i>	<i>10-4</i>
LINKED CHANNELS	10-5
BEHAVIOUR OF 2 LINKED CHANNELS	10-5
11 - WORKING WITH MIDI	11-1
MIDI PORT CONFIGURATION.....	11-1
EXAMPLES	11-2
MORE ABOUT MIDI.....	11-3
12 - THE EXAM FUNCTION.....	12-1
13 - TIME CODE – TC.....	13-1
<i>THE TC MENU</i>	<i>13-1</i>
<i>PLAYBACK OF THE EVENTS LIST.....</i>	<i>13-6</i>

INDEX

Notes about the MTC connection..... 13-6

14 - MACROS 14-1

 STORING A NEW MACRO..... 14-1

 MACRO EXECUTION MANUALLY 14-2

 THE MACRO MENU 14-3

 MACROS LIST EXAM..... 14-4

 ACCESS TO THE MENU/MACRO SCREEN 14-4

 THE MACROS AND THEIR USES 14-4

15 - RS232 COMMANDS 15-1

 RS232 COMMANDS EDITOR 15-1

 EXECUTION OF THE RS232 COMMANDS 15-4

 STORE A DEVICE FILE..... 15-4

 THE MIDI & RS232 PORTS 15-6

16 - OFF-LINE EDITOR FOR PC..... 16-1

 OFF-LINE EDITOR FOR PC 16-1

INSTALLATION 16-1

WORKING IN THE SIMULATOR..... 16-1

SPECIAL FUNCTIONS IN THE SIMULADOR 16-2

USING THE MIDI PORT IN THE SIMULATOR..... 16-4

INDEX

1 - OVERVIEW

GENERAL

With a totally digital technology, a cared design and carefully developed software, TITAN is a great response for the Spectacular Lighting sector.

TITAN is a control board without complications, very easy, and at the same time intuitive and powerful. With the more recent electronic technology, extended software and a user interfaces more direct and comfortable.

LT thinks that TITAN is the ideal control board for all applications, and totally adapted to the current age.

TITAN has a new concept of control and TITAN surprises us with its power and facility. Direct and precise. Versatile.

In this way, the user can take the 100% of the console power, without need of keys complex sequences and without loss of power.

It is an economic and functional console of presentations that can be compared with those of the most sophisticated consoles of the market, with software in constant development.

TITAN is available in 3 models:

- **TITAN-48**, with **48** control channels / **12** masters.
- **TITAN-72**, with **72** control channels / **24** masters.
- **TITAN-96**, with **96** control channels / **36** masters.

The differences between the models are only in the channels number and masters number.

Note: After, it is not possible to modify the number of channels or masters.

OVERVIEW

In the following figure, we can observe the different TITAN parts:

- A manual field, or A field.
- The Masters.
- The Playbacks. Sequence, Chaser and General Master.
- General Control. Display, numerical keyboard, cursors, functions keys and Joystick.



In the figure: TITAN-72

TITAN LAYOUT

MANUAL FIELD or "A" FIELD

The manual field is a direct access to the TITAN channels. Each channel has associated a fader and a Flash key. The faders and Flash keys are organized in 2 banks of 24 for TITAN-48, 2 banks of 36 for TITAN-72 or 2 banks of 48 for TITAN-96.

These Flash keys have a green LED, this LED shows us the scene output of its corresponding channel.

Near the channel potentiometers, we can find the "A" fader, this fader controls the manual field output, and it is like a general master of the "A" field.

To change the active bank, press the **C24-C48** key (C36-C72 or C48-C96).

Example TITAN-48:

First Bank is active: **C24.C48** LED is off; the **A** field faders are controlling the channels 1-24

OVERVIEW

Second Bank is active: **C24.C48** LED is on, the A field faders are controlling the channels 25-48.

Near this key is the **SG-DB** key. **SG.DB** toggles the A fader and permits us work in manual multi-fades mode or Double mode.

In the monitor the channels controlled by the manual field are showed in **magenta**, and the channels bank active is locked between 2 grey fields.

GM100	100%	BLK-OUT	OFF	Jy3	Jx	A.Single	Stage	Seq.Fixed																
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
				F	F									14								46	47	48
																						59		

MASTERS

A fader and a multifunction key compose a master. A master can to execute groups, memories and chases. TITAN-48 has 12 masters, TITAN-72 has 24 and TITAN-96 has 26.

These multifunction keys, **Mn**, can work like:

- Assign key. Used to load or to free the Master.
- GO: To activate the fading of one group, preset or chase assigned.
- Flash Key: Normal and Solo modes.

These multifunction keys have a red LED that it shows us the status of its master (Loaded, active, temporising, empty...)

In the monitor, the controlled channels by the Masters appear in **yellow**, or in **grey** for the chase masters. In the middle of the monitor there is a zone for the general Master information.

GM100	100%	BLK-OUT	OFF	Jy	Jx	A.Single	Stage	Seq.Fixed																
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
	96	96	96		20	12													72	72	72	72		

M 96	Page:901	GO/FLASH/FLASH-SOLO	Chaser												
0127	0200	0300	0400	0500	06FF<	07	08	09FF<10	Sp<	11	12	CH	F<	Cl	spd<
1	2	3	4	GRP	GRP			801	100%			301	100%		
t2.3	t2.3	t2.3	t2.3		11.2			Step	4			Laps	Step:Ch		
												Pr	0	1	1
												T+	0.0	2	2
												St	10.0	3	3
												Config	4	4	
												>	XX	1	1
												BUILD+	2	2	

OVERVIEW

The master **M** is associated with this section and it is the general control of the master outputs. The master **M** has blackout key.

GENERAL CONTROL

This section includes:

- Alphanumeric display: 2x40 characters. Menus, numerical data, the messages... are showed here. The display is too showed in the monitor (down right on a blue field).
- Numerical keyboard and channels selection function keys.
- 2 directions Joystick.
- **ENTER** & cursors keys.

The function keys are:

- **FL.MT**, Used to toggle the function of the Master keys, like GO, Normal Flash or Solo Flash.
- **LOAD**, to load information in Masters and Chaser.
- **TIME**, to load times in Masters with groups or presets.
- **TEST**, to test channels in scene.
- **RA.TE**, used to active the Joystick like speed control for the sequence.
- **EX.AM**, to obtain information about the recorded data, playbacks status...
- **ESC**, used to "delete" the contents in the manual field and editor.
- **REC**, to record/modify presets, chases and Masters pages.
- **DELETE**, to delete presets, pages, and to release the Masters assignments.
- **INSERT**, to access to insertions functions in the edition menus of sequence, chase, patch...
- **MD.FY**, to modify memories, master contents and stage.
- **BL.ND**, to select the editor mode (in modifications). The modes are: STAGE, BLIND or SOLO.
- **LN.TM**, to learn times (executed manually) in chases and sequence.
- **P.K**, to access to macro functions & macros.

CHASER

The Chaser permits us to control the desired chase.

The chaser is composed by 2 faders, (one for level control and other for speed control), and 3 function keys. The function keys are:

- **GO.PS**: Assign key and GO key of the chaser.
- **DIR**: To change the chase playback direction.
- **ST-EP**: Used to playback the chase in "step to step" mode or manual mode.

The channels controlled by chases are showed in **grey** in the monitor. In the monitor there is a zone to show the status chaser. (Near the masters information).

SEQUENCE

The sequence permits us playback in crossfade a presets-list. The Sequence has:

2 faders: X1 & X2, used to playback the sequence manually.

5 function keys to control the sequence in automatic mode:

- **GO:** To star the next crossfade.
- **GO-BACK:** To start the current crossfade in invert direction. The crossfade is done to the previous memory.
- **PAUSE:** To hold the current crossfade.
- **TO.PR:** Used to place a desired **preset** in X2 or X1, and to displacement (forward or back) a step in the sequence.
- **TO.ST:** Used to place a desired **step** in X2 or X1, and to displacement (forward or back) a step in the sequence.

The channels controlled by the sequence are showed in **light green** (X1 or preset in stage) and **light cyan** (X2 or next preset) in the monitor. There is a special zone to show the sequence information and sequence status.

GM100 100% BLK-OUT OFF Jy Jx A.Single Stage														Seq.Fixed									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
				F	F									14									
														39	40	41	42	43	44	45	46	47	48
														39	39	39	39				59		

69↓	31↑	Step	Pr	T↓	T↑	T⊙	Jump	Text	Command
		1	1	5.0	5.0	1.3			
		2	2	5.0	5.0	5.0			
		3	3	5.0	5.0	0.6			
		4	4	5.0	5.0				
		5	5	5.0	5.0	1.2	1	EXAMPLE	

MASTER GENERAL & BLACK-OUT KEY

The general master is a fader: configurable for 0 to 100% or 0 to 200%.

This GM has associated one blackout key, label like **BLK-OUT**. This key can be deactivated.

The General Master controls the scene output of the all channels.

The LTP channels, by default, are excluded of its control. And, optionally, the user can exclude conventional channels of its control.

OVERVIEW

2 - TECHNICAL CHARACTERISTICS

TECHNICAL CHARACTERISTICS

- Control channels: 48, 72 or 96.
- Dimmers: 1024 (2 Dmx lines: 512 x 2).
- Presets: 1-799 (numbered from 0.1 to 799.9)
- 99 Chases, of steps no limited, built with presets, groups or channels, to playback them in Chaser & Masters. Level control, times, direction, mode, attributes, speed and loops control.
- Sequence: 999 steps. With fade-in time, fade-out time, delay time, Jump, text and command. With speed control.
- DIPLESS crossfade. It is possible to eliminate its characteristic 'dipless' from the setup.
- 99 Masters Pages.
- 24, 36 or 48 macros.
- List of 99 events, controlled by SMPTE, MTC or the inner clock.
- 99 RS232 commands.
- Masters: 12, 24 or 36. Memories, groups or chases can be loaded in the masters. Temporised masters.
- Channel control potentiometers: 12, 36 or 48 (depend of the model).
- Channel Flash keys.
- Master Flash keys. In mode normal or solo.
- General control potentiometer for the manual field output.
- General control potentiometer for the masters output.
- Editor: Possibility of editing - in scene, blind mode or solo mode - the presets, the content of a masters or the own scene.
- EXAM function. To access to the information stored in the console.
- Patch to 1024 dimmers, with 5 curves and limit output level for dimmer
- Preheat function
- Configuration of Audio input, MIDI port, external triggers...

TECHNICAL CHARACTERISTICS

- Memory card functions: Record, load, exam...
- Warm Reset: Of status, all masters, the sequence and all playbacks.
- Language
- Basic configuration of LTP channels (colour changers, moving parameters...).
- Hardware & software Tests
Output & input buffer.
UP/DOWN & BLINK Tests.
Tests of keys, faders, LEDs, display...
- General Master (100% or 200%). Channels can be excluded from the G.M.
- Black-Out Key, this function can be disable.
- Alphanumeric display (2 x 40 characters). This display permits us to work without monitor connected.
- 2 directions Joystick.
- Audio & SMPTE inputs.
- MIDI IN-THRU-OUT.
- 2 OUTPUTS: DMX-512 1990 (USITT).
- 1 INPUT: DMX-512 1990 (USITT)
- 2 External triggers.
- Memory Card Interfaces (JEIDA 68p).
- RS232 port.
- VGA colour video output.
- 1 or 2 connectors for work lights at 12Vdc.
- REMOTE connector for connection of the Titan Remote Control
- Sizes in mm (width x depth x height):

TITTAN-48:	720 x 500 x 60...160.	Weight: 10 Kg.
TITTAN-72:	960 x 500 x 60...160.	Weight: 14 Kg.
TITTAN-96:	1170 x 500 x 60...160.	Weight: 17 Kg.

CONNECTIONS

These are placed in the rear panel of the TITAN:



DMX:

2 DMX512 isolated outputs. With XLR-5 female standard connectors, marked like DMX OUT-1 and DMX OUT-2

1 DMX512 isolated input. With XLR-5 male standard connector, marked like DMX IN

Code:

- Pin 1 : 0 Vref.
- Pin 2 : Data -
- Pin 3 : Data +
- Pin 4 & 5 : NC.

Note: Always, use shielded cables, with impedance of 120 ohms, and low capacitance. Cable for RS485 data transmission. Never use audio cables to transmit DMX.

Tip:

No more than 32 loads for DMX line.

No more than 100m long for DMX cables.

Always end the DMX line with a resistor of 120 ohms (between the 2 & 3 pins of the last DMX connector).

Use DMX Splitter to avoid problems with cables lengths or more DMX loads.

The DMX signal transmitted by TITAN:

PARAMETER	DMX TITAN*	DMX-1990 -USITT
Break Length	99µs	88µs minimum
MAB Length	47-48 µs	8µs minimum
Bytes/packet	512 channels	1-512 channels
Break to break	49978-50010 µs	170µs – 3 sec.
Updates/s	20	1-44

* With SPD-DMX configured with by default option (FAST).

TECHNICAL CHARACTERISTICS

AUDIO INPUT:

The connector is a stereo jack. The signal (1Vpp audio signals) is computed like mono audio.

Code:

- 1 – 0 Vref {Jack body}
- 2 – NC
- 3 – Signal (1Vpp) {Jack live}

SMPTE INPUT:

With a stereo jack (1Vpp SMPTE signals).

The basic SMPTE formats are admitted: 24, 25, 30 & 30 with drop frames. Without external adjustments.

Code:

- 1 – 0 Vref or SMPTE - {Jack body}
- 2 – NC
- 3 – SMPTE + {Jack live}

EXTERNALS TRIGGERS:

With 2 Din-5/180° female connectors.

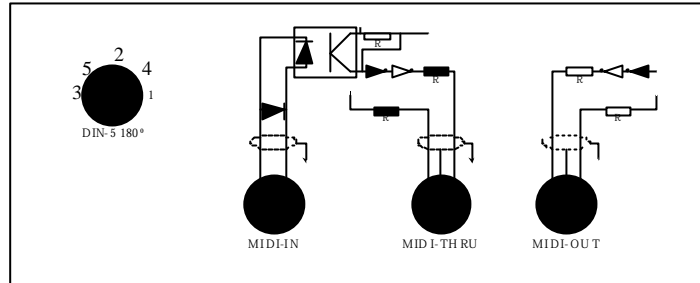
Code:

- 1 – 0 Vref.
- 2 – NC
- 3 – Trigger*
- 4 – NC
- 5 – NC

Note: To activate the external signal connect the 0 Vref with the Trigger signal. (This connection can be done with a pushbutton).

MIDI IN-THRU-OUT:

A standard MIDI port, with 3 DIN-5 connectors:



Note: Use standard MIDI cables.

MEMORY CARD

Memory card Interfaces, for 512 Kb-JEIDA Memory Cards. The memory Card is optional.

RS-232 SERIAL PORT

Standard. (SUBD-9)

VIDEO

VGA colour standard video output, with a standard SUDB-15 connector.

WORKING LIGHTS

With XLR-3 connectors (1 or 2). Code:

- Pin 1: 0 Vref
- Pin 2: 12 Vdc
- Pin 3: 0 Vref

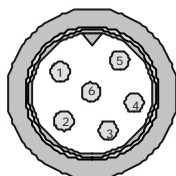
1 connector for TITAN-48

2 connector for TITAN-72 & TITAN-96.

TECHNICAL CHARACTERISTICS

REMOTE INPUT

Mini-RC female connector of 6 pins. Used to connect TITAN with the TRC (via cable) or with the RF receiver (via wireless). Code:



Pin 1.- GND
Pin 2.- RXTX-
Pin 3.- RXTX +
Pin 4.- 12 Vdc
Pin 5 & 6.- N.C.

MAIN SUPPLY

IEC connector: 85-265V~ / 50-60 Hz connector.

Power in: 1.45-0.45A

Power out: 1A (for VGA monitor)

The main supply is protected with 2 fuses: type F - 2A.

Always use homologated main cables.

TECHNICAL SERVICE

GERMANY:

GEO-TECHNIK

Hanauer Landstr. 20

D-63796 Kahl

Tel. (0049) (0)6188 - 90 11 40

Fax (0049) (0)6188 - 90 11 41

info@dimmer.de

Web: www.dimmer.de

3 - BASIC OPERATION

INSTALLATION

Place de console in a plane surface, and:

- 1.- Connect the monitor signal cable to the VGA connector (optional).
- 2.- Connect the power cable to the VGA monitor. Switch on the monitor.
- 3.- Connect the desired signal cables (DMX, MIDI...)
- 4.- Connect the power cable to the IEC base, always using the ground protection.
- 5.- Switch on the console pressing the MAINS switcher placed in the rear panel.
- 6.- The Main menu appears in the display.

TITAN is ready to work!

NOTE: The first time that you switch on the console, and each time that you desire "delete" all data stored in the console, is suitable to do a '**Cold Reset**'.

Cold Reset:

- Switch off TITAN.
- Press and hold down pressed the key: \rightarrow .
- Switch on TITAN.
- Wait a seconds.
- Release the pressed key.

In the Display, after a Cold Reset, you can see:

LT	COPYRIGHT	1992-2002
TITAN 72 Ch	version	1.40

And after a few seconds, you can see the Main menu:

Main SEQ TC MENU SETUP TEST >

BASIC OPERATION

THE MANUAL FIELD – CHANNELS EDITION

The manual field has access to the **48** (72 or 96) channels of the console.

The "A" Master is a general control for the manual field scene output. Place this fader at 100% to permit the output of the manual field in scene. If the "A" Master is at 0%, the manual field content is at 0% in scene.

It is possible to assign level to the different channels with the channels faders or using the edition functions keys.

In the monitor, the channels controlled by the manual field appear in **magenta**.

Channels Edition using the Control Faders

The channel faders (upper faders) control the channels in 2 banks. Select the active bank pressing the key **C24.48**, for TITAN-48 (**C36.72**, for TITAN-72 or **C48.96**, for TITAN-96).

Example for TITAN-48:

The **C24-C48** LED is OFF- The faders are controlling the 1-24 channels.

The **C24-C48** LED is ON- The faders are controlling the 25-48 channels.

When the channel fader is moved, its corresponding channel obtains a proportional level to this moving in scene. In the upper extreme (of this fader) the channel is at 100%. In its Flash key LED you can see the scene level for this channels.

Each time that you press its Flash key, and during this pressing, the channel is in scene at 100%.

Note: The "A" master doesn't control the Flash keys.

The manual field faders can be locked when we do it a bank change, pressing **C24-C48**, avoiding, in this form, light jumps in scene.

Example TITAN-48: Suppose that you have the fader of the channel 1 at 50%, and the fader of the channel 2 at 75%. You change the bank to access at the channels 25-48, pressing **C24-C48**, in this moment, the faders 1 & 2 are locked at its 0%, or current level of the 25 & 26 channels in the manual field. Then, is necessary to move the fader 1 up at 0% to unlock this fader, in this moment the System emits a "beep" or acoustic signal, at now, you have control of about the channel 25. Repeat this process for the fader 2. Placed the faders 1 & 2 at 75%. Note that the channels 25 & 26 are at 75%, and the channels 1 & 2 are at 50% & 75% respectively. You change newly the bank, the fader 1 is locked at its current level (chan 1 at 50%) and the fader 2 is unlocked, the level of the channel 2 is the same that the fader positions.

A bank change never produces a light jump in scene.

In the monitor, the active bank is marked between 2 rectangles in grey, in the channels zone.

Channels Edition using the functions keys

The user can select channels by keyboard to assign them a level, the edition functions keys are CHANNEL, THRU EXCEPT, @, ESC and Joystick.

Channels selection:

Select the channel 23	(CHANNEL) 2 3
Select the channel 23 and the channel 27	(CHANNEL) 23 CHANNEL 27
Select the channels from 1 up to 15	(CHANNEL) 1 THRU 15
Select the channels 1 to 20 except the 15	(CHANNEL) 1 THRU 20 EXCEPT 15
Select all active channels of the manual field	CHANNEL CHANNEL

The keys between brackets can be omitted, in the previous examples; the CHANNEL key is not necessary the first time.

Level assignation to the selected channels:

Assign the level 50 to the selected channels (level in 2 digits)	{selection} @ 50
Assign the level 100%	{selection} @ @
Assign a proportional level using the Joystick	{selection} Jy (Joystick-vertical direction)
Deactivate the selected channels	{selection} ESC // {selection} @ 0 0

All the level changes are done in a fade of approximately 2 seconds for a change from 0% to 100% (or vice verse).

To eliminate the selected channels of the manual filed in a jump (0 seconds) press:

{ selection } ESC ESC

The pressed keys appear in the lower line of the Main menu.

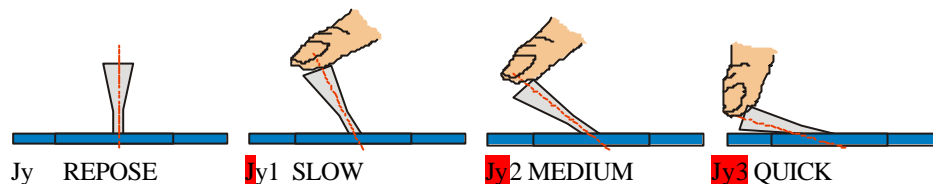
Example (in 3 steps):

Function	Command	Scene
----------	---------	-------

BASIC OPERATION

Channels 5 & 7 at 35% & channel 18 at 100%	5 CHANNEL 7 @ 35 CHANNEL 18 @ @	The channel 5 at 35, the 7 at 35, and the 18 at 100.
Channels 1 up to 24 at 5% (except the channel 18)	1 THRU 24 EXCEPT 18 @ 05	Channels 1 up to 17 at 5%, the 18 at 100% and the 19 up to 24 at 5%
Deactivate the channels 13 up to 15	13 CHANNEL 15 ESC	The channels 1 up to 12 at 5%, the 14 at 5%, the 16 up to 17 at 5%, the 18 at 100% and the 19 up to 24 at 5%.

Joystick: The Joystick has 3 zones with different resolutions. The zone depends of the joystick position. The resolution affects to the variation of the channel levels. This variation can be slow (zone 1), medium (zone 2) o quick (zone 3). The resolution is showed in the status line in the monitor: Jy#



How eliminate the manual field information?

- Moving all faders at their 0 positions.
- Moving the "A" master at its 0 position.
- Pressing the next keys sequence: **CHANNEL CHANNEL ESC**

Double mode for the "A" Field

The manual field can work in Double mode. This mode is special for manuals multifades. Active this mode pressing **SG.DB**, its LED is blinking when this operation mode is active.

In the Double mode the "A" potentiometer works like a crossfade potentiometer between the "current manual scene" (B) and the "next manual scene" (A). The channel faders always work in A.

- Press **SG.DB** (LED blinking) to select the Double mode.
- Place the "A" fader in one of its extremes (Where A is at 0% & B at 100%).
- Prepare the desired "picture" with the manual potentiometers (A). This process is done in blind (without scene output because the A field is at 0%).
- Now advance slowly the "A" fader to its other extreme.
The next picture, A, fades-in scene controlled by the movement of the "A" fader and the channels in B fade-out scene. When this fader reaches its extreme, TITAN emits a "beep", at this moment, the channels potentiometers control a new "next picture", A.
- Now prepare the "next picture" (A) with the channel potentiometers or the edition function keys.

BASIC OPERATION

- To change between the current picture and the next picture advance slowly the "A" fader to its other extreme. Observe the crossfade between the current picture with the next picture. When the "A" fader reaches its extreme, TITAN emits a "beep", and in this moment the channels potentiometers control the "next picture" in Blind mode.
- Repeat this process as many times as will be necessary.

This is a working mode for manual multifades, very used in direct shows for improvisations.

In the monitor exits a special page to work in this mode. Access to this monitor pages pressing: **EXAM SG.DB.**

In this example, you can see the change process between 2 manual pictures. In this example the stage picture (B at 49%) is been replaced by the next manual picture (A at 51%).

GM100	100%	BLK-OUT	OFF	Jy	Jx	A.Double	Stage	Seq.Fixed						
1	2	3	4	5	6			16 17 18 19 20 21 22 23 24						
	51	51	49	49				51 51						
25	26	27	28	29	30	31	32	33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48						
SCENE A + B														
Campo A 51														
1	2	3	4	5	6	7	8	9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24						
	F	F						F F						
25	26	27	28	29	30	31	32	33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48						
A														
Campo B 49														
1	2	3	4	5	6	7	8	9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24						
			F	F										
25	26	27	28	29	30	31	32	33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48						
B														
LT	COPYRIGHT 1992-2002					A/B Ch	1	2	3	4	5	6	7	8
						51↑ A	0	F	F	0	0	0	0	0

Return to the normal monitor page pressing **EXAM EXAM.**

When the Double mode is active, in the central part of the first line of the monitor, status line, the flag *A.Double* appears in a red field.

BASIC OPERATION

Channels TEST in the manual field

There is a **TEST** function. This function permits us to check channels in scene in a isolated way. **TEST** works in the manual field and only works with the channels activated in the manual field.

Pressed Keys	Results in Scene
CHANNEL # TEST	All channels of the manual field fade-out at 0%, except the <u>channel #</u> that it fades-in at 100%. This channel is at 100%, in scene, up to TEST is pressed again, or this channel is edited.
TEST	All channels of the manual field fade-out at 0%, and the <u>channel #+1</u> fades-in at 100%. This channel is at 100%, in scene, up to TEST is pressed again, or this channel is edited. The <u>channel #+1</u> will be, the next channel to the last used channel by the TEST function, or the last selected channel with the keyboard.

This fades will be of 1,8 seconds maximum (from 0% to 100%)

CHANNELS GROUPS

A group is a conjunct of channels and levels. We can store channels groups, loading the scene in a master or chase step. These channels groups only exist in the masters and chases. The channels groups are very used to build new presets. The groups cannot be executed in the sequence.

How can I do a channel group in a Master?

Edit some channels in scene using the faders of the manual field or the keyboard:

- Press **LOAD**
- Press the key, **Mn**, of the desired Master.

The scene information is loaded in the Master in a new group (GRP). The red LED associated to this Masters is lit at 50%, showing us that the Master has information.

To activate this Master, raise its master fader. The red **Mn** LED is lit at 100%. The master is active in scene.

Now, you can delete the manual field information and raise the master fader to take out the group in scene (now its red LED is lit at 100%).

The group is created by the scene output. In this way you can use the masters to do new groups.

In the monitor the channels controlled by masters appear on **yellow** filed. The groups are labelled like **GRP**.

When we unassigned a master with a group, the group is erased (the group is maintained only if it is recorded in one master page).

There isn't a maximum number for the groups. Store the groups in the Pages.

How can I release the master assignment?

There are 2 options:

- **0 LOAD Mn** (of the master that we wish "release") and **C** to end de function.
- **DELETE Mn** (key of the master that we wish "release") and **C** to end de function.

When the master is empty its LED is off.

The groups for chases are explained in the chapter 5.

THE PRESETS

The TITAN control board has more of **799** presets, named from 0.1 up to 799.9.

The preset is recorded with the current scene output. The manual field, masters, sequence and chaser form the scene output.

To record a preset, prepare the desired scene output and:

- Enter a number of the preset, [**0.1..799.9**] (Optional)
- Press **REC**

When you press **REC**, TITAN emits a ‘beep’ and the preset has been recorded. In the display you can see the number of this last preset.

If this preset number exists, the console shows us a warning and needs confirmation:

- Press **REC** again to overwrite this preset.

Or press any other key if you don’t wish overwrite the preset.

If you don’t enter a preset number and press **REC**, the console assigns the preset number. This number is the next number at the last preset number recorded or modified, or the number 1 if this is the first preset that you record.

By default, the recorded presets are included in the sequence steps automatically. This option is changed in the SETUP/SEQ menu.

It is possible to record a decimal point presets. Example, you can insert 9 preset between the preset 1 and the preset 2, using the decimal points: 1.1, 1.2, 1.3...1.9.

The presets are named in the range 1-799. They are the bases for the sequence and chases. The presets can be loaded in the masters.

How can I erase a Preset?

- Enter the desired preset number
- Press **DELETE**. TITAN needs a conformation.
- Press **DELETE** again, to confirm.

Erase all recorded presets pressing:

- **0 DELETE** (Press **DELETE** again to confirm).

How can I obtain information about the Preset?

1. **Press 0 EX-AM**: You can see the recorded preset list.
2. **Press # EX-AM**: You can see the information about the preset number #.

Using the cursors, we can access to others presets information:

- Information about the next preset.
- Information about the previous preset.
- ® More about the current preset. Advance.

→ More about the current preset. Return.

To quit of these information pages, press **ENTER**.

ASSIGNING PRESETS IN THE MASTERS

To assign a preset in a Master to record this preset.

Assigning a recorded preset in a Master.

- Enter the preset number, **#**
- Press **LOAD**
- Press the key of the desired Master, **Mn**. It is possible to press more than one key, assigning consecutive presets.
- Press **C** to cancel this function.

The different possibilities are:

- **# LOAD Mn C** (To load the preset **#** in the master **n**)
- **# LOAD Mn Mn...Mn C** (To load consecutive presets in the selected masters)
- **# LOAD LOAD** (To load consecutive presets, from the preset **#**, in all console masters).

Freeing the Master assignation.

This process is similar to load a preset 0:

- **0 LOAD Mn C** (Freeing the master **n**)
- **DELETE Mn C** (Freeing the master **n**)

- **0 LOAD Mn Mn...Mn C** (Freeing the selected masters)
- **DELETE Mn Mn...Mn C** (Freeing the selected masters)

- **0 LOAD LOAD** (Freeing all assigned masters).

BASIC OPERATION

ASSIGNING FADING-TIME IN MASTERS

The masters loaded with presets or groups can be temporised. To load a fading time in these masters:

- Enter the desired fading time, ###, (0 up to 999 seconds). **The number 0 is to erase the fading time assigned.**
- Press **TIME**
- Press the key of the desired Master, **Mn**. It is possible to press more than one key, assigning the same fading time to the selected Masters.
- Press **C** to cancel this load function.

Resume options:

- ### **TIME Mn C** Assign a time ### to the master n.
- ### **TIME Mn Mn ...Mn C** Assign a time ### to the selected masters.
- ### **TIME TIME** Assign a time ### to all masters.

The times are entered always in seconds. It is possible to enter times like 1.5, 20.5, 100.6, etc.

THE PAGES

We have 99 masters Pages, numbered from the 901 up to 999.

A Page stores the masters assignation in the moment of its recording.

To record the Page, press:

- **9## REC**

If the page is recorded correctly, TITAN emits a “beep”. If the selected page number exits, the console needs a confirmation to record it. Press **REC** to overwrite this page or press any other key and enter a new page number.

To store in the number of the next free page, press:

- **900 REC**

To erase pages:

It is possible to delete a page pressing:

- **9## DELETE**

It is possible to delete all the pages pressing:

- **900 DELETE**

To load a recorded page:

- **9# # LOAD**

Note: When we load a page, the scene output never jumps, if we have a active Master, its new assignation is not effective until the Master arrives its 0%.

To free a loaded page, we have 2 ways:

- **900 LOAD**
- **0 LOAD LOAD**

To exam pages:

- **900 EXAM** (to exam the pages-list)
- **9## EXAM** (to exam the contents of the selected page)

BASIC OPERATION

The masters in the monitor:



The screenshot shows a monitor display with a blue header bar and a grey bar below it. The blue bar contains the text 'M 96 Page:901* GO/FLASH/FLASH-SOLO'. The grey bar contains the text '50 0 B2< 0 51 04 05 06 07 08 09 10 11 12'. Below the grey bar, the text 'GRP 1 GRP*' is displayed, followed by '↑2.0 11.4'.

In the status line or blue line, you can see:

- The current value of the **M** master (in this example at 96%).
- The Page number charged in the masters (if this page has been modified, its number is marked with a asterisk, 901*).
- The current mode for the **Mn** keys (in this example GO)

In the next grey line, you can see the master numbers (in white), and:

- Near the master number, **its output level**. If this level is not equal that the physical level of the fader, the level is marked with the symbol < (in the example, the master 2 at 82%, 82<). When the master doesn't contribute to the scene output, at 0%, the master level is showed in cyan.
- Under the master number, **its content**. A preset is showed with its number (0.1-999.9); a group is showed with the label GRP, and a chase is showed with its number (801-899). If the master has a content waiting to load it , the current content is marked with a asterisk (in the example, the master 3, GRP*)
- Under the master content, the **fade time** of the master and one arrow showing the fade direction.

If we don't use monitor, we can obtain information about the Master pressing:

- **EXAM Mn**: To see the assignation, status and level of the selected Master.
- **EXAM FL-MT**: To see all Masters assignations, and the loaded page.

In the display exam pages, we can use the cursor keys to see more information.

MASTERS WITH GROUPS OR PRESETS

The status of each Master is showed in the red LED of its **Mn** key:

- LED is off: Empty master.
- LED is lit at 50%: Loaded master without scene output.
- LED is lit at 100%: Loaded master with scene output, active.
- LED is blinking: Temporising master.

The Master **M** (general control of the masters) controls the output of all masters. This master has associated a blackout key.

To permit the masters output, placing the master **M** at its 100% and check that its associated key is deactivated.

A master can be activated in 2 modes:

- Manual mode, using its fader. The master output is proportional to the fader movement.
- Automated mode, pressing the associated key, **Mn** (in GO mode).

Note:

If the Master is out its 0% and we assign a preset or channel group, this jumps to scene at the Master percentage.

FUNCTION KEYS AND MASTERS

There are 3 function keys associated to the Masters:

LOAD, Used to assign/free the Masters.

TIME, Used to assign fade times to the Masters.

FL-MT, Used to toggle the mode of the Masters associated keys, **Mn**, between 3 modes:

- The **FL-MT LED is off**. The **Mn** keys are GO keys, in this mode, permit us to activate a Master automatically.
- The **FL-MT LED is on**. Select this function pressing the **FL-MT**. The **Mn** keys are Master Flash keys in NORMAL mode.
- The **FL-MT LED is blinking**. Select this function pressing the **FL-MT** again. The **Mn** keys are Master Flash keys in SOLO mode.

ACTIVATE A MASTER

Suppose that we have Masters assigned with preset or channels groups. (The chase masters are explained in the chapter 5).

We can activate a Master in different modes:

BASIC OPERATION

MANUALLY

The Master assignment fades in scene proportionally to the fader movement. If the fader is at 0%, its assignment is not in scene; if the fader is at 100%, its assignment is in scene at 100%. In intermediary positions we will obtain intermediary output levels. If the Master assignment is in scene, the **Mn** key LED is lit at 100%.

When we activate the Master assignment manually, its fade time isn't computed.

AUTOMATED WITHOUT TIMES

The **Mn** keys have to be in GO mode, the **FL-MT** LED is off. When we press the **Mn** of a master without times, the Master assignment jumps in scene at its 100%. The red LED of its **Mn** is lit at 100%.

If the Master assignment is in scene at 100% and we press its **Mn** again, the master is deactivated, at 0%.

AUTOMATED WITH TIMES

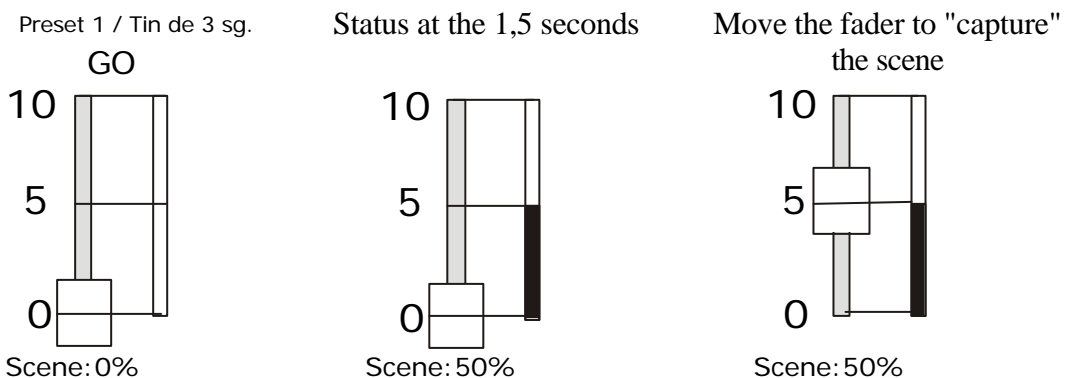
The **Mn** keys have to be in GO mode, the **FL-MT** LED is off. When we press the **Mn** key (GO key) the Master assignment begins to fade in scene in the fading time (jumps in scene if there is not fading time). In the fading time the Master assignment fades from 0% up to its 100%. The **Mn** red LED is blinking during the temporisation. When the fading is finished the red LED stops blink.

If we press the **Mn** key during the fading, the fading is stopped. To restart this fading, press the **Mn** key again.

If the Master assignment is in scene at 100% and we press the **Mn** key, the inverted fading begins, from 100% up to 0% in the same fading time.

Note:

During the auto fading, it is possible to "capture" the control of the master. For this, the user should move the fader up to reach the output level, in this moment, TITAN emits a "beep" to inform us that the master control is in the fader. (Its red LED stops to blink).



MASTER FLASH

From the default status (The **FL-MT** LED is off), to select the Master Flash functions press the **FL-MT** key:

1. Press **FL-MT**, its LED is on. The Normal Flash function is selected. In this situation, each time that we press a **Mn** key, the Master assignation is in scene at its 100%. This scene output is maintained while the key is pressed.
2. Press **FL-MT**, its LED is blinking. The Solo Flash function is selected. In this situation, each time that we press a **Mn** key, the Master assignation is in scene at its 100% and the outputs from others Masters, chasers & sequencia¹ are forced to 0%. In scene **only** the selected Master assignation is maintained. This scene output is maintained while the key is pressed.

(¹) This function can affect to the sequence or not. Select this in the *SETUP/SEQ.*

NOTES ABOUT THE MASTERS

- To avoid a light jump in scene, place the Master fader at 0% before assign it a preset or group.
- To re-load a loaded Master is not necessary to free the Master previously.
- When we load a Masters page, the Master faders at 0% accept their new assignation automatically. The active Masters, (not at 0%) are marked with an asterisk, *, and their new assignation is waiting that the fader is at 0% to load it. While the Master fader is out its 0% we have control about its current assignation.
- When a Master is fading automatically, its red LED is blinking, its output level and its fader level are different. The Master fader is locked. This situation is marked with the symbol > in the monitor. To take control with the fader; move this fader to reach the output level, in this moment the system emits a “beep” and the Master faders is controlling the Master output.
- If we press the **Mn** key in GO mode, and the Master fader is not at 0%, the started fade begins from the current output level in the proportional fade time.

BASIC OPERATION

Resume:

C24-C48	Bank change in "A" field.
SG.DB	Toggle between the SINGLE and DOUBLE modes to "A" field.
LOAD Mn C	Assign the scene output like a group in the Master.
REC	Record the scene output like preset N+1
# REC	Record the scene output like preset # (0-599).
# DELETE	Erase the selected preset
0 DELETE	Erase all the recorded presets
# LOAD Mn C	Assign the preset # in the selected Master.
# LOAD LOAD	Assign the consecutive preset, from preset #
0 LOAD Mn C / DELETE Mn C	Free the selected Master.
0 LOAD LOAD	Free all the Masters
# TIME Mn C	Assign a fade time # (0-999) to the Master
0 TIME Mn C	Eliminate the fade time of the Master
# TIME TIME	Assign this fade time # to all Masters
0 TIME TIME	Eliminate the fade of all Masters
9## REC / 900 REC	Record the current assignments like page 9##, or in the next free page.
9## DELETE	Erase the selected page
900 DELETE	Erase all the pages
9## LOAD	Load the selected page in a Masters
900 LOAD	Free all Masters

TEST function

CHANNEL # TEST	All channels of the manual field fade-out at 0% and the channel # fades-in at 100%.
TEST	All channels of the manual field fade-out at 0% and the channel #+1 fades-in at 100%. (The channel #+1 is the next channel to the last used channel in the TEST function or the keyboard)

Resume of Edition function keys:

CHANNEL CHANNEL	Select all channels of the manual field
CHANNEL #, CHANNEL #...	Select a channels group
CHANNEL # THRU #	Select a channels range
{channels selection} EXCEPT #	Exclude the selected channels of the previous selection
{channels selection} @ ##	Assign the level ##% to the selected channels
{channels selection} @ @	Assign the level 100% to the selected channels
{channels selection} Jy	Assign a proportional level from the Joystick (vertical direction)
{channels selection} ESC	Erase the selected channels in the manual field

EXAM function resume:

EXAM EXAM	Scene output information. Return to the main monitor page.
EXAM SG.DB	Special monitor page to work in Double mode.
0 EXAM	Recorded presets list. To access to concrete preset use the arrows.
# EXAM	Preset # information
EXAM Mn	Selected Master information
900 EXAM	Recorded pages list. To access to concrete page use the arrows.
9## EXAM	Selected page information.
EXAM FL-MT	Masters information.

The **Mn** modes:

FL-MT (LED off) Mn	GO mode. Start the Master assignation fade in the fade time.
FL-MT (LED on) Mn	Normal flash mode. The selected Master assignation is at 100% in scene while this key is pressed.
FL-MT (LED blinking) Mn	Solo flash mode. The selected Master assignation is at 100% in scene and the other outputs are forced at 0%.

BASIC OPERATION

4 - THE SEQUENCE

The sequencer permits us to playback a presets-list in crossfades. During each crossfade, the “scene preset” is replaced by the “next preset”. This “next preset” is the “scene preset” at the end of the crossfade.

THE SEQUENCE

The sequence is formed by steps - up to 1000 steps. Each **step (St)**, must have a **preset (Pr)** and, optionally:

- A fading in time, **T**
- A fading out time, in reference to the previous step, **T**
- A delay or automatic time, **T**⊕
- A jump to other sequence step, **J**
- A text.
- A associated command.

Some concepts:

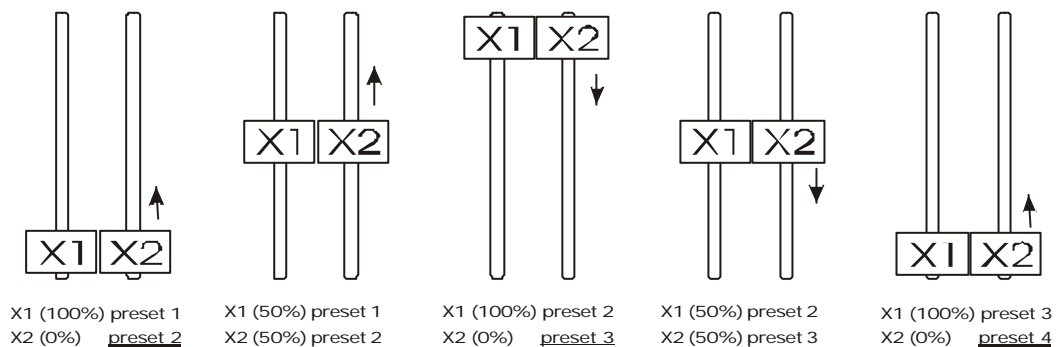
The “scene preset” is always in X1 fader.

The “next preset” in scene is always in X2 fader.

At the beginning of the crossfade, X1 is at 100% and X2 is at 0%. (Both faders in their upper end or both in their lower end).

During the crossfade X1 fades from 100% to 0% at the same time that X2 fades from 0% to 100%.

At the end of the crossfade the preset in X2 is placed in X1 at 100%, and X2 accepts a new preset at 0%. Ready for a new crossfade.



THE SEQUENCE

SEQUENCE EDITION

By default, each time that you store a preset, this preset is inserted in the sequence automatically. The preset is inserted in numerical order. The automatic edition of the sequence can be deactivated in the **SETUP/SEQ** menu, selecting the **FREE** option. More information in chapter 7 – SYSTEM CONFIGURATION.

The steps list of the sequence is edited from the menu **SEQ**.

```
Main ■ SEQ ■ TC MENU SETUP TEST >0
```

In the menu screens, the cursors (■ ■), are moved pressing the arrows keys.

To access to the steps list:

- Select with the cursors ■ **SEQ** ■
- Press **ENTER**. The cursor is placed in the step in X2.

In the display:

St X1 Pr0 T T T⊕ J	St X1 Pr 0
■ St X2 ■ Pr1 T T T⊕ J	St X2 Pr 1

Each line has the information about one step.

To see the entire step parameters, 2 screens are used.

The edition cell is between the cursors.

In the monitor:

	Step	Pr	T↓	T↑	T⊕	Jump	Text	Command
X1	0	0						
X2	1	1						
	2	2						
	3	3						
	4	3.5						
	5	4						
	6	5						
	7							

Each line has information about one step, in the same order that the display.

The edition cell is marked with a colour field.

To edit the steps list:

- Select with the cursors the desired cell of the edition step.
- Enter the data in correspondence with the cell.
- Repeat the process as many times as cell you wish edit.
- Press **ENTER** to return to **Main**.

To move the cursors, press:

Key	Function
-	Moves the cursor to the same cell of the previous step
-	Moves the cursor to the same cell of the next step
Ⓜ	Moves the cursor to the next cell, in the same step. In the display, from the <i>J</i> cell, moves the cursor to the <i>Text</i> cell, changing of screen.
↶	Moves the cursor to the previous cell, in the same step. In the display, from the <i>Command</i> cell, moves the cursor to the <i>St</i> cell, changing of screen.

Each step has 9 editable cells (these cells appear in 2 screens) and each cell is:

Step number, St

This cell shows us the step number. The maximum number of steps is 999.

When the step is in X1 (scene) or X2 (the next step in scene), its number is replaced by the flag *X1* or *X2*.

A sequence has, at least, the step 0 (*St 0*), and one last empty step.

This data is not editable. These cells are used to search a step automatically:

- Access to the cell ■*St*■
- Enter a step number (0-999)
- Press →, to access to this step with the cursor.

Placed in the cell *St*, you can delete the step pressing:

- **DELETE**

Preset number, Pr

This cell shows us the preset number (1-799) that it is associated to the step.

Exception! The preset 0 (*Pr0*), in the step 0 (*St 0*), is not editable. The preset 0 is a blackout preset.

Placed in the **last step** (empty step) there are 2 options to edit it a preset:

- Access to the cell ■*Pr*■
- (1) Enter the preset number and move the cursor to accept it.
- (2) Press **INSERT** to insert the next preset (respect to the previous step preset). The system moves the cursor to the next step automatically.

THE SEQUENCE

Placed in a **edited step**, it is possible to change its preset (1) or insert a new step with a new preset (2):

- Access to the cell ■ **Pr** ■
- (1) Enter the preset number and move the cursor to accept it.
- (2) Enter a preset number and press **INSERT** to insert a new step with this preset. To insert a new step between the steps 2 & 3, place the cursor in the step 3.

Placed in the cell **Pr**, you can delete the step pressing:

- **DELETE**

Output Time, T⁻

Out time for the previous step or scene step (0.1-999.9). This time is edited in seconds. The times more greater than 100 seconds can not show us the decimal value, but this value is computed.

Is the time that needs the scene step to fade from 100% to 0%. By default, 0 sec.

Edit an **out time**:

- Access to the cell ■ **T⁻** ■
- Enter the time in seconds
- Move the cursor to accept it

Copy the out time of the previous step:

- Access to the cell ■ **T⁻** ■
- Press **INSERT**. The cursor is moved to the next step automatically.

When the out time is edited, by default, the in time (**T⁻**) takes this value.

Delete the out time:

- Access to the cell ■ **T⁻** ■
- Press **DELETE** (or press **0**). If the in time is by default, this in time is deleted too.

Special command to edit the **out time of the step in X2**:

- Enter the time in seconds, #
- Press **TIME**
- Press **TO.PR** (or **TO.ST**)

Input Time, T⁻

Fade-in time for this step (0.1-999.9). This time is edited in seconds. The times greater than 100 seconds cannot show us the decimal value, but this value is computed.

Is the time that needs the next step to fade from 0% to 100%. By default, 0 sec.

Edit a **in time**:

- Access to the cell ■ **T** - ■
- Enter the time in seconds
- Move the cursor to accept it

Copy the in time of the previous step:

- Access to the cell ■ **T** - ■
- Press **INSERT**. The cursor is moved to the next step automatically.

Delete the in time:

- Access to the cell ■ **T** - ■
- Press **DELETE** (or press **0**).

Auto Time, T ⊕

Auto time (0.1-999.9). This time is edited in seconds. The times greater than 100 seconds cannot show us the decimal value, but this value is computed.

It permits us to execute the next crossfade automatically. Is the time that uses the console from the end of a crossfade up to the beginning of the next crossfade. In other words, is the time that the “scene step” is in scene at 100%.

Edit a **auto time**:

- Access to the cell ■ **T** ⊕ ■
- Enter the time in seconds
- Move the cursor to accept it

Copy the auto time of the previous step:

- Access to the cell ■ **T** ⊕ ■
- Press **INSERT**. The cursor is moved to the next step automatically.

Delete the auto time:

- Access to the cell ■ **T** ⊕ ■
- Press **DELETE** (or press **0**)

Jump, J

This cell is the step number (or preset number) that it follows to this step, in the sequence.

The jump permits us to broke the numerical order of steps in the playback. The step or preset inserted here, will be the next step or preset in the sequence.

THE SEQUENCE

Edit a **jump to a step**:

- Access to the cell ■ **J** ■
- Enter the step number, (0-999). Example 1
- Move the cursor to accept it. In the display: **J1**

Edit a **jump to a preset**:

- Access to the cell ■ **J** ■
- Enter a preset number, (1-799). Example 1
- Press ● (decimal point)
- Move the cursor to accept it. In the display: **J1●**

Note that the “●” appears when is a preset number.

Delete the Jump:

- Access to the cell ■ **J** ■
- Press **DELETE**

In the sequence, only there is a step 1, but it is possible that it has more than one preset 1. When you edit a jump to a preset, the system search this preset in the nearest step.

To cancel a numeric data, before to accept it, press **C**.

Text

Each sequence step can have a text of 16 alphanumeric characters.

To edit the text:

- Select with the cursor the “text” cell, first cell of the second screen in the display. This cell appears empty when is not edited.
- Enter the desired text (see below).
- Move the cursor to accept it and follow editing.

Delete the test:

- Access to the cell ■ **Current show text** ■
- Press **DELETE**

Text edition:

While a text cell is selected, some of the TITAN keys toggle its function to permits us to enter text.

To edit numbers in the text, use the numeric keyboard.

To edit letters, use the channel flash keys and the function keys that have its letter or special function. This letters and functions are drew over each key.

The special functions for the text edition are:

Function	Associated key	Comments
SPACE	GO . PS	Inserts a space with no character.
←	DIR	Deletes the previous character.
SYM	ST . EP	Accesses to the symbols ; “ # \$ % & ‘ () * + , - . / (Press this key as many times as will be necessary, and then, press ENTER to accept it)
ENTER	BLK . OUT	Moves the cursor to the next character and accepts the edited symbol. Very used to place the cursor without to delete.

Command

The command associated to the sequence step is entered using 2 cells, one of them for the command type, and the other for the numeric data.

The command is executed at the same time that its step begins the crossfade in from X2.

The command types are:

Type	Function	Numeric Data
Pag	Loads the page...	900 – 999
GoM	Activates the master...	1 – 12/24/36
Mac	Executes the macro...	1 – 24/36/48
Rs2	Executes the Rs232 command...	1 – 999
	No command is done	No data

To edit the command type:

- Select the first cell of the command (this cell is empty if the command is not edited).
- Press **INSERT** as many times as will be necessary to see in the display the desired type command. (Among its option there is a empty option, used to delete the command)
- Move the cursor and follow editing.

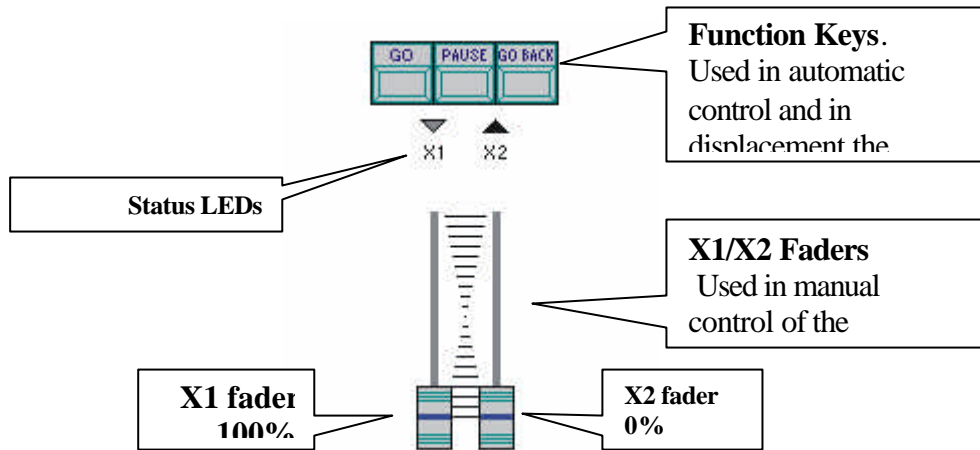
To edit the numeric data of the command:

- Select the second cell of the command (this cell is empty if the command is not edited).
- Enter the numeric data in accordance with the command type (see the previous table).
- Move the cursor and follow editing, or press **ENTER** to end.

THE SEQUENCE

WORKING WITH THE SEQUENCE

The Playback:



Example of a steps list of the sequence, with the playback initiated:

Playback	Paso	Jump	Comments
X1	0		X1 is at 100% in scene
X2	1		X2 is at 0% in scene
+1	2		When the first crossfade is executed, this step jumps to X2.
+2	3		When the second crossfade is executed, this step jumps to X2.
+3	4	7	When the third crossfade is executed, this step jumps to X2.
+4	5		
+5	6		
+6	7		When the fourth crossfade is executed, this step jumps to X2. Note that the sequence order is changed for the previous step Jump
+7	8		When the fifth crossfade is executed, this step jumps to X2.
...

The sequence status are:

Initiated. When the step 0 is in **X1** and the step 1 is in **X2**

Active. A sequence is active when it has scene output.

The crossfade status are:

Ready

The **X1** step is at 100% and the **X2** step at 0%, ready for the next crossfade.

In progress

During the crossfade between **X1** & **X2** (manual or automatic)

In pause

During the crossfade between **X1** & **X2**, and always that the scene is no-changes.

The monitor always shows us the sequence status, and, in the display, it is possible to access to the crossfade status (and the next steps) pressing:

EXAM GO (or **EXAM GO.BACK**, or **EXAM PAUSE**)

62↓ 38↑	Step	Pr	T↓	T↑	T⊕	Jump	Text	Command
	0	0	2.0	2.0	1.0			
	1	0.5	5.0	5.0				
	2	1	5.0	5.0	1.0		INICIO	Pag 901
	3	2	4.0	3.0	2.0			
	4	3	2.0	2.0				
	5	4	2.0	2.0				
	6	5	5.0	5.0	1.0	1	JUMP STEP 1	
	7	6	1.0	1.0				
	8	7	1.0	1.0			FIN	
MD*Off		62↓	0	0	↓2.0↑	⊕1.0		
RS Off		38↑	1	0.5	↓5.0↑			100%

In concrete:

- The **X1** content, in a light green field, and the **X1** level in graphic and numeric mode.
- The **X2** content, in a cyan field, and the **X2** level in graphic and numeric mode.
- The steps shows us its presets, its times, its jump, its text and its command (in the display it is necessary to press → to see the text and command).
- In the monitor, the next steps are showed, but in the display it is necessary press ↓ to see the next step, or press ↑ to see the previous step.

The channels controlled by **X1** are showed in a light green field, and the channels controlled by **X2** in a cyan filed.

MANUAL PLAYBACK

The **X1** and **X2** faders permit us to execute the steps list manually.

When a crossfade is executed manually, the fade times (T^- & T^+) and the auto time ($T^⊕$) aren't computed. The crossfade follows the faders movement.

The **X1** / **X2** faders have their scale inverted:

- When the both faders are in their **lower** or **upper** extreme:
 - **X1** is at 100%, in stage, and ready to fade out scene.
 - **X2** is at 0%, ready to fade in scene.

THE SEQUENCE

The crossfade begins with both faders in the same extreme, and it finish when the both faders arrive to the other extreme; in this moment the current crossfade is finished and the next crossfade is ready to begin.

During the crossfade (faders movement):

The step in **X1** fades out scene (100% a 0%) following the **X1** movement.

The step in **X2** fades in scene (0% a 100%) following the **X2** movement.

These faders can be moved in conjunction or independently to obtain any combination of levels.

If in **X2** there is a step with command, the command is executed.

At the end of the crossfade:

The console emits a audible “beep”

The step in **X1**, at 0%, is leaved.

The step in **X2**, now at 100%, jumps to **X1** and **X1** jumps at 100% (without light jump in scene),

X2 jumps at 0% and the next step jumps to **X2**, ready to the next crossfade.

In case of the steps list of the previous example, after the first crossfade, the steps list will be:

Playback	Step	Jump	Comments
-1	0		
X1	1		X1 is at 100% in scene
X2	2		X2 is at 0% in scene
+1	3		When the next crossfade is executed, this step jumps to X2 .
...

The status LEDs of X1 & X2: These LEDs indicate us the direction of the faders movement to end the current crossfade:

X1 ▼ ▲ X2 Off - On	To end the crossfade the faders must be moved at their upper extreme.
X1 ▼ ▲ X2 On - Off	To end the crossfade the faders must be moved at their lower extreme.

A manual crossfade can be ended in automatic mode; for this, press **GO** or **GO . BACK**.

AUTOMATIC PLAYBACK

To execute a crossfade in automatic mode, use the function keys of the sequence.

Starting with a **ready crossfade** (the **X1** step is at 100% and the **X2** step at 0%:

Key	Function
GO	<p>When you press GO:</p> <p>Begin the crossfade in automatic mode, with the fade times of the X2 step (next step).</p> <p>If X2 has a command, this command is executed.</p> <p>If the X2 step has not fade times, X1 jumps out scene and X2 jumps in scene.</p> <p>If the X2 step has fade times, X2 fades in scene in the in time (T^-), and X1 fades out scene in the out time (T^+). During this process the crossfade is temporising.</p> <p>If the X2 step has not T^+, after the end of this crossfade, the next crossfade is ready.</p> <p>If the X2 step has T^+, after the end of this crossfade, the next crossfade waits the T^+ seconds, and the next crossfade is executed in automatic mode...</p>
PAUSE	No function with a ready crossfade.
GO . BACK	<p>When you press GO . BACK:</p> <p>Begin the crossfade in automatic mode to the previous step, with the fade times of the X1 step (current step). Example, if in X1 is the step 35, the crossfade is done from the step 35 to the step 34 (and no from 35 up to 36).</p> <p>When a inverse crossfade is ended, never is computed the auto time, T^+.</p>

In the status LEDs:

<p>X1 ▼ ▲ X2 Off - Blinking</p>	When a crossfade is temporising , the status LED that shows the direction of the faders movement to end the current crossfade manually, is blinking.
<p>X1 ▼ ▲ X2 ON- Blinking</p>	When the crossfade is computed its T^+ time , the status LED that shows the direction of the faders movement to end the current crossfade manually, is blinking; and the other LED is lit.

If, during a **crossfade is in progress**, we press:

Key	Function
GO	Forces the beginning of a next crossfade: the next step in the sequence list enters in X2 , and the crossfade is executed with the times of the X2 step.

THE SEQUENCE

PAUSE	<p>If the crossfade in progress is a manual crossfade, this key has no function.</p> <p>If, the crossfade in progress is automatic, evidently with fade times, stops the current crossfade (crossfade in pause).</p> <p>To reactivate a crossfade in pause:</p> <ul style="list-style-type: none">• Press GO to continues this crossfade• Press GO . BACK to return to the initial point of this crossfade
GO . BACK	<p>When you press GO . BACK:</p> <p>The crossfade in progress changes of direction, returning at its initial point.</p> <p>When a crossfade in inverse direction is ended, never the ⊕ time is computed.</p> <p>You can press GO . BACK as many times as you want.</p>

During a automatic crossfade, it is possible to take the control manually using the faders. Move the faders in the direction indicated by the status LEDs, and when the faders arrive the sequence output, the console emits a “beep” and the crossfade control, now, is in the faders (manual). End the crossfade with the faders.

DISPLACEMENTS IN THE SEQUENCE ORDER

To change the order of playback of the steps list in the sequence, we have 2 ways:

Programmed:

Using a unconditional **Jump**.

When a step has programmed a **Jump**, the next step to execute is the step indicated in the Jump, and no the next step in numerical order.

Manual:

There are several commands to place in **X2** (next in scene) or to place in **X1** (scene), a step number or a preset number, in the desired moment.

To place a step or preset in **X1** (forcing its jump in scene), press:

Step-number TO.ST TO.ST

Preset-number TO.PR TO.PR

If this preset is in more than one steps, places in X2 the nearest step (in ascendant order).

To place a step or preset in **X2** (ready to fade in scene in the next crossfade), press:

Step-number TO.ST

Preset-number TO.PR

If this preset is in more than one steps, places in X2 the nearest step (in ascendant order).

To initialise the sequence, press:

0 TO.ST TO.ST (or press **0 TO.PR TO.PR**)

To advance a step in the sequence (without use fade times):

- Press **TO.ST GO** (or press **TO.PR GO**)

To back down a step in the sequence (without use fade times):

- Press **TO.ST GO.BACK** (or press **TO.PR GO**)

EL CROSSFADE EN TITAN

By default, TITAN does **dipless** crossfades.

In a dipless crossfade, when a channel is controlled in the **X1** step and in the **X2** step, this channel never decrement its level for increment it after. The dipless characteristic can be deactivated in the **SETUP/XF** option. (See the chapter 7).

'LEARNING' TIMES IN THE SEQUENCE

We can 'capture' the auto times, T_{\oplus} , for the sequence steps in manual mode. In other words, we can press the **GO** key, reproducing the sequence, as times as it is necessary, and TITAN 'teaches' the time between pressings (auto time). This auto time, T_{\oplus} , is inserted in **X1** at the end of its crossfade.

Recording delay times manually:

- Press **LN.TM** (its LED is lit when this function is active)
- Press **GO**. The auto times are deactivated during the process. The crossfade between **X1** and **X2** begins, when the crossfade finish (now **X2** jump to **X1**) begins to count the auto time for the steps in **X1**.
- Press **GO** again. The auto time is copied to the **X1** step. Begins the next crossfade, when this crossfade ends, a new auto time is computed for the step in **X1**.
- Repeat the previous step as many times as auto times you wish.
- Press **LN.TM**, to finish this process (or press **PAUSE**).

If we have not recorded fade times, and we want insert them after maintaining the time between crossfades:

1. From the **Main** menu, select the option **SEQ** to edit the sequence.
2. Enter the desired fade times with the **LN.TM** function activated, in this way; the entered fade time is discounted of T_{\oplus} . The time between crossfades is the same.

THE SEQUENCE

In the capture processing, if the delay time is smaller than the stored fade time, the console emits a warning 'beep' and the delay time is not recorded, but the storing process is not deactivate.

Learning times for the sequence, the sequence speed control is adjusted at 100%

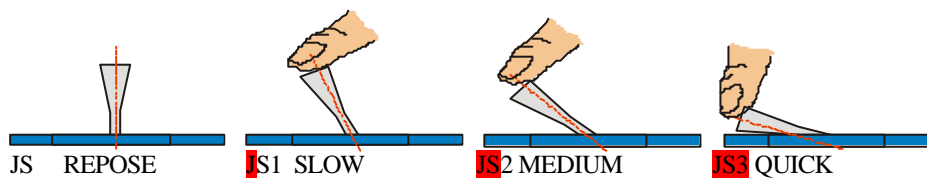
SPEED CONTROL

TITAN has a speed control for the sequence. This speed control is used when the sequence is playback in automated temporised mode to accelerate or to decelerate the programmed times. To activate this speed control:

- Press **RATE** (Its LED is lit). Now, the programmed sequence times are controlled moving the **joystick**.

The value of this speed control is showed in the monitor, or in the display pressing: **EXAM RATE**.

The Joystick has 3 zones with different resolutions. The zone depends of the joystick position. The resolution affects to the variation of the acceleration. This variation can be slow (zone 1), medium (zone 2) o quick (zone 3). The resolution is showed in the status line in the monitor: JS#



At any moment, it is possible **to return to the default speed** (rate at 100%) pressing:

- **RATE RATE**

ERASE THE SEQUENCE

The sequence can be deleted, completely, from the option **DEL -SEQ** of the **MENU**

To access to this option:

- Select with the cursor **■MENU ■**
- Press **ENTER**

And, now, from **MENU**:

- Select with the cursor **■DEL-SEQ■**
- Press **ENTER**, the console request us confirmation.
- Confirm, pressing **ENTER** again.

Now the sequence is empty.

To return to the **Main** screen

- With the **■Menu■** option selected, press **ENTER**.

THE SEQUENCE

Resume:

GO	Start a new crossfade.
GO-BACK	Start the current crossfade in invert direction.
PAUSA	Spot the started crossfade.
# TO.ST TO.ST	Place in X1 the step #. (Here it is possible a light jump in scene)
# TO.ST	Place in X2 the step #.
0 TO.ST TO.ST 0 TO.PR TO.PR	Initialisation. Place in X1 the step 0 and in X2 the step 1.
# TO.PR TO.PR	Place in X1 the preset #. (Here it is possible a light jump in scene)
# TO.PR	Place in X2 the preset #.
TO.ST GO TO.PR GO	Advance a step (without programmed times).
TO.ST GO.BACK TO.PR GO.BACK	Back down a step (without programmed times).

Special commands:

# TIME TO.PR # TIME TO.ST	To edit the out time of the step in X2
MD.FY TO.PR MD.FY TO.ST	To modify the preset in the X1 step (if editor in <i>Stage</i> mode) or to modify the preset in the X2 step (if editor in <i>Blind</i> mode).

5 - THE CHASES

THE CHASES

A chase is formed by steps. Each step is programmed with a **preset**, a **channel** or a **group**. The chase is the succession of these steps in scene. There are not a maximum number of steps.

TITAN has up to 99 chases, named like **801** at **899**, and we can activate simultaneity: 7 for TITAN-48, 13 for TITAN-72 and 19 for TITAN-96.

In a chase we can define:

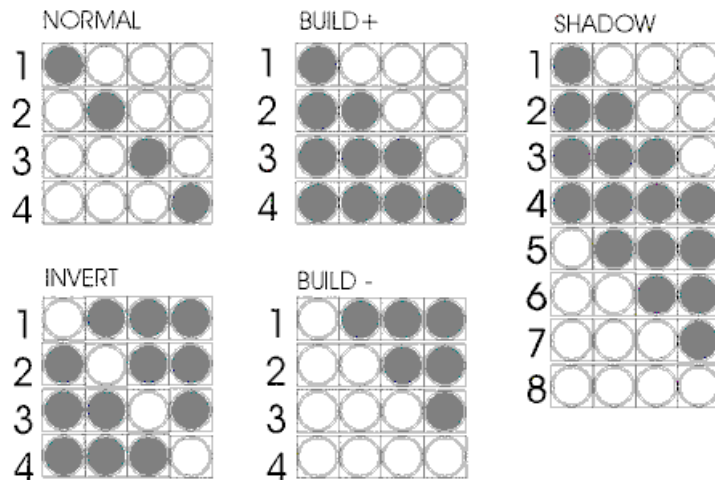
Parameter	Name	What is it?
Name	8##	The chase name is a number (801-899). This number permits us to name the chase for its recording, loading, deleting, etc.
Type	PRESET CHANNEL GROUPS	Is the type of content of its steps. Each step contents a number of channel, of presets, or a group. All the step chases are the same type.
Fade Time	T	Is the fade time of a chase. When a chase is executed in automatic mode (GO), the chase fades in scene in this fade time. When a active chase is deactivated in automatic mode (GO), the chase fades out scene in this same fade time.
Step time	StepT ó StT	Is the time that each step is in scene before to be replaced by the next step. The step time only is computed when the chase is in automatic mode (GO). In manual mode (STEP) the step time is not computed.
Direction	> < ><	Defines the order of succession of the steps in scene: > ascendant (1, 2, 3...8, 9) < descendant (9, 8, 7... 2, 1) >< cyclic (1, 2, 3... 8, 9, 9, 8, 7..., 2, 1)
Mode	- / \ ^ XX XF XF	Is the mode in that the steps are activated or deactivated: - The step jumps in scene and jumps out scene. / The step fades in scene and jumps out scene. \ The step jumps in scene and fades out scene. ^ The steps fades in scene and fades out scene. XX The step cross fades in scene with the previous step (no-dipless). XF The step cross fades in scene with the previous step (dipless). In dipless, the level of the channels that are in the current step and the next step, never decreases beneath the minimum level stored.

THE CHASES

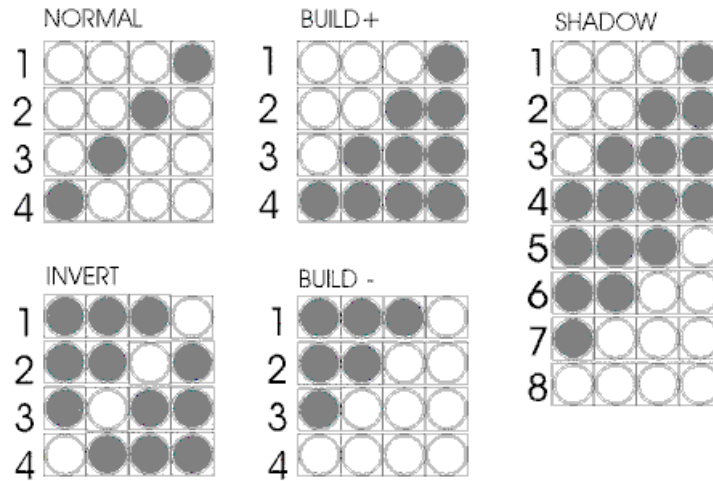
Attribute	<p>NORMAL</p> <p>INVERT</p> <p>BUILD+</p> <p>BUILD-</p> <p>SHADOW</p> <p>RANDOM</p> <p>CHAOS</p>	<p>NORMAL, the chase begins with all its steps deactivated, and then, each step is activated in scene and the previous step is deactivated.</p> <p>INVERT, the chase begins with all its steps activated, and then, each step is deactivated in scene and the previous step is activated.</p> <p>BUILD+, the chase begins with all its steps deactivated, and then, each step is activated in scene but, the previous step is not deactivated.</p> <p>BUILD-, the chase begins with all its steps activated, and then, each step is deactivated in scene but, the previous step is not activated.</p> <p>SHADOW, the chase begins with all its steps deactivated, and then, each step is activated in scene but, the previous step is not deactivated, when all steps are in scene, each step is deactivated in scene but, the previous step is not activated, to the end, all steps are deactivated.</p> <p>RANDOM, the chase begins with all its steps deactivated, and then, the steps are activated in scene in random order and with a step time random too. This mode is very used to simulate flames, fire, etc.</p> <p>CHAOS, the chase begins with all its steps deactivated, and then, the steps are activated in scene in random mode (order, level and number) and with a step time random too. This mode is very used to simulate flames, fire, etc. that they need more than one step in scene.</p>
Base Preset	Pr	This preset is activated in scene with the chase, and this preset is in scene during the chase is active. Is the static light base of a chase.
STEPS		Are not limited. The chase steps are the same type. Each step only has an item (channel, preset or group). The steps are succeeded, in scene, controlled for the direction, the mode, the attribute and the step time.

Graphic examples of the chase **attributes and directions**. This example is based in a channels chase with 4 steps, where a active channel is showed like “ ”, and a deactivated channel like “ ”

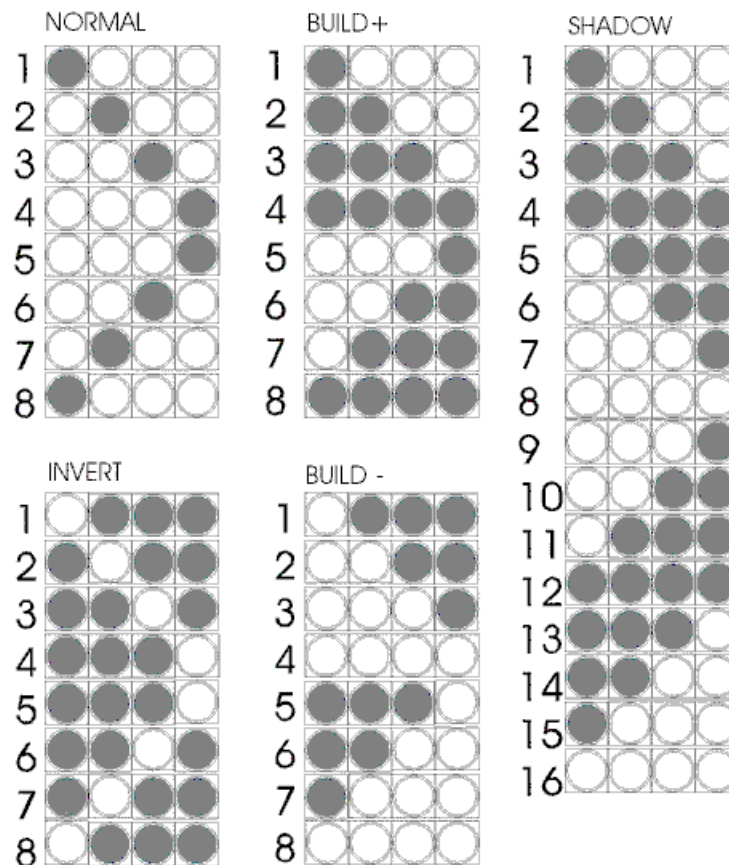
Ascendant direction (>)



Descendant direction (<)



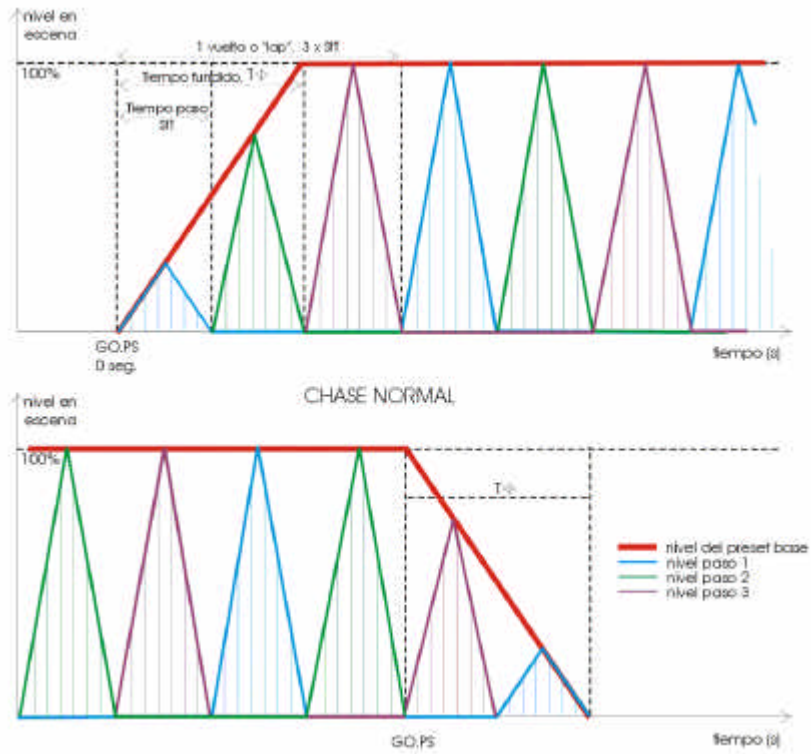
Cyclic direction (><)



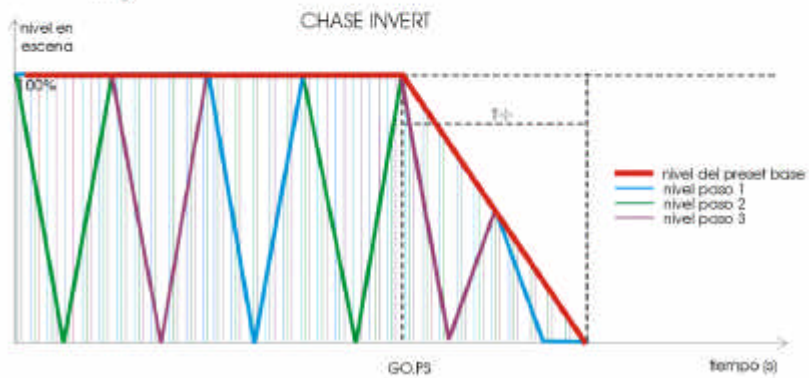
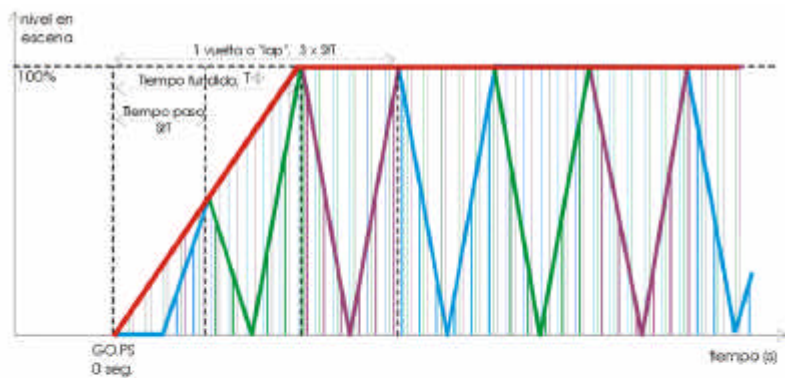
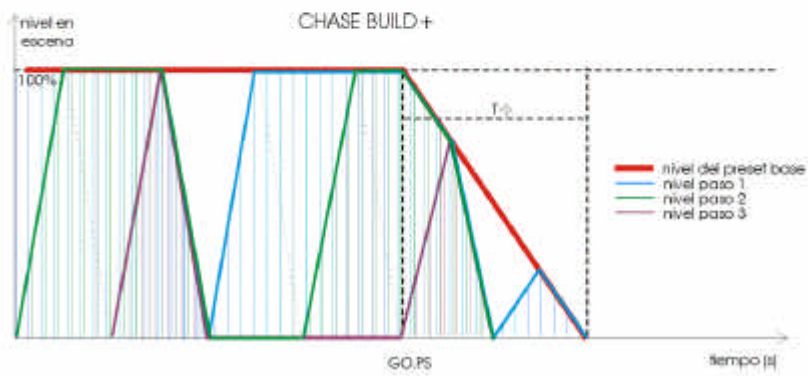
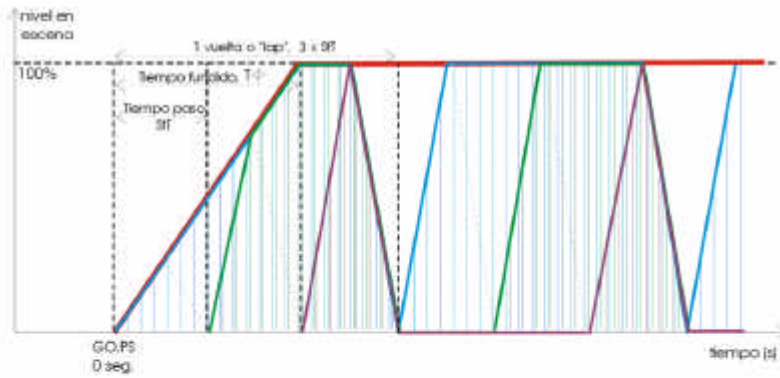
THE CHASES

Suppose a chase with 3 steps, direction $>$, and mode \ddot{E} . This chase has programmed a base preset and a fade time (T).

In the next examples, the progress of this chase is shown, (for 3 basic attributes):



THE CHASES



THE CHASES

EDITING A CHASE

Remember! The chases are in the rank 801 - 899.

To store the desired chase, press:

- **8## REC**

To store the next free chase (last stored chase +1), press:

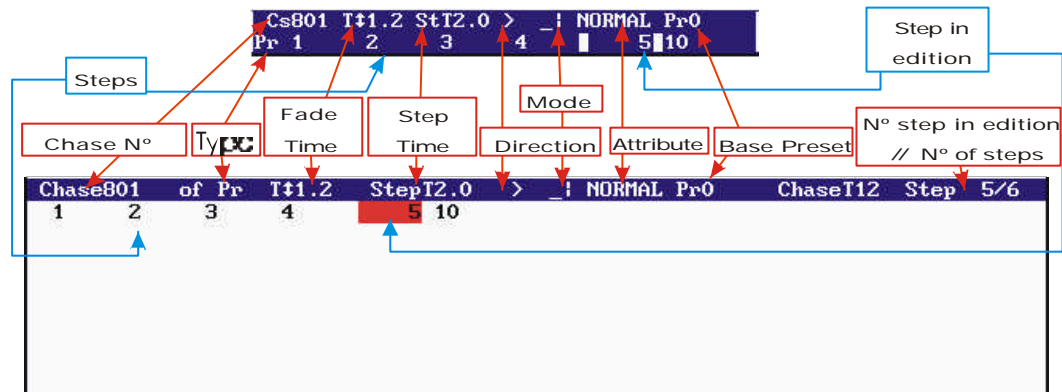
- **800 REC**

In the display, a type selection screen appears. To select the **type** of the new chase:

PRESETS CHANNELS GROUPS

- Move the cursor up to the desired **type** (using the arrow keys) and press **ENTER**. Example: **PRESETS ENTER**

The system shows us the edition table of the chase (in display and monitor):



- In this edition table, edit the steps content, and adjust the chase general parameters (see below).
- Press **ENTER** to accept and store the edited chase.

WORKING IN THE CHASE EDITION TABLE

To select the desired cell, use the arrows keys.

To enter a numeric data use the numeric keyboard.

The default step time, **StT**, and the fade time, **T**, is a 'cut' time (0,1 sec).

These times can be compressed between 0 and 999.9. But the times with 3 digits and decimal point only are showed with its 3 digits.

To edit the **direction, mode or attribute** of the chase, place the cursor in the corresponded cell, and toggle between the available options pressing **INSERT** as many times as will be necessary.

Only in the monitor, it is possible to see the next information:

The total time for a lap of the chase, this time is calculated in base at the step time and the steps number, (ChaseT **12** in the previous draw).

The number of the step in edition (selected with the cursor), and the total of the chase steps (Step **5/6** in the previous draw, in other words, the step 5 is been edited in a chase of 6 steps).

The chase **steps** are edited in the second line of the display, and the steps are always ordered in ascendant direction. To access to the steps edition (second line of the display) press **↓**.

To edit a **new step**:

- Move the cursor to the last step cell (empty step) and select one of the next options:
 - For **presets chase or channels chase**: Enter the **preset number or channel number** for this step.
 - For **presets chase or channels chase**: Press **INSERT** to entered the next preset/channel to the preset/channel of the previous step. **INSERT** permits us to edit steps with consecutive channels (or presets) easily. You can maintain pressed this key to edit several consecutive steps.
 - For **groups chase**: Prepare the desired picture in scene, and press **LOAD** to load the scene output like a group in the step in edition.
- Accept the entered data moving the cursor with any arrow key (except in the edition done with **INSERT**, that they are accepted immediately).

To **insert a step** between 2 stored steps:

- Move the cursor to the cell of the step that you want to insert. Example: If you want to insert a step between the current steps 3 & 4, move the cursor at the step 4.
- For **presets chase or channels chase**: Enter the **preset number or channel number** for the new step, and press **INSERT**.
- For **groups chase**: Prepare the desired picture in scene, and press **INSERT** to store the group in the new inserted step.

To **insert or to edit a blackout step**:

- Move the cursor to the cell of the step that you want to edit and enter the number **0**, instead of a number of preset or a number of channel.

THE CHASES

To delete a stored step:

- Move the cursor to the cell of the step that you want to delete.
- Press **DELETE**.

To cancel a numeric entry, before to accept this number, press **C**.

Example:

Suppose that we want record the chase number 805, with presets, mode **Ē**, cyclic direction, and it formed with the presets, 1, 3, 5, 7, 5, 8, 9, 10, 11 y 9, in this progression. The step time is 1 minute (60 seconds):

- **805 REC**
- **PRESETS ENTER**
- Select the **StT** cell and enter **60**.
- Select the **Direction** cell (**_|**) and press **INSERT INSERT**, the symbol **<>** appears.
- Select the **Mode** cell and press **INSERT INSERT INSERT**, the symbol **Ē** appears.
- Press **↓**, and enter the next data for the steps:
- **1 →**
- **3 →**
- **5 →**
- **7 →**
- **5 →**
- **8 →**
- **INSERT** (added the next stored preset, **9**)
- **INSERT** (added the next stored preset, **10**)
- **INSERT** (added the next stored preset, **11**)
- **9 →**
- **ENTER** (To exit of the chase table; all entered data are accepted).

MODIFYING A CHASE

To modifying the chase data:

- Select the chase. Example: **853 REC**.
- Edit the desired cells.
- Press **ENTER** to end.

COPYING A CHASE

To copy the chase data in a new chase:

- Select the recorded chase. Example: **853 REC**.
- Select the first cell: **Cs853**
- Enter the number of the new chase, example: **863**, and press **→** to accept it.

Now you are editing the new chase. The chase 853 has been copied in the new chase 863. The chase 853 is not modified.

This command only works with a new chase numbers. It is not possible to copy a chase in other recorded chase.

DELETING A CHASE

You can to delete a concrete chase, pressing:

- **8## DELETE** (8## is a chase number, 801 - 899).

You can to delete all chases stored in the console, pressing:

- **800 DELETE**

This option requests confirmation. Confirm pressing **DELETE** again.

EXAMINING A CHASE

You can to exam a concrete chase, in the console display, pressing:

- **8## EXAM** (8## is a chase number, 801 - 899).
- **ENTER**, to quit of the exam display.

You can to exam the list the all the stored chases, in the console display, pressing:

- **800 EXAM**
- Use the arrows keys to move the display information.
- **ENTER**, to quit of the exam display.

ACCESS TO THE CHASE EDITION TABLE

To access to the edition table of a concrete chase, you can press:

- **8## REC** or **8## MD.FY**

To access to the edition table of a chase loaded in the masters **Mn** & **Mn+1**, you can press:

- **MD.FY Mn** or **MD.FY Mn+1**

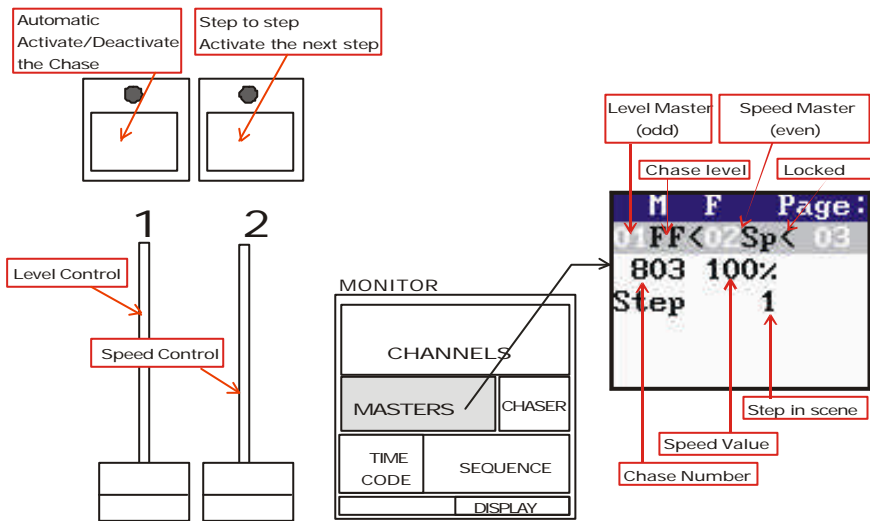
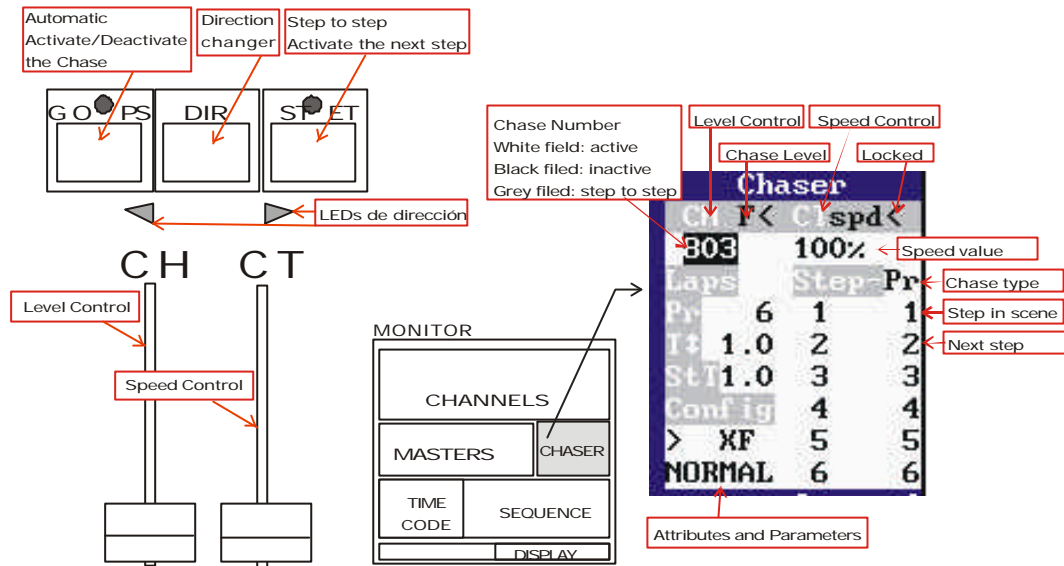
To access to the edition table of a chase loaded in the chaser, you can press:

- **MD.FY GO.PS**

THE CHASES

CHASES INFORMATION

Visualisation in the monitor of the Chaser and of 2 masters with a loaded chase:



STATUS AND PLAYBACK MODES OF THE CHASES

A chase is activated when has active some of its steps in scene. TITAN permits us to activate a chase in the Chaser or in 2 consecutives Masters.

A chase is in automatic mode when it doesn't need the user intervention for that the chase activates the next steps.

A chase is in step to step mode, when it needs the user intervention for that the chase activates the next steps.

The base preset (if it is programmed) is activated when the chase is activated, and it is deactivated when the chase is deactivated. When the mode changes of automatic at step to step, or vice versa, the base preset doesn't change.

The fade time, **T**, only is computed when the chase changes from deactivated to activated in automatic mode, and when it changes from activated in automatic mode to deactivated. When the mode changes of automatic at step to step, or vice versa, the **T** is not computed. When the chase is activated in automatic mode, this **T** affects to the steps and to the fade in of the base preset. When the chase is deactivated, this **T** affects to the steps and to the fade out of the base preset.

STATUS	MODE	INFORMATION IN THE LEDS OF ...	
		GO.PS (or Mn)	ST.EP (or Mn+1)
Deactivated	Loaded	Lit	Off
	Unloaded	Off	Off
Activated	Automatic	Blinking	Off
	Step to Step	Lit	Lit

WORKING WITH THE CHASES

The chase can be activated in the Chaser, or using 2 consecutive masters. These 2 consecutive masters, **Mn** and **Mn+1**, permit us to control the chase in a similar way that the Chaser:

Mn works like **GO.PS** and the **Mn** fader works like the **CH** fader.

Mn+1 works like **ST.EP** and the **Mn+1** fader works like **CT** fader.

The **Mn** master is always the odd master (1, 3, 5, ...).

THE CHASES

To load a chase, press:

In the Chaser

- **8## LOAD GO.PS** (8## is the chase number, 801-899)
The **GO.PS** LED is lit.

In the Masters

- **8## LOAD Mn**
The **Mn** LED is lit.

To unload a chase, press:

In the Chaser

- **800 LOAD GO.PS** or **0 LOAD GO.PS** or **DELETE GO.PS**
The **GO.PS** LED is Off.

In the Masters

- **800 LOAD Mn** or **0 LOAD Mn** or **DELETE Mn**
The **Mn** LED is Off.

Don't confuse with **8## DELETE**, this command deletes the chase 8## of the data memory of the console.

To exam, in the display, the chase loaded, press:

In the Chaser

- **EXAM GO.PS**

In the Masters

- **EXAM Mn**

The chase control, in the Chaser (or in the Masters)

Control	What happen with the loaded chase?
CH fader Mn fader	This fader controls the chase output level. When the chase is loaded, the level fader is locked at 100%; to take the control, the first time, will be necessary to move it up to its up extreme.
CT fader Mn+1 fader	This fader controls the playback speed of the chase. When the chase is loaded, the speed fader is locked at 100% of its speed, in its midpoint; to take control, the first time, will be necessary to move it up to its midpoint.

<p>GO.PS</p> <p>Mn</p>	<p>If the chase is deactivated, pressing GO.PS (or Mn): The chase is activated, in automatic mode, in T seconds. The first step is activated in scene, it is in scene the programmed time, and then, it is deactivated, at the same time, that the next step is activated. The chase steps are activates in order, indefinitely.</p> <p>If a chase is active in automatic mode, pressing GO.PS (or Mn): The chase is deactivated in T seconds.</p> <p>If the chase is active in step to step mode, pressing GO.PS (or Mn): The chase changes at automatic mode from the current step.</p>
<p># GO.PS</p> <p># Mn</p>	<p>If the chase is deactivated, pressing # GO.PS (or # Mn): The chase is activated, in automatic mode, in T seconds. The first step is activated in scene; it is in scene the programmed time, and then, it is deactivated, at the same time, that the next step is activated. The chase steps are activates in order, until the chase completes # laps, and then, the chase is deactivates automatically in T seconds.</p> <p>If a chase is active in automatic mode, pressing # GO.PS (or # Mn): The chase follows active in automatic mode, but, when the chase completes # laps, it is deactivated automatically T seconds.</p> <p>If the chase is active in step to step mode, pressing # GO.PS (or # Mn): The chase changes at automatic mode from the current step, when the chase completes # laps, it is deactivated automatically T seconds.</p> <p># is the number of laps, it can take a value from 1 to 99.</p>
<p>STEP</p> <p>Mn+1</p>	<p>If the chase is deactivated, pressing STEP (or Mn+1): The chase is activated, in step-to-step mode, in a cut time. The base preset and the first chase step are activated and maintained in scene.</p> <p>If a chase is active in automatic mode, pressing STEP (or Mn+1): The chase changes to step-to-step mode, the current step (in scene) is deactivated, at the same time, that the next step is activated, and this step is maintained in scene.</p> <p>If the chase is active in step to step mode, pressing STEP (or Mn+1): The chase follows in step-to-step mode, the current step (in scene) is deactivated, at the same time that the next step is activated, and this step is maintained in scene.</p> <p>In the last case, each time that you press STEP (or Mn+1) the chase advances one step.</p>

THE CHASES

<p># STEP</p> <p># Mn+1</p>	<p>If the chase is deactivated, pressing # STEP (or # Mn+1): The chase is activated, in step-to-step mode, in a cut time. The base preset and the step # are activated and maintained in scene.</p> <p>If a chase is active in automatic mode, pressing # STEP (or # Mn+1): The chase changes to step-to-step mode, the current step (in scene) is deactivated, at the same time that the step # is activated, and this step is maintained in scene.</p> <p>If the chase is in step to step mode, pressing # STEP (or # Mn+1): The chase follows in step-to-step mode, the current step (in scene) is deactivated, at the same time that the step # is activated, and this step is maintained in scene.</p> <p># is the step number to activate, and can take values from 1 to 999.</p>
<p>DIR</p>	<p>This key is used to change the chase direction. The chase direction can be changed at any moment. Press DIR as many times as will be necessary.</p> <p>In the green LEDs that are under this key, you can see the current direction.</p> <p>The DIR function is not accessible, directly, in the Masters.</p>

A channels controlled by a chase is in grey in the monitor.

Notes:

The chases loaded in Masters are recorded in the Masters pages.

The Flash Master function doesn't affect to the chase Masters.

The chase Masters doesn't accept fading times like the others Masters.

'LEARNING' TIMES IN THE CHASES

The step time of a chase in scene can be corrected manually.

In this process, the chase should be loaded in the chaser or masters (the chase can be active or not) and:

- **Press LN.TM** (Its LED will be lit) to active the "learn time" function. In this situation, the **CT** fader (or **Mn+1** fader) is locked at its 100%.
- **Press ST.EP** (or **Mn+1**), as many times as will be necessary to ensure the "rhythm".
- **Press GO.PS** (or **Mn**). The chase is activated in automatic mode (GO), with the "learned" step time. **This "learned" step time is the time between the last pressing of ST.EP (Mn+1) and the pressing of GO.PS (Mn)**. The "learn time" function will be deactivated, (the LN.TM LED will be off).

To quit of this process without record the step time press **LN.TM** again before press **GO.PS** (or **Mn**).

In this way, is a very simple to synchronise chases with a desired rhythm.

LTP CHANNELS. ATTRIBUTES & MODES

The chase behaviour depends of its mode and attribute.

The mode sets the form in which the steps are activated or deactivated in scene, and the attribute sets the moment in which the steps are activated or deactivated.

The LTP channels are not affected for the mode and attribute of the chase. These LTP channels always:

- Are activated and deactivated in a jump (mode: _|).
- Are activated in scene with its stored level (too in the INVERT chase).
- Are maintained in scene (never, the next step deactivates to the LTP channels of the previous step).
- Are not affected for the T .
- Are not affected for the **CH** fader (or **Mn** fader).

See the chapter 10.

THE CHASES

Resume:

801 REC / 801 MD.FY		To store the chase 801
800 REC / 800 MD.FY		To store the next free chase
801 DELETE		To erase the chase 801 of the console memory
800 DELETE		To erase all recorded chases of the console memory
801 EXAM		To exam the chase 801
800 EXAM		To exam the recorded chases list
801 LOAD GO.PS	801 LOAD Mn	To load the chase number 801 in the Chaser or Masters
800 LOAD GO.PS	800 LOAD Mn	To free the Chaser or Masters
0 LOAD GO.PS	0 LOAD Mn	To free the Chaser or Masters
DELETE GO.PS	DELETE Mn	To free the Chaser or Masters
GO.PS	Mn	Automatic mode, activates or deactivates the chase
ST.EP	Mn+1	Step to step, and the next step is activated
DIR		To toggle the selected direction in the chaser
# GO.PS	# Mn	Automatic mode for # laps
# ST.EP	# Mn+1	Step to step mode, and the step # is activated
MD.FY GO.PS	MD.FY Mn	Modification of the loaded chase
EXAM GO.PS	EXAM Mn	To exam the chase assigned

6 - MENU

In the *MENU* options, you can to configure the Patch, the MIDI port, the Sound input, etc. The Memory Card access and other special functions are here too.

To enter in *MENU*, from the main menu:

- Move the cursor with → up to select this option, *MENU* .
- Press **ENTER**.

The display shows us all the *MENU* options:

Menu	PATCH	ATR	TRIGGER	MIDI	SOUND	PRHT
MCARD	MACRO	RS232	PB-ZERO	DEL-SEQ		

Remember:

Go back to the previous display, selecting the first option – in this example, *Menu*

To move the cursor to the desired position, you can use any of the arrow key: ←, →, ↑ & ↓

THE PATCH - MENU / PATCH

The Patch is a table to associate control channels (48/72/96) with dimmer numbers (1024).

A control channel can control any dimmer (or dimmers group). A dimmer only can be controlled by one control channel.

TITAN permits us to control 1024 dimmers (2 DMX-512 lines). Each dimmer can have associated a response curve and a LIMIT level.

NOTE: Edit the Patch Table, if this is necessary, before to store the presets. The Patch configuration affects to the scene output.

The default PATCH has:

- All dimmers have associated the lineal curve or curve number 1, (Cu1).
- No dimmers are limited. The LIMIT level is 100% or full, (LiF).
- The control channels are associated, in order 1 to 1 (1:1), to the first dimmers:
 - TITAN-48:
Channel 1-Dimmer 1, Channel 2-Dimmer 2...Channel 48-Dimmer 48.
 - TITAN-72:
Channel 1-Dimmer 1, Channel 2-Dimmer 2...Channel 72-Dimmer 72.
 - TITAN-96:
Channel 1-Dimmer 1, Channel 2-Dimmer 2...Channel 96-Dimmer 96.
- The upper dimmers aren't associated with control channels.

MENU

To select **PATCH**, from **MENU**:

- Move the cursor with → up to select this option, **PATCH** .
- Press **ENTER**.

The display shows us:

Menu.Patch	EDIT	DEFAULT	1:1	LiF	Cu1
------------	------	---------	-----	-----	-----

Here we can see the information about the current patch:

- **1:1** is present only when the patch is a lineal patch. Default option.
- **LiF**, is present when the all dimmers have a LIMIT of 100%.
- **Cu1**, is present when the all dimmers have the Curve number 1.

The **PATCH** commands are:

- **Setup.Patch**, used to exit to the previous menu (**MENU**).
- **EDIT**. This option permits us edit the patch.
- **DEFAULT**. Select this option and press **ENTER**, to return to the default patch. (1:1, Cu1 & LiF).

PATCH EDITION - Menu / Patch / Edit

When we select **EDIT**, the Patch table appears. This table is indexed by dimmers.

The dimmers are numbered from 1 up to 512, with a decimal extension. This extension indicates us the DMX Output number:

1.1 up to 512.1 (are dimmers of the OUTPUT-1) and 1.2 up to 512.2 (are dimmers of the OUTPUT-2). In resume TITAN has 1024 dimmers.

The Patch table in the display and monitor:

Dimmer	Channel	Limit	Curve	Dimmer	Channel	Limit	Curve
1.1	1	F	1	21.1	21	F	1
2.1	2	F	1	22.1	22	F	1
3.1	3	F	1	23.1	23	F	1
4.1	4	F	1	24.1	24	F	1
5.1	5	F	1	25.1	25	F	1
6.1	6	F	1	26.1	26	F	1
7.1	7	F	1	27.1	27	F	1
8.1	8	F	1	28.1	28	F	1
9.1	9	F	1	29.1	29	F	1
10.1	10	F	1	30.1	30	F	1
11.1	11	F	1	31.1	31	F	1
12.1	12	F	1	32.1	32	F	1
13.1	13	F	1	33.1	33	F	1
14.1	14	F	1	34.1	34	F	1
15.1	15	F	1	35.1	35	F	1
16.1	16	F	1	36.1	36	F	1
17.1	17	F	1	37.1	37	F	1
18.1	18	F	1	38.1	38	F	1
19.1	19	F	1	39.1	39	F	1
20.1	20	F	1	40.1	40	F	1

LT COPYRIGHT 1992-2002 || D1.1 Ch1 LiF Cu1 1:1 LiF Cu1
D2.1 Ch2 LiF Cu1

Observe, that in the inner right corner of the monitor, you can see a “copy” of the Display.

To edit the Patch table, move the cursor to the desired cell, using the arrows key, and enter the numeric data from the keyboard.

The patch table is formed for 4 columns:

D / Dimmer

Is the dimmer number, and the information to the right, in the same line, is of this dimmer. We cannot edit this number. Any of these cells is used to place us to desired dimmer number. Example:

- In the “Dimmer” cell enter the desired dimmer number (using the format “###•#”, where the ### is a dimmer number and •# is the line number (1 or 2), examples: 123.1 ó 1.2).
- Press → to access to the selected dimmer.

Note: If you enter the dimmer number without line number, TITAN takes this number like a dimmer of the line number 1. In other words, press ###, is the same that press ###.1

Ch / Channel

It is the control channel number associated with the dimmer. It is possible to enter a number from 1 up to 48/72/96 (depending of the TITAN model).

To eliminate an entered control channel, enter **0** in its cell.

To edit the next channel, in relation to the previous dimmer, press **INSERT**

To edit the same channel, in relation to the previous dimmer, press and hold down pressed **TIME**, during **INSERT** is pressed.

Li / Limit

Is the output level maximum for the dimmer; a restriction level. (0-100). The level 100 or F, (full), in the no-restriction level.

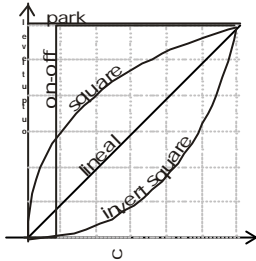
When we enter valour different to 100, the curve is recalculated between 0% and this LIMIT level.

Don't use this function to connect lamps of smaller voltage.
--

MENU

Cu / Curve

This column contents the curve numbers associated to the dimmer. There are 5 pre-programmed curves:



1. **Linear** (Curve by-default).
2. **Square**.
3. **Invert Square**.
4. **ON-OFF**, or Non-dim curve.
5. **Park**, where the dimmer is always at 100% (independently of the level of its control channel)

EXAMPLES FOR PATCH EDITIONS

Example 1:

We need control the dimmer 30.1 with the control channel 2. This dimmer is connected to discharge lamp; in other words, we need the curve 4, ON-OFF, for this dimmer.

- Access to **D30.1** cell, pressing and hold down $\bar{}$, or entering **30** in any Dimmer cell and pressing $\text{\textcircled{R}}$.
- If it is necessary, press $\text{\textcircled{R}}$, to access to **Ch30**. In the display:

D30.1	Ch30	LiF	Cu1	1:1	Cu1	LiF
D31.1	Ch31	LiF	Cu1			

- In this situation, in its "**Ch**" cell, enter **2** (control channel). The flag 1:1 disappears.
- Select the "**Cu**" cell pressing $\text{\textcircled{R}}$.

D30.1	Ch2	LiF	Cu1		Cu1	LiF
D31.1	Ch31	LiF	Cu1			

- Enter $\overset{\text{c}}{4}$ to select the ON-OFF curve. The flag Cu1 disappears.

D30.1	Ch2	LiF	Cu4			LiF
D31.1	Ch31	LiF	Cu1			

- Press **ENTER** to return to the previous menu.

Example 2:

Suppose that we want control the dimmers 49, 50 & 51 with the control channels 1, 2 & 3. (This example is based in a TITAN-48).

- Select the **D49.1** cell: In a "**D**" cell, enter **49.1** and press $\text{\textcircled{R}}$

Dim49	Ch-	Li-	Cu-	1:1	Cu1	LiF
Dim50	Ch-	Li-	Cu-			

- Enter **1**, and press ↓ to select the next dimmer. The flag 1:1 disappears. The curve 1 and LIMIT 100 (by default) are assigned automatically.

Dim49	Ch1	LiF	Cu1		Cu1	LiF
Dim50	Ch-	Li-	Cu-			

- Press **INSERT** 2 times.
- Press **ENTER** to return to the previous menu.

The **INSERT** function inserts the next control channel. But the **INSERT** function depends of the active cell:

1. In the **D** cell. **INSERT** increments the control channel number (of the previous dimmer), and copies the **LIMIT** and curve parameters and displaces us to the next dimmer.
2. In the **Ch** cell. **INSERT** inserts the previous control channel incremented by 1, and takes the **LIMIT** and curve by default and displaces us to the next dimmer.
3. In the **Li** or **Cu** cells. **INSERT** only copies this parameter from the previous dimmer and displaces us to the next dimmer.

Note: To copy the same control channel that the associated to the previous dimmer, from the **Ch** cell, press and hold down **TIME** and press **INSERT**.

Example 3:

Suppose that we want the dimmers 3 up to 15 controlled by the control channels 4 up to 16 respectively, en **SETUP/EDIT**:

- Select the **D3.1** cell, pressing two times ↓. And select its **Ch** cell:

D3.1	Ch3	LiF	Cu1	1:1	Cu1	LiF
D4.1	Ch4	LiF	Cu1			

- Enter **4**, (control channel for the dimmer 3).
- Press ↓, to access to the next dimmer.
- Press and hold down **INSERT**, up to arrive to the cell: **D15.1**.

D14.1	Ch15	LiF	Cu1		Cu1	LiF
D15.1	Ch16	LiF	Cu1			

- Press **ENTER** to return to the previous menu.

Note:

With the left-right arrow keys we access to the parameters of the same dimmer. With the up-down arrow keys we access to same parameter of the different dimmers.

MENU

CHANNEL ATTRIBUTES - MENU / ATR

From this menu you can to configure the console channels. Indicating that channels are HTP or LTP, that channels are linked and the behaviour of the LTP channels.

A HTP channel works under the philosophy: The **highest level takes precedence**. The conventional lighting channels are always HTP.

A LTP channel works under the philosophy: The **last level takes precedence**. The control channel for colour changers, gobo wheels, colour wheels, etc, are always LTP.

A link, between 2 channels, helps us to edit the levels of both channels in simultaneous mode, using for that the 2 directions of the Joystick. This function can be used to associate a lamp and its colour changer, 2 movement channels (pan and tilt), etc.

To select *ATR*, from *MENU*:

- Move the cursor with → up to select this option, *ATR* .
- Press **ENTER**.

The display:

Setup. Atr	EDIT	DEFAULT	PON	POFF
Htps:48	Ltps:0		Priority: Off	

More information about the use of the channel attributes in the chapter 10.

ATTRIBUTES EDITION – Menu / Atr / Edit

To access to the table of channel attributes, select the *EDIT* option, inside *ATR*:

- Move the cursor using → to select the option *EDIT*
- Press **ENTER**.

In the display:

Ch1	HTP	LINK
Ch2	HTP	LINK

This table has 4 columns:

Column 1.- The channel number that we are editing.

Column 2.- The channel type, HTP or LTP.

Column 3.- LINK label.

Column 4.- The linked channel number. If there isn't link this column is empty.

To move the cursor use the arrow keys:

← & → to select the attributes of a channel.

↑ & ↓ to select the previous or next channel.

With the cursor in the column 2 of the desired channel, to toggle between the HTP & LTP type press **INSERT**.

With the cursor in the column 4 of the desired channel, enter the channel number to link.

Each time that you move the cursor, the precedent data is accepted.

To quit of this table, press **ENTER**.

BY DEFAULT ATTRIBUTES – Menu / Atr / Default

By default, all system channels are HTP and no channels are linked.

To return to the channel attributes by default, select the option **DEFAULT**.

Inside **ATR** menu, inner line, you can see the number of HTP channels and the number of LTP channels.

In the monitor, the LTP channels are marked with a asterisk, *. In the next example, the channels 1 to 3 are LTP:

Gm100	100%	BLK-OUT	OFF	Jy	Jx	A.Single	Stage	Seq.Fixed															
1*	2*	3*	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

LTP CHANNELS, BEHAVIOUR – Menu / Atr / Pon - Poff

A LTP channel can answer to the philosophy “Last Take Precedence”, or to a philosophy of “Priority” (where some playbacks have more preference than others to take the control). From the **ATR** menu, the Priority can be activated (ON – selecting the option **PON**) or can be deactivated (OFF- selecting the option **POFF**)

In the display inner line, you can see the Priority status:

Priority:ON or **Priority:Off**

More information in chapter 10.

EXTERNAL TRIGGERS - MENU / TRIGGER

From this menu you can to configure the external triggers of TITAN. It is possible to associate a key to each external trigger. When the external trigger is executed, the associated key is “pressed” by the system.

MENU

To select **TRIGGER** from **MENU**:

- Move the cursor, pressing →, up to select the option **TRIGGER** .
- And press **ENTER**.

In the display:

Menu.Trigger	TRIGGER1	TRIGGER2
--------------	----------	----------

In the inner line, the current configurations appear.

The process, to program the external trigger, is very simple. The next example is for the TRIGGER 1:

- Move the cursor to the option **TRIGGER1**
- Press **ENTER**.
The system requests that you press the desired key, or you press **ENTER** to delete the current configuration.
- Press the desired key, in this example, the **GO** key.

In the display:

Menu.Trigger	TRIGGER1	TRIGGER2
Trigger1=GO		

Now, each time that the TRIGGER 1 input is executed, the system “presses” the **GO** key.

To delete the association of a external trigger, for example of the TRIGGER 1:

- Move the cursor to the option **TRIGGER1**
- Press **ENTER**.
- Press **ENTER**.

The TRIGGER1, is empty.

THE MIDI - MENU / MIDI

TITAN has a MIDI port. From this menu, it is possible to configure it, to active it or to deactivate it, and to edit its MIDI chart.

To select **MIDI** from **MENU**:

- Move the cursor, pressing →, up to select the option **MIDI** .
- And press **ENTER**.

In the display:

Menu.MIDI	ON	OFF	IN	OUT	CH	CODE	>0
On	In	Channel 10					

In its lower line we can see the current configuration, and in its upper line we can find the next commands:

ON/OFF

Permit us to activate (***ON***) or deactivate (***OFF***) the MIDI port.

By default, the MIDI port is at ***OFF***, and TITAN doesn't emit or receive MIDI signal.

To work with MIDI signals, it is needed to activate the MIDI port (***ON***).

IN/OUT

TITAN only works in a direction, in other words:

TITAN emits MIDI signal if the MIDI port is at ***OUT***, or TITAN receives MIDI signal if the MIDI port is at ***IN***.

CH

This command permits us to configure the communication MIDI channel. TITAN only emits or receives by the selected MIDI channel. The MIDI protocol has 16 channels (1-16). To configure the desired MIDI channel:

- Enter the MIDI channel number (1-16)
- Move the cursor to the option ***CH***
- Press **ENTER** (In the inner line, of the display, the edited MIDI channel appear).

CODE

This command permits us to edit the MIDI chart. The MIDI chart is the association between console keys/faders and the MIDI notes/controllers.

To select ***CODE***, from ***MIDI***:

- Move the cursor pressing → up to select the option ***CODE***
- And press **ENTER**.

In the display:

Menu.Midi.Code	EDIT	DEFAULT
Default		

DEFAULT permits us to goes back to the MIDI chart by default.

EDIT permits us to edit this MIDI chart freely.

The MIDI chart depends of the TITAN model (48/72/96); but all are compatibles. The same keys are associated with the same MIDI notes and the same faders are associated with the same MIDI controllers.

MENU

By default, the MIDI chart for a TITAN-96 is:

MIDI CODE																	
Keys							Faders										
C01N	0	C28N	27	M07N	54	M34	N 81	CHANNEL	N108	C01C	0	C28C	27	M07C	54	M34C	81
C02N	1	C29N	28	M08N	55	M35	N 82	THRU	N109	C02C	1	C29C	28	M08C	55	M35C	82
C03N	2	C30N	29	M09N	56	M36	N 83	EXCEPT	N110	C03C	2	C30C	29	M09C	56	M36C	83
C04N	3	C31N	30	M10N	57	ENTER	N 84	e	N111	C04C	3	C31C	30	M10C	57	A C	84
C05N	4	C32N	31	M11N	58	RATE	N 85	<-	N112	C05C	4	C32C	31	M11C	58	M C	85
C06N	5	C33N	32	M12N	59	EXAM	N 86	↑	N113	C06C	5	C33C	32	M12C	59	CH C	86
C07N	6	C34N	33	M13N	60	ESC	N 87	->	N114	C07C	6	C34C	33	M13C	60	CT C	87
C08N	7	C35N	34	M14N	61	REC	N 88	↓	N115	C08C	7	C35C	34	M14C	61	GM C	88
C09N	8	C36N	35	M15N	62	GO	N 89	DELETE	N116	C09C	8	C36C	35	M15C	62	X1 C	89
C10N	9	C37N	36	M16N	63	PAUSE	N 90	INSERT	N117	C10C	9	C37C	36	M16C	63	X2 C	90
C11N	10	C38N	37	M17N	64	GOBACK	N 91	MDfY	N118	C11C	10	C38C	37	M17C	64	JSxC	91
C12N	11	C39N	38	M18N	65	FLmT	N 92	BLnD	N119	C12C	11	C39C	38	M18C	65	JSyC	92
C13N	12	C40N	39	M19N	66	LOAD	N 93	P.K.	N120	C13C	12	C40C	39	M19C	66		
C14N	13	C41N	40	M20N	67	TIME	N 94	LntM	N121	C14C	13	C41C	40	M20C	67		
C15N	14	C42N	41	M21N	68	TEST	N 95	TDpR	N122	C15C	14	C42C	41	M21C	68		
C16N	15	C43N	42	M22N	69	7	N 96	TDsT	N123	C16C	15	C43C	42	M22C	69		
C17N	16	C44N	43	M23N	70	4	N 97	SGdBa	N124	C17C	16	C44C	43	M23C	70		
C18N	17	C45N	44	M24N	71	1	N 98	C48C96	N125	C18C	17	C45C	44	M24C	71		
C19N	18	C46N	45	M25N	72	0	N 99	SGdBm	N126	C19C	18	C46C	45	M25C	72		
C20N	19	C47N	46	M26N	73	8	N100	GOpS	N127	C20C	19	C47C	46	M26C	73		
C21N	20	C48N	47	M27N	74	5	N101	DIR	C 93	C21C	20	C48C	47	M27C	74		
C22N	21	M01N	48	M28N	75	2	N102	STEP	C 94	C22C	21	M01C	48	M28C	75		
C23N	22	M02N	49	M29N	76	C	N103	BLkoUT	C 95	C23C	22	M02C	49	M29C	76		
C24N	23	M03N	50	M30N	77	9	N104			C24C	23	M03C	50	M30C	77		
C25N	24	M04N	51	M31N	78	6	N105			C25C	24	M04C	51	M31C	78		
C26N	25	M05N	52	M32N	79	3	N106			C26C	25	M05C	52	M32C	79		
C27N	26	M06N	53	M33N	80	.	N107			C27C	26	M06C	53	M33C	80		

When the *EDIT* option is selected, in the display and in the monitor, the associations table appears.

Each table file has the information about a key or a fader. 5 columns compose the table:

Column 1	Indicates us that the name at the right is of a Key or is of a Fader .
Column 2	Is the name of the key or fader.
Column 3	Is the type of MIDI command associated, a Note or a Controller
Column 4	Is the number of the MIDI Note or the MIDI Controller. This column is the unique column that you can to edit.
Column 5	Is the musical nomenclature of the associated MIDI Note or the MIDI Controller.

The cursor is always located in the column 4 – MIDI Note number or MIDI Controller number – this data is the unique that you can to edit.

To select the file to edit, use the ↑ and ↓ keys.

Located in the column 4 to edit a key:

- Enter ### (1-127) to edit the number of the desired MIDI Note. The MIDI protocol has 128 notes.
- Enter ###• (1-127) to edit the number of the desired MIDI Controller. The MIDI protocol has 128 controllers. The system knows that it is a controller number because is ended with a decimal point.

Each time that the cursor is moved the edited data is accepted.

- When all desired data have been edited, press **ENTER** to exit of this MIDI table.

Located in the column 4 to edit a controller:

- Enter ### or ###• to edit the number of the desired MIDI Controller. The console faders only ca to be associated with MIDI Controllers.

General:

- Each time that we press one console key, the associated NOTE ON is transmitted (or its associated controller at 127 level).
- Each time that the console receives a NOTE ON the associated console key is activates (or its associated controller at 127 level).
- Each time that we release one console key, the associated NOTE OFF is transmitted (or its associated controller at 0 level).
- Each time that the console receives a NOTE OFF the associated console key is deactivates (or its associated controller at 0 level).
- Each time that we move a fader, the associated MIDI controlled is transmitted.
- Each time that we receive a MIDI controller, the associated fader is “moved”.
- TITAN works with the MIDI commands of Program Change (PC): If TITAN receive a PC 0##, loads the page 9##. This command is not configurable. (## from 1 up to 99, for higher numbers the PC is not computed).
- The ‘Running Status’ is implemented in the console to raise the effective transmission speed.

See the chapter 11 for more information.

The MIDI port and the RS232 port cannot be used at the same time. See the chapter 15.

MENU

THE SOUND INPUT - MENU / SOUND

The TITAN audio input is used to control the chase loaded in the dedicated Chaser.

In this menu, ***SOUND***, you can to select the audio filter that it will control the chase.

The audio input is filtered in 3 bands: Bass, medium and treble. These band filters are centred in:

BASS: 50Hz.

MEDIUM: 800 Hz.

TREBLE: 4000 Hz.

Audio input level: 1Vpp.

When the audio input is controlling the Chaser, the **CT** fader controls the audio level that it is needed to start a new chase step. So, we can adjust the “speed” in relation with the audio input amplitude.

To select ***SOUND*** from ***MENU***:

- Move the cursor, pressing →, up to select the option ***SOUND*** .
- And press **ENTER**.

In the display:

Menu.Sound	OFF	BASS	MEDIUM	TREBLE
Sound Input Off				

The audio input works only with the chase loaded in the Chaser.

In the inner line of the display, the current configuration appears.

By default, the audio input is disabled, ***OFF***.

PREHEAT - MENU / PRHT

The ‘Preheat’ function is used to prepare the lamps before use them. This preheating helps to improve the lamp life. This function is very used when the lamps are in the open air, in ambient of great dampness, or to improve the response of the great power lamps.

The Preheat levels are not recorded in groups and presets. The Preheat level can’t to be controlled with the manual field or the modification functions.

The General Master doesn’t control the preheating output.

To select **PRHT** from **MENU**:

- Move the cursor, pressing →, up to select the option **PRHT** .
- And press **ENTER**.

In the display:

Menu.Prht	LEVEL	CAPTURE	>0
Use ↑ ↓			

Remember:

The Preheat levels are showed, in the monitor, without precedence colour. In this example the channels 5 to 10 have a Preheat at 10%.

GM100	100%	BLK-OUT	OFF	Jy	Jx	A.Single	Stage	Seq.Fixed															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
				10	10	10	10	10	10														
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

The "Preheat" can to be lineal (**LEVEL**) or selective (**CAPTURE**).

LEVEL

Permits us to select a same level for all the channels in the system, except the LTP channels.

To edit a level for all the channels:

- Enter desired level (0-100)
- Move the cursor to the option **LEVEL**
- Press **ENTER**.

In this moment all console channels are at the edited level.

CAPTURE

Permits us to select a no-lineal Preheat.

To edit a no-lineal Preheat, only for the desired channels:

- **Prepare the scene output with the desired channels and levels.**
- Move the cursor to the option **CAPTURE**
- Press **ENTER**.

The current scene output is captured like 'Preheat'.

MENU

DELETING THE PREHEAT

The Preheat levels are deleted, assigning it a 0 level:

- Press **0**
- Move the cursor to the option **LEVEL**
- Press **ENTER**.

USING THE ARROWS TO ADJUST THE PREHEAT LEVEL

During **PRHT** is selected, use **→** and **←**, to increase or to decrease the general level of the Preheat function.

DATA & MEMORY CARD - MENU / MCARD

The TITAN control board has a memory card interfaces to record the data shows (Memory Card, of 128K or 512K, JEIDA format). The recording a show can take a few seconds and can save work hours.

One memory card can store more than one show.

In the **MCARD** menu, we have all needed functions for the memory card.

To select **MCARD**, from **MENU**:

- Move the cursor using **→** up to select the option **MCARD**
- And press **ENTER**.

This menu has 2 display screens:

Menu.Mcard	EXAM	LOAD	REC	DEL	>0
TEXT	->				

Menu.Mcard	FORMAT				>0
SysexRXD	SysexTXD	->			

To toggle between the 2 display screens of the **MCARD** menu, select the **->** command:

- Move the cursor up to select the option **->**
- And press **ENTER**.

EXAM

Permits us to exam the stored shows and the free memory of the Memory Card.

To access to the exam information, from the **MCARD** menu:

- Insert the Memory Card, in the Memory Card unit of the console.

- Move the cursor up to select the option **EXAM**
- Press **ENTER**.

The information appears in the display. If the Memory Card is not formatted, or there are no shows stored, a warning message appears. If the Memory Card has stored shows, you can see the free memory, and then, the shows data. A show is defined by:

- Its number (Show1)
- A label text (LABEL TEXT OF THE SHOW).
- The console model that stores the show (TITAN 48CH 12M).
- The memory that this show has in the memory card (3300 bytes).

Show1 LABEL TEXT OF THE SHOW TITAN 48CH 12M 3300 bytes

Use the **&** keys, to exam the previous show and next show.

Note:

The LT-224-12, LT-248-36 & LT-120-12 shows are compatibles with any TITAN model. The TITAN-48, TITAN-72 y TITAN-96 shows are compatibles. The old shows versions are respected in the new versions. LT advises that is better to load an old show and to store it, newly, with the current version.

LOAD

This command permits us to load a stored show in the memory card, with the show are loaded:

- The presets and the pages.
- The chases.
- The sequence.
- All parameters of **MENU** and **SETUP** (the Patch, the MIDI configuration, the language, etc)
- And loads the page 0 automatically. The page 0 is stored with the masters contents at the moment in which the show was stored.

To load a selected show:

- Insert the desired show number.
- Move the cursor to select the option **LOAD**
- Press **ENTER**.

REC

This command permits us to store all console data, like a show, in the Memory Card.

Record the show frequently! This process takes a seconds and can avoid working hours.

MENU

In each show has:

- The presets and the pages.
- The chases.
- The sequence.
- The parameters of *MENU* and *SETUP* (Patch, the MIDI configurations, the language, etc)
- And stores the page 0 automatically. The page 0 is stored with the masters contents at the moment in which the show is stored.

To store a show:

- Enter the desired number to name the show.
- Move the cursor to select the option *REC*
- And press **ENTER**.

If the show number exits, the console requests a confirmation (press **ENTER** again to confirm or try to store the show with a new number).

DEL

Any show stored in the Memory Card can be deleted using the *DEL* command:

- Insert the show number that you want to delete.
- Move the cursor to select the option *DEL*
- And press **ENTER**.

The show is no more in the Memory Card.

This process doesn't affect to the show active in TITAN.

TEXT

Each stored show, in the Memory Card, can have a associated text. This text appears in the exam display for the Memory Card, and, after to load the show, in the inner left part of the monitor.

To associate a text to a stores show, use the *TEXT* command:

- Enter the show number, which you want to edit a text.
- Move the cursor to select the option *TEXT*
- Write the desired text characters. (Up to 22 characters can be edited.)

Show ###

[PRIMER ACTO D_]

- And press **ENTER**.

The text characters and functions are labelled in the console (over their corresponding keys).

How assign the text?

- Use the ← & → keys to move the cursor up to the character to edit.
- Press the Channel Flash keys, to enter the desired character (each key has an associated character).
- The numbers are entered from the numeric keyboard.
- Press **ENTER**, to accept the entered text and to return to the **MCARD** menu.

The text special functions, only enables in this menu, are:

NAME	KEY	TEXT FUNCTION
SPACE	GO-PS	To insert a space and to delete the selected character.
←	DIR	To erase the selected character and to move the cursor to the previous character.
SYM	ST-EP	To access to the symbols ; “ # \$ % & ^ () * + , - . / Press this key as many times as will be necessary, and press ENTER to accept it
ENTER	B-O	Is used to accept the symbols and to move the cursor without delete the text.

FORMAT

A formatting is necessary for each new Memory Card.

A Memory Card can be formatted at any moment to erase it completely. This process is more quick that delete show by show.

After a formatting, the Memory Card losses all the its data.

To format a Memory Card, from the **MCARD** menu:

- Insert the Memory Card in the console.
- Move the cursor to select the option **FORMAT** . This option is in the second page of the display. If it is necessary, select the option -> and press **ENTER**, to access to the second page.
- Press **ENTER**. The system requests a confirmation.
- Press **ENTER** again to confirm the command.

SysexRXD and SysexTXD

The options, **SysexRXD** & **SysexTXD** permit us to export show data (stored in a Memory Card) and then to import them, to or from:

- A MIDI sequencer.
- A PC with MIDI input and MIDI software or the **LTSysex** tool. This tool can be downloaded in the web www.dimmer.de
- A LT console (like TRITTON, other TITAN, etc).

The data are imported and exported using a MIDI System Exclusive (**Sysex**).

MENU

To export or to import the show data you need a MIDI cable and a MIDI sequencer (or other console LT) and a Memory Card.

The connection of the MIDI cable, depends of the operation mode:

CONNECTION MODE	MIDI CABLE Transmission Mode = TXD Reception Mode = RXD	CONNECTION MODE
MIDI OUT <i>SysexTXD</i>	>--TXD - TRANSMISSION --->	MIDI IN <i>SysexRXD</i>
MIDI IN <i>SysexRXD</i>	<----RXD - RECEPTION -----<	MIDI OUT <i>SysexTXD</i>

To transmit a stored show from a Memory Card, you must:

- Connect the MIDI cable in transmission mode (see the previous table).
- Insert the Memory Card, with the stored show, in TITAN.
- Set up the sequencer (PC software or other console) in reception mode for the MIDI System Exclusive. (Each sequencer or PC software has its particular way to do this. In case of a second LT console, select its reception mode, selecting the option ■**SysexRXD**■ from the *MCARD* menu).
- In the *MCARD* menu, enter the show number to transmit.
- Move the cursor to the option ■**SysexTXD**■
- And press **ENTER**

The selected show must be stored in the Memory Card.

During the transmission in the display you can see: *Sending...*

When the show data are sent, TITAN returns to the previous menu.

The sequencer, PC software or LT console, permits us to store the received data in a show file.

To receive a show in the TITAN Memory Card, you must:

- Connect the MIDI cable in reception mode (see the previous table).
- Insert the Memory Card in TITAN with free memory to store a new show.
- From the *MCARD* menu, enter the show number to store.
- Move the cursor to select the option ■**SysexRXD**■
- And press **ENTER**

If the entered show number exists, the system requests a confirmation. (Confirm pressing **ENTER** again).

During the reception in the display you can see: *Receiving...*

With TITAN in reception mode, send the desired file, from a sequencer, **LTSysex** PC software or a second console. (See the previous paragraph).

NOTE: The transmission must begin after the set up TITAN in reception mode, but, before 4 seconds, in other way, the reception mode (in TITAN) is deactivated automatically.

When the reception is finished, TITAN returns to the previous menu. In the Memory Card, the new show is stored.

Remember:

Only a stored show in a Memory Card can be sent.

The **Sysex** file received is stored in a Memory Card.

The System Exclusive doesn't work with the active show.

The **Sysex** data are available for MIDI sequencers, personal computers with a hard & soft MIDI (like **LTSysex** tool), and others LT consoles, in concrete TRITTON and TITAN.

MENU / MACRO

See the chapter 14.

MENU / RS232

See the chapter 15.

INITIALISATIONS - MENU / PB-ZERO

The **PB-ZERO** menu is composed by initialisations functions. These functions permit us:

- Configure the modes and temporal functions of TITAN in a status by default.
- Put at “zero” all TITAN Playbacks (masters, chaser and sequence)
- Put at “zero”, only, the masters output.
- Put at “zero”, only, the sequence output.

To execute these functions, select the **PB-ZERO** option, from **MENU**:

- Move the cursor to select the option **PB-ZERO**
- Press **ENTER**

In the display:

Menu.Pb-Zero	STATUS	ALL-PB	MASTERS	SEQ
--------------	--------	--------	---------	-----

Now, to execute one of these functions, for example **ALL-PB**:

- Move the cursor to select the option **ALL-PB**
- Press **ENTER**. The system requests confirmation.
- Press **ENTER** again.

MENU

STATUS

This function returns to TITAN to a status by default. When you execute this function, in the console:

1. Any exam page is cancelled.
2. Any selected menu is cancelled, returning always to the main menu (*Main*).
3. In the manual field, the first channels bank is selected, and, if it is necessary, the DOUBLE mode is cancelled.
4. Any modification process is cancelled and the macro storing.
5. The channels keys returns to channel mode.
6. The active **LN-TM** function is cancelled.
7. The active **RA-TE** function is cancelled.
8. The Blind mode is cancelled.
9. The **Mn** keys are configured like GO keys (**FL-MT** function with its LED at off)
10. And, it is necessary the blackout functions are deactivated.

ALL-PB

This function permits us to put at “zero” the outputs of the console. When you execute this function, in the console:

1. The manual field is emptied (all manual channels at 0%).
2. The masters and Chaser outputs are putted at zero. Each master maintains its content. The masters with groups or preset are initialised at 0%. The Chaser and the masters with chase are deactivated and initiated at 100% for its level and its speed.
3. The sequence output is putted at zero. The sequence is maintained, but they is initiated with the step 0 in X1 (at 100%) and step 1 in X2 (at 0%).

MASTERS

This function puts at zero the outputs of the masters and the Chaser. When you execute this function, in the console:

1. The masters and Chaser outputs are putted at zero. Each master maintains its content. The masters with groups or preset are initialised at 0%. The Chaser and the masters with chase are deactivated and initiated at 100% for its level and its speed.

SEQ

This function puts at zero the sequence output. When you execute this function, in the console:

1. The sequence output is putted at zero. The sequence is maintained, but they is initiated with the step 0 in X1 (at 100%) and step 1 in X2 (at 0%).

DELETE THE SEQUENCE - MENU / DEL-SEQ

This function deletes the sequence (all the contents of the sequence).

To delete the sequence, execute *DEL-SEQ*, from *MENU*:

- Move the cursor to select the option *DEL-SEQ*
- Press **ENTER**. The system requests a confirmation.
- Press **ENTER** again to confirm.

MENU

<i>MENU</i>	<i>PATCH</i>	<i>EDIT</i> <i>DEFAULT</i>	To edit the Patch table To return to the Patch table by default	
	<i>ATR</i>	<i>EDIT</i> <i>DEFAULT</i> <i>PON</i> <i>POFF</i>	To edit the attributes table of channels To return to the attributes table of channels by default To activate the Priority mode To deactivate the Priority mode	
	<i>TRIGGER</i>	<i>TRIGGER1</i> <i>TRIGGER2</i>	To configure the external trigger 1 To configure the external trigger 2	
	<i>MIDI</i>	<i>ON</i> <i>OFF</i> <i>IN</i> <i>OUT</i> <i># CH</i>		To activate the MIDI port To deactivate the MIDI port To select the MIDI port in receptor mode To select the MIDI port in transmitter mode To select the communication MIDI channel
		<i>CODE</i>	<i>EDIT</i> <i>DEFAULT</i>	To edit the MIDI chart To return to the MIDI chart by default
	<i>SOUND</i>	<i>OFF</i> <i>BASS</i> <i>MEDIUM</i> <i>TREBLE</i>	To deactivate the Sound input Select the bass filter to control the Chaser Select the medium filter to control the Chaser Select the treble filter to control the Chaser	
	<i>PRHT</i>	<i># LEVEL</i> <i>CAPTURE</i>	To edit a lineal preheat level To capture the current scene like preheat	
	<i>MCARD</i>	<i>EXAM</i> <i># LOAD</i> <i># REC</i> <i># DEL</i> <i># TEXT</i> <i>FORMAT</i> <i># SYSEXRXD</i> <i># SYSEXTXD</i>	To exam the shows stored in the memory card To load the show # from the memory card in the console To store the current show like show # in the memory card To delete the show # of the memory card To add a text to the show # of the memory card To format the memory card To receive the show # from the MIDI port To transmit the show # by the MIDI port	
	<i>MACRO</i>		See chapter 14	
	<i>RS232</i>		See chapter 15	
	<i>PB-ZERO</i>	<i>STATUS</i> <i>ALL-PBS</i> <i>MASTERS</i> <i>SEQ</i>	To set the console in a known status (modes & functions) To set at 0 the output of all the playbacks To set at 0 the output of all the masters To set at 0 the sequence output	
	<i>DEL-SEQ</i>		To delete the sequence completely	

is the needed numeric data inserted for the command.

7 - SYSTEM CONFIGURATION

The user can adjust some parameters, personalising the system. All system parameters have default valour. After a cold reset, each parameter returns to its valour by default (See Cold Reset in chapter 3).

All the user parameters are in the **SETUP**.

To enter in **SETUP**, from the main menu:

- Move the cursor with → up to select this option, **SETUP** .
- Press **ENTER**.

The display shows us all the **SETUP** options:

Setup	SEQ	XF	RMT	GM	BEEP	LEDS	LNG
LIGHT	SPD-DMX	DMX-IN	VGA				

Remember:

You can return to the previous display, selecting the first option - in this example, Setup

To move the cursor to the desired position, you can use any of the arrow key: ←, →, ↑ & ↓

THE SEQUENCE PARAMETERS – SETUP / SEQ

This option permits us to adjust the next parameters:

- a) If each new preset will be inserted in the sequence or not.
- b) If the sequence output is affected by the Flash-Solo function or not.
- c) If the delay times are computed or not.

To access to the **SEQ** option, from the **SETUP**:

- Move the cursor, pressing →, up to select this option, **SEQ** .
- Press **ENTER**.

In the display:

Setup.Seq	FIXED	FREE	FON	FOFF	TON	TOFF
Fixed	Flash-Solo-On-Seq	T-Auto-On				

In the upper line we have the different configuration options, and in the lower line is the information of the current configuration.

SYSTEM CONFIGURATION

FIXED / FREE

These options are related, and only one of them can be selected. The ***FIXED*** option permits us to insert in the sequence, automatically, all the recorded presets, in numerical order. The ***FREE*** option avoids to the system inserts the recorded presets in the sequence automatically.

We can change this parameter at any time.

When we are recording presets for the sequencer, set up ***FIXED***. And when we are recording presets for chases or Masters, set up ***FREE***.

In the monitor, at the right of the first line or status line, the *Seq.Fixed* or *Seq.Free* flag appears.



GM100	100%	BLK-OUT	OFF	Jy	Jx	A.Single	Stage	Seq.Fixed															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

FIXED is the valour by default.

FON/FOFF

These options are related, and only one of them can be selected.

These options determine the comportment of the sequence output with the SOLO FLASH.

If the ***FON*** option is active, in the inner display line: Flash-Solo-On Seq; and the SOLO FLASH doesn't affect the sequence output.

If the ***FOFF*** option is active, in the inner display line: Flash-Solo-Off Seq. The sequence output is forced to 0% during the SOLO FLASH.

In the Masters status line in the monitor, the flag *Flash.Solo.Off. Seq* appears.



H	F	Page	GO/FLASH/FLASH-SOLO	Flash.Solo.Off. Seq								
Master	1	2	3	4	5	6	7	8	9	10	11	12
Preset	-	-	-	-	-	-	-	-	-	-	-	-
Level	-	-	-	-	-	-	-	-	-	-	-	-

By default the system is in ***FON***.

TON/TOFF

Options relatives to the delay time of the sequence, (T \odot). These options are related, and only one of them can be selected.

If ***TON*** option is active, valour by default, the sequence computes the delay times. In the display, the message 'T \odot -On' appears.

If **TOFF** option is active, the sequence doesn't compute the delay times an each new crossfade is started by pressing the GO key. In the display, the message 'T \odot -Off' appears. This option permits us to travel the sequence rapidly with exam purpose. The T \odot -Off flag appears in the monitor.

THE CROSSFADE MODES – SETUP / XF

This option permits us to select the crossfade type for the sequence playback.

To access to the **XF** option, from the **SETUP**:

- Move the cursor, pressing \rightarrow , up to select this option, **XF** .
- Press **ENTER**.

In the display:

Setup.XF-Dipless	ON	OFF
Crossfade Dipless On		

The 'dipless' crossfade characteristic is enable or disable here. By default the DIPLESS characteristic is enable.

Dipless crossfade

This characteristic only affects to the channels in X1 & X2 in the same crossfade. When one channel, in X1, fade out scene, and at the same time this channel, in X2, fade in scene, during the crossfade. So, this channel never fades out scene at a level inferior to its level in X2. Example: Channel 1 at 75% is in X1, in stage, and the channel 1 at 80% is in X2, next step to fade in scene. When the GO key is pressed: The channel 1 fades from 75% at 80% in the fade-out time. This channel doesn't fade out toward 0% by after fades in at 80%.

The dipless crossfade avoids that one channel downs its level for after ups this level.

THE REMOTE CONTROL – SETUP / RMT

This options permits us to configure the communication with the Titan Remote Control, TRC.

To access to **RMT**, from the **SETUP**:

- Move the cursor, pressing \rightarrow , up to select the option: **RMT** .
- Press **ENTER**.

SYSTEM CONFIGURATION

In the display:

Setup.Rmt	DISABLE	ENABLE	ID	DMX	>0
Disable	Id=8	Dmx=100.1			

DISABLE/ENABLE

These options permit us to enable or not this communication. If ***RMT*** is ***DISABLE*** the remote control never takes the console control (by default option).

If ***RMT*** is ***ENABLE*** the remote control can to take the control of the TITAN. If ***RMT*** is ***ENABLE***, in the status line of the monitor, the flag RMT appears. And, if the TRC takes the console control, this flag appears in a red field:

GM100	100%	BLK-OUT	OFF	Jy	Jx	A.Single	Stage	Seq.Fixed	RMT														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Notes:

To take the control from the TRC, double click in its **ON** key.

To take the control from the TITAN, double click in its **EXAM** key.

ID

ID is a identification number for the codification of the communication. The console only “listens” to the remote control with the same ***ID*** that the console ***ID***. The ***ID*** is a number in rank 1 - 8.

With Id=1 to Id=7, the console only “listens” to the remote controls with the same ***ID***. The communication has codification.

Id=8 is the generic value, and by default value. A console with a Id=8 listens to all remote controls. The communication has not codification.

To edit the ***ID***, press:

- The desired number (1 to 8).
- Move the cursor up to the option ***ID***
- **ENTER**. (In the Display inner line, the new Id appears).

DMX

The console permits us to configure a dimmer as a warning visual signal. Working with the remote control, each time that the console shows a message of warning, confirmation or fault, this dimmer blinks. By default, this dimmer is the dimmer 100.1 (dimmer 100 of the OUTPUT-1). You can edit here any dimmer of the 1024.

To edit a **DMX**, press:

- Desired dimmer number (1.1 to 512.2).
- Move the cursor up to the option **DMX**
- **ENTER**. (In the Display inner line, the new Dmx appears).

THE GENERAL MASTER – SETUP / GM

Form here, you can to configure the Master General level (0-100% or 0-200%); if the blackout key is enabled or not; and if there are channels out the master General control.

To access to the **GM** option, from the **SETUP**:

- Move the cursor, pressing →, up to select this option, **GM** .
- Press **ENTER**.

In the display:

Setup.GM	100%	200%	BKON	BKOFF	CH	>##
100% Black-Out-On 5 Channels Out GM						

The General Master controls the console scene output; it controls all the channels, except the channels assigned like LTP. The GM has associated a **BLK.OUT** key (Blackout), this key permits us deactivate all dimmers output.

In the inner display line we can see the current configuration of the **GM**.

In the monitor this information is showed in the first line.

100	100%	BLK-OUT	OFF	Jx	A.Single	Stage	Seq.Fixed	RMT															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

100%/200%

The **GM** can have 2 different scales: 0-100% or 0-200%.

100%: By default scale for the **GM**. When the **GM** has this scale the control is only restrictive.

200%: When the **GM** has this scale the control is restrictive or with enhancement. The scene output is restricted from 100% to 0% and the scene output is enhancement from 200% to 100%:

- 0% - position 0: No scene output.
- 50% - position 2,5: The scene output is decreased a 50%.
- 100% - position 5: The scene output is at 100%.
- 150% - position 7,5: The scene output is increased a 50%.
- 200% - position 10: The scene output is increased a 100%.

SYSTEM CONFIGURATION

It is evident that one channel at 100% cannot be increased by the GM control. But if one channel is at 20%, and the GM is at 200%, in scene this channel is at 40%.

The relation between the levels of the channels is respected.

BKON/BKOFF

These options are used to enable (***BKON***) or to disable (***BKOFF***) the **BLK.OUT** key.

CH

This command permits us exclude channels from the GM control and its **BLK.OUT** key. The LTP channels are excluded by default.

The excluded channels will be the last system channels. This number can be a number from 0 (by default) up to 48 (or 72/96). Example in TITAN-48: Suppose 5 channels are excluded, these channels will be the channels 48, 47, 46, 45 & 44.

These excluded channels are used to control, smoke machine, working lights...

To exclude a number of channels to the **GM** control, press:

- The number of channels (0 to 48/72/96).
- Move the cursor up to the option ***CH***
- **ENTER**. (In the Display inner line, the new value appears).

The excluded channels appear near a grey field in the monitor. In the example the channels 39 to 48.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

If our system isn't monitor, we can press **EX-AM BLK.OUT**, to obtain the status information about the GM and blackout in the display.

ACOUSTIC WARNING – SETUP / BEEP

The **BEEP** permits us to enable or disable the warning acoustic signal or “beep”. If **BEEP** is at **ON** the acoustic signal is enabled; and if **BEEP** is at **OFF** the acoustic signal is disabled.

By default, **BEEP** is at **ON**, enabled.

When the “beep” is disabled (**OFF**), in the monitor, the messages of warning, confirmation or fault, appear in a red field.

THE MANUAL FIELD LEDS – SETUP / LEDS

This option permits us to configure the behaviour of the green LEDs of the channel Flash keys. The green LEDs can to show the scene output of the channels (*STAGE*, by default option), or can to show the channel levels only in the manual field (*A*).

To access to the *LEDS* option, from the *SETUP*:

- Move the cursor, pressing →, up to select this option, *LEDS* .
- Press **ENTER**.

In the display:

Setup.LEDS	A	STAGE
Stage		

The current mode is showed in the second display line.

To select other option, for example *A*, select *A* (with the cursor) and press **ENTER**. In the second display line, A flag replaces to Stage flag.

A

The green LEDs of the manual flash keys show us the output level for the channels controlled with the “A” field. Each LED shows us the output level of its associated channel.

STAGE

This is the default option. The green LEDs of the manual flash keys show us the scene output. Each LED shows us the output level of its associated channel.

To see the second bank of channels, press **C24-C48**.

In the monitor, the scene information is always present, and we can see the perceptual output level and a source colour code:

Light Magenta:	“A” field
Yellow:	Masters
Grey:	Chase.
Light green:	Sequence, current step, X1.
Light cyan:	Sequence, the next step, X2.
Red:	Selected in the editor.
Brown:	The channels that they are going out the editor.
Blue:	Channels received from the DMX INPUT.
No colour:	From Test functions, preheat, or LTP tracking.

GM100	100%	BLK-OUT	OFF	Jy	Jx	A.Single	Edit	Stage	Seq.Fixed															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
F	F	F													26	26	26	26	26					
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
											64	26												

LANGUAGE SELECTION – SETUP / LNG

The messages of warning, confirmation and fault, can to appear in several languages. The available languages are Spanish, French or English.

To select a language, access to *LNG*, from *SETUP*:

- Move the cursor, pressing →, up to select the option *LNG* .
- Press **ENTER**.

THE WORKING LIGHTS – SETUP / LIGHT

This option permits us to regulate the output of the working lights, from 0% to 100%.

To configure the working lights output, access to *LIGHT*, from *SETUP*:

- Move the cursor, pressing →, up to select the option *LIGHT* .
- Press **ENTER**.

In the display:

Setup.LIGHT LEVEL	> 0
Use ↑ ↓	

To edit the output level of the working lights:

- Enter the output level (0-100)
- Select *LEVEL*
- And press **ENTER**.

During this display is selected, using the ↑ ↓ keys, it is possible to adjust, in fine mode, the output level of the working lights.

THE DMX OUTPUT SPEED – SETUP / SPD-DMX

TITAN permits us to control the speed of DMX frame. This characteristic is very used to adjust the DMX output of TITAN with old DMX receivers or receivers, exactly, no standard.

To configure the DMX speed, access to *SPD-DMX*, from *SETUP*:

- Move the cursor, pressing →, up to select the option *SPD-DMX* .
- Press **ENTER**.

In the display, the 3 available options appear:

Setup.Spd-Dmx FAST MEDIUM SLOW
Fast

FAST is the DMX speed by default.

Some parameters of the DMX frame depend of the selected speed:

Parameter	Norma DMX 1990	TITAN – FAST	TITAN –MEDIUM	TITAN - SLOW
Break Length	Minimum 88 µs	100 µs		
MAB Length	Minimum 8µs	46 µs		
Bytes/packet	1-512 channels	512		
Break to break	170µs – 3 sc	50 ms	100 ms	150 ms
Updates/s	1-44	20	10	7

THE DMX INPUT – SETUP / DMX-IN

TITAN has a DMX input, from this DMX input, TITAN can receive DMX channels (48/72/96). It is possible to disable or to enable this DMX input, that by default is *ENABLE*.

To change this option, access to *DMX-IN*, from *SETUP*:

- Move the cursor, pressing →, up to select the option *DMX-IN* .
- Press **ENTER**.

In the display:

Setup.Dmx-In ENABLE DISABLE
Enable

In the inner line, the current configuration appears.

Note:

The DMX input channels are showed in dark blue in the monitor.

MONITOR LOOK - SETUP / VGA

TITAN permits us to change the monitor look, in concrete, it permits to set the monitor in a white background or in a dark grey background.

To change this option, access to *VGA*, from *SETUP*:

SYSTEM CONFIGURATION

- Move the cursor, pressing →, up to select the option **VGA** .
- Press **ENTER**.

In the display:

Setup.Vga	LIGHT	DARK
-----------	-------	------

When **LIGHT** is selected, the monitor appears in white background.

When **DARK** is selected, the monitor appears in dark grey background.

SYSTEM CONFIGURATION

SETUP	SEQ	FIXED FREE FON FOFF TON TOFF	Each new stored preset is inserted in the sequence The new presets aren't inserted in the sequence The flash-solo affects to the sequence output The flash-solo doesn't affect to the sequence output The delay times are actives The delay times are no-actives
	XF	ON OFF	The sequence is dipless The sequence is no-dipless
	RMT	ENABLE DISABLE # ID # DMX	Enable the communication with the remote control Disable the communication with the remote control Set a ID value for the remote control communication Set a DMX address to "see" the warning messages
	GM	100% 200% BKON BKOFF # CH	The GM has scale 0-100 The GM has scale 0-200 BLK.OUT is enabled in the frontal panel BLK.OUT is disabled in the frontal panel Remove the last # channel of the GM
	BEEP	ON OFF	The acoustic warning signal is enabled. The acoustic warning signal is disabled.
	LEDS	A STAGE	The channel LEDs show the A field status The channel LEDs show the stage status
	LNG	CASTELLANO ENGLISH FRANCAISE	The TITAN messages are in Spanish The TITAN messages are in English The TITAN messages are in French
	LIGHT	# LEVEL	Set the output level of the working lights at # %
	SPD-DMX	FAST MEDIUM SLOW	DMX is transmitted to fast speed DMX is transmitted to medium speed DMX is transmitted to slow speed
	DMX-IN	ENABLE DISABLE	The DMX input is enabled The DMX input is disabled
	VGA	LIGHT DARK	Monitor in light Monitor in dark

is the needed numeric data to execute the command

SYSTEM CONFIGURATION

8 - MODIFICATION EDITOR

The TITAN editor is used to modify presets, groups loaded in masters and stage output.

This editor has 2 function keys associated:

BL.ND that permits us to select the editor mode (stage, blind or solo).

Toggle the editor modes pressing **BL.ND** (as many times as will be necessary). In concrete:

BL.ND LED	Mode	Function
Off	Stage	The preset, group or scene, and its modifications, are visible in stage. The editor has priority, and it can modify any channel (including the decrease of levels).
On	Blind	The preset or group is modified without visible results visible in stage.
Blinking	Solo	In stage, the preset or group is modified solo. The scene output is forced to zero, and only the preset (or group) is visible. Very used to edit complex presets or groups.

MD.FY that permits us to select the element for modification (preset, group or scene) and to activate the editor. Inside the editor, use the manual field faders and the function keys to edit the needed modifications.

The channel faders can be locked when the editor is selected or deselected.

PRESETS MODIFICATIONS

To modify the desired preset:

- Select the editor mode, (*Stage, Blind or Solo*), pressing **BL.ND**.
- Enter the preset number (1-799)
- Press **MD.FY**

The **MD.FY** LED is blinking and the selected preset is loaded in the editor (with a fade in time of 2 sec).

The channel LEDs and the editor show us, only, the editor contents.

In the monitor: The editor content is showed in a **red** field. In the status line, there is a flag with the editor mode and editor content:

MODIFICATIONS EDITOR

In the next examples, the preset 5 is modified in Stage, Blind and Solo modes respectively:

Stage Pr5

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
				50	50	50	50	50	50				71	48	48	48	48		68				
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
49	49	49			49					44	44	44	44	44					40	40	40	40	40

All scene channels are showed.

Blind Pr5

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
				50	50	50	50	50	50				71						68				
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

Only the channels in the editor are showed.

Solo Pr5

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
				50	50	50	50	50	50				71						68				
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

Observe that the scene channels (except the preset channels) are forced to zero.

The preset channels jump to scene at their stored levels (except in Blind mode).

- Modify the preset contents using the A field faders, and / or the edition keys and the joystick (**CHANNEL**, **THRU**, **EXCEPT**, **@**, and **ESC**). You can add channels, release channels and modify levels of any channel.
- Option 1. Store the modifications pressing **REC**
Only the channels in the editor are stored in the preset.
- Option 2. Press **↑** to modify the previous presets, or press **↓** to modify the next preset. (These presets jump to editor).
- Option 3. Store the editor content in a different preset that it selected presets (which number is in the status line), entering the preset number: **# REC**
- Option 4. Store the editor content in a new group, pressing: **LOAD Mn**
- Leave the no-stored modifications and quit of the editor, pressing **MD.FY** again (its LED is off). The editor channels fade out scene in 2 seconds. During this 2 seconds the editor channels are showed in a **brown** field:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
				39	39	39	39	39	39				55						53				
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
49	49	49			49																		

Note: When the editor is active, the functions **LOAD** and **REC** are applied to the editor contents and not to the scene output.

THE MASTER ASSIGNATION EDITION

To modify the master content (preset or group):

- Select the editor mode, (stage, blind or solo), pressing **BL.ND**.
- Press **MD.FY** (its LED is lit)
- Press the assignation key of the master, **Mn**

The **MD.FY** LED is blinking and the master content (preset or group) is loaded in the editor (with a fade in time of 2 sec). The channels jump to scene at their stored levels.

The channel LEDs and the editor show us, only, the editor contents.

In the monitor: The editor content is showed in a **red** field. In the status line, there is a flag with the editor mode and editor content.

- Modify the master content using the A field faders, and / or the edition keys and the joystick (**CHANNEL**, **THRU**, **EXCEPT**, **@**, and **ESC**). You can add channels, release channels and modify levels of any channel.
- Option 1. Store the modifications pressing **REC**
Only the channels in the editor are stored in the preset or group in the master.
- Option 2. Store the editor content in a preset, entering the preset number:
REC
- Option 3. Store the editor content in a new group, pressing: **LOAD Mn**
- Leave the no-stored modifications and quit of the editor, pressing **MD.FY** again (its LED is off). The editor channels fade out scene in 2 seconds. During this 2 seconds the editor channels are showed in a **brown** field in the monitor.

Note: When the editor is active, the functions **LOAD** and **REC** are applied to the editor contents and not to the scene output.

THE SCENE EDITION

The modification of the scene output, always, is done in **Live** mode.

To modify the scene output:

- Press **MD.FY MD.FY** (double click). The editor mode is forced to **Live**. The **MD.FY** LED blinks.

The modifications are done over the scene output.

Any channel can be modified.

Only the modified channels are in the editor, and they appear in **red** in the monitor or marked with **A** in the display.

MODIFICATIONS EDITOR

- Modify the desired channels using the A field faders, and / or the edition keys and the joystick (**CHANNEL**, **THRU**, **EXCEPT**, **@**, and **ESC**). You can add channels, release channels and modify levels of any channel.

At the beginning, it is better to modified “few” channels.

- Option 1.- Add the editor content to the **affected presets** or edit the **Patch**, pressing **REC**.

When **REC** is pressed, the display shows us 2 options:

PRESETS PATCH

Select **PRESETS** to access to the list the presets affected (presets that content some of the modified channels). The first affected preset appears in the display. In this point:

1. Press **REC** to “add” the modifications in the preset that appears in the display.
2. Press **↓** (or **↑**) to select the next preset of the list (or the previous preset).

Repeat the steps 1 & 2 as many times as presets to modify.

Note: To store the modification in **relative** mode, in the desired presets, press and hold down pressed **TIME** and press **REC**. In this case the selected preset is modified with the relative value (example: channel 5 decreases a 55%), and no with the absolute value (example, channel 5 at 0%). See the page 8-5.

Select **PATCH** to access to the Patch. Here you can edit any dimmer (associated channel, limit level, etc). This option is very used “to eliminate” the scene output of a dimmer (**LIMIT 0**) without the necessity of to modify presets.

- Option 2.- Store the editor in a preset, entering the preset number: **# REC**
- Option 3.- Store the editor in a new group, pressing: **LOAD Mn**
- Leave the no-stored modifications and quit of the editor, pressing **MD.FY** again (its LED is off). The editor channels fade out scene in 2 seconds. During this 2 seconds the editor channels are showed in a **brown** field in the monitor.

Example:

A chase with 10 presets inside is controlling a “fire” with 3 channels (channels 15, 16 and 17). The channel 17 is in fault. Eliminate the channel 17 of the scene output pressing:

- **MD.FY MD.FY** To access to the scene output modification.
- **CHANN 17 @ 00** Edition of the channel 17
- **REC** To access to the modification options

Select **PRESETS** . Access to the chase presets pressing **↑**. Each time that, in the display, a desired presets is showed, press **REC** to eliminate the channel 17 of its content.

The selected preset, in the example the 35, appears in this way :

Pr Ch 15 16 17
35 Le 55 35 48

And when **REC** is pressed, the modification (channel 17 at 0%) is showed:

Pr Ch 15 16
35 Le 55 35

- **MD.FY** To quit the editor.

ABSOLUTE OR RELATIVE MODIFICATION

A modification of the scene output, in **Live** mode, when it is stored with the **PRESETS** option, it can be:

Absolute:

The edited channels are modified, in the presets, with the scene level.

Relative:

The edited channels are modified, in the presets, with the increment or decrement done.

Example:

Suppose that the channel 1 is modified from 50% at 70% in **Live** mode.
(Absolute value: 70%. Relative value: +20)

PRESET	RECORDED	ABSOLUTE EDITION	RELATIVE EDITION
--------	----------	------------------	------------------

MODIFICATIONS EDITOR

			<i>PRESETS</i> REC		<i>PRESETS</i> TIME+REC	
	Channel	Level	Channel	Level	Channel	Level
1	1	50	1	70	1	70
2	1	60	1	70	1	80
3	1	75	1	70	1	95
4	1	85	1	70	1	100

In the relative modification, the channel 1 increases its level 20 points in all presets (the maximum level never is exceeded).

In the absolute modification the channel 1 is stored at 70%. In some presets, the channel 1 increases its level (presets 1 and 2), and in other presets the channel 1 decreases its level (presets 3 and 4).

MODIFY THE FIELD "A" IN DOUBLE MODE

When we are working with the field A in double mode (A/B) it is possible modify the channels/levels in B (field in scene that we can not control), pressing:

- **MD.FY C24.C48** (this edition always is forced in **STAGE** mode).
- Do the needed modifications.
- Option 1.- **REC** to keep the modifications and **MD.FY** to quit the editor.
- Option 2.- **MD.FY** to quit the modifications and the editor.

EDIT PRESETS IN THE EDITOR

If we don't want to store the scene output, we can use the editor to store these new presets:

- Press **BL.ND** to select the desired editor mode (Stage, Blind or Solo)
- Press **0 MD.FY**
- Edit the preset
- Press **REC** to store the editor in the next free preset, or press **# REC** to store the editor in the entered preset. These presets only have the editor content.
- Quit the editor pressing, **MD.FY** (Its LED is off)

This function is very used to edit new presets in blind (selecting the editor in **Blind** mode).

MODIFICATIONS EDITOR

Resume:

Command	Mode	Edition	End Command	
# MD.FY	STAGE/BLIND/SOLO	Edit the preset #	REC / # REC	
0 MD.FY	STAGE/BLIND/SOLO	Edit the next free preset (REC), or the selected preset number (# REC).	REC / # REC	
MD.FY Mn	STAGE/BLIND/SOLO	Edit a preset or group in a master Mn.	REC / # REC	
MD.FY C24.C48 (Only STAGE)		Edit the manual field output in Double mode .	REC / # REC	
MD.FY MD.FY (LIVE)		Scene edition	REC # REC	PATCH PRESETS

MODIFICATIONS EDITOR

9 - TEST

The TITAN consoles have tools to test the software and hardware parameters, in this way, the user can detect and isolate possible problems.

To select **TEST**, from the **Main** menu:

Main	SEQ	TC	MENU	SETUP	TEST	>0
------	-----	----	------	-------	------	----

- Move the cursor using → up to select the option **TEST** .
- Press **ENTER**.

In the display the **Test** menu appears:

Test	DMXoUT	UPdOWN	BLNK	MEM	VER	>0
DMXiN	HARD					

All tests are **software** tests, except the test inside the **HARD** option. In the **HARD** option, the hardware tests are grouped. To select one of these test:

- Move the cursor using →, up to select the desired option, for example **MEM**
- Press **ENTER**.

To return to the previous menu:

- Move the cursor using →, up to select the first option, for example **Test** .
- Press **ENTER**. The system goes back to the previous menu, in this case **Main** menu.

Remember:

To move the cursor to the desired position, you can use any of the arrow key: ←, →, ↑ & ↓

Test of the DMX outputs. DMXoUT

The information about the channels and their output levels, currently, is different to the information about the dimmers and their values in the DMX line, concretely, when the system has a no-lineal patch, when has limited dimmers and/or when some dimmer has a no-lineal curve.

Suppose that the channel 1 is controlling to the dimmers 3 & 5. The channel 1 is at 50%. And, in the DMX line, the dimmers 3 & 5 are at 50.

TEST

The *DMXoUT* test permits us to see the levels of the output DMX signal. These DMX values are the same values that you can measure with a DMX tester, and the same values that the DMX receptors “read”.

To execute the *DMXoUT* test, from the *TEST* menu:

- Move the cursor using → to select the option *DMXoUT* .
- Press **ENTER**.

In the display, you can see the dimmer numbers (upper line) and their values (inner line). In the upper left corner, you can see the DMX line number (01 for DMX-1, & 02 for DMX-2).

During this screen is active:

- Press - or $\bar{\quad}$, to toggle the DMX line under test, (DMX-1 / DMX-2).
- Press → or ←, to page the dimmer numbers under test. It is possible to select a concrete dimmer number to test it, entering the desired number (1-512) and pressing →.

To quit of this test screen, press **ENTER**.

Test of the system channels. UPdOWN

The *UPdOWN* option permits us to test each channel in dimming mode. Very used to test the installation (complete or partially)

When we execute this test, the console output is forced to 0%.

Then, in sequential mode, the channels, one by one, fade in scene (0 > 100%) and fade out scene (100% > 0%). The test begins with the selected channel or with the channel 1. This test takes 3 seconds by tested channel.

To execute the *UPdOWN* test, from the *TEST* menu:

- Enter the first channel number (1 - 48/72/96). If no channel number is entered, the test begins with the channel 1.
- Move the cursor using →, up to select the option *UPdOWN* .
- Press **ENTER**.

The test status is showed in the display, including the channel number under test.

In the monitor, the channel under test is showed without colour code.

- To quit of the *UPdOWN* test, press any key.

Search a channel in scene. BLNK

This test is used, mainly, to search a channel in the scenery.

To execute the *BLNK* test, from the *TEST* menu:

- Enter the channel number to search (1 - 48/72/96).
- Move the cursor using → to select the option *BLNK* .
- Press **ENTER**.

The selected channel begins to blink in scene, independently of its current status.
The test only affects to the selected channel.

In the display, the channel number under test appears.

In the monitor, the channel under test is showed without colour code.

- To quit of the *BLNK* test, press any key.

Test of the free data memory. MEM

Used to know the free data memory in the console.

To consult *MEM*, from the *TEST* menu:

- Move the cursor using →, to select the option *MEM* .
- Press **ENTER**.

In the display, you can see a message like that:

80% Free memory

The system quits of this screen after a few seconds.

Test of the software version. VER

Permits us to know the current software version of the system.

To consult *VER*, from the *TEST* menu:

- Move the cursor using →, to select the option *VER* .
- Press **ENTER**.

In the display, you can see the current software version number and the console model (TITAN-48, TITAN-72 or TITAN-96).

The system quits of this screen after a few seconds.

Test of the DMX input. DMXiN

The *DMXiN* test permits us to see the levels of the input DMX signal.

To execute the *DMXiN* test, from the *TEST* menu:

TEST

- Move the cursor using → to select the option *DMXiN* .
- Press **ENTER**.

In the display, you can see the dimmer numbers (upper line) and their values (inner line) of the input DMX signal received.

During this screen is active:

- Press → or ←, to page the dimmer numbers under test.

To quit of this test screen, press **ENTER**.

HARDWARE TEST

The hardware tests are grouped under the option *HARD*.

These tests affect to the normal behaviour of the console! Don't execute these tests during the show playback.

To select one of the hardware test, from the *TEST* menu:

- Move the cursor using →, to select the option *HARD* .
- Press **ENTER**.

In the display:

Test.Hard	MEM	VGA	INPUTS	OUTPUTS
MIDI	RS232	MCARD		

Now, to select one of these **hardware** tests:

- Move the cursor using →, to select the desired option, for example *VGA* .
- Press **ENTER** to start the selected test
- Follow the instructions in the display to complete the test.

Test of the data memory. MEM

When *MEM* is selected, a test of the 512 Kbytes of the data memory is done. In the display, you can see a message like that:

512 Kbytes MEM OK

If the memory is correct, the system goes back to the *Test.Hard* menu.

Test of the video output. VGA

Permits us to test the video output of the console, and too is used to adjust the parameters monitor (brilliance, contrast, position, etc).

TEST

When **VGA** is selected, to activate or deactivate the test signal is needed press **ENTER**.

The test signal shows us, in the monitor:

1. The colours chart (16 possible colours).
2. The characters chart.

Colour 1 Black	Colour 2 Blue	Colour 3 Green	Colour 4 Cyan
Colour 5 Red	Colour 6 Magenta	Colour 7 Brown	Colour 8 Light Gray
Colour 9 Dark Gray	Colour 10 Light Blue	Colour 11 Light Green	Colour 12 Light Cyan
Colour 13 Light Red	Colour 14 Light Magenta	Colour 15 Yellow	Colour 16 White
↓↑ ↕° \ AI " # \$ % & ' () * + , - . / 0 1			
2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c			
d e f g h i j k l m n o p q r s t u v w x y z { } ~ ð			

Test of the keys, faders... INPUTS

The **INPUTS** test permits us to test the keys, the faders, the sound input, the external triggers and the communication with the remote control.

The **INPUTS** test begins and stops pressing **ENTER**.

Inside this test, you can:

- Check the keys. When you press a key and during this key is pressed, its name must appear in the display.
- Check the faders.- When you move a fader, its name and its value (0 to 255) must appear in the display.
- Check the external triggers. When the EXT1 signal is activated, **EXT1** must appear in the display. When the EXT2 signal is activated, **EXT2** must appear in the display.
- Check the sound input. Connect a audio signal to the SOUND input. In the display you must see: the low filter input and its level (**LSO**), the medium filter input and its level (**MSO**) and the treble filter input and its level (**TSO**).
- Check the communication with the remote control.- When you press any key in the remote control, in the display you must see: the remote control ID,

TEST

followed of the numeric code of the pressed key, and the key status (1: pressed key and 0: released key).

Test of the Leds, Display... OUTPUTS

The ***OUTPUTS*** test permits us to test the LEDs, the Display, the working lights and the warning acoustic signal or “beep”.

The ***OUTPUTS*** test begins and stops pressing **ENTER**.

When the ***OUTPUTS*** is activated, in the display you must see the name of the item under test. To access to the next or previous item, press → or ←.

Test of the MIDI port. MIDI

To do the MIDI port test is necessary connect a standard MIDI cable between the connectors MIDI-IN and MIDI-OUT, before to press **ENTER** to star the test.

At the end of this auto-test, TITAN shows us a message of the MIDI port status.

Test of the RS232 port. RS232

To do the RS232 port test is necessary to connect the pins 2 & 3 of the RS232 connector, (this pins are the RX and TX signals) before to press **ENTER**.

At the end of this auto-test, TITAN shows us a message of the RS232 port status.

Test of the memory card. MCARD

One 128K (or 512K) memory card is necessary for this test. The memory card must be JEIDA format.

Follow the instructions in the display to test the memory card interfaces status.

TEST

TEST	DMXoUT	To see the DMX buffer of the outputs: DMX-1 & DMX-2	
	(#) UPdOWN	To test the system channels in dimming mode; the scene output is forced to zero.	
	# BLK	To search the channel #, flashing in scene; the rest of the scene output is maintained.	
	MEM	To see the free data memory	
	VER	To see the software version number	
	DMXiN	To see the DMX buffer of the DMX input (DMX-IN)	
	HARD	MEM	To test the data memory chip
		VGA	To test the video signal
		INPUTS	To test the keys, the faders...
		OUTPUTS	To test the LEDs, the display...
MIDI		To test the MIDI port	
RS232		To test the RS232 port	
MCARD		To test the memory card interfaces	

#, is the numeric data for the command

TEST

10 - SPECIAL CHANNELS, LTP & LINKS

TITAN is a conventional lighting console, but its channels can have a special behaviour. This behaviour helps us to control colour changers, colour wheels, gobo wheels, etc.

LTP CHANNELS

The LTP channels are configured inside *MENU / ATR / EDIT* (See chapter 6).

A LTP channel can be used to control:

- Colour changers or scrollers.
- Colour wheels of moving lights.
- Gobo wheels of moving lights.
- Prisms wheels of moving lights.
- Effects wheels of moving lights.
- And any other DMX element that it doesn't need fade in scene.

A LTP channel appears with a asterisk, *, near its number, in the channel exam displays and in the monitor.

When a LTP channel is controlled by a playback (master, sequence, manual field...), its number appears in the corresponding colour field. If the LTP channel has a level but it is not controlled by a playback, it appears in a white filed (without colour code); this LTP channel is in **tracking** mode.

GM100	100%	BLK-OUT	OFF	Jy	Jx	A.Single	Stage	Seq.Fixed																	
1*	2*	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
F	23																								
		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

In the previous example, the channels 1 & 2 are LTP (*). The manual field controls the channel 2 at 23%, and the channel 1 at 100% is in **tracking** mode.

BEHAVIOUR OF THE LTP CHANNELS

When a conventional channel (HTP) is controlled for more than one playback (masters, sequence...) the channel level will be the level of the playback with greater value for this channel.

When the HTP channel is not controlled for a playback, is at 0%.

When a LTP channel is controlled for more than one playback, its behaviour depends of the LTP mode selected in TITAN. (See below).

When the HTP channel is not controlled for a playback, it can be at 0%, or can be at the last used level (**tracking** mode).

SPECIAL CHANNELS, LTP & LINKS

In general, a LTP channel:

1. Isn't controlled by the General Master (**GM**) or the **BLK.OUT** key.
Example: The channel 1*, controlling a colour changer, is at 80% (green colour). If you move the **GM** fader, the colour doesn't change.
2. Isn't controlled by the Master of masters (**M**) or its blackout key.
Example: The channel 1*, controlling a colour changer, is at 80% (green colour) in a master 1. If you move the **M** fader, the colour doesn't change.
3. Isn't controlled by the master of the manual filed (**A**).
Example: The channel 1*, controlling a colour changer, is at 80% (green colour) in the manual filed. If you move the **A** fader, the colour doesn't change.
4. The fader of control of chases level doesn't control the level of the LTP stored in its steps.
Example: The active chase step has stored the dimmer level of a moving light at 100% (HTP), and the value of its colour wheel at 50% or red (LTP). If the chase is at 100% is scene, the dimmer is at 100% and the colour at 50% (red). If the chase is at 50%, in scene, the dimmer is at 50% and the colour at 50% (red). The chase "look" doesn't change.
5. During a fade, jumps at its target value in 0,1 seconds. The LTP channels don't fade.
Example: A master has stored the dimmer level of a moving light at 100%, and the value of its colour wheel at 50% or red. When the master fader is moved of its 0, the colour wheel is in red (50%), and the dimmer level follows the fader movement. The dimmer level arrives its 100% when the master fader arrives at its 100. During the fade-in process of the dimmer the colour is always in red.
6. A LTP channel, in the manual field, always follow to the fader movement. To free a LTP of the manual field, move its fader at 0. The minimum level for that a LTP channel is in scene is 01%.
7. Isn't controlled in the preheat function.

LTP CHANNEL IN “PRIORITY: OFF” MODE

Priority: Off is by default mode for the LTP channels in TITAN. This mode is configured from the **MENU / ATR / POFF** (see the chapter 6).

A LTP channel takes its scene level of the playback activated latest.

When a LTP channel is activated from a playback, the channel jumps at the stored level in the playback, at the same time, it is freed of the playback control and its level is maintained in scene in **tracking** mode.

A LTP channel is activated from a playback when:

1. A master fader is moved out its 0.
2. A master is activated automatically (**GO**) or flashed.
3. Each time that a chase step is activated.
4. Each time that a new crossfade begins in the sequence, pressing **GO** or moving its X2 fader.

A LTP channel doesn't lose its level information. This level is maintained in scene in **tracking** mode until the level is modified with other playback or the manual filed.

LTP CHANNEL IN “PRIORITY: ON” MODE

Priority: On is a special mode for LTP channels. This mode is configured from the **MENU / ATR / PON** (see the chapter 6).

A LTP channel takes its scene level of the playback activated latest if, and only if, there are no playbacks activated with a greater priority.

When a LTP channel is activated from a playback, the channel jumps at the stored level in the playback and the playback controls its level in scene.

When the playback, that controls a LTP channel, is deactivated, the LTP channel is freed of this control and its level is maintained in scene in **tracking** mode, or is controlled for the next active playback in priority order.

The playbacks, in priority order, are:

- Master 1 to Master 12 /24 /36 (depending of the model).
- Chaser.
- Sequence, concretely the X2 step.

Examples:

While a LTP channel is controlled with the master 1, others playbacks can not control it.

While a LTP channel is controlled with the CHASER, any other master can control it.

SPECIAL CHANNELS, LTP & LINKS

While a LTP channel is controlled with the Sequence, any other playback (masters or chaser) can control it.

COMPARATIVE EXAMPLE

Suppose that the channel 1 is LTP and the channel 2 is HTP. These channels are loaded in the next playbacks (using groups or presets) with the next levels:

Playback	M1	M2	M3	M4	X2 (SEQ)	CHASER
Contents	1 y 2 @50	1 y 2 @20	1 y 2 @30	1 y 2 @100	1 y 2 @25	1 y 2 @01

If now, these playbacks are activated or deactivated, in scene...

PLAYBACK	Scene for <i>POFF</i>		Scene for <i>PON</i>	
	Canal 1*	Canal 2	Canal 1*	Canal 2
Activate M1	50	50	50	50
Activate M2	20	50	50	50
Activate M4	100	100	50	100
Activate M3	30	100	50	100
Activate CHASER	01	100	50	100
Activate X2	25	100	50	100
Deactivate M1	25	100	20	100
Deactivate M2	25	100	20	100
Deactivate M4	25	30	30	30
Deactivate M3	25	25	01	25
Deactivate CHASE	25	25	25	25
Deactivate X2	25		25	

The colour code of the table is the same that the colour code in the monitor. Observe that the channel 2, HTP, has the same behaviour in both cases.

Philosophy example:

A chase, in the Master 1, has stored the channel 1* at different levels (different colours of a scroller).

The master, M3, has the channel 1* at 01% (white colour of the scroller).

Activate M1 (colours chase) and then, activate M3 (white colour).

For **Priority: On**, in scene the channel 1* is doing the colours chase. To set the channel 1* in white, deactivate M1. While the chase is active, its information can not be overwritten.

For **Priority: Off**, in scene, the channel 1* is in white. To set the colours chase, activate the M1 again. Then, to set the channel 1* in white, activate the M3 again. Both master have the same priority and both can take the control of the channel 1*.

LINKED CHANNELS

Any control channel can be linked with a second control channel. These LINKS are configured in the **MENU / ATR / EDIT** (See chapter 6).

A LINKS help us to edit both channels at the same time, from the manual field, using the 2 directions joystick.

A LINK, between 2 channels, can be used to:

- Associate the HTP channel that controls a lamp (HTP) with the LTP channel that controls its colour changer.
- Associate the channels that control the movement of a moving light (pan & tilt). In this case, both channels are HTP.
- Associate the channels that control the movement of pan and fine pan (or tilt & fine tilt) in a moving light. In this case, both channels are HTP.
- Associate the LTP channel that controls a gobos wheel and the HTP channel that controls the gobo focus in the same moving light.
- Etc.

BEHAVIOUR OF 2 LINKED CHANNELS

A LINK of 2 channels only is operative when these channels are edited using the joystick.

- The channel 1 has a LINK with the channel 2.

Select the channel 1 using the keyboard and move the joystick:

CHANN 1 {move Joystick}

Move the Joystick - vertical direction to edit the channel 1.

Move the Joystick – horizontal direction to edit the channel 2.

Select the channel 2 using the keyboard and move the joystick:

CHANN 2 {move Joystick}

Move the Joystick - vertical direction to edit the channel 2.

The Joystick- horizontal direction is empty.

- The channel 1 has a LINK with the channel 2, and the channel 2 has a LINK with the channel 25.

SPECIAL CHANNELS, LTP & LINKS

Select the channel 1 using the keyboard and move the joystick:

CHANN 1 {move Joystick}

Move the Joystick - vertical direction to edit the channel 1.

Move the Joystick – horizontal direction to edit the channel 2.

Select the channel 2 using the keyboard and move the joystick:

CHANN 2 {move Joystick}

Move the Joystick - vertical direction to edit the channel 2.

Move the Joystick – horizontal direction to edit the channel 25.

Select the channel 25 using the keyboard and move the joystick:

CHANN 25 {move Joystick}

Move the Joystick - vertical direction to edit the channel 25.

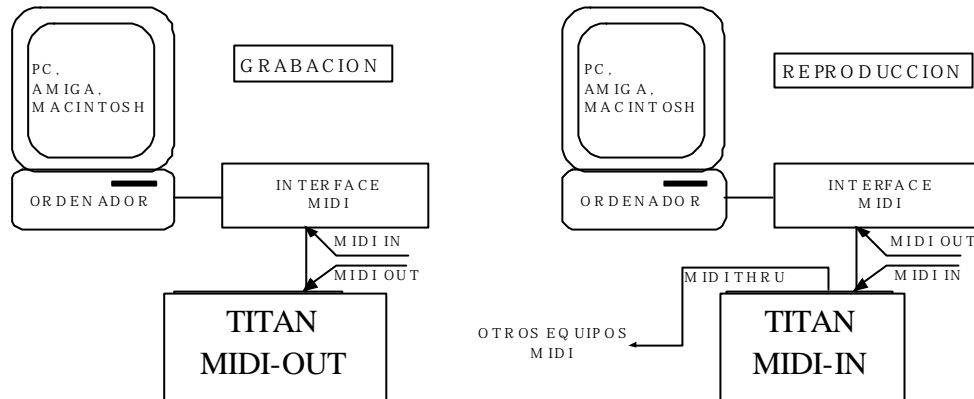
The Joystick- horizontal direction is empty.

The LINKS permit us to select, automatically, the linked channel in the joystick (horizontal). A LINK is used to associate channels that are edited in conjunction.

11 - WORKING WITH MIDI

The MIDI protocol (Musical Instrument Digital Interface), in its beginning created for the musical instruments, has been inserted in the lighting marked like a multimedia control.

The basic working configurations are showed in the next drawing:



The PC can be substituted for any MIDI sequencer, in this cases the MIDI interfaces isn't necessary.

The MIDI protocol permits a time control very interesting to obtain synchronisation between any MIDI equipment, for example, music, video, effects & light in the show. Permits to the musician "play" the light or to the light technicians "control" the music.

The MIDI in this console is very simple:

- MIDI note ↔ Console key
- MIDI controller ↔ Console fader
- PROGRAM CHANGE MIDI (PC) ↔ Page Load in the console (in reception).

The console doesn't accept MIDI commands like Pause, Play... Or real time commands, like 'Click'.

The console works with Running Status raising the effective speed transmission.

MIDI PORT CONFIGURATION

The MIDI port is configured in the *MENU MIDI* menu.

From this menu, we can enable or disable the MIDI port. (*ON* or *OFF*).

If we want the console like MIDI transmitter, select the *OUT* option. Only the MIDI OUT connector is active.

WORKING WITH MIDI

If we want the console like MIDI receiver, select the *IN* option. Only the MIDI IN connector is active.

The MIDI-THRU connector has the same information that MIDI-IN connector and it is used to link others MIDI receivers.

The MIDI protocol has 16 information channels. Only one channel is used for the console transmission/reception. Select the desired MIDI channel with the *CH* option inside the *MENU MIDI: ## CH*.

With The option *MENU/ MIDI/ CODE*, the user can configure the keys & faders of TITAN.

See the MIDI chart (*CODE*) in the chapter 7.

The Program Change commands are not configurable. When TITAN receives the PC###, TITAN load the page 9## in its masters, and for this reason, only the first 99 PC are computed.

EXAMPLES

1. Suppose that we need activate a chase loaded in the chaser when one song begins. This song is played from the MIDI keyboard. The chase will be activated playing the MIDI NOTE 90.
Configure the MIDI code, in *MENU/MIDI/CODE* menu, with all console keys unassigned except the GO.PS key that it is assigned to the MIDI NOTE 90. When the musician touches the NOTE 90 he starts the chase in the console. (*MENU/MIDI: ON & IN*).
2. Suppose that the rhythm of one song is marked mainly for the NOTE 60. (Touch it in the MIDI keyboard). In this case, we can assign the SE.TP console key with the MIDI NOTE 60. Each time that this note is played the ST.EP is activated, and the next chase step is started. The chase steps, now, are synchronised with the song rhythm. (*MENU/ MIDI: ON & IN*).
3. Use the console like a MIDI transmitter (*OUT*) and with its *CODE* by default. Play the show and store it in a PC sequencer. After we can “play” the show from the PC sequencer (Console with *MIDI/ IN* mode). The sequencer can replay all show, including the manual movements of the faders with high precision.
4. Do it a relation between the Master Flash keys or channel Flash keys and an external MIDI keyboard. The console TITAN is the transmitter (*OUT*) and the keyboard the receiver. In this mode our console is a “light organ”.
5. If from a MIDI sequencer we have a PC, Program Change, at the beginning of each song, TITAN (*IN* mode) loads the master page with the same number that the received PC, TITAN has the masters load with the correct page in each moment.

These examples are only an idea of the MIDI possibilities.

MORE ABOUT MIDI...

Bibliography:

'**MIDI systems and Control**'. Editorial Focal Press. Autor. Francis Rumsey.

WORKING WITH MIDI

12 - THE EXAM FUNCTION

The EXAM function permits us access to the console information. This function is specially used when the console works without monitor.

EX-AM EX-AM	Scene output. Access to the selected channels visualisation pressing ## (1..48/72/96) →
EX-AM Channel Flash key	Presets list with this channel and the assigned level
EX-AM Mn	Content and status of the selected master
EX-AM FL-MT	Content and status of all the masters.
EX-AM MD.FY	**No EXAM display.
EX-AM LOAD	**No EXAM display.
EX-AM TIME	Special functions for this key.
EX-AM REC	Shows us the recording numerical ranges.
EX-AM DELETE	Recording ranges
EX-AM INSERT	Shows us the INSERT commands.
EX-AM GO-PS (DIR or ST.EP)	Loaded chases and status of this chaser
EX-AM GO (PAUSE or GO-BACK)	Exams of the current crossfade
EX-AM P.K.	Exams the macros list
EX-AM RATE	Exams the value of the sequence rate (speed control)
EX-AM B.O.	Status of the GM fader and BO key
EX-AM C24-C48	Exams the manual field status
EX-AM Any key of number or arrow	** No EXAM display
EX-AM ENTER	** No EXAM display
0 EX-AM	Recorded Presets list. Use the up/down arrow keys to exam these presets.
###.# EX-AM (1..599)	Exams the selected presets. Use the up/down arrow keys to exam the next or previous presets.
800 EX-AM	Recorded chases list. The Up/Down arrow keys.
8## EX-AM (801..899)	Exams the selected chases. The Up/Down arrow keys.
900 EX-AM	Recorded pages list. The Up/Down arrow keys.
9## EX-AM (901..999)	Exams the selected page. The Up/Down arrow keys.

- Exit of this function pressing **ENTER**.
- Use the arrow keys to access to more information.

THE EXAM FUNCTION



note:

In the command:

- **EXAM C24-C48**

In the monitor, a special page appears, this page is used in manual field Double mode. This page shows us the scene output, the manual filed channels & levels of the A “picture” and of the B “picture”.

Return to the main page pressing:

- **EXAM EXAM (double click)**

13 - TIME CODE – TC

TITAN permits to synchronize the show with a time code, **TC**, this time code can be obtained from a external source, as **SMPTE** or **MTC** (Midi Time Code), or from a internal source, **INNER**. In resume, the TITAN time code can be a SMPTE code, MTC code or INNER code, and all of them are clock signals in absolute value.

From **TC** (in the **Main** menu) it is possible to select the type of time code to use, and edit the “events” of the synchronization.

A “event” is a **playback action** with a value of time code associated:

The time code is a clock value with **hh:mm:ss:ff** format:

hh	Hour, from 0 to 23
mm	Minute, from 0 to 59
ss	Second, from 0 to 59
ff	Frame, from 0 to 29. Implicating a precision of 1/30 of second.

The playback action is executed at the same time that the time code of control arrives to its associated time code, and TITAN has the next event types:

- Execute a sequence step, **Stp**.
- Load a master page, **Pag**.
- Activate a master, **GoM**.
- Execute a macro, **Mac**. (See the chapter 14)
- Execute a RS232 command, **Rs2**. (See the chapter 15)

THE TC MENU

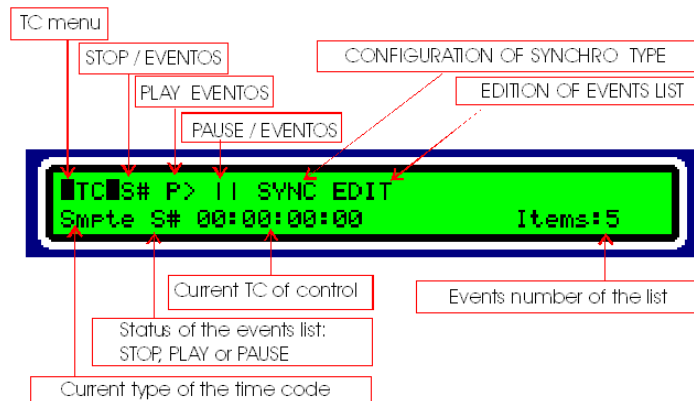
The synchronization is based in the execution of events, execution controlled with a time code.

To access to he **TC**, from the **Main** menu:

- Select with cursor **TC**
- Press **ENTER**

In the display, the commands appears in the upper line, and the lower line is the status line:

TIME CODE – TC



TC

This command is the menu name, and it permits us to return to the **Main** menu.

To return to the **Main** menu:

- Select with the cursors **TC**
- Press **ENTER**

S#

STOP command. It permits us to deactivate the execution of the events list. If the **TC** is in **S#**, no events will be executed. In case of a **INNER** time code, the signal clock is stopped and initiated to 00:00:00:00

To set the **TC** in **S#**:

- Select with the cursors **S#** and press **ENTER**

P>

PLAY command. It permits us to activate the execution of the events list. If the **TC** is in **P>**, the events will be executed and controlled by the time code of control. In case of a **INNER** time code, the signal clock is started (begins its time count from its current value).

To set the **TC** in **P>**:

- Select with the cursors **P>** and press **ENTER**

//

PAUSE command. It permits us to deactivate the execution of the events list. If the **TC** is in **//**, no events will be executed. In case of a **INNER** time code, the clock signal is stopped, but it maintains its value. (The time count is not initiated).

- Select with the cursors **//** and press **ENTER**

SYNC

This command permits us to select the source type for the time code, the source type to execute the events list:

- Select with the cursors **SYNC**
- Press **ENTER** to access to **TC.Sync** options

In the display:

TC.Sync	SMPTE	MTC	INNER
Inner S#	00:00:00:00		Items: 5

- Select with the cursor the desired option, for example **INNER**
- Press **ENTER** to accept it.
- Press **ENTER** to return to the **TC** menu.

When the selected time code is **SMPTE** or **MTC**, the user has no control of the time code, this time code is generated by a external source, and the show can be synchronized with (or from) other elements (video, audio, etc).

When the selected time code is **INNER**, the user has control of the time code, this time code is generated by the console. In this case:

The STOP command, S#:

Stops the signal clock, and initiates it at 00:00:00:00

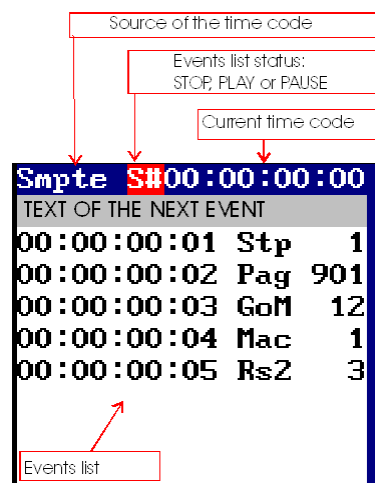
The PLAY command, P>:

Starts the signal clock from its current value.

The PAUSE command, ||:

Stops the signal clock, but this signal maintains its value.

The value of the time code of control, its selected source – **SYNC**, and its status, appear in the lower line of the **TC** menu, and in the monitor:



TIME CODE – TC

EDIT

This command permits us to edit the events list, with its action and its associated time code value. To access to the events list:

- Select with the cursors **EDIT**
- Press **ENTER**. The events list appears in the display and in the monitor:

00 00:00:01 Stp 1
Inner S# 00:00:00:00 Items: 5

In the first line, the event in edition appears. The lower line shows us the **TC** status.

TC	Inner S# 00:00:00:00	Items:5
Line Code	Play Item Text	
00:00:00:01	Stp 1	
00:00:00:02	Pag 901	
00:00:00:03	GoH 12	
00:00:00:04	Mac 1	
00:00:00:05	Rs2 3	
XX:XX:XX:XX		

In the monitor, the events list appears, and in its status line (blue line) the **TC** status appears.

Display and monitor are the cursors in the same cell. To move the cursors, press:

Key	Function
→	To access to the next cell of the event in edition
←	To access to the previous cell of the event in edition
	To access to the same cell of the previous event.
	To access to the same cell of the next event.

Editing the events list, it is possible:

- To edit the actions, and after, to edit the time code values.
- To edit the time code values, and after, to edit the actions.
- To edit a event completely, its time code value and its action.

To edit the events list, by cells:

<p>Time Code 00:00:00:00</p>	<p>The associated time code is edited in the first 4 cells. Remember that when this value coincides with the control time code, its action is executed.</p> <p>The time code format is hh:mm:ss:ff</p> <p>The first time that you access to the events list, the time code value is showed as XX:XX:XX:XX, where XX indicates us that it has not value.</p> <p>To edit the time code value:</p> <ul style="list-style-type: none"> • Select with the cursors the first cell, 00 • Enter the hours value (0-23)
---	---

	<ul style="list-style-type: none"> • Press → to select the second cell, 00 • Enter the minutes value (0-59) • Press → to select the third cell, 00 • Enter the seconds value (0-59) • Press → to select the fourth cell, 00 • Enter the frames value (0-29) • Move the cursors and follow editing, or press ENTER to return to TC <p>It is possible “to capture” this value from the current time code (control signal). Remember that the current time code is showed in the monitor status line and in the display lower line. To capture the current value:</p> <ul style="list-style-type: none"> • Select with the cursors any of the time code cells, 00 • At the desired moment, press INSERT The cursors are moved to the same cell of the next event automatically. • Follow editing events, or press ENTER to return to TC. <p style="text-align: center;">The time code value of each event is unique. The events are ordered by the value of their time codes.</p> <p>To capture or to edit time codes, it is not necessary that the events list is activated (P>). But, if it is activated, at the same time that the time code is captured, the action is executed.</p> <p><u>To delete a event:</u></p> <ul style="list-style-type: none"> • Select any of the time code cells 00 of the desired event. • Press DELETE The event is deleted of the events list.
Play	<p>It is the fifth cell, and is the action type to execute. The possible actions are:</p> <p style="padding-left: 40px;">Activate a sequence step, Stp. Load a master page, Pag. Activate a master, GoM. Execute a macro, Mac. Execute a RS232 command, Rs2.</p> <p>To select the action type:</p> <ul style="list-style-type: none"> • Select Stp (this cell can appear empty if it has not been edited). • Press INSERT as many times as will be necessary to see the desired type. <p>Follow editing, or press ENTER to return to TC.</p>

TIME CODE – TC

Item	<p>It is the sixth cell. This cell has the numeric data associated with the action type:</p> <p>If the action is Stp, is the step number (0-999) If the action is Pag, is the page number (900-999) If the action is GoM, is the master number (1-12/24/36) If the action is Mac, is the macro number (1-24/36/48) If the action is Rs2, is the command number (1- 99)</p> <p>To edit the numeric data:</p> <ul style="list-style-type: none">• Select the cell 1 (this cell can appear empty if it has not been edited).• Enter the desired number, #• Follow editing, or press ENTER to return to TC.
Text	<p>It is not a editable cell. It shows the text associated to the sequence step, or to the macro, or the Rs232 command.</p>

PLAYBACK OF THE EVENTS LIST

To execute the events, the **TC** must be is **P>** (Play).

The control time code and the events list are showed in the monitor (the next event is always in the first position) and in the **TC** menu. The events are ordered by the time code value.

When the control time code arrives the time code value of the event, this event is executed:

If the event is **Stp #** TITAN executes: **# TO.ST GO**

If the event is **Pag #** TITAN executes: **# LOAD**

If the event is **GoM #** TITAN executes: **Go-Master-#**

If the event is **Mac #** TITAN executes: **P.K Flash-Canal-#**

If the event is **Rs2 #** TITAN executes: **GO** of the RS232 command

Notes about the MTC connection

The MTC signal (MIDI TIME CODE) concerns to the MIDI protocol, and it must be connected to the MIDI-IN connector.

Although MTC concerns to the MIDI protocol, it is not necessary to configure the MIDI parameters of the **MIDI** menu. TITAN can receive MTC, inclusively with the MIDI port at **OFF**.

Only a exception: The MIDI port (including the MTC reception) doesn't work, not at all, if the RS232 port is active (at **ON**). See the chapter 15.

14 - MACROS

The macros are a “shortcut” to do, quickly, commands that we use frequently, in a very easy way (with a simple key) or playbacks commands.

The macros can be executed manually or automatically (from a sequence step or the events list), in this way, a macro permits us to do any function in a synchronized way.

Each macro has a conjunct of keys – 99 keys maximum. These keys are “pressed” by the system each time that the macro is executed.

The macros number depends of the TITAN model:

TITAN-48	24 macros
TITAN-72	36 macros
TITAN-96	48 macros

P . K (Programmable Key) is the function key that permits us to access to the macros (for storing or for execution).

The Flash-Channel keys are associated with the macros selection:

- The Flash-Channel 1 (in Macro mode) is associated with the Macro 1
- The Flash-Channel 2 (in Macro mode) is associated with the Macro 2
-
- The Flash-Channel 24 (in Macro mode) is associated with the Macro 24
-

The LEDs of the Flash-Channels keys, when these keys are in Macro mode, indicates us:

LED at Off	No-macro stored
LED at ON	Macro stored
LED blinking	The macro is being stored

STORING A NEW MACRO

The TITAN macros are stored in “live” mode. In others words, when the macro storing process begins, the user must press the desired keys, these pressed keys are stored in the macro in the same order that they have been pressed.

The faders and joystick movements never are stored in the macros. The time between keys never is stored in the macros.

MACROS

To store a new macro:

- Press **P . K**
Its LED is lit to indicate us that the Flash-Channel Keys are in Macro mode, and now, it is possible to select the Macro that you want store. (The LEDs of the Flash-Channels keys show us the macros status).
- Press the Flash-Channel key that is associated with the new macro (its LED must be at OFF.
The **P . K** LED is blinking, and in the monitor status line a MAC flag appears (in a red filed).
If it is needed, the system goes to the **Main** menu (to start the macro from a known point), and the macro is ready to the edition.
- Press the desired console keys in a correct order (in others words, execute the desired function).
- Press **P . K** to end the macro edition.
The **P . K** LED is at OFF. The MAC flag disappears and the Flash-Channel keys return to the Channel mode.

MACRO EXECUTION MANUALLY

To execute a Macro manually:

- Press **P . K**
Its LED is lit, indicating that the Flash-Channel keys are in Macro mode.
Press the Flash-Channel key that is associated with the desired macro.
The macro is executed.
The **P . K** LED is at OFF, indicating that the Flash-Channel keys are in channel mode.

It is possible to set the Flash-Channels keys in Macro mode in a permanent way, in this way you can execute macros. To set the Flash-Channel keys in a Macro mode:

- Press **P . K P . K**
Its LED is lit, indicating that the Flash-Channel keys are in Macro mode, and in the monitor status line, the MAC flag appears (in a blue field).

In this status, to execute a macro:

- Press the Flash-Channels key associated with the desired macro.
The system goes to the **Main** menu, to execute the macro from the same point which the macro was stored.
The macro is executed.

THE MACRO MENU

Inside **MENU**, there us the **MACRO** option. This option permits us:

1. Edit the macro text.
2. Delete the macro.
3. Exam the macros list to edit them.

To access to the **MACRO** option, from the **Main** menu:

- Select with the cursor **MENU**
- Press **ENTER**. The **MENU** options appear in the display.
- Select with the cursor **MACRO**
- Press **ENTER**. The macros list appears in the display:

Menu Macro	02	Text for macro 02	DELETE
09 macros	04	Text for macro 04	DELETE

To the left of the display, the number of stored macros appears (in this example 9 stored macros).

In a display screen you can see information about 2 macros (in this example the macros 02 & 04). Each macro of the list has 3 cells:

Cell 1: The macro number (no editable)

Cell 2: The macro text.

Cell 3: The **DELETE** function. This function permits us to delete the macro.

To place the cursor in the desired cell of the macro for edition, press:

Key	Function
→	Moves the cursor to the next cell of the macro in edition
←	Moves the cursor to the previous cell of the macro in edition
↓	Move the cursor to the same cell of the next macro
↑	Move the cursor to the same cell of the previous macro

To edit a macro text, for example, text for the Macro 02, from **MACRO**:

- Select with the cursor the Text cell, in this example **Text for macro 02**
- Edit the desired text
- Follow editing, or press **ENTER** to return to **MENU**.

The macro text appears in the macros exam display (see below) and is used in the events list of the **TC**.

MACROS

To delete the macro text, for example for the macro 02, from **MACRO**:

- Select with the cursor the Text cell, in the example **texto de la macro 02**
- Press **DELETE**. The text is deleted and this text cell appears empty.
- Follow editing, or press **ENTER** to return to **MENU**.

To delete the stored macro, for example the Macro 02, from **MACRO**:

- Select with the cursor the **DELETE** of the desired macro (that appears in the same line).
- Press **DELETE**. The macro is deleted.
- Follow editing, or press **ENTER** to return to **MENU**.

MACROS LIST EXAM

To exam the macros list in the display, press:

- **EX.AM P.K**

It is not possible to exam the macro contents.

In this macros list use the arrows keys to access to the desired information.

ACCESS TO THE MENU/MACRO SCREEN

To access, directly, to the **MENU/MACRO** screen, press:

- **MD.FY P.K**

<p>The macros cannot be modified. The macro contents cannot be examined. It is necessary to delete a macro before to store it again.</p>

THE MACROS AND THEIR USES

Macros for menu functions.

Example, a macro to initiate all the masters at 0, with the function **MASTERS** of **PB-ZERO** in **MENU**

Macros to execute 2 or more playbacks at the same time.

Example, a macro to execute 2 chases in step to step mode at the same time, with their corresponding STEP keys.

MACROS

Macros to do not pre-programmed commands inside of sequence Commands or the events list.

Example, a macro to load and to activate a chase in the TITAN chaser.

Macros to execute commands used frequently.

Example, a macro to delete the manual field outputs (**CHANNEL CHANNEL ESC**) or a macro to initiate the sequence (**0 TO.ST TO.ST**).

These are only some “ideas” for the macros.

MACROS

15 - RS232 COMMANDS

TITAN permits us to integrate a small control for Rs232 equipments; equipments as slides machines, audio equipments, video equipments, etc...

To control a external Rs232 equipment, TITAN provides us a commands editor.

The commands list (all the commands edited for a concrete device) can be stored as a independent file (device file) in the memory card.

A edited command can be executed at any moment, from the commands editor, from the sequence, or from the events list.

The TITAN Rs232 port only sends commands.

Some resources of TITAN are divided between the Rs232 port and the MIDI port. For this reason, both ports can't be actives (**ON**) at the same time.

The MIDI port is used when is active in its **MIDI** option, to send or to receive MIDI commands, and when the events list is controlled with an external MTC signal.

RS232 COMMANDS EDITOR

The commands are edited from the **RS232** option, in **MENU**.

This option permits us to configure the port parameters and to edit the commands contents. It is needed to have the manufacturer specifications of the Rs232 equipment that we wish to control.

Suppose, that we wish to control a slide machine, for example KODAK EKTAPRO, using its RS232 protocol; protocol that is known as P-Com.

The first step is to configure the port parameters:

Parameter	Values for RS232 TITAN	Value for P-Com (specifications)
BAUD	9.600 (9K6) 19.200 (19K2) 38.400 (38K4)	9600 baud
DATA	7 8	8 data bits
PARITY	EVEN ODD NONE	No parity
STOP	1 2	1 stop bit

These parameters adjust the transmission speed and data format:

BAUD is the transmission speed.
DATA is the number of data bits.
PARITY is the used parity type.
STOP is the number of the stop bits.

RS232 COMMANDS

To configure the serial port, and from the **Main** menu:

- Select with the cursors **MENU**
- Press **ENTER**
- Select with the cursors **RS232**
- Press **ENTER**

The display shows us the next options:

```
Menu.Rs232 ON OFF PORT CODE DISK
Off
```

- Select with the cursors **PORT** to access to the port configuration.
- Press **ENTER**
The display shows us the parameters (upper line) and their current status (lower line):

```
Rs232.Port BAUD DATA PARITY STOP
          9K6   8  NONE   1
```

- Select with the cursors **BAUD**
- Press **ENTER** as many times as will be necessary to read in the lower line the desired value.
- Select with the cursors **DATA**
- Press **ENTER** as many times as will be necessary to read in the lower line the desired value.
- Select with the cursors **PARITY**
- Press **ENTER** as many times as will be necessary to read in the lower line the desired value.
- Select with the cursors **STOP**
- Press **ENTER** as many times as will be necessary to read in the lower line the desired value.
- Select with the cursors **Rs232.Port**
- Press **ENTER** to return to the previous screen. **The port is configured.**

The second step is to edit the commands that we need to use:

Command example (Name)	Command Content for P-Com (String)
Slide advance	*0D *00 *00 *15 *00 *00
Slide backward	*0D *04 *00 *15 *04 *00
Go to the slide 0	*FB *1C *00 *F9 *00 *00

Each command is composed for a **Name**, and its **String** data.

TITAN permits us to edit up to 99 commands.

To edit a command, and from the **Main** menu:

- Select with the cursors **MENU**
- Press **ENTER**
- Select with the cursors **RS232**
- Press **ENTER**

The display shows us the next options:

```
Menu.Rs232 ON OFF PORT CODE DISK
Off
```

- Select with the cursors **CODE** to access to the commands list.
- Press **ENTER**
The display and monitor shows us the commands list:

01	name_of_01	String_of_01	GO
02	name_of_02	String_of_02	GO

Each command is showed in one line.

The **name_of_01** cell has the command name (10 characters maximum).

The **string_of_01** cell has the command data in ASCII format or in Hexadecimal format (20 characters maximum).

The last cell is a **GO** function, that it permits us to execute the command at any time.

To move the cursors in the commands list, use the arrow keys.

- Select with the cursors **name_of_01** to edit the name of the first command.
- Type the desired text, in the example: **ADVANCE**.
- Select with the cursors **String_of_01**
- Type the desired data in text mode, in the example: ***0D*00*00*15*00*00**
- Optional. If the Rs232 port is at **ON** (see below) select with the cursors the **GO** function and press **ENTER** to execute its associated command (for testing).
- Repeat this process as many times as commands you wish to edit.
- Press **ENTER** to return to the previous screen.

Text edition

During a **Name** or **String** cell is selected, some TITAN keys toggle to text mode.

To type numeric characters use the numeric keyboard.

To type text characters, use the Flash-Channel keys and some function keys (each key, that can toggle a text mode, has its “associated character” printed over it).

The special text functions are:

Function	Associated key	Comments
SPACE	GO.PS	Permits us to insert a empty character.
←	DIR	Deletes the previous character
SYM	ST.EP	Accesses to the next symbols ; “ # \$ % & ^ () * + , - . / (Press this key as many times as will be necessary, and then press ENTER to accept it)
ENTER	BLK.OUT	Moves the cursor to the next character and accepts the edited symbols. Very used to place the cursor without to delete.

Commands edition. Formats

The commands are edited in text mode, and they can have 2 formats:

Hexadecimal format. Each data is preceded by a asterisk, *****

ASCII format: Each data is typed directly.

Each ASCII character has a binary code associated, and this is the code sent.

Each hexadecimal value has a binary code associated, and this is the code sent.

For this reason, to obtain the correct binary code, the console needs know the format used to edit the **String**. When you edit in hexadecimal format, type the asterisk (*****) before each data.

RS232 COMMANDS

Example of 3 values in the different formats:

ASCII format	Hexadecimal format	Binary format (in 8 bits)
0	*30	0011 0000
3	*33	0011 0011
A	*41	0100 0001

EXECUTION OF THE RS232 COMMANDS

To execute Rs232 commands is needed that the Rs232 port is active, at **ON**.

To active the Rs232 port, and from **Menu . Rs232**:

```
Menu.Rs232 ON OFF PORT CODE DISK
On
```

- Select with the cursors **ON**
- Press **ENTER**. The Rs232 port is activated.
If the MIDI port is active, this will be deactivated by the system; and if the events list is controlled with a external MTC source, the events list will be forced to stop, **S#**. (See THE MIDI & RS232 PORTS” – page **¡Error! Marcador no definido.**)
In the display lower line, the current port status appears, **On**. This status appears too in the monitor (near the display visualization).
- Select with the cursors **Menu . Rs232**
- Press **ENTER** to return to the previous screen.

With the Rs232 active, it is possible:

1. To execute the command, at any time, using its associated **GO** function (inside the commands list, **CODE**)
2. To execute the Rs232 command, at the same time that a sequence step. See the chapter 4.
3. To execute the Rs232 command, at the same time a event of the events list. See chapter 13.

STORE A DEVICE FILE

The edited commands (**RS232/CODE**) and the port configuration (**RS232/PORT**) are stored:

1. With the show (**MCARD**)
2. As a independent file or **device** file. These device files permit us to load a command list and its configuration at any moment (**RS232/DISK**)

To store the commands list and its configuration (**device**), and from **Menu . Rs232**:

```
Menu.Rs232 ON OFF PORT CODE DISK
Off
```

- Select with the cursors **DISK**
- Press **ENTER**. The display (with 2 screens) shows us the next option:

```
Rs232.Disk EXAM LOAD RED DEL      Rs232.Disk SysexRXD SysexTXD ->
TEXT ->
```

These options are the same options that the of **MCARD** in **MENU**, but they works only with **device** files. The **device** files permits us to have a collection of commands lists and their configurations, organizes for Rs232 equipments (slide machines, video equipments, audio equipments, etc.)

The **DISK** options:

Rs232.Disk	Present in the 2 screens. It permits us to return to Menu.Rs232: <ul style="list-style-type: none"> • Select with the cursors Rs232.Disk and press ENTER.
->	Present in the 2 screens. It permits us to change from the screen 1 to the 2 (or vice versa): <ul style="list-style-type: none"> • Select with the cursors -> and press ENTER.
EXAM	To exam the device files stored in the memory card: <ul style="list-style-type: none"> • Select with the cursors EXAM and press ENTER. • Use the arrow keys to access to more information. • Press ENTER to return to the previous screen.
LOAD	To load a device file from the memory card to the console: <ul style="list-style-type: none"> • Select with the cursors LOAD • Enter the device number, #, and press ENTER. The device # is loaded as active device in the console.
REC	To store the current device to the memory card: <ul style="list-style-type: none"> • Select with the cursors REC • Enter the new device number, #, and press ENTER. The device # is stored in the memory card.
DEL	To delete a device file of the memory card: <ul style="list-style-type: none"> • Select with the cursors DEL • Enter the device number, #, and press ENTER. The device # is deleted of the memory card.
TEXT	To associate a text to a stored device file in the memory card: <ul style="list-style-type: none"> • Select with the cursors TEXT • Enter the device number, #, and press ENTER. • Type the desired text. • Press ENTER to accept the text.
SysexRXD	To send a device file from the memory card to a PC, or other console, using System Exclusive format by the MIDI port (MIDI-OUT): <ul style="list-style-type: none"> • Select with the cursors SysexRXD • Enter the device number stored in the memory card, #, and press ENTER. TITAN begins to send the file. Note: The PC, or other console, must be in reception mode (see the chapter 6 – MENU/MCARD for more information).
SysexTXD	To receive a device file from a PC, or other console, to the memory card, using System Exclusive format by the MIDI port (MIDI-IN): <ul style="list-style-type: none"> • Select with the cursors SysexTXD • Enter the new device number to store in the memory card, #, and press ENTER. TITAN is in reception mode. • Send the device file from the PC, or second console. Note: The PC, or other console, must be in sending mode (see the chapter 6 – MENU/MCARD for more information).

RS232 COMMANDS

The **Devices** files are not accessible from **MCARD**
The **Shows** files are not accessible from **RS232/DISK**

THE MIDI & RS232 PORTS

The MIDI port and the Rs232 port have in common some resources. For this reason, both ports can not be actives at the same time.

The MIDI port is active:

1. To send or to receive Notes & Controllers MIDI (**MENU/MIDI**)
2. To receive MTC sync (**TC/SYNC**)
3. To send or to receive files in Sysex format (**MENU/MACARD & MENU/RS232/DISK**)

By default the port is pre-configured (but no active) with the resources of the MIDI port.

When the Rs232 port is activated (**MENU/RS232/ON**):

- If the **MENU/MIDI** option is at **ON**, it will toggle at **OFF**.
- If the option **SYNC**, of **TC**, is at **MTC** in play mode (**P>**), it will toggle at stop mode, **S#**, and the **MTC** sync will not be read.

When the MIDI port is activated (**MENU/MIDI/ON**):

- If the **MENU/RS232** option is at **ON**, it will toggle at **OFF**.

When, in the events list with **MTC** control, the command PLAY (**P>**) is executed:

- If the **MENU/RS232** option is at **ON**, it will toggle at **OFF**.

The monitor shows us the status of both ports (near the display visualization):

MD * On	<-- MIDI status (in this example at On)
RS Off	<-- Rs232 status (in this example at Off)

The asterisk, *****, marks the pre-configuration of the resources, (inclusively if both ports are at **Off**).

16 - OFF-LINE EDITOR FOR PC

OFF-LINE EDITOR for PC

TITAN has an Off Line Editor for PC (Windows system).

This simulator can be downloaded from www.dimmer.de

INSTALLATION

PC 486 or better.

Operative System: WIN95/WIN98/WIN2000, WIN-NT or WIN-XP.

If the PC hasn't much video memory, configure its video for 256 colours (16 bits).

The downloaded simulator program is zipped: WTITAN.zip

Copy the WTITAN.zip file, in a new folder in the HD.

Unzip it in its folder:

The file WTITAN141.EXE is extracted, and it is ready to execute.

The numbers of the file name are a reference to the software version (the version numbers are the same in the console and in the simulator).

Execute the program WTITAN141.EXE

In the PC monitor, you can see: a TITAN simulated monitor and the own console panel.

WORKING IN THE SIMULATOR

All functions and modes are equals that in the console. If necessary, read the console user manual.

With the PC mouse:

“Click” on a key to press it (including the external triggers), or

“Drag” the faders and joystick to move them.

To close the program: with the PC mouse, “click” on the simulated switch.

Special notes:

The monitor bitmap and frontal panel bitmap can be dragged to place them in the desired position on the PC monitor.

OFF-LINE EDITOR FOR PC

To move 2 faders at the same time (very used for X1 & X2 faders):

- Press **CTR** and click, with the mouse, in the first fader cap.
- Then, click, with the mouse, and drag on the second fader cap. Note that both faders are moved at the same time.
- Free **CTR**.

SPECIAL FUNCTIONS IN THE SIMULADOR

The simulator has some special functions that they aren't in the console. These functions are in the third screen of **MENU / MCARD**.

These functions permit us to store and load the shows in the *memory card* using other formats. These functions are thought, mainly, to exchange shows.

THE MEMORY CARD IN THE SIMULADOR

The TITAN simulator imitates a *memory card*. The physical card is simulated with a file of 512K named **wtitan.lt2**. This file only is read using the TITAN simulator.

Inside **wtitan.lt2** are stored the shows created with the simulator.

The first time that you access to the menu **MCARD** (in the simulator), it is needed format the *memory card* (this process creates the **wtitan.lt2** file).

To store, to load and to exam the shows in the simulator, use the same functions that in the console.

In the simulator, the *memory card*, is not a physical card, is the PC file **wtitan.lt2**

REC-LOAD A SHOW IN A FILE

The commands **FileREC** & **FileLOAD**, in the third screen of **MCARD**, permit us to load shows from a computer file, and to store shows in a computer file. These commands are very used to create a shows-library, a backup copy, etc.

To store a show of the *memory card*, like a computer file, from the **MCARD**:

- Insert the show number to transfer (this show must be in the *memory card*).
- Move the cursor to select the option **FileREC**
- Press **ENTER**.
- A dialogue windows appears. Select a name and directory for the computer file. This computer file will have the same data that the selected show.

To load a computer file like a show of the *memory card*, from the **MCARD**:

- Insert the show number to store in the *memory card*.
- Move the cursor to select the option **FileLOAD**

- Press **ENTER**. If the entered number (show) exists in the *memory card*, the system requests us confirmation. Press **ENTER** again to confirm, or try it entering other show number.
- A dialogue windows appears. Select a name and directory for the computer file that you want load like a show.

REC-LOAD A SHOW IN ASCII FORMAT

The commands *AsciiREC* & *AsciiLOAD*, in the third screen of *MCARD*, permit us to translate ours shows to ASCII LIGHT CUE.

ASCII LIGHT CUE is a standard format created by the USITT to exchange shows of different consoles and manufactures.

Using ASCII LIGHT CUE format, it is possible to recover shows of others console models , (like HYDRA, by LT) or shows of others console of others manufactures (like ETC, COMPULITE, etc); and vice-versa (a TITAN show can be recovered in other consoles).

The ASCII format doesn't store the complete data of a show (each manufacture has some specific data and others data depend of each console – pages, macros...). The ASCII format always stores the basic data of a show (presets , patch, fade times...).

The ASCII LIGHT CUE files can be opened with a text editor, and, in TITAN has extension *.txt.

To store a show of the **memory card**, like a ASCII LIGHT CUE file, from the **MCARD**:

- Insert the show number to transfer (this show must be in the *memory card*).
- Move the cursor to select the option *AsciiREC*
- Press **ENTER**.
- A dialogue windows appears. Select a name and directory for the ASCII file.

To load a ASCII LIGHT CUE file like a show of the *memory card*, from the **MCARD**:

- Insert the show number to store in the *memory card*.
- Move the cursor to select the option *AsciiLOAD*
- Press **ENTER**. If the entered number (show) exists in the *memory card*, the system requests us confirmation. Press **ENTER** again to confirm, or try it entering other show number.
- A dialogue windows appears. Select a name and directory for the ASCII file that you want load like a show.

REC A SHOW LIKE A TEXT FILE

The ***TxtREC*** command, in the third screen of the ***MCARD***, permits us to create a text file that has all the show data.

This text file can be edited (and printed) using any PC text editor... It is possible to delete some data, to insert some comments, or to change the letter type and the document format, etc. This tool is very used to obtain printouts of the data of our show.

To “print” a show of the ***memory card***, storing a text file in the PC, from ***MCARD***:

- Insert the show number to transfer (this show must be in the ***memory card***).
- Move the cursor to select the option ***TxtREC***
- Press **ENTER**.
- A dialogue windows appears. Select a name and directory for the text file.
- Then, you can edit this text file using a text editor, and / or you can print it.

NOTES ABOUT THESE SPECIAL FUNCTIONS

In the same way that with the ***LTSYSEX*** format, the formats ***FILE***, ***ASCII*** & ***TEXT*** can not work with the active show (the console show); these formats only work with the shows stored in the ***memory card***, (to work with the active show, record this show in the ***memory card***).

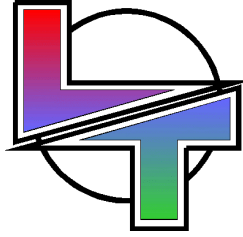
And only it is possible to work with one show at the same time. Will be necessary repeat the same process for each show that you need “translate”.

USING THE MIDI PORT IN THE SIMULATOR

The TITAN simulator can use the MIDI port of your PC, if it exists, to send shows (or to receive) using the MIDI System Exclusive (***LTSYSEX*** format)

To configure the MIDI port in our simulator, click, with the mouse, on the MIDI port bitmap. A configuration window is opened.

This is the way to communicate a shows of a physical card (in a TITAN console) with a show of the ***memory card*** of the TITAN simulator.



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Specifications can be changed without previous notice.