WORK



MATRIX

User Manual



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Introduction

Welcome!

You made the right decision by choosing this sophisticated and intelligent product. Every unit has been thoroughly tested and carefully packed before shipment. Unpack the shipping carton carefully, saving the carton and all packing materials for possible later use.

Check carefully for sure your product is not damaged and all accessories not missing. If your product appears to be damaged or missing, please do not use it and contact your local distributor immediately.

Please read this manual carefully and thoroughly, as it gives important information regarding safety, use and maintenance. Keep this manual with the unit for possible future reference.

Safety Rules

- To reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.
- Do not spill water or other liquids into or on to your unit.
- Be sure that the local power outlet matches that of the required voltage for your unit.
- Do not attempt to operate this unit if the power cord has been damaged.
- Turn off immediately in the event of malfunction.
 Should you notice smoke or an unusual smell coming from the equipment, please discontinue using it and disconnect from the power immediately.
- Do not open the unit there are no user serviceable parts inside.
- Do not dismantle or modify the unit, as this voids all warranties.
- Do not attempt repairs. Repairs by unqualified people could cause damage or faulty operation. Contact your local authorized service center.

Introduction

Notice Information

Keep dry

This productisnotwaterproof, and may malfunction if exposed to highlevels of humidity. Rusting of the internal mechanism can cause irreparable damage.

Do not drop

This product may malfunction if subjected to strongshocks or vibration.

Keep away from strong magnetic fields

Donotuseorplacethisdeviceinvicinityofequipmentthatgenerates strong electromagnetic radiation or magnetic fields. Strong staticchargesorthemagnetic fields produces by equipment such as radio transmitters could interfere with the display or affect theproduct's internal circuitry.

Cleaning

Due tofogresidue, smoke, and dust cleaning the exterior of the case may become necessary. Use normal glass cleaner and soft cloth to wipedown the outside casing.

CF cards

Memory card may become hotduring use. Observedue caution when removing memory cards from this device.

Attention! The memory cardsupplied with your console has been tested and approved for use in the MATRIX. Use recommended Compact Flash Card.

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Specification

Model:	MATRIX
Power Requirement:	AC 230V/ AC 120V
Housing:	ABS plastic case with black matte painting
LCD:	240x128 -dot, TFT LCD with contrast adjustment
DMX Channels	512 max., Configurable for fixtures
Memory Card:	ScanDisk 32 MB Compact Flash Card
DJ Lamp:	USB connector, 5V/1W gooseneck light
Inputs/Outputs	DMX OUT: 3-pin & 5-pin Neutrik chassis connector MIDI IN/THRU/OUT: Standard 5-pin DIN connector RS-232 Port: DB9 connector Audio IN: 1/4" unbalanced stereo jack
Audio trigger:	Built-in microphone or line in
Overall Dimensions:	688x550x165mm
Weight:	Approx. 11.8 Kg

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Principle Features

- Professional 512-channel DMX controller, ideal for fixtures
- 64 fixtures, each with a maximum of 20 channels
- 16-bit/ 8-bit resolution of Pan/Tilt movement
- Free access of 36 shows, 128scenes, 9 groups and as equencer
- Each show is allocated with 32KB memory, cross-fade timeand stand timeareprogrammable
- Internal library is editable, up to 255 fixtures types can be created
- Free access of CF card(32MB) for the exchange of data file
- Data file canbe downloaded or uploaded to a PC (RS 232port)
- Thesoftwarecanbe updated with new versions
- Music sync. functions with audio gain adjustment
- USB socket for DJ lamp(5V, 1W), lighting adjustable
- Joystick forPan/ Tilt adjustment of projector
- Blackout enables to shut all fixtures off
- 240x128 dots LCD display with contrast adjustment
- Neutrik XLR sockets for 512DMX channels output
- MIDI In/Thru/Out connectors
- Auto/ Music/Manual chase
- Jack socket forcable control for stepping
- AC 120V / AC 230V selectable

Basic Control Parts

Fixture Buttons(1-16)

These16buttonsplay multi-purpose functions depending on the operating mode. Only one function is selected at a time and the LEDwill be lit accordingly. There arefour statuses:

The LED lights up, indicating the fixture cannot be switched of funlessitisenabled. The LED blinks constantly, indicating the fixture can be enabled by channel faders. The LED blinks briefly, indicating the fixture is a part of the scenes or shows. The LED blinks unstably, indicating the fixture is frozen.

Fixture Bank Buttons(1-4)

Thesefour buttons are used in combination with the fixture buttons to choose the fixture between 1 and 64.

Scene Buttons(1-16)

These16buttonscan be usedforSceneMenuandShowEditmenu.

Scene Bank buttons(1-4/5-8)

Thesefour buttons control twosettings: they refer to bank 1-4 when the LEDs light up; they refer to bank 5-8 when the LEDs blink hastily.

Channel Buttons(1-16)

Thesebuttons are used to select channel between 1 and 16. Furthermore, they can be used to direct access the tabset values at each pressing.

Faders (1-16)

These16faders canbeused to control the 16 individual DMX channels of the fixtures.

Joystick

This joystick is used to control the Pan or Tilt movement of the fixtures.

Basic Control Parts

Master Fader

This fader is used to control overall dimmer output level of 16 channel faders when master dimmer function is enabled.

Black Out Button

This button is used toenable or disabletoshutoffallfixtures.

Select Button

Press to shift between Pan and Tilt as well between Pan fineandTiltfine.

Fine Button Press to shift between 8-bit and 16-bit movement of joystick.

Up/ Down Buttons Thesetwobuttonsare used toadjust the dimmer digital value onebyone.

Sequencer Button

This button is used to enable or disable the execution of sequencer.

Pause Button

This button is used topause the execution of sequencer or shows.

Stand Up/ Down Buttons

These two buttons are used to adjust the proportional factor of stand time when execution of shows or sequencer. They can also be used to adjust step time in Edit menu. Show

Cross Up/ Down Buttons

These two buttons are used to adjust the proportional factor of cross time when execution of shows or sequencer. They can also be used to adjust fade time of step in Edit menu. Show

Basic Control Parts

Show Buttons(1-18/19-36)

Thesebuttons are used to enable or disable the shows. In addition, they can also be used as keypadforentry of password and numerical value.

Group Buttons(1-9)

Thesebuttons are used to enable or disable the groups.

Homepage Window



M :	Located at the upper left corner, refers to the masterlevelofthe entire attached channels, ranges between 0 and 255.
CH:	20 numerical plot dataindicating thedigital value set with the faders 1-16 and joystick(X, XF, Y, and YF).
Setup:	Gives access to Setup menu which includes fixtureconfiguration and the settings of function parameters.
SeqSetup:	Allowstomakeupasequencer by linkingshows.
ShowEdit:	Enables to edit a show.
CH-Key:	Enables to direct enter the digital value for a selected channel using thenumericbuttons (Showbuttons 1-10)

Enables to freeze all theselectedfixtures so that you cankeepthe fixtures frombeingattachedtothefaders, scenes and shows.				
Enables to prevent all settingstotheconsolefrom unauthorized changes. You canonly be granted when youentercorrect password.				
Gives access to Group of fixtures which help reduce repeated manual procedure of several equal fixtures.				
Gives access to Scene menu, whichallows to create, copy, capture anddetect the scenes.				
Clears all manual fixtures unless they are frozen.				
usic: Enables to choose the running mode for the show(s).				
Shift of P1-18 and P19-36 shows.				
Allowstoviewthetableoffixturespatch.				
Function Free/Lock: Indicates the state of function lock/free.				
Indicates MIDI enabled or disabled state.				
MultiShow/ SingleShow: Indicates enabled SingleShow or MultiShow mode.				
Indicates the starting DMX channel of the selected fixtureandhow many channel areoccupied.				
Indicates the multiplyingfactorofthefade-in and fade-out of the wholeshow.				
Indicates the multiplyingfactorofthestepstand time of the wholeshow.				

Recall Shows



Fade Ena/ Dis:	Allowstochange between Fade Enable and Fade Disable, of which Fade enablerefertoCrosstime enable, the latter Cross time disable
ChManual:	Cutthechannel of a fixtureoutoftheshowsothatyoucandirect control the channel by means of the fader.
Go:	Raise thestep by one.
Back:	Lower the stepbyone.
Repeat:	Play the current step a secondtime.
S-Crs:	Indicates the step's fade time
S-Std:	Indicates the step's running time

This consolecancontainamaximumof36shows. When you haveaccess to this homepage, yousimply havetopresstherelevant button in the Show section to recall and play theshowavailable inthelibrary. When thebutton is pressed, the LED will light up indicating theshowisenabled,theLCDwilldisplay therunning state of theshow,suchasthestep,thestandandcrosstime,therunningmode, andetc.Pressing therelevant Showbutton a second time will exitfrom theshow, so will "Esc".

 $\label{eq:linear} \mbox{If MultiShowhasbeenchosen, you can select more than one shows at one time.}$

Use the F10button to scroll to the desired running mode for the selected show(s). In Auto mode, the shows will be executed at the setstand and cross time. The Stand and Cross time buttons can be used to change the stand and cross time for the show. In Manual mode, pressing GoorBack(F6orF7) allows to raise or lower the step of the show. As a result, the shows will be executed step by step. In Music mode, the show will be executed depending on the music beat.

Recall a Sequencer

This consoleallows you to produce a sequencer bylinking the shows. Torecall the sequencer, simply presstheSequencer button, its LEDlightsupindicating it is enabled. TheLCDshowsthecurrentshowanditsstep.Alltheshowscontainedin thesequencer will proceedonebyone.

Pressing the Sequencer button a second time will exit from thesequencer, sowill"Esc".

Recall a Scene

This consolecancontain128 scenes. To recall a scene, you will simply press any of 16 Scenebuttons, its LED will light up indicating thescene is enabled. You canonly select onescene at a time. Pressing this button again allowstoexit, its LED goes out.

Choose Fixtures

This consolecancontrolupto64fixtures youhaveassigned in Fixture Patch. The fixtures enable to have accesstofadercontrol, as well to be subjected to the shows or scenes, which bringsyougreat flexibility.

The Fixture buttons 1-16canbeusedincombinationwithBankbuttonstoselectdesired fixtures. The LED blinks constantly indicating the fixture is selected andthatfadersare enabled. You cannowusethefaderstocontroltheDMXchannels ofthefixture. Take notice to observe thestatusoftheLEDsothatyoucanbeawareoftheconditionsofthe fixture. The fixture will bedefinedastheproceedingone subjectedtothefaderswhenits LED blinks constantly. Those with LEDs being lit up will be regarded as thepreceding fixtures.

Group of Fixtures

This consoleallows you to createupto9groupsbycombiningseveral fixtures. Group of fixtures helpsreduce the procedure when you work on several equal fixtures. Press therelevant button intheGroupsection to call thegroup, the group LED will blink constantly and the fixtures will be enabled. Pressingthis Group button a second time will leave this group.

Freeze Fixtures

This function allows you to keep all theselectedfixtures from being subjected to the faders, scenes or shows. Make surethefixtures are subjected to faders manual control beforeyoucanfreezethefixtures.Tofreeze a fixture, first select a fixtureunderfader control(its LED blinks constantly), then you canfreeze this fixturebypressing the F5 (Freeze) button. The fixture LED blinks unstably indicating it isfrozen. To unfreeze this fixture, you simply have to press thefixture button.

Password & Function Lock

The first time that youenterany setup menu after switching the console on, you will be required to insert a Password composed of 6 figures, which can be inserted by means of Show buttons(numeric buttons 1-10). The default Password is 1-6-8-1-6-8.

The Password guarantees all datafiles of theconsole from any unauthorized changes, that will enhance greatlythedatasecurity. The LCD shows FunctionLockbeforeyou enter correct Password. After youhaveinsertedthePassword, you will be enabled to access any setup menu, which can be promptedbyFunction Freeinthedisplay.

Every time youswitch the console on, you will be required to insert the Password before you can make any parameter settings. Carefully protect your Password and always keep it in mind. You can change the Password as necessary (see Setup menu).

Sequencer Setup



In Homepage phase, pressing the F2button(SeqSetup) allows to enter Sequencer Setup. This menu allows youtopickupto100showstomakeupasequencer, the selected shows will appear in the display.

You canchoose thedesired shows by means of Show buttons, delete unused shows by pressing the F12(Delete) button. Press the F11(P1-18) button tochange between 1-18 and19-36shows,theF9(Esc)buttontogobackto thepreviousmenu, the storage is automatic.

F1 F5 **Group SetupMenu** F2 F6 Esc -0 --Group: 1 F3 F7 F4 F8 F9 F10 F11 F12

Group Setup Menu

In Homepage phase, pressing the F7 button(Group) allows to enter Group Setup Menu. This menu allows you toselect several fixtures to make a group. First select the group number by pressing the Group button, theLCDwillshowtheGroupnumber. Next, press the Fixture buttons incombination withtheBankbuttonstoselectthefixtures. We suggest selecting thesamekind of fixtures. Press the F1(Esc) button togoback to the previous menu, the storage is automatic.

Setup Menu Display



In Homepage phase, press the F1button(Setup) to access Setup menu. You will be required to insert the Password if FunctionLockisenabled.InSetupmenu, the indications in the LCD will be detailed as follows:

Esc :	Goes back to the previous menu.
Download:	Enables to swap data files with the CF card and a PC.
FixSetup:	Gives access to Fixture Setup menu.
FixPatch:	Allowstocarryoutpatchingprocedure of up to 64 fixtures.
Password:	Enables to change password.
More:	Gives access to Miscellaneous Options menu for extended settings of the console.
Music Gain:	Enables to adjust thegain factor of musical signal
Reset:	Allowstodelete all the shows, scenes andthelibrary, and set all parameters of setup to default.

Fixture Setup



In Setup menu, press the F3(FixSetup) button to access Fixture setup menu, a new window will appear. The indications are detailed as follows:

"Fixture: 98BLADE250" at the upper left corner indicates the type of the selected fixture, and "Ch: 1 PanCoars" at the upper right corner indicates the channel number and name of the fixture. The central box shows the fixture configuration, including the DMX channel assignment, fade enable/disable, master dimmer enable/disable, shutter enable/disable and Bo level adjustment.

Goes back to the previous menu. Esc: Allowstosavethefixture settings. Save : Scroll through the255fixtures in the library to find the fixture required. Next/ Prev : Scroll through thechannels for DMX channel assignment. Ch Up/ Dw : FixName : Enables to name the fixture ChName : Enables to name thechannels of the fixture. Tabset : Enables to give up to 48 preset DMX values (0-255) for the channel. Copy From Fix : Replace the current fixture with a new one. Default : Enables to set default fixture.

Name Fixture



In Fixture Setup menu, press the F7(FixName) button, a new windowwill appear reminding you to name this fixture. The fixture name consists of a maximum of 8 letters. Use fader 1 to scroll to the character for the first letter of the fixture name, fader 2 for the second letter, and soon, untilfader 8 for the last letter. Press the F1(Esc) button togoback to the previous menu.

Name Fixture Channel



In Fixture Setup menu, press the F8(ChName) button, a new windowwill appear reminding you to name this fixture channel. The channel name consists of a maximum of 8 letters. Use fader 1 to scroll to the character for the first letter of the channel name, fader 2 for these cond letter, and soon, until fader 8 for the last letter. You can also use the F10(Up) and F11(Down) buttons to scroll to the channel name available in the library.

Press the F1(Esc) button togobacktotheprevious menu.

Fixture Configuration



In Fixture Setup menu, please carry out the following procedures for channel assignment.

Step 1 - Assign DMXchannel:

Use the fader 1 toassign the channel or joystick number onthe consoleto each channel of the fixture. The indications 1-16 refer to channel 1-16 onthe console, "X", "XF", "Y" and "YF" respectively denotes Pan, Pan fine, Tilt and Tilt fine movement of the joystick. If the indication is Off, the channel of the fixture will be shut off and you will not able toassign the rest channels of the fixture. "---" will leave the channel indeterminate.

For example:

BLADE 250	PanCoarse	Pan Fine	Tilt Coarse	Tilt Fine	Color	Gobo	GoboRot
Fix.CH.	1	2	3	4	5	6	7
Ch.Assign	Х	XF	Y	YF	1	2	Off

ME-2 User Instruction

Fixture Configuration

Step 2 - Fade Enable/ Disable

Using the fader2results intwo options:Yes and No. "Yes" indicates fade time is enabled, and "No" indicates fade time is disabled.

Step 3 - Master Dimmer Enable/ Disable Use the fader 3 toenable or disable the connectiontothemasterdimmer fader.

Step 4 - Shutter Yes/ No

Using the fader4 results intwo options: Yes and No. "Yes" indicates Bolevelis available for this channel (shutter) when the fixture shuts off, and "No" indicates the channel (not shutter) will not get involved when the fixture shuts off.

Step 5 - Bo LevelAdjustment Use the fader 5 tosetavaluebetween0and255 for this (shutter) channel.

Default

In Fixture Setup menu, pressing the F12(Default) button allowstomakedefault settings for the fixture, that is, erase this fixture from the library. A dialog box will appear reminding whether youaresureornot.PresstheF10(Ok)buttontoconfirm or the F1button toexit.

SetDefault Fixture? PressF1 to Exit

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Copy From Fixture



In Fixture Setup menu, press the F10 or F11(Copy From Fix) button toaccess the Fixture Copy Menu, a new window will appear remindingyouhowtocopyafixture to replace the existed fixture.

First use the F6(Up) or F7(Down) button to select the desired fixture, pressingthe F12(Keyboard) button alsoallows you to enter a fixture No. by means of Show buttons. The selected fixturenumberand name will appear in the window. Next, press the F9(Copy) button, a dialogboxwillappearreminding you whether you are sure or not. Press "Ok" to confirm this setting or the F1button to exit.

Press the F1(Esc) button togobacktotheprevious menu.

Tabset



In Fixture Setup menu, press the F9(Tabset) buttontoaccessTabset menu. This menu allowsyoutopreprogramupto48tabulatingvalue(0-255), so that you can direct access this valuesfordesiredchanneleffects by pressing thebutton corresponding to theassignment channel.

First, usethefader 1 to select the table totalitembetween1and48(Offindicates thisfunctionis disabled). Next use the fader 2 to scroll tothevalueyouwantto assigntotheflashingframe ofthetable.Press the F10(Next) or F11(Prev) button to move from frame to frame. Be careful that thenextvalue in the frameshould be biggerthan its previous value. Press the F9(Esc) button togobacktotheprevious menu.

Save

In Fixturesetupmenu, when youhave completed the fixtureconfiguration, besure to press the F2(Save) button to confirm all the settings before youleaves this menu. It is very important. If you fail to do so, all the settingsyouhavemadewilllose.

Fixture Patch



In Setup menu, presstheF4(FixPatch) button toaccess Fixture Patch menu, a new windowwill appear indicating all the 64 fixtures subjected to thisconsole. In this menu, you will have to assignoneofthefixturetypepreviously configured to patch each of 64fixtures. PresstheF3(Next) or F4(Prev) button to scroll to the fixturenumber(from 01-64), thenpressthe F11(Fix. Up) or F12(Fix. Dw) button to select thetype of fixtureavailableinthe library. The type will be shown in the display. It will be also indicated the starting channel(DMXs)ofthefixture, the number of channels(DMX I) used by the fixtureandthesumchannels(Totch)occupied by all available fixtures.

For example:

Use F3 or F4 toscroll tonumber01,nextpress F11orF12toselectYpoc250.Asa result, Ypoc 250 will beassigned tothefirstfixtureon the console. Proceed in this way toassign all 64 fixtures.

Press the F1(Esc) button toleavethis menu. Thestorage is automatic. Becareful that thesumofchannelmustnotexceed512,oranerrormessagewill appear and require you to re-enter this menuorcarry outfixture configuration procedures when youleaves this menu.

Download Menu



In Setup menu, presstheF2(Download) button to access Download menu.Inthis menu, pressingtheF4(Card)buttonallows toaccess Memory Card Menu, and pressing the F8(PC) buttonresults in Download With PC Menu. To leave this menu, yousimply have to press the F1(Esc) button.

Memory Card Menu



In Download menu, press the F4button(Card) to access Memory Card menu.A new windowwill appear with indications as follows:

Esc:	Goes back to the previous menu.
Load:	Gives access to Memory Load FromCardMenu.
Save:	Gives access to Memory SavetoCardmenu.
NameSave:	Enables to save the zone name into the CF card.
Next/ Prev:	Allow to select the zone number between 1 and 15.

The central boxinthewindowshowsthezonenumberandname.Usingthefaders 1-13 allows to give a zone name composed of a maximum of 13 characters.

Memory Load From Card Menu



In Memory Card Menu, press the F4button(Load), a newwindow will appear reminding you which you want to loadfrom thiscard.

In this menu, when you press either of the F4(FixSetuP), F8(Setup), F7(Scene) or F10/ F11(Load All) buttons, you will be required to confirm by "Ok"(F10) or to exit by F1. Pressing F10(Ok) will start this loading process. The time it takes depends on the volume of data file. Pressing F5(Show) enables to accesstonextmenunamedShow Load From Card Menu.



In this menu, press F6(Up) or F7(Down) tochoosetheshow(from1 to36),youcan also press F12(Keypad) allowing to enter the show number by means of the Show buttons. Once theshow is selected, press F9(Load), then "Ok" to load this show. If you want to load all shows available in the card, Pressing F10 or F11 (LoadAII Show) will make it. Pressing F1(Esc) to go back to the previous menu.

Memory Save to Card Menu



In Memory Card Menu, press the F8button(Save), a newwindow will appear reminding you which you want to save to his card.

In this menu, when you press either of the F4(FixSetuP), F8(Setup), F7(Scene) or F10/ F11(Load All) buttons, you will be required to confirm by "Ok"(F10) or to exit by F1. Pressing F10(Ok) will start thissaving process. The time it takes depends onthevolume of datafile. Pressing F5(Show) enablestoaccess to next menu named Show Save to Card Menu.



In this menu, press F6(Up) or F7(Down) tochoosetheshow(from1 to36), you can also use F12(Keypad)toentertheshownumber.Oncethe show isselected, press F9(Save), then "Ok"(F10) tosavethis show. If you want to save all shows in the library, Pressing F10 or F11 (Save All Show) will make it. Pressing F1(Esc)togo back to the previous menu.

Download With PC Menu



In Download menu, press the F8button(PC) to access Download With PC menu.A new windowwill appear with indications asfollows:

Esc :	Goes back to the previous menu.
Restore:	This function allows to download thedata files from a PC.
Backup:	This function allows to make backupcopies of the datafiles to a PC.
Software:	Enables to update the software from a PC.

Back to PC Menu



In Download With PCMenu, press the F8 button(Backup), a new window appears. This menu allowsyoutomakebackupcopiesoftheFixtureSetup, Setup, Scenes and Shows to your PC via RS-232 port.

Help - RS-232 connection and Windows Configuration

To connect to a PC, you will need a serial lap link cable available at anycomputer store. Astandard RS-232 cable will not work. Connect the RS-232port on MATRIX to one of the Serial " com" ports on your PC.

You will need a PC running Windows 95/98orhighertoconnectto MATRIX. Windows comes with an accessory called Hyper Terminal that can communicate with MATRIX viaoneofthe"COM"portsonyourPC.Determinewhichofyour"COM"portsis available. COM1isgenerally used for the mouse so itisalways advisable to connect your COM 2 on your PC. MATRIX to

You must first configure Hyper Terminal towork with MATRIX. Start the Hyper Terminal program by clicking on "Start" in Windows then "Programs" then "Accessories" then "Hyper Terminal" then "Hypertrm". IfforsomereasonsHyperTerminalisnotinstalled on your versionofWindows, install it from your Windows CD. Go tothecontrolpanel, selectAdd/Remove Programs, select Windows Setup, and then select Communication. Followtheinstructions to complete the installation.

Once the Hyper Terminal Program is getting started, you will be asked to choose a name and an icon. Name it MATRIX then pick any icon then click OK. Gotothenext dialogbox"Connectto" andchoose "Direct to COM 2". Ignore the telephone number andothersettingsin this box then click OK. In the next dialog box, set bits per second to 38400, data bits to 8, paritytonone, stop bits to 1, flowcontrol to none, then click OK. You will access Hyper Terminal desktop. Click File menu in theupperleftcorner of the desktop, then "Properties", then select the "settings" tab. Fromthesettings tab click "ASCII Setup". In the next dialog box, leave all settings deselect, then OK. Close Hyper Terminal and you will beprompted to savethis Hyper Terminal setup. Click YES to save it thenyouwillhaveaprogramlabeled"MATRIX.ht".You may want to make a shortcut on your desktop if you plantouseyourPCwithMATRIXoften.Fromthispointon, whenever necessary, youcanjustclickMATRIX.hticon to invoke the MATRIX Hyper Terminal configuration quickly.

Once configured, youcanuseHyperTerminalto send the MATRIX datafile and save it on your hard disk. Connect to your PC as describedhereinbefore. Next call the version of Hyper Terminal that youcreated for MATRIX. Click on "Transfer" on the top menu bar and select "Capture Text". Adialog box will appear allowing youtoselecta folder and name for the data file you send. Use a name like "MATRIXIb.txt". Be sure to give a new file name that is not available in this folder, because the datasent from MATRIX will not be overwritten the old and instead be added to the existed file. Click "Start" and Hyper Terminal is now ready to receive the files from MATRIX.

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Now go to the Backup to PC Menu on MATRIX, press either of the F4(FixSetup), F7(Scene) or F8(Setup) buttons to start making backupcopies to your PC. Pressing F5(Show) enables to access to next menu named Show Backup to PC.



In this menu, press F6(Up) or F7(Down) tochoose theshow(from1 to36), or you canpressF12(Keypad) for theentryoftheshownumber.Oncetheshowisselected, press F9(Backup) to make backup copy of this show. If you want to make backup copies of all shows inthelibrary, Pressing F10orF11(BackupAII) will make it. Pressing F1(Esc) to go back to the previous menu.

Once the backup has been completed, you can either close Hyper Terminal or return to the "Capture Text" pull down menuandselect "Stop", the backupfile will automatically be savedyour PC.

Restore From PC Menu



In Download With PCMenu, press the F4 button(Restore), a new window appears. This menu allowsyoutodownloadtheFixture Setup, Setup, Scenes and Shows from your PC via RS-232 port. Press either oftheF4(FixSetuP), F7(Scene) or F8(Setup) buttons, this console is now ready to downloadthefilefromyourPC. Pressing F5(Show) enables to access to next menu named Show Restore From PC.



In this menu, press F6(Up) or F7(Down) tochoosetheshow(from1 to36),oryou canpress F12(Keypad) for theentryof theshownumberOncethe show isselected, press F9(Restore)togetdownload ready . Ifyou wanttodownload all shows, Pressing F10 or F11 (Restore All) will make it. Pressing F1(Esc)togobacktothe previous menu.

Next call theversion of Hyper Terminal that you createdforMATRIX.Clickon"Transfer" on thetopmenubarandselect"SendTextFile".Adialogboxwill appears allowing you to select thetext file that you made when making backupcopies. Find the drive and folder whereyoucreated the file if it is not in thecurrent window, select the fileand click on "Open". Hyper Terminal will begin totransmitthefile.Afterthe file has been sent, theprompt information will appear in the LCD.

Update Software

In Download With PCMenu, press F10orF11(Software), a dialog box will appear indicating this console is ready toupdate higher version software.

Software Restore, Wait
[] 0%
Press F1 Key to Exit

Call the version of HyperTerminal that you created for MATRIX. Click on "Transfer" on the top menu bar and select "Send Text File". Adialog box will appear allowing you to select the text file we provided (We will provide you the higher version software in Text type file). Find the drive and folder where the file is located, select the file and click on "Open". Hyper Terminal will begin to transmit the file. It will take about two minutes to transfer the file. After the file has been sent, MATRIX will reboot its system and get started with its procedures. If any errors have been detected, MATRIX will give error information. Checkyour connections and retry.

Miscellaneous Menu



In Setup menu, press the F8 button(More)toaccess Setup Miscellaneous Menu.A new windowwill appear with indications asfollows:

Esc:	Goes back to the previous menu.
Joystick:	Gives access to Joystick Configuration.
Auto Run:	Allowstoenable or disable the selected show or sequencer to run automatically as soon as this console is switched on.
ShowMode :	Allowstoselectbetween Multi ShowandSingleShow.
Beeper :	Beeper Enable/ Disable
MIDI :	Gives access to MIDI configuration.
Dimmer :	Enables to adjust gooseneck dimmer.
Display :	Enables to adjust dispalycontrast.

Joystick Configuration



In Miscellaneous Menu, press F2(Joystick), a new window appears indicating the current Joystick Mode. This menuoffers you 5 options to choosetheJoystickmode using the F4(Mode) button, they are:

Dynamic :	To a short move we have a slow increase of DMX values, to a larger move we have aspeed increase.
VFixLow :	Continuous increase of DMX value at low speed.
VFixMed :	Continuous increase of DMX value at medium speed.
VFixHigh :	Continuous increase of DMX value at high speed.
Propors :	The value is absolute and given by the joystick; central position 128.

Auto Run Mode



In Miscellaneous Menu, press F3(Auto Run), a new windowwill appear. This menu allowstorunautomaticallytheshoworsequencerassoon as thisconsoleis switched on. You canenable or disable this function by pressing F4(Mode), and by means of fader 1 you canselect the show number or the sequencer required to be executed.

Single/ Multi Show Mode



In Miscellaneous Menu, press F4(ShowMode), a new window will appear. Pressing the F4(Mode) button allowsyoutochoosewhethertheshowinexecution will be SingleorMulti.

MIDI Configuration



In Miscellaneous Menu, press F5(MIDI), a new windowwill appear. Pressing the F4 (Mode) allows to enableordisable MIDI mode, and using fader1 enables you to scroll to the MIDI channel number matching that of MIDI keyboard or device.

Beeper Configuration



In Miscellaneous Menu, press F4(Beeper), a new window will appear. Pressing the F4(Mode) button allowsyoutoenableordisablethebuzzer which sends out an acousticssignal.

Gooseneck Dimmer Adjustment



In Miscellaneous Menu, press F7(Dimmer), a new window will appear. In this menu, using thefader1allowsyoutoadjustthedimminglevelofthegoosenecklight from zero to full intensity. Out of the adjustment, "Off"indicates the gooseneck light gives zero output, "100" indicates it is fully on.

Display Adjustment



In Miscellaneous Menu, press F8(Display), a new window will appear. Youcan adjust the display contrast by means offader1(from 1 to100).

Music Gain Adjustment



In Setup Menu, press F10 or F11(Music Gain) to access Music Gain Adjustment. In this menu, using the fader 1 allows to adjust music gain from 1 to 100. The line Test andthebrackets will be used to test whether the audiosensitivity issuitable or not. The cursor within thebrackets will flash once when it detects the music beat.Asa result, you can adjusttheoptimummusic gain.

Change Password



In Setup Menu, press F9(Password), you will be required toinsert your current password. When you have entered the passwordcorrectly, you will be required to give a new password. Use the Show buttons to enter your new password, next repeat thesamepassword. As a result, the new password replaces theold onesuccessfully. If you fail to changethepassword, it will return to Setup menu automatically.

Press the F1(Esc) button togobacktotheprevious menu if you intend to abort this procedure.

Reset



In Setup Menu, press F12(Reset), you will berequiredtoinsertyourpassword. After entry of password, you will access the Resetmenuimmediately. This menu gives a warning message, which reminds that all data files, including the shows, scenes and the library will be deleted if you confirm this reset.

Press the F5(Ok) buttontodeleteallthedatafiles and restore settings todefault value. Press the F1(Esc) button to abort this reset and to go back to the previous menu.



In Homepage phase, press the F3button(ShowEdit), you will berequiredtoselecta show you want to work on.After entry of a show number by means of the Show buttons, you will access Edit Show menu immediately. Theoptions available are detailed as follows:

Esc:	Goes back to the previous menu.
Step Up:	Goes to thestep by raising the step.
Step Dw:	Goes to thestep by lowering thestep.
Step-Key:	Goes to the step by entry of stepnumber, max. or min. Step.
Utility:	Gives access to Show Edit Utility.
Run:	Step demo to test the runningeffect.
Ch-Key:	Numerical entry of these lected channel.
Clr Fix.:	Release all manual fixtures.
Delete:	Deletethecurrentstep.
Insert:	Insert a newstep.
Update:	Modifythecurrentstep.
S-Crs:	Fade time of the current step
S-Std:	Standing time of the current step.

Insert/ Delete/ Update Steps



In Edit Show Menu, youcanusethe Fixture buttons incombination with Bank buttons to create a new step, or call thescene and regard it as a step. Press F11(Insert) toaddastepafterthecurrentstep.

If you intendtodelete a step from this show, first use F2(Step Up), F3(Step Dw) or F4 (Step-Key) to select the step number, next press F10(Delete). You will be required to confirm by "Ok" or to exit bytheF1button."Ok"confirms this deletion, as a result, this step will be deleted.

You canuse the Fixture buttons in combination with Bank buttons to modify thesteps. When you sure your modification, simply press the F12(Update) button. You will be required to confirm by "Ok" or to exit by the F1 button. "Ok" confirms this modification, as a result, the old will be replaced by this new one.

Whencertainscenes are used as steps of the show, you will not able to modify the steps (refer to Scene menu).

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Show Edit Utility



In Edit Show Menu, press F6(Utility)toaccess Show Edit Utility. Theoptionsavailable areasfollows:

Esc :	Goes back to the previous menu.
Clr Show:	Allowstoclearashow.
InsShow:	Enables to add a show after a step
CpyShow:	Enables to copy a show to replace another one
Clone:	Allowstoclonethestep(scene) so that you can modify the step
Erase:	Enables to erase oneormoresteps from this show
Сору:	Enables to copy one or more steps and add them after as tep
ShowAll:	Showsthefixture patch and the fixture sused for this show

In this menu, the central box of the window displays the current showand memory used.

Add a Show After



In Show Edit Utility Menu, press F7(InsShow)toaccess Show Insert menu. This menu allowsyoutoaddashowintoanothershow.

First press F3(Show) to position thecursor ">>" in Show line, use F6(Up), F7(Down) or F12(Keypad) to select the show(from 1 to 36).

Next press F4(In To) to positionthecursor ">>" in In To line, use F6(Up), F7(Down) or F12(Keypad) to select the step after which you intend to add a show. Press F10(Insert), you will be required to confirm by "Ok" or to exit by the F1 button. "Ok" confirms this operation, as a result, thisshowwill be added after thestep.

Press the F1(Esc) button togobacktothepreviousmenu.

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Show Copy Menu



In Show Edit Utility Menu, press F8(CpyShow) to access Show Copy menu. This menu allowsyoutoupdatedashowwiththecurrent show.

First use F6(Up), F7(Down) or F12(Keypad) toselect the show required to be replaced. Next press F9(Copy), you will berequiredtoconfirm by "Ok"ortoexitby the F1button. "Ok"confirmsthis operation.Inthiscase,show6willbereplacedby show 1.

Press the F1(Esc) button togobacktotheprevious menu.

Erase one or more Steps



In Show Edit Utility Menu, press F10(Erase) to access Step Multi Erase menu. This menu allowsyoutoeraseoneormorestepsfromtheshow.

First press F3(Start) to positionthecursor">>"inStart line, use F6(Up), F7(Down) or F12(Keypad) to select starting step.

Next repeat thestepsto select theendstep.

Press F10(Erase), you will be required to confirm by "Ok" or to exit by the F1 button. "Ok"confirms this operation, as a result, these steps from the starting to end step will be erased. In this case, the steps from 1 to 9 will be deleted from this show.

Press the F1(Esc) button togobacktotheprevious menu.

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Step Multi Copy



In Show Edit Utility Menu, press F11(Copy) to access Step Multi Copy menu. This menu allowsyoutocopymultistepsandaddthemafterastep.

First press F2(Start) to positionthecursor">>"inStart line, use F6(Up), F7(Down) or F12(Keypad) to select starting step. Next selecttheendstep.Thenselect the step after whichyouintend addthese steps. Press F10(Copy), you will be required to confirm by "Ok" or to exit by the F1button.

"Ok" confirms this operation. In this case, these 5 steps from step 1 to step 5 will be added after the step 9 of this show.

Press the F1(Esc) button togobacktotheprevious menu.

Clear a Show



In Show Edit Utility Menu, press F4(Clr Show) toclearthe current show. You will be required to confirmby"Ok"ortoexitbytheF1button.

"Ok" confirms this operation, as a result, this show will be cleared and not any astep will be included into this show.

Clone

In Show Edit Utility Menu, press F5(Clone)toclonethecurrentstep(scene)sothat youcanmodifythestep.(Asisexplained before, when you regardcertain steps as thesteps, you can not modify the step.)

If there is not enough memory, you will fail to clone andbereminded with "Out of Memory".

ShowAll

In Show Edit Utility Menu, press F12(ShowAll) togetacquainted with the Fixture Patch andthefixtures available in the show.

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Scene Menu Window



In Homepage phase, press the F8button(Scene) toaccess Scene Menu. A window appears with some indications. The options available are detailed as follows:

Esc:	Goes back to the previous menu.
Used:	Allowsyoutogetacquainted withoutof128sceneswhichisnot used in the shows
Сору:	Enables to copy any desired scenestoanyposition.
Edit:	Enables to create a newscene by means of the Fixture buttons.
Save:	Allowstocapture the manual fixtures and to save as a scene.

Edit Scenes



In Scene Menu, press the F6(Edit) button, you will be required to select the target sceneyouintend to edit. Use the Scene buttonsincombination with Bank buttons 1-8toselectthe scene, a newwindow will appear immediately reminding you to start editing.

Use the Fixturebuttonsin combination with Bank buttons 1-4 to create a new scene. Once completion, press the F12(Update) button, You will berequiredtoconfirm by "Ok"ortoexitbytheF1button."Ok"confirmsthisoperation,asaresult,thisshow will besaved. In this case, if there is a oldscene1,thenewscene1willreplacethe oldone.

Press the F1(Esc) button togobacktotheprevious menu.

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Copy Scenes



In Scene Menu, press the F5(Copy) button, you will be required toselect the source sceneyouintend to copy. Use the Scene buttonsincombination with Bank buttons 1-8toselectthe scene, then "Ok" continues this procedure. Next you will be required toselect the target scene. Once the target scene isselected, you will be required to confirm by "Ok" or to exit by F1(Esc).

"Ok" confirms this copy procedure. For instance, if you choose sourcescene1and target scene2, as a result, the scene2 will be replaced by scene1.

Press the F1(Esc) button togobacktothepreviousmenu.

Save As



In Scene Menu, press the F8(Save) button, you will berequiredtoselect the target sceneyouintend to save as. UsetheScenebuttons in combination with Bank buttons 1-8 to select thescene, thenpress "Ok" to confirm this selection and F1 (Esc) to exit.

This function allows to capture the scenes made by manual fixtures and save as a permanent scene.

Press the F1(Esc) button togobacktotheprevious menu.

