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INSTALLATION MANUAL
PAA29+

PROYECSON S. A.
Ronda Guglielmo Marconi 4
Parque Tecnológico
46980 Paterna (Valencia) Spain
Tel. (+34) 963 311 423
Fax (+34) 963 307 182
proyecson@proyecson.com

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Ronda Guglielmo Marconi 4.

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Editing and layout:

Proyecson S.A.

Ronda Guglielmo Marconi 4

Parque Tecnológico

46980 Paterna (Valencia)

Spain

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1. SAFETY

1.1 GENERAL

IMPORTANT: READ THIS MANUAL ALONG WITH THE MANUAL OF EACH PART OF THE POWER SUPPLY.

- Never modify or handle the mechanical or electrical safety devices installed in the power supply.
- Do not change or modify in any way the original design of the power supply.
- If the power supply does not work properly, stop at once and notify the installer service.
- In case of an eventual repair, leave it in the hands of the distributor who installed it.
- Always use original spare parts and accessories, which must be installed by an authorized installer.

1.2 INSTALLATION

- Do not handle the electrical system of the power supply. It must be installed by an authorized technician.
- Installation must be done in conformity with the operating manual and the local security norms. The customer and the installer take responsibility for the non-compliance of the norms.
- Before starting, verify the line connections, as well as the earth connection and/or differential and magneto-thermic switches. There could be an electrical discharge if you don't follow the above-mentioned procedure.

1.3 PROPER USE

- Do not use this power supply if you have not previously received the necessary instructions of safety, use and cleaning by an expert user.
- Read and understand the operating manual of this power supply before using.
- Keep your hands away while the power supply is in operation.
- Don’t leave the power supply during operation.
- Do not wear any loose clothes or jewelry which could get caught in the movable parts.
- Always disconnect the power supply before cleaning or any kind of maintenance or repair. Pull out the plug from socket (do not pull from cable). Keep cable away so as not to step on it, which could be dangerous.
- Make sure that all safety metal plates and stickers on power supply are easily readable. If not ask your distributor for more and attach them.
- For maintenance, cleaning works,… the system must be disconnected from the main supply. Do not operate the power supply without having received the proper safety, use and cleaning instructions from an expert user.

2. INTRODUCTION

The Proyecson PAA29+ Automation adapter makes it easy to interface digital cinema playback equipment with existing cinema control systems, enabling fully automated presentations.

Input and output connections enable digital cinema equipment to control existing lighting, automation, and other old systems. The unit converts network or serial control from the digital cinema playback system in relay closures. The unit can be connected in parallel with existing film automation systems making it easy to switch between film and digital shows, and even to run seamless presentations mixing both film and digital content.

Advanced features include 12 configurable momentary / latching outputs and 8 inputs that can be used for trigger individual cues. These relay closures can drive 16 A 250 Vac / 16A 30Vdc in normally open and closed dry contacts. Front-panel indicators are provided for all inputs and outputs, ensuring that system status is clearly visible at all times.

The unit is easy to install and 19" rack-mounted. Rear panel connectors are provided to allow an easy wiring.

Valid for any other application not related with Digital Cinema.

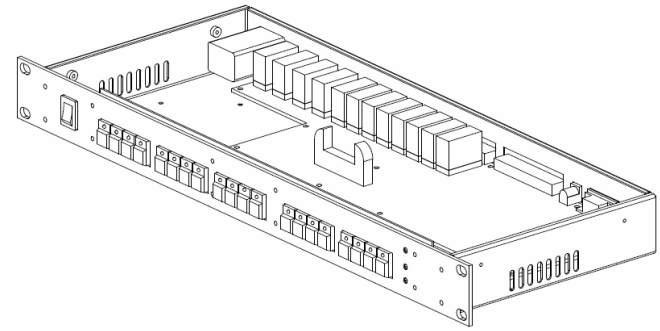
3. FEATURES

PAA29+ Front Panel

Power Button
With LED indicator.

LED Indicator
General purpose input, relay output status, +24 V and + 5 V.

Test Buttons
Buttons for test and manually activation purposes for each input/output.

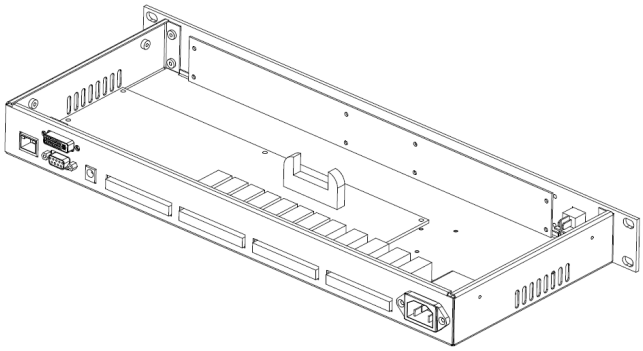


PAA29+ Rear Panel Connections

General Purpose Inputs
Eight opto-isolated low-voltage inputs, screw terminals, 24V logics.

General Purpose Outputs
Twelve high current latcheable relay outputs, screw terminals, normally closed and normally open contacts 16A VDC max. Relays are replaceable.

24v / 1A output
Usable for input and output auxiliary circuits.



Serial Ports
9-PIN female D-connector.

Network Connection
RJ-45 female connector; 10Base-T.

Construction		**Warranty**
Industrial chassis, screw closure, connectors in the back panel, 1 unit 19” rack-mounting.		Three years limited, parts and labor; see disclaimer. Specifications subject to change without notice.
Power Requeriments		**Disclaimer of Warranties**
100-240 VAC, 50-60 Hz, 50w from a centrally switched power source.		Equipment manufactured by Proyecson S.A. is warranted against defects in materials for a period of three years from the date of purchase. There are no other express or implied warranties and no warranty of merchantability or fitness for a particular purpose, or of non-infringement of third-party rights (including, but not limited to, copyright and patent rights).
Dimensions and Weight		
483 x 183 x 44 mm.		
Environmental Conditions		
Operating: 0º to 40º (32º to 104ºF), 20 to 80% relative humidity (non-condensing).		

4. FRONTAL PANEL

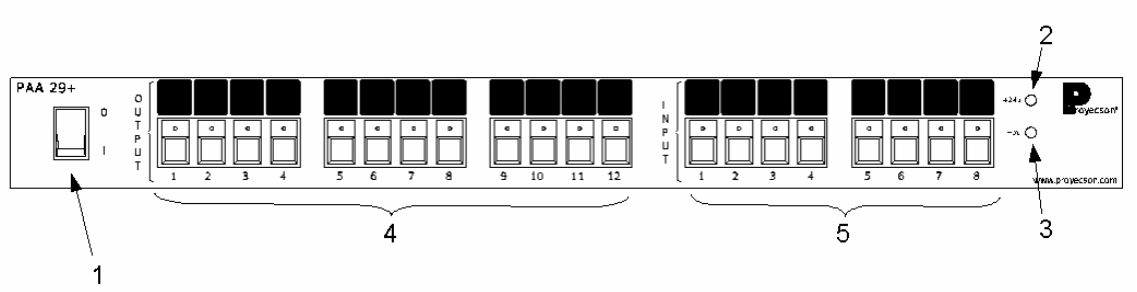


Figure 4.A

1. Power button
2. 24vdc indicator
3. 5vdc indicator
4. Manual activation push button and output active status led's.
   - The led indicate that the output is active.
   - Activate the outputs directly with the push bottoms without using the server. Outputs will only remain active while keeping button pressed.
5. Manual activation push button and input active status led's.
   - The led indicate that input is active.
   - With push buttons it is possible to force inputs manual activation.

5. REAR PANEL

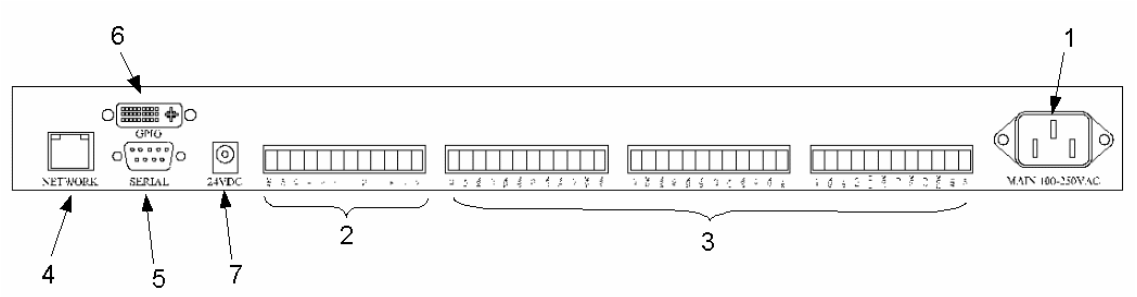


Figure 5.A

1. Mains input 100 - 230 vac.
2. Inputs connector.
3. Outputs connectors.
4. RJ45 network connection port with connection and activity leds indicator.
5. 9 pin female D-connector serial port.
6. GPIO port with female connector DVI-I with all pins (dual link).
7. 24Vdc auxiliary input.

6. CONNECTION PROCEDURE

6.1 CONNECTION TO A DOLBY SERVER

The PAA29+ must be connected to a Dolby server through the port RS232.

Configure Dolby server serial port and send/receive commands as explained throughout this manual.

First, configure PAA29+ to activate the serial port, as followed:

1. Open top cover and open the configuration jumpers W4 as shown on **figure 6.1A**.

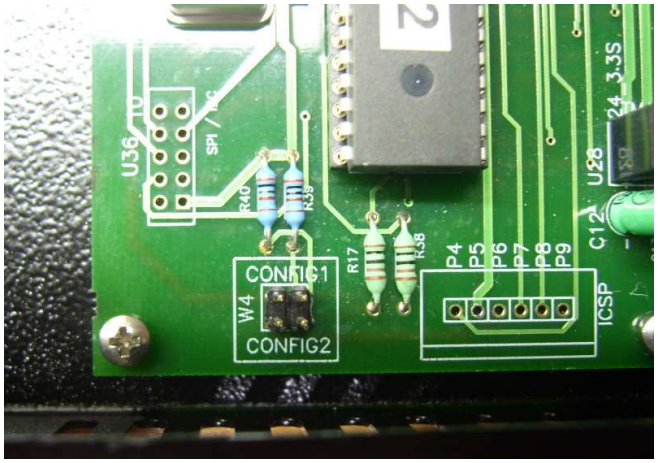


Figure 6.1.A

2. Set the jumpers W3 and W5 of "NET CONFIG" in the position "TX_S" and "RX_S" respectively as shows **figure 6.1B**.

Figure 6.1.B

3. Put back the PAA29+ top cover and connect it to the Dolby DSS100 or DS200 through the RS232 serial port, use a DB9 pin to pin connection serial cable.

See the interconnection diagram on the following picture:

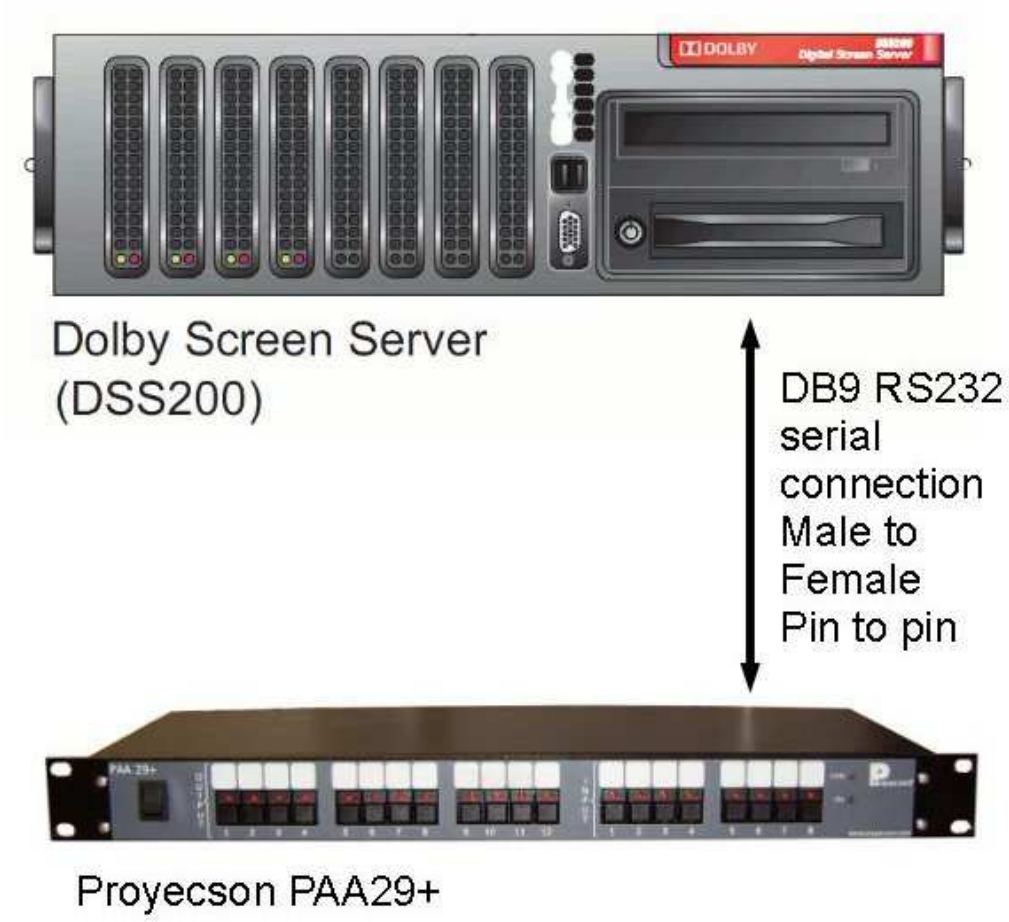


Figure 6.1C

6.2 CONNECTION TO A DOREMI SERVER OVER ETHERNET

The connection of the PAA29+ to a Doremi server can be done through the Ethernet port.

The PAA29+ must be added to the Doremi server as a new device and the send/receive commands configured as explained throughout this manual.

First, set up the PAA29+ in order to enable the Ethernet port. To do this, open top cover and set the jumper to "config 1" position in the W4 configuration jumpers as shown on picture **figure 6.2A**.

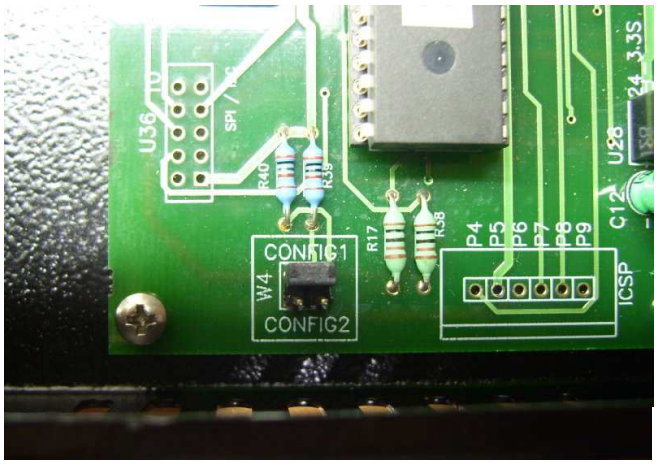


Figure 6.2A

Set the jumpers W3 and W5 from "NET CONFIG" to an "RX_E" and "TX_E" position respectively as shown on **figure 6.2B**.

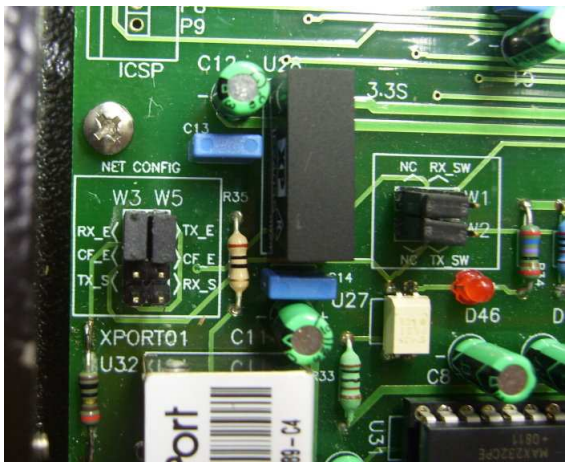


Figure 6.2B

Put back top cover device and connect PAA29+ to the Ethernet Switch of Doremi's server network, use a cable CAT 5 or higher with a pin to pin configuration.

See the interconnection diagram on the following picture:

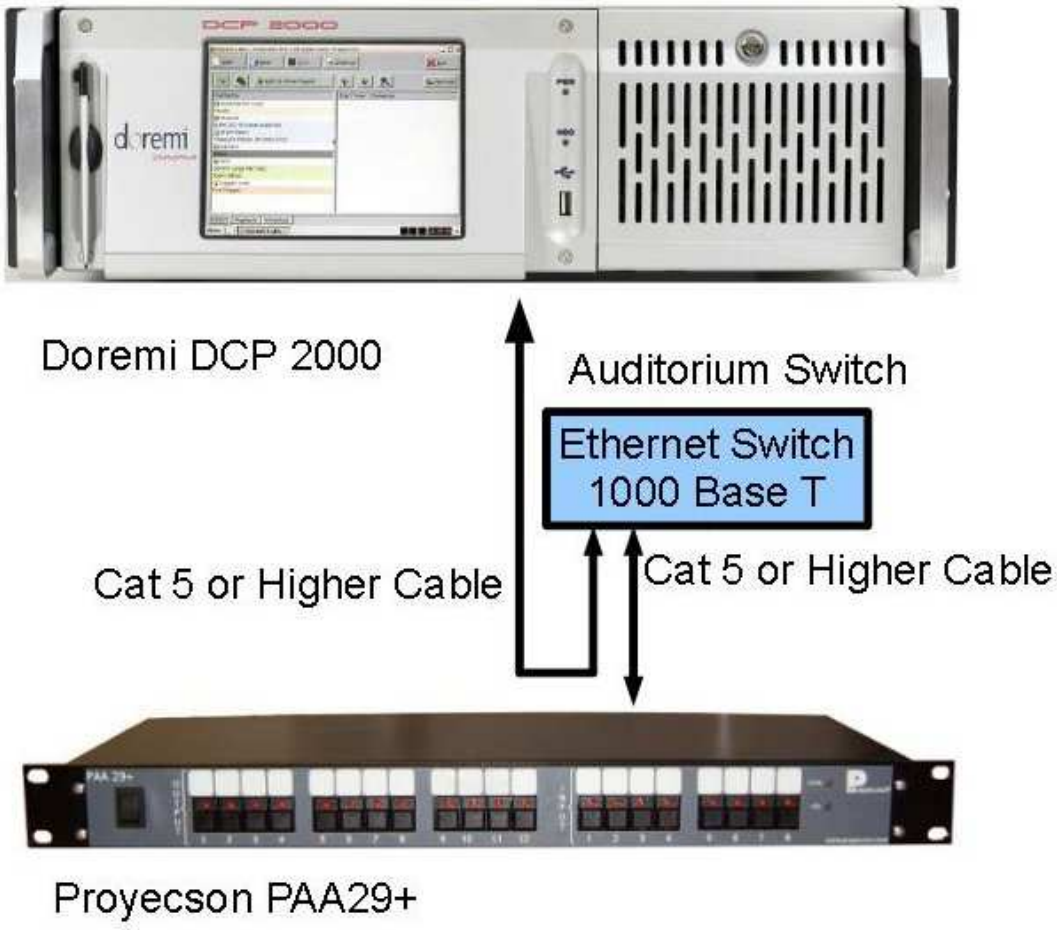


Figure 6.2C

6.3 CONNECTION TO A DOREMI SERVER USING THE SERIAL PORT

It is also possible to connect the Doremi server to the PAA29+ using the serial port if the server has a 2.0.5.0 or higher software version configuring the PAA29+ to activate the serial port, as followed:

1. Open top cover and set the jumper to "config 1" position in the W4 configuration jumpers as shown on picture **figure 6.3A**.

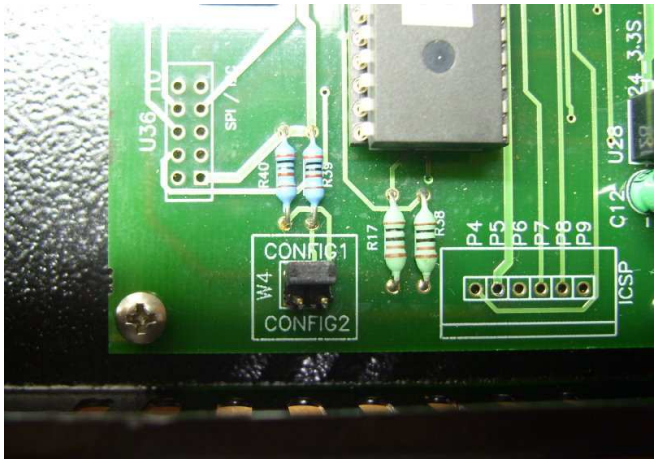


Figure 6.3.A

2. Set the jumpers W3 and W5 of "NET CONFIG" in the position "TX_S" and "RX_S" respectively as shows **figure 6.3B**.

Figure 6.3.B

3. Put back the PAA29+ top cover and connect it to the Doremi server through the RS232 serial port, use a DB9 pin to pin serial cable.

You need to add the PAA29+ as a serial device. The connection diagram is in the **Figure 6.3C**:

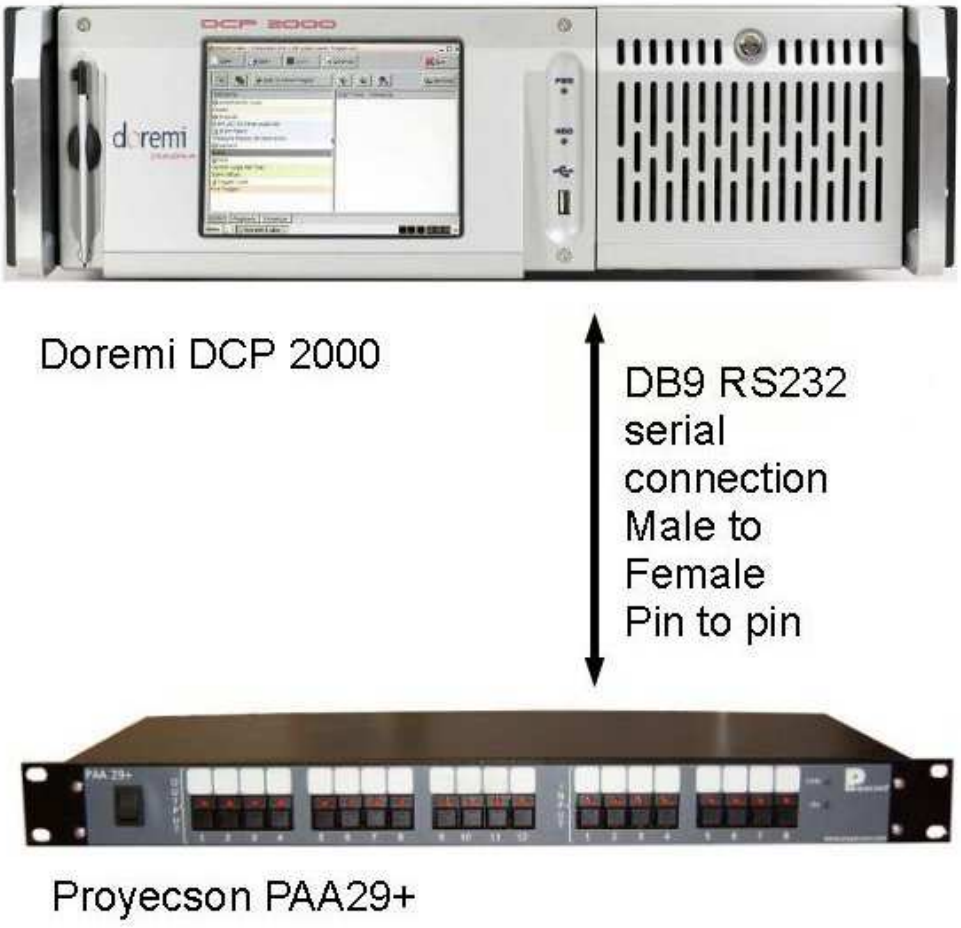


Figure 6.3C

6.4 CONNECTION TO A DOREMI SERVER USING THE GPIO PORT

Other way to connect the PAA29+ to Doremi server is using the GPIO port.

This connection does not require adding the PAA29+ as a new device to the Doremi server, because we are using the server's GPIO port. There is no need to set up the PAA29+ with this kind of connection, due to the fact that the PAA29+ operates as a power interface and isolation of the GPIO server port. This connection limits the number of outputs to 8 and inputs to 6, the same ones as the GPIO of the DCP 2000. A DVI-I (Dual Link) cable with all pins will be necessary to connect both GPIO ports of each device. The **Figure 6.4A** shows how to connect the devices:

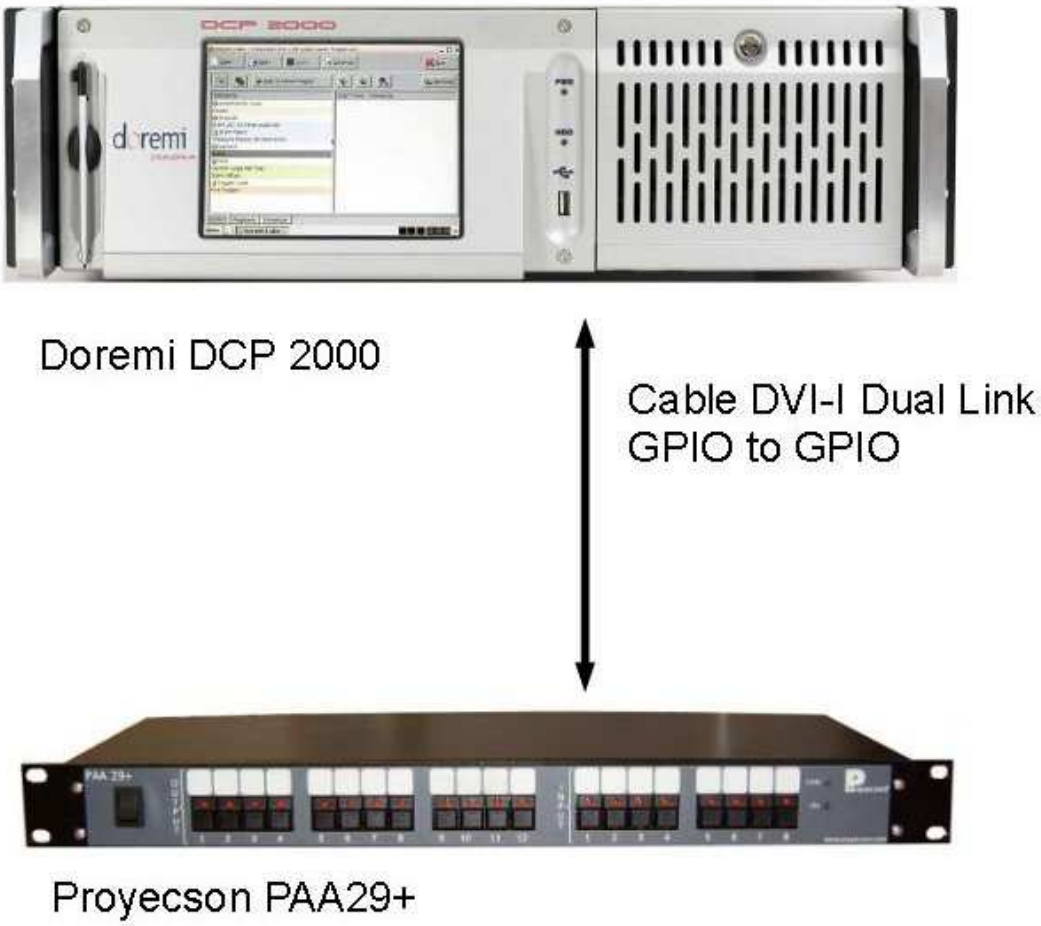


Figure 6.4A

7. CONFIGURATION OF THE PAA29+ ETHERNET PORT

Before connecting the PAA29+ to the server over Ethernet, set up the PAA29+ port in order to be in the same sub-network as the server.

There are several ways to do it.

7.1 OVER A TCP/IP CONNEXION

In order to connect with the PAA29+ Ethernet over a TCP/IP connection, it is necessary to know the IP address of the PAA29+. The device is delivered with the IP 192.168.1.180; we strongly recommend to annotate the new IP in case of changing it in order to be able to set up the port in the future. If the device doesn't have the factory IP, it is possible to connect with it using the RS232 port to verify or modify the IP.

To configure the Paa29+ over Ethernet follow this instructions:

1. Connect the PAA29+ to an Ethernet switch as well as the PC that will be used to configure it.
2. Both devices have to be connected to the same sub-network, therefore if the PAA29+ still has the factory configuration, the PC should be able to access the IP address 192.168.1.180.
3. Once both devices are connected and the PC is configured, it is possible to do a "ping" to check if the PAA29+ is accessible from the PC.
4. With the connection operative, open a browser (firefox, Internet Explorer, opera, etc) and insert in the address bar the PAA29+ IP address. If everything goes as planned, the browser will ask the login name and a password (**Figure 7.1A**), leave the login name and the password blank and accept (Press enter).

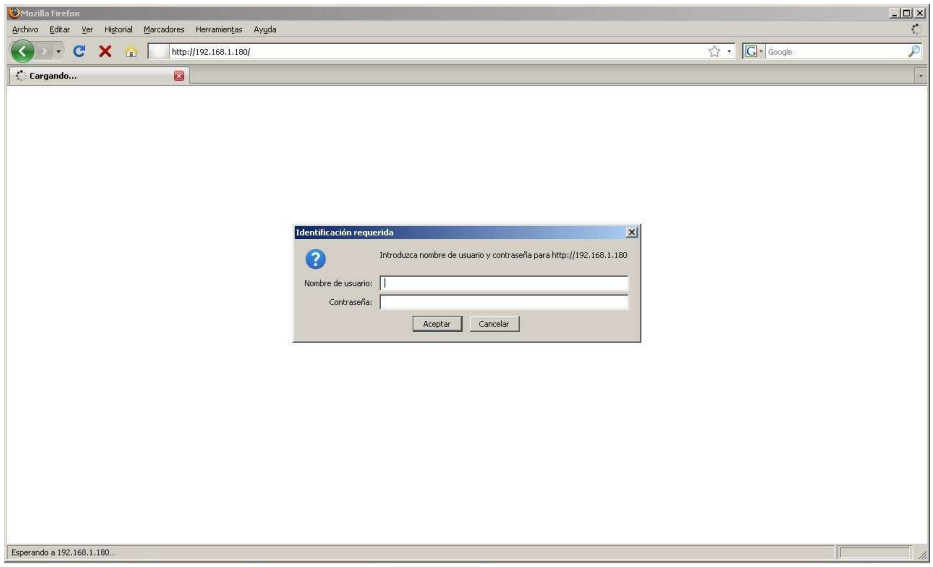


Figure 7.1A

5. You can see the main set up page on **Figure 7.1B.** On the left side, there is a menu with the set up options, choose the option "Network" and the page appears just like the **Figure 7.1B**, if the PAA29+ is a factory device, the data on the window will be the same ones as shown on the figure.
   - In the section "IP Address", write the address for the PAA29+ in the server sub-network.
   - In the section "Subnet Mask", introduce the proper sub-network mask for your network.
   - In the section "Default Gateway", introduce the server's IP in this sub-network.

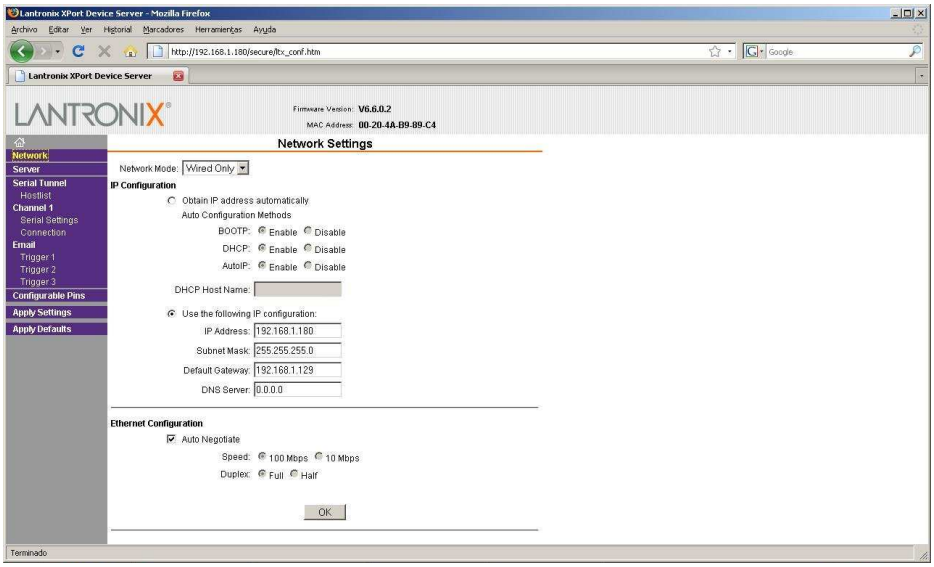


Figure 7.1B

6. Once done, choose the Menu option "Apply Settings" and a page appears just like the **Figure 7.1C**, which will indicate that the data have been saved and that the device is being rebooted in order for the settings to be applied.

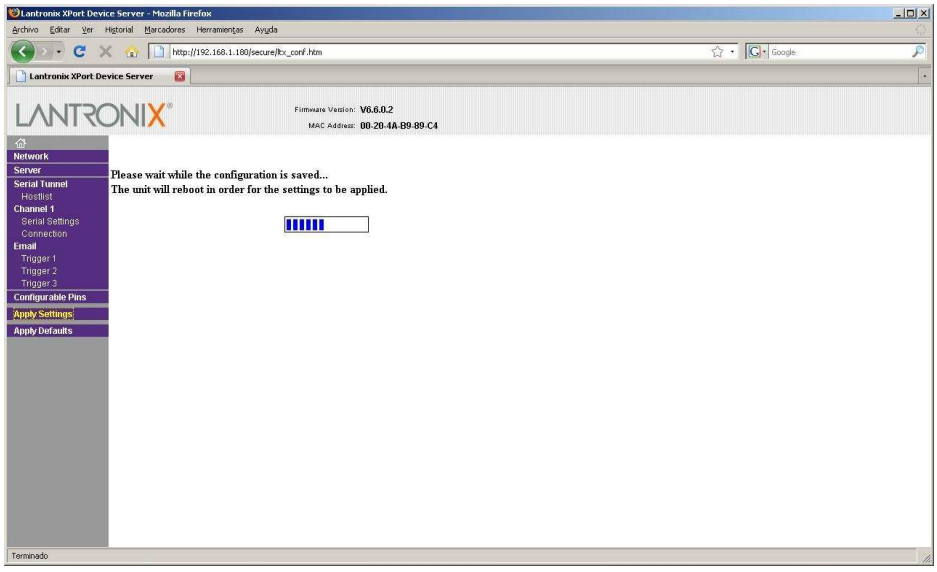


Figure 7.1C

7. If the new PAA29+'s IP is in a different sub-network than the PC we used for the settings, the PC net configuration must be changed in order to communicate with the PAA29+ again and check if the changes have been done successfully.

8. With the Ethernet port of the PAA29+ configured, the PAA29+ is ready to be connected to the server for checking, but before the server has to be configured in order to allow communication with the PAA29+.

7.1.1 CONFIGURE THE ETHERNET FOR A DOREMI SERVER

1. Open the Paa29+ configuration webpage and configure the "Network" as in the previous step.
2. When you have the IP address configured, select the "Channel 1\Connection" option in the Menu.
3. In the "Protocol" tab select "UDP".
4. In the "Datagram Type" select "01".
5. In the "Endpoint Configuration" fill the form box in this way:
    a. "Local Port"= 10001
    b. "Remote Port"= 13200
    c. "Remote Host"= The IP address of your Doremi server
6. You can see an example of this configuration in the **figure 7.1.1A**. In this example our server's IP is 192.168.1.129.

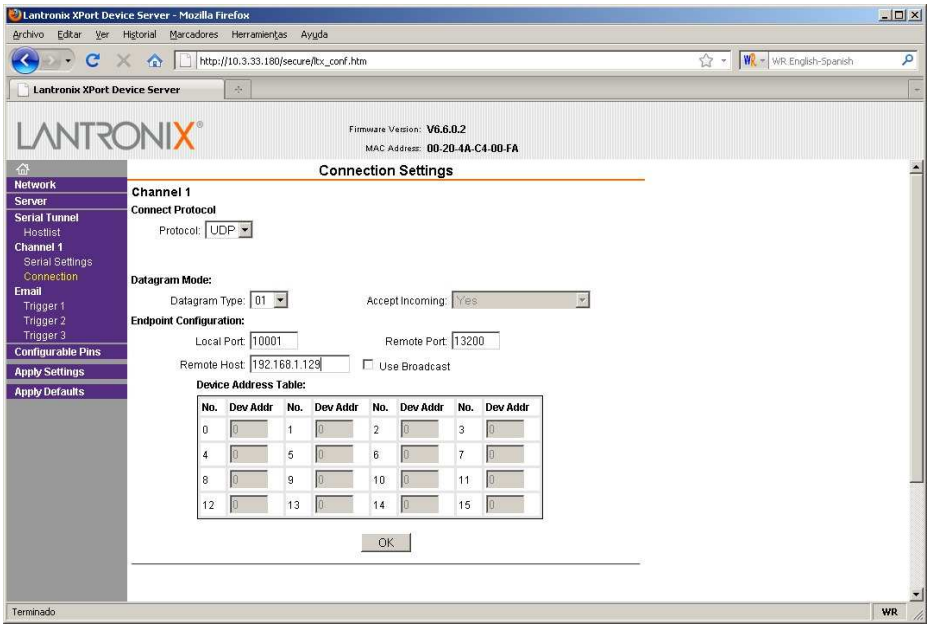


Figure 7.1.1A

7. Click on the "OK" button to confirm the changes.
8. Click on the "Apply Settings" to save the changes and reboot the network system as in the previous step.

7.2. THROUGH A RS232 CONNECTION

To configure the PAA29+ through the RS232 port, follow the next steps:

1. Open the PAA29+ top lid and set the jumpers W3 and W5 (NET CONFIG) in the position CF_E like in the **figure 7.2A**.

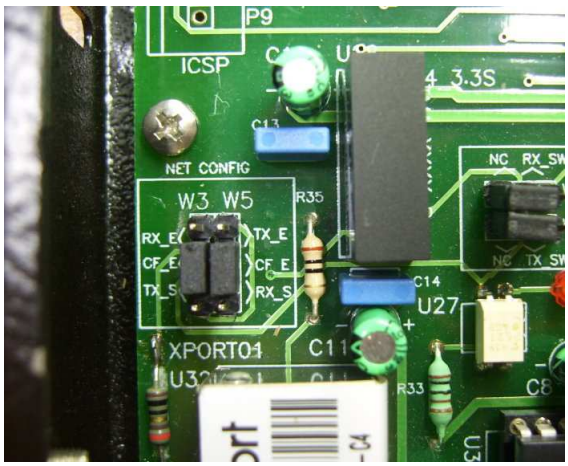


Figure 7.2A

2. Connect the PAA29+ serial port with the serial port of a PC through a pin to pin cable.
3. Open a terminal program to work with COM ports. Configure the serial port in order to operate at 9600bps, 8bits, 1 stop bit, without parity and without flow control.
4. Switch on the PAA29+ and during the device boot, push at least four times the key "X" until the PAA29+ answers with a message as the one shown on the **figure 7.2B**.

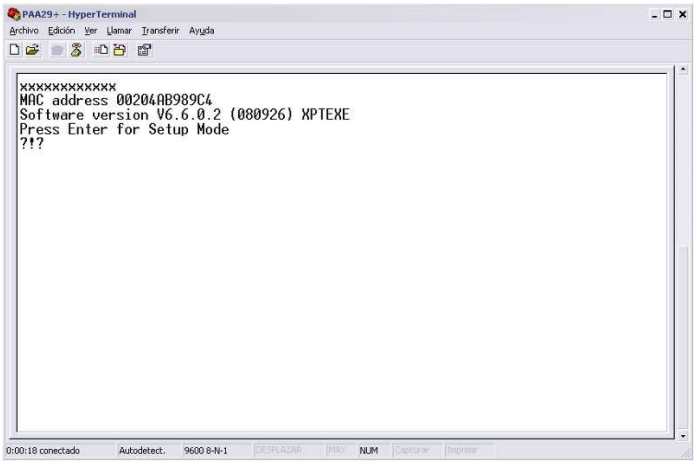
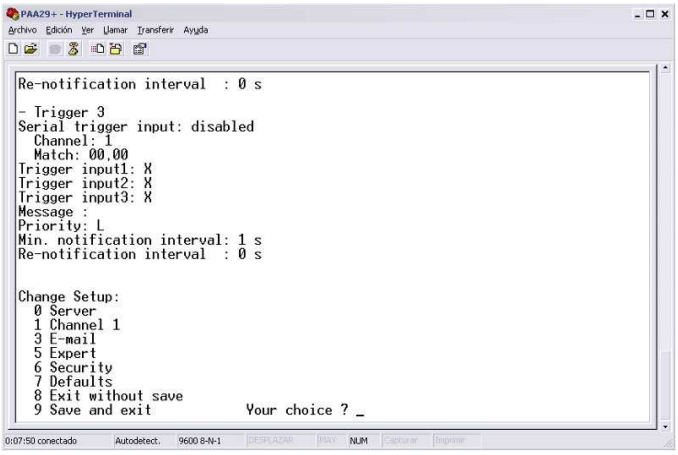


Figure 7.2B

5. Pressing the key "enter" appears the information of the port current configuration and the menu that enables modifications (**figure 7.2C**).



Picture 7.2C

6. Entering the "0" option allows to change the IP and the network configuration of the device as shown on **figure 7.2D**.

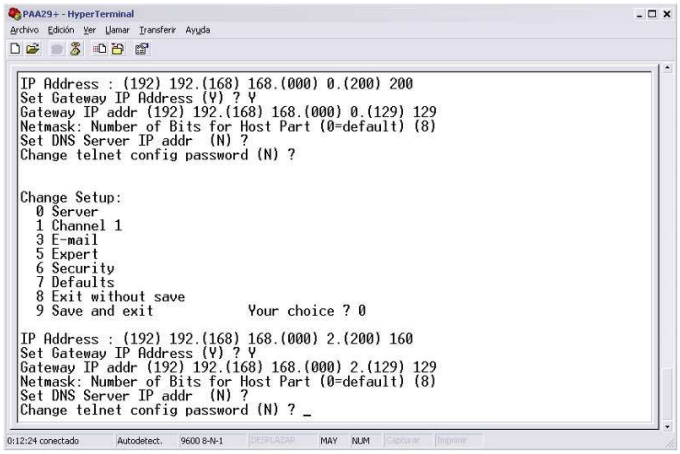


Figure 7.2D

7. Once the IP is configured, the option "9" allows saving the new configuration.
8. The PAA29+ IP address is configured, leave the jumpers W3 and W5 (NET CONFIG) in the correct position depending on the connection that will be used. After that close the covers.
9. When you have changed the IP config via RS232, you can open the webpage of the device to continue with the installation easily.

8. SERVERS CONFIGURATION

In order to PAA29+ carry out its function, it's not only necessary to configure the device, but also the server. Regarding this aspect, the different configuration ways for compatible servers will be described further on.

8.1. SERVER SELECTION IN THE PAA29+

To configure the server in the PAA29+, follow the next steps:

1. Open the PAA29+.
2. Configure the selection jumpers following the instruction already described in the "CONNECTION PROCEDURE" section.
3. Close the PAA29+

8.2. DOLBY SERVER CONFIGURATION

Follow the next steps to configure the Dolby server DSS200 or DSS100/DSP100 in order to be operative with a PAA29+:

1. Go to the "SYSTEM" menu
2. In the tab "AUDITORIUM" mark the option "This automation uses serial automation" and save. It activates the "SERIAL AUTOMATION" menu tab (**Figure 8.2A**)

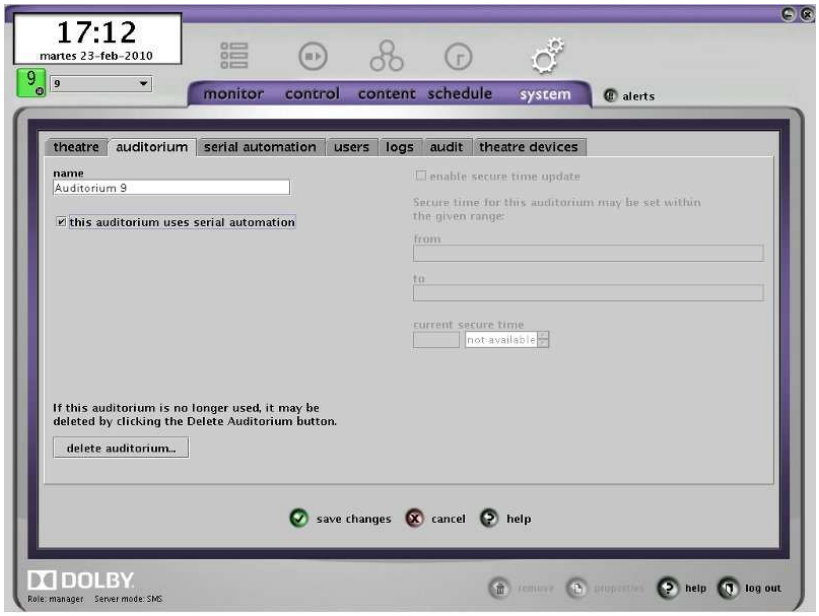


Figure 8.2A

3. Select the tab "SERIAL AUTOMATION" to configure the serial port server.
4. In the configuration box "SERIAL PORT SETTINGS" choose the next parameters (**Figure 8.2B**):
   - Data rate = 9600.
   - Data bits = 8.
   - Parity = none.
   - Stop bits = 1.
   - Flow control = none.
5. In the configuration box "serial command settings" write "\0D" in the configuration box "termination" and leave the configuration box "reset" in blank as you can see in the **figure 8.2B** example.

Figure 8.2B

6. Save the changes.
7. Copy on a USB "pendrive" the file "**DolbySerialAutomation_v1.txt**" from the CD attached with the PAA29+. We strongly recommend that the memory stick will have only this file; then follow the instructions of the Dolby installation manual to import serial automation files.

8. Once the file is imported and the server restarted, the "SERIAL AUTOMATION" tab will be as shown on figure **8.2C**.
9. Thereby the cues are available in the Dolby server ready to be inserted in any show.
10. To modify the name of the cue, double click on it in the column "name", do the modification and save the changes. There is a possibility that the name doesn't appear in the "CONTENT" menu of the server, therefore reboot the server.

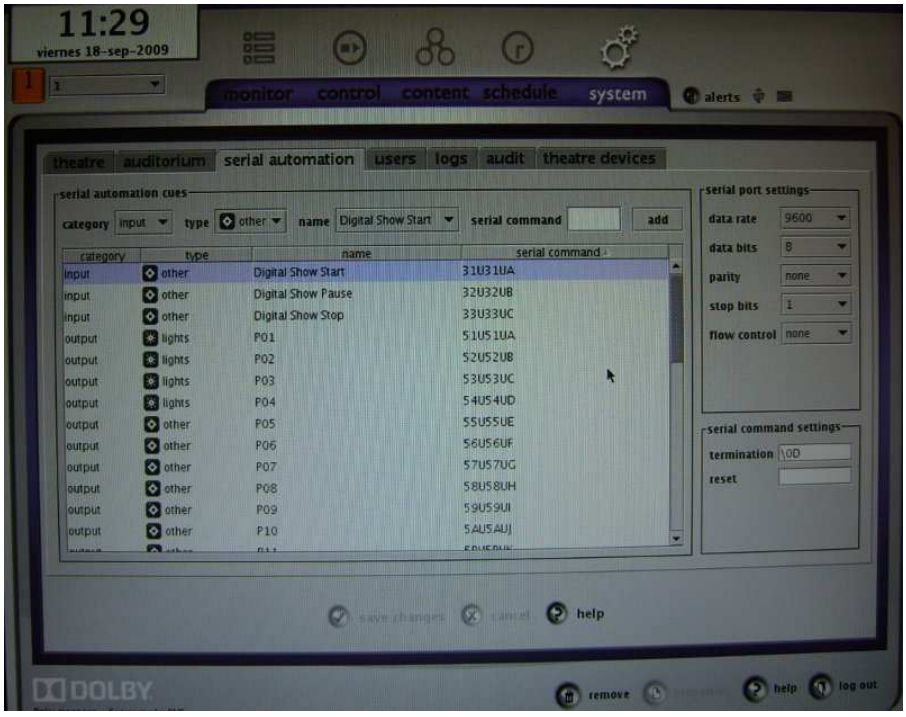


Figure 8.2C

11. To modify the type of the cue, click on the "type" column and make your selection between the "lights", "sound" and "other" option.
12. If you want to introduce the commands manually and doesn't want use the "**DolbySerialAutomation_v1.txt**" file, write the corresponding command described in the "Appendix A" for every input and output of the Paa29+.

8.3 DOREMI SERVER SET-UP

This manual is based on the Doremi software version 1.0.4-0, other versions could have little differences

8.3.1 ADD THE PAA29+ TO THE SERVER

You must add the device before initiating a connection between the PAA29+ and the Doremi server by following the next steps:

1. Turn on the server.
2. Start the "Device Manager", by accessing through the **Menu -> Doremi Labs Inc. -> Device Manager**.
3. Click on the icon "Add" in order to add a device.
4. On the appearing pop-up window, select the device "Raw" as you can see in the **picture 8.3.1A**.

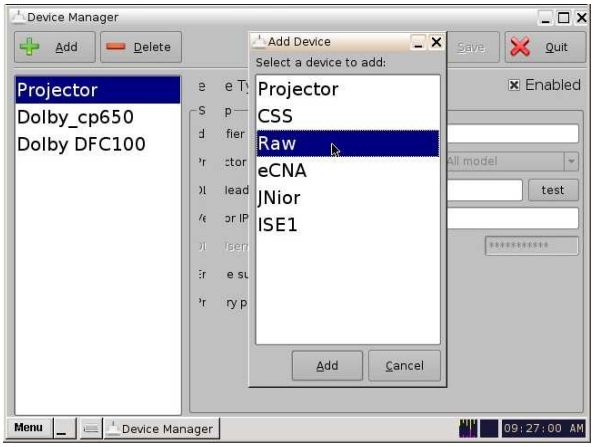


Figure 8.3.1A

5. Write "Paa29+" in the field "Identifier". In case it is not written likewise the server will not identify or recognize the input commands from the PAA29+.
6. Write in the field "Device IP" the IP of the PAA29+.
7. Select on the drop-down tab "Protocol" the UDP protocol.
8. Write the number "10001" in the field "Port".

9. You can see the Device Manager window with this configuration on the **figure 8.3.1B**.
10. Click on the icon "Save" in order to save the new device.

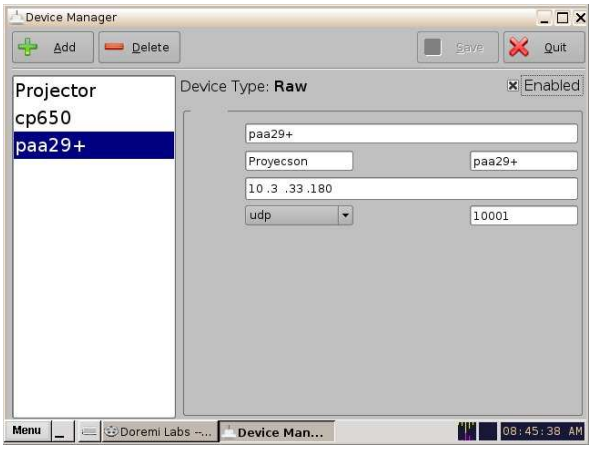


Figure 8.3.1B

11. If you are not logged as admin, you will need to be authenticated. **Figure 8.3.1C**.

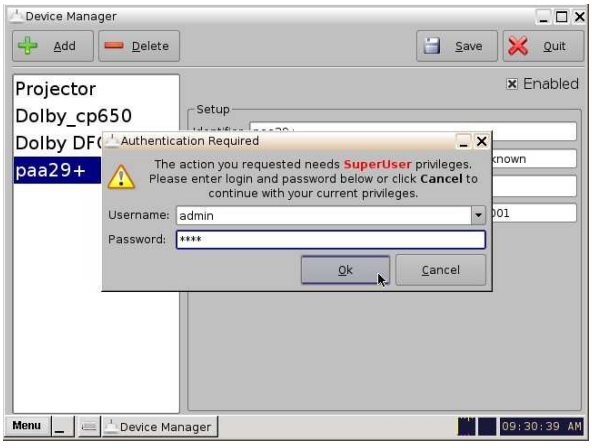


Figure 8.3.1C

12. Now, the Paa29+ is configured and ready to create the associated automation and trigger cues.

8.3.2 SETUP THE OUTPUT CUES (NON-LIBRARY METHOD)

Once the device is added, set up the "cues" in order to manage the PAA29+ outputs. You have two methods to do this, the first one is to add the output cues (**only valid for output cues**, not for trigger cues) following the Doremi Macro Editor Manual. To do it in this way, please follow the next steps:

1. Create a new "Macro" using the "+" button and name it, like in the **figure 8.3.2A**.

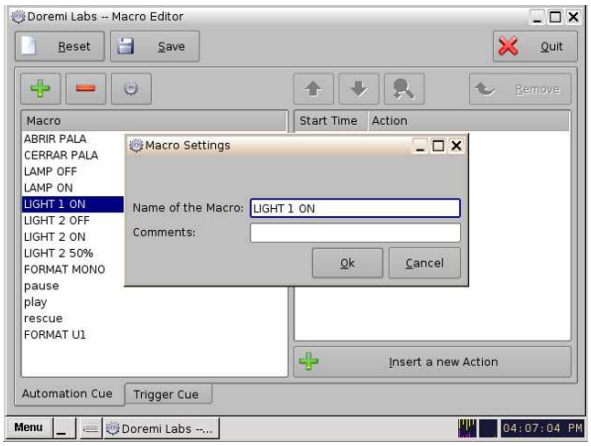


Figure 8.3.2A

2. Click on the button "Insert a new action".
3. Select "GPIO / Send Message" and click on "Add". See **figure 8.3.2B**.

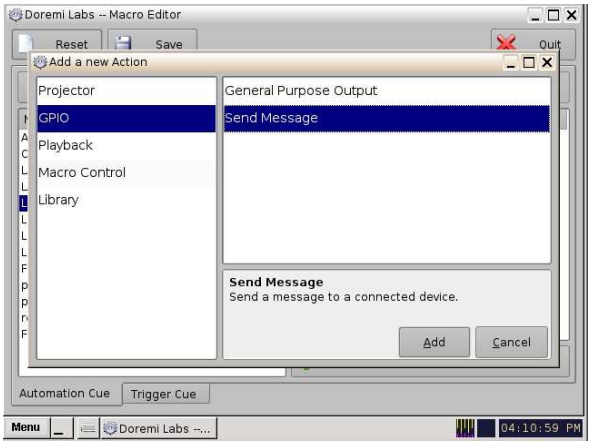


Figure 8.3.2B

4. On the appearing "Send a Message" pop-up window, write the following:
    - **Message Label**: Following report of the operation (optional).
    - **Device Name**: Select "Paa29+".
    - **Message Type**: Select "Text".
    - **Message**: Write in the dialog box the message in ASCII code that will be sent to the PAA29+ when executing the macro cue. See the ASCII commands on table from **APPENDIX B: COMMANDS ASCII FOR DOREMI SERVER**. You must write the codes exactly as in the table, otherwise the PAA29+ may not recognize them.
5. You can see an example of this from in the **Figure 8.3.2C**.

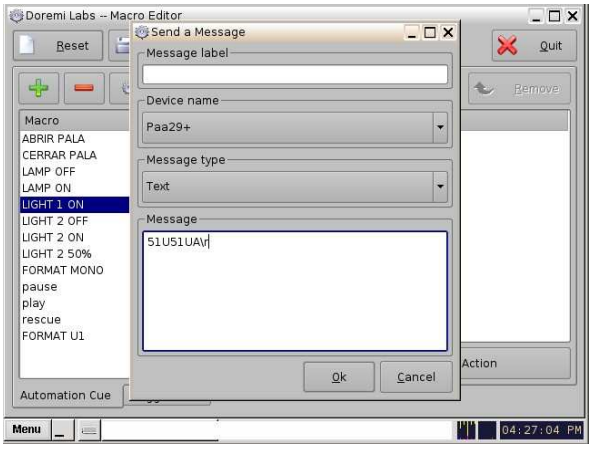


Figure 8.3.2C

6. Once the required macros are added, save the changes and then use the macros in "Cinelister". If you are not logged as admin, you will need to be authenticated.
7. In order to check in advance the macros, use the "Macro Execution" program in the "Doremi Labs Inc." menu. In the **figure 8.3.2.D** you can see a snapshot of the "Macro Execution" program.

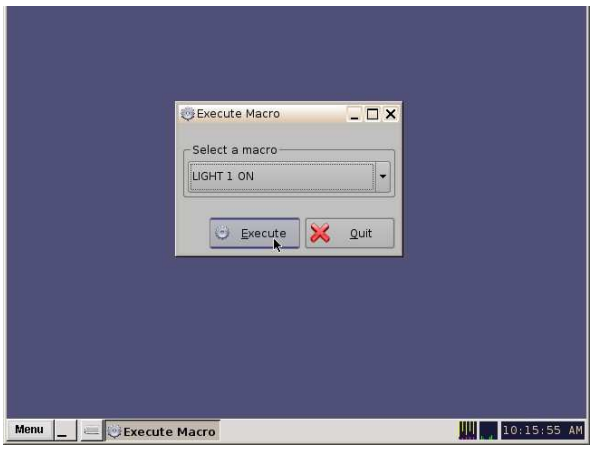


Figure 8.3.2.D

8. If the command is successfully received for the Paa29+, a pop-up message like the one in the **figure8.3.2.E** is shown.

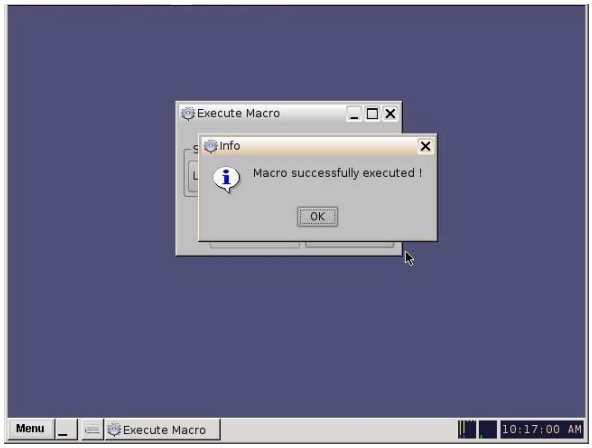


Figure8.3.2.E

8.3.3 SETUP THE OUTPUT CUES USING PAA29+ XML LIBRARY

The second method to set-up the cues for the Paa29+ in a Doremi server is using the "paa29+.xml" file, included in the documentation and test CD, to create a cues library for the device in the server. Using this method you can use the **inputs and the outputs** of the Paa29+ with the Doremi server.

To do it you must follow these steps:

1. Connect a pc or laptop to the same network where you have the Doremi server connected. To ensure that they are in the same network you can make a "ping" from the pc to the server.
2. Open an ftp client and connect to the server using the server IP, you must be logged as admin using the admin password supplied by Doremi. You can see an example in the **figure 8.3.3A**, for this example we used the "filezilla" ftp client, a server with the IP 192.168.1.129 and the admin login and password.

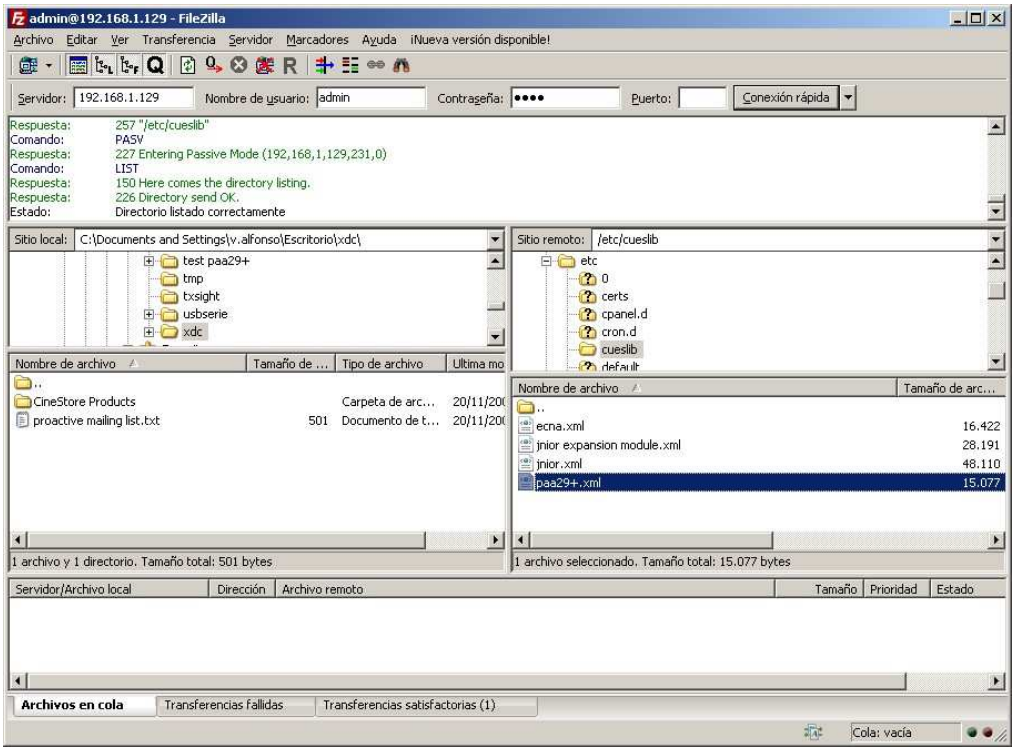


Figure 8.3.3A

3. Once you are connected to the server via ftp, upload the "paa29+.xml" file supplied in the documentation and test CD to the "/etc/cueslib/" directory in the server. You can see the "paa29+.xml" loaded in this folder in the **figure 8.3.3A**. Now, you can set-up the output cues taking the commands from this library.
4. The procedure to create automation cues using the library is very similar as the one without use it, but very much simple. First of all open the Doremi Marco Editor.
5. Then create a new "Macro" with the "+" button and name it, like in the **figure 8.3.3B**.

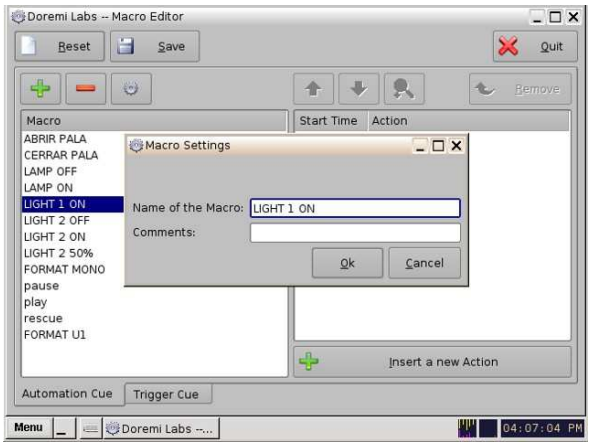


Figure 8.3.3B

6. Click on the button "Insert a new Action".
7. Select "Library / Paa29+" on the "Add a new Action" pop-up window and click in on "Add". See **figure 8.3.3C**.

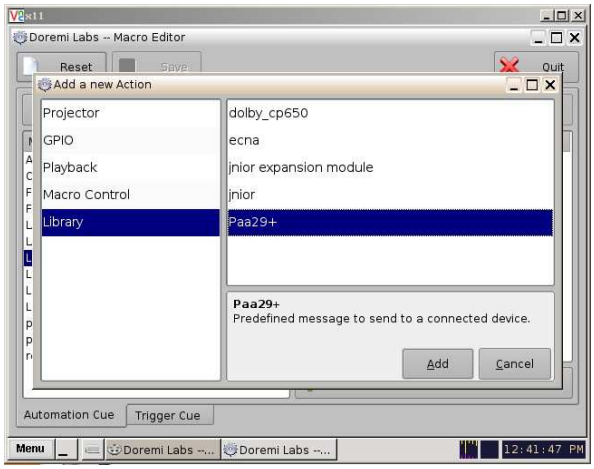


Figure 8.3.3C

8. On the appearing "Library" pop-up window, select the action that needed and validate with the OK button as you can see in the **figure 8.3.3D**. The keys for the action are these:
    - The actions from H1 to H12 activate (High) and maintain active the corresponding output.
    - The actions from L1 to L12 deactivate (Low) and maintain inactive the corresponding output.
    - The actions from P1 to P12 generate a momentary (500ms) pulse in the corresponding output.

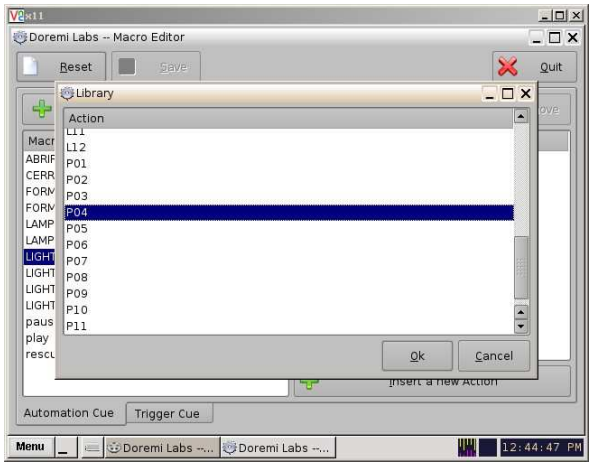


Figure 8.3.3D

9. On the appearing "Send a Message" pop-up window (**figure 8.3.3E**), write the following:
    - **Message Label**: Following report of the operation (optional).
    - **Device Name**: Select "Paa29+".
    - **Message Type**: Select "Text".
    - **Message**: Left untouched, it comes from the Paa29+ library previously selected.

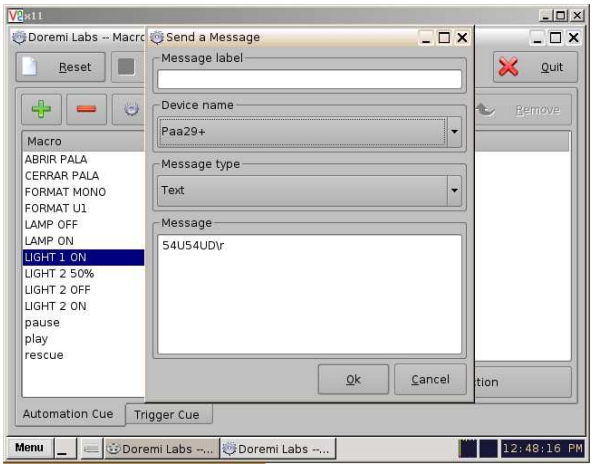


Figure 8.3.3E

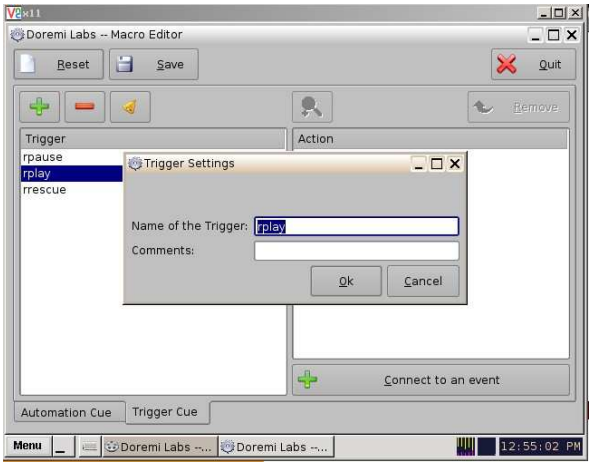
10. Once the required macros are added, save the changes and then use the macros in "Cinelister". If you are not logged as admin, you will need to be authenticated.
11. In order to check in advance the macros, use the "Macro Execution" program in the "Doremi Labs Inc." menu.

8.3.4 SETUP THE INPUT CUES USING PAA29+ XML LIBRARY

Using the XML library method you can use the inputs of the Paa29+ to send automation messages to the Doremi server. You need the "Paa29+.xml" file loaded properly in the Doremi server to use this feature, in the 1,2 and 3 steps of the 8.3.3 chapter of this manual you can see the procedure to load the file and create the Paa29+ Library.

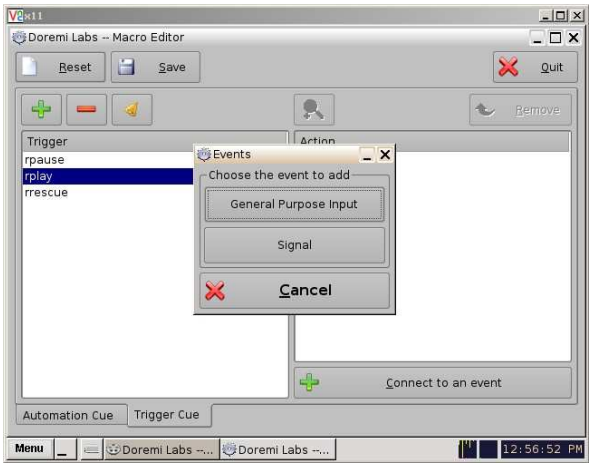
With this file loaded you can create trigger cues following these steps:

1. Open the Doremi "Macro Editor" application and select the "trigger cue" tab. This is the window used to manage the trigger cues. To create a new cue click on the "+" button and, in the pop-up window, name it and accept. Example is given in the **picture 8.3.4A**.



Picture 8.3.4A

2. When the "Events" pop-up window appears (**picture 8.3.4B**), select the "Signal" option.



Picture 8.3.4B

3. In the "Signal Setup" pop-up window, left the "Any" in the "Source device name" selection tab and press the "…" button in the "Signal name" field. **Figure 8.3.4C**.

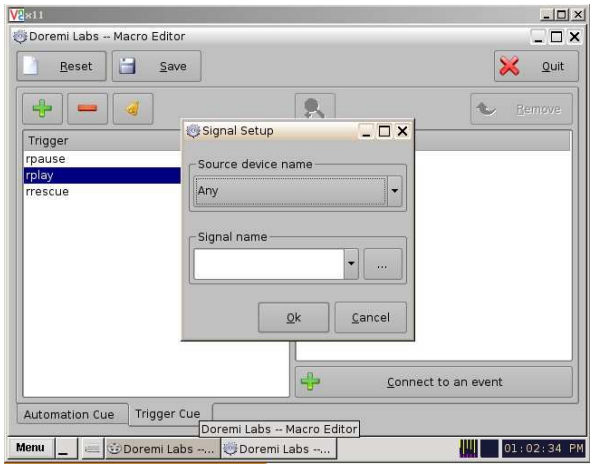


Figure 8.3.4C

4. Pressing this button you will open the "Signal Library" pop-up window, you must select the "Paa29+" in the "driver" window and choose the appropriate input of the Paa29+ in the "Signal" window, every signal matches the physical input with the same number in the device. You can see an example for the Input 1 in the **figure 8.3.4D**.

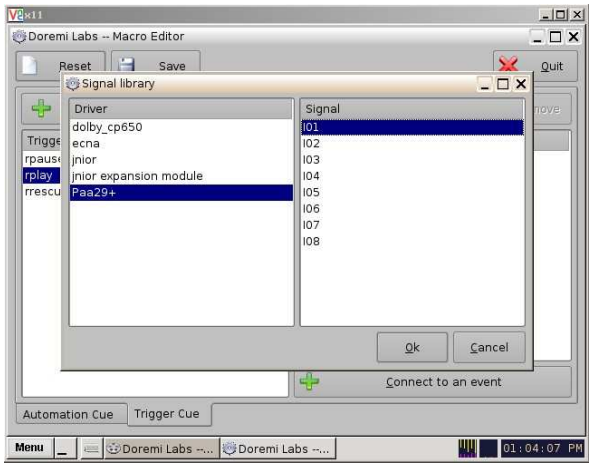


Figure 8.3.4D

5. Pressing the Ok button of the "Signal library" window you will come back to the "Signal Setup" window, but with the "Signal name" filled with your previous chosen input selection. You can see the example for the Input 1 in the **figure 8.3.4E**. Click on the Ok button to finish the creation of the trigger cue.

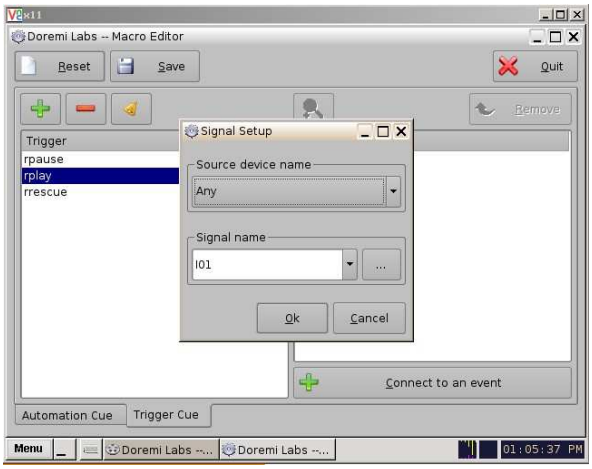


Figure 8.3.4E

6. Finally in the Doremi "Macro Editor" main screen you can save the trigger cues configuration using the "Save" button. If you are not logged as admin, you will need to be authenticated.
7. Now, you can use the "trigger cues", created following the previous steps, in the "Cinelister" editor to activate macros during the Show execution.

9. OUTPUTS / INPUTS OF THE PAA29+

The contacts order in the connectors and the internal circuitry of the PAA29 + outputs as shown on the following schemes and pictures:

9.1. OUTPUT 1 CONNECTOR:

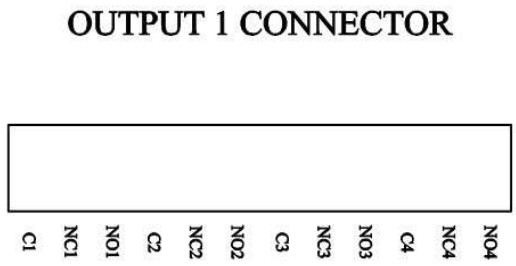


Figure 9.1A

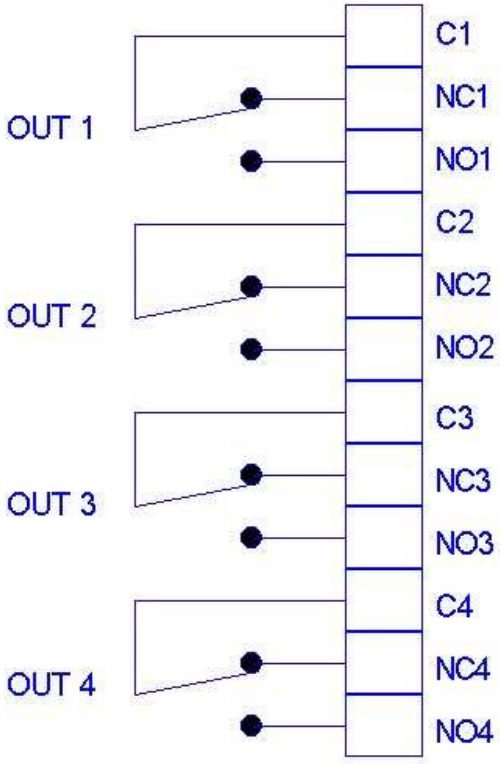


Figure 9.1B

9.2 OUTPUT 2 CONNECTOR:

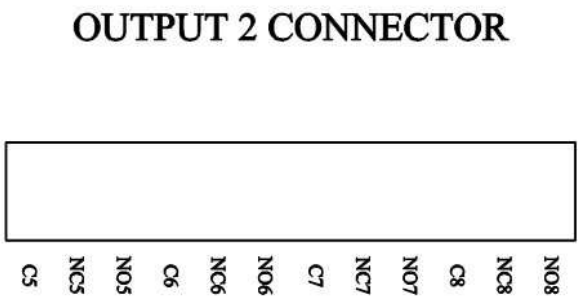
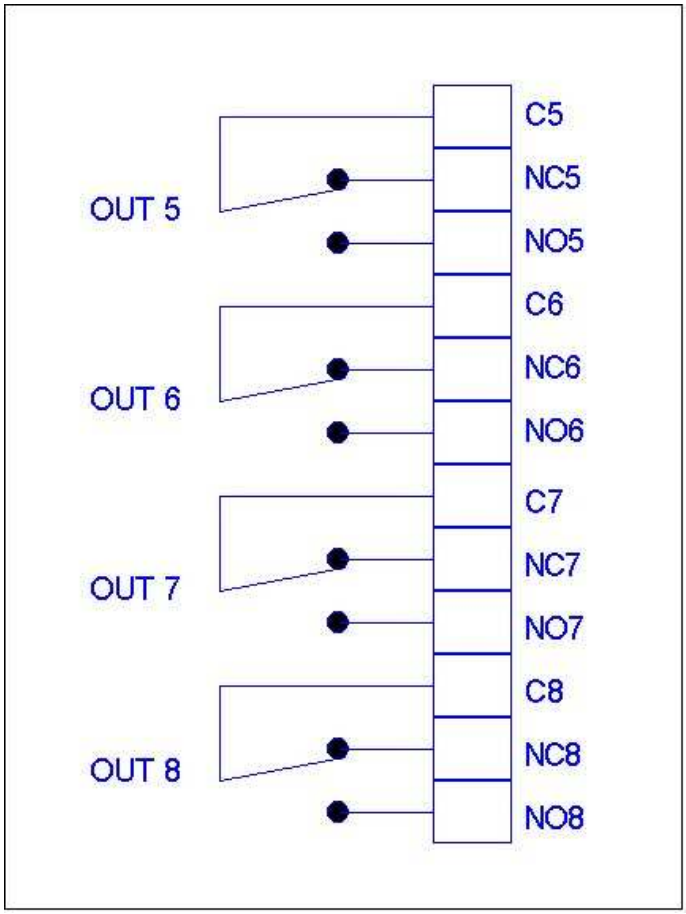


Figure 9.2A



Picture 9.2B

9.3 OUTPUT 3 CONNECTOR:

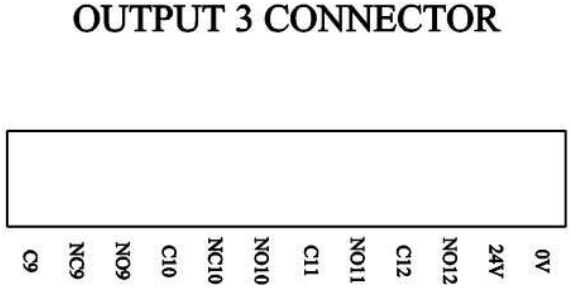


Figure 9.3A

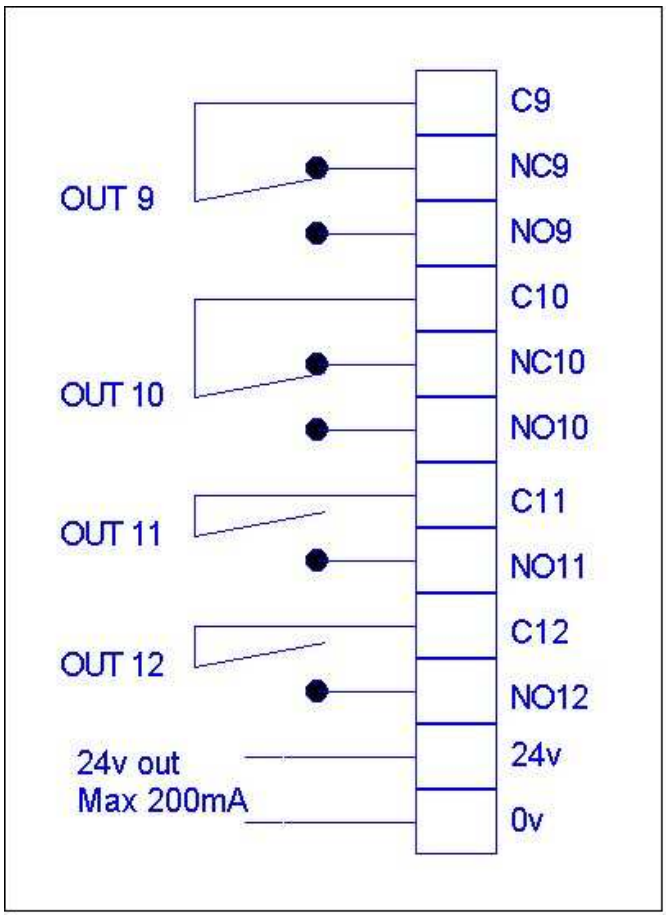


Figure 9.3B

9.4 INPUT CONNECTOR:

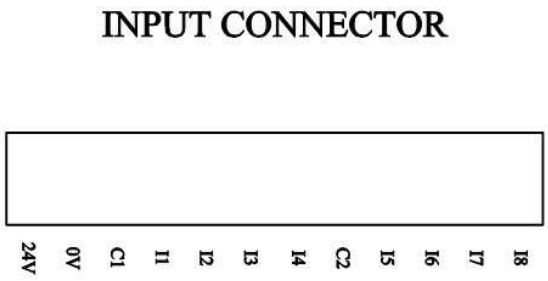
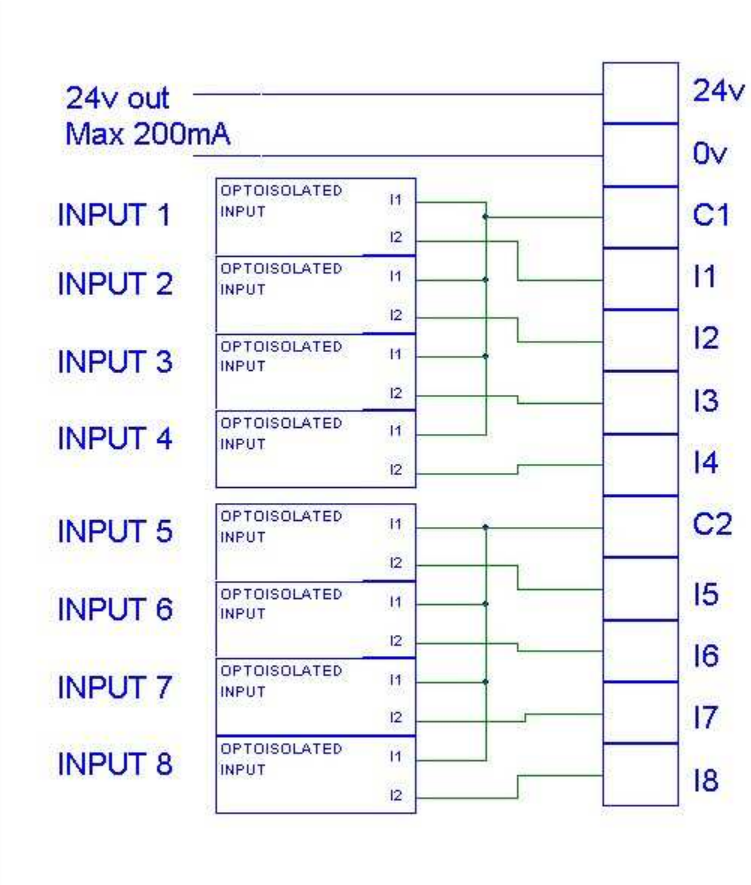


Figure 9.4A



Picture 9.4B

9.5 EXAMPLES OF INPUT CONNECTION:

The digital inputs are divided in two groups; each group shares a common independent cable. The first group includes the inputs from I1 to I4 and in the second one the inputs from I5 to I8.

9.5.1 INPUT WITH A NEGATIVE COMMON:

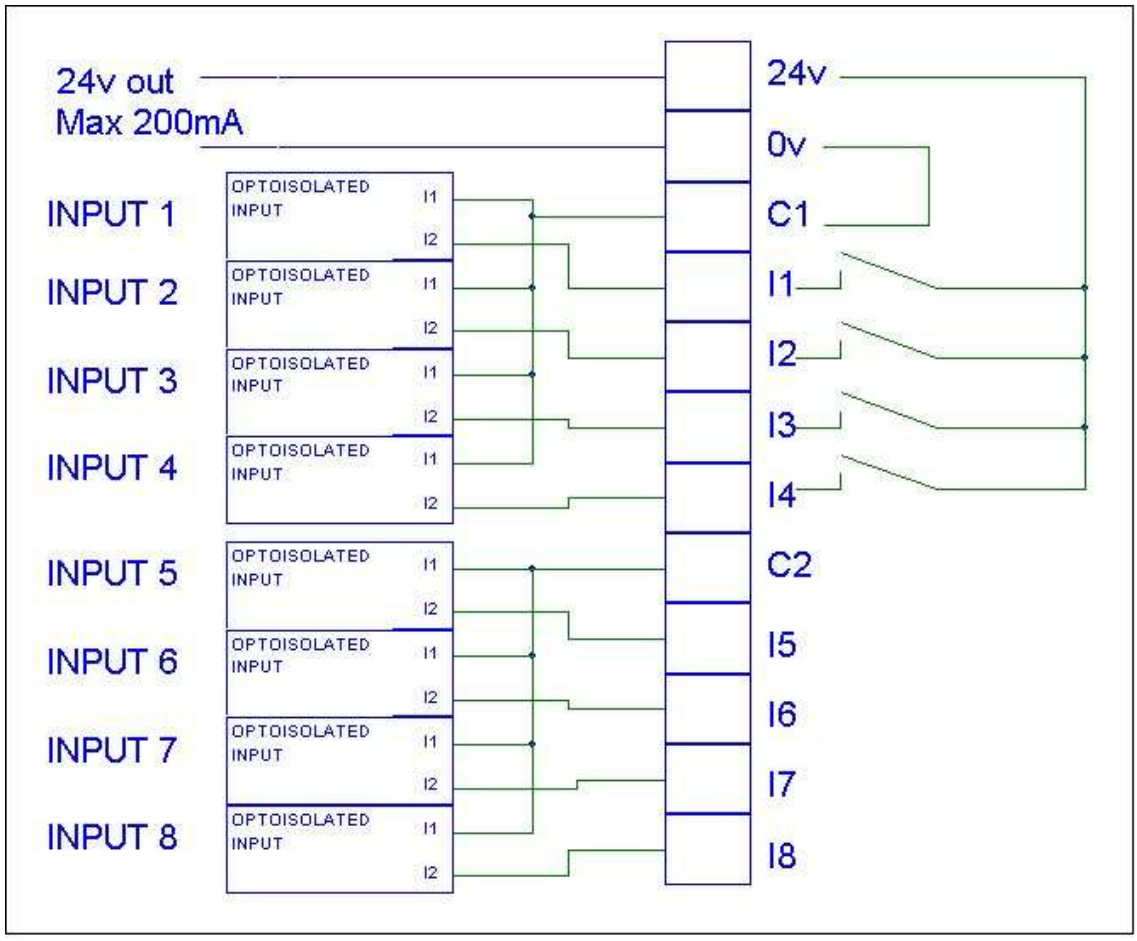
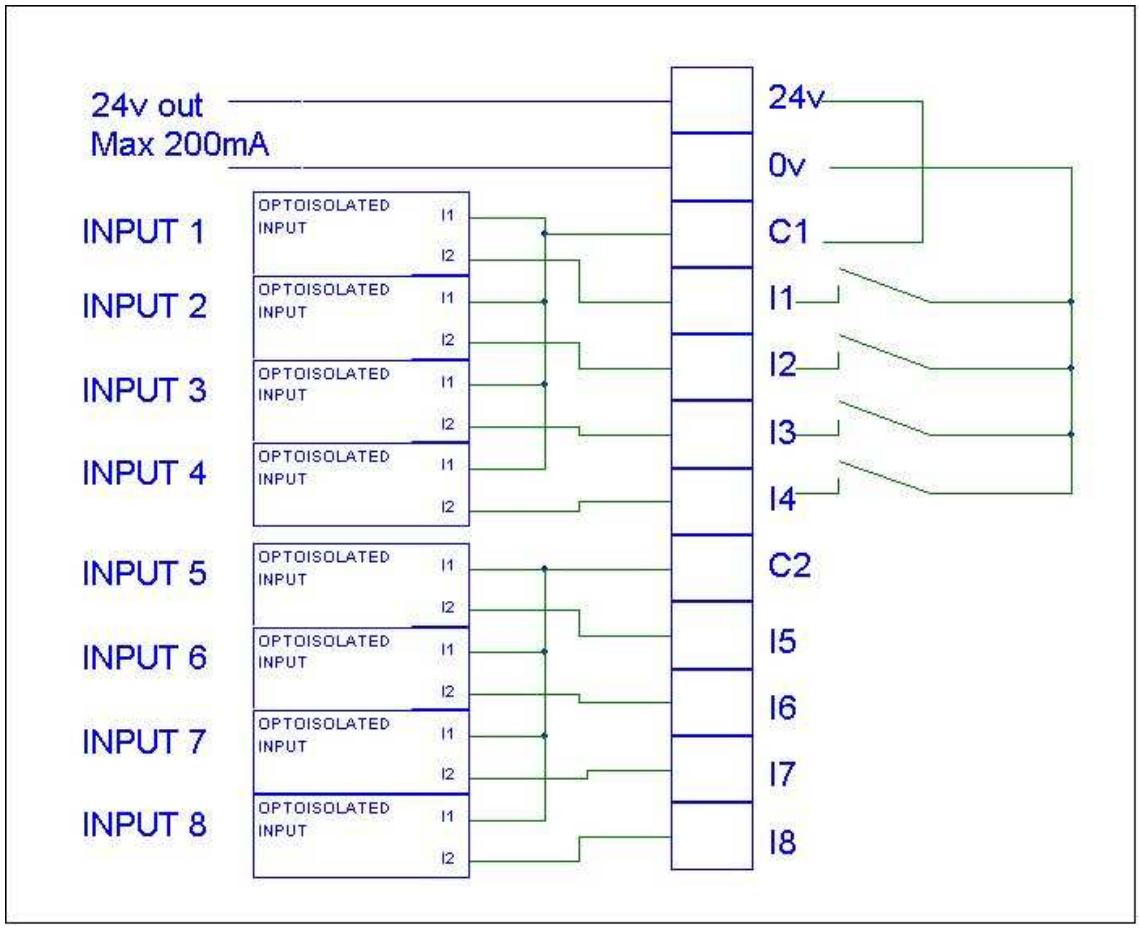


Figure 9.5.1A

9.5.2 INPUT WITH A POSITIVE COMMON:



Picture 9.5.2A

10. NOTES

10.1 FIRMWARE VERSIONS

- **PNA 02**:
    - Fully compatible with Dolby DSS200 and DSS100/DSP100 servers automation using the serial port.
    - Compatible with the "Automation Cues" of the Doremi DCP 2000 and DCP 2K4 servers.
    - **NOT** compatible with the "Trigger Cues" of the Doremi DCP 2000 and DCP 2K4 servers. Will be compatible with the PNA 03 firmware version.
- **PNA O4**:
    - Fully compatible with Dolby DSS200 and DSS100/DSP100 servers using the serial port.
    - Fully compatible with the Doremi DCP200 and DCP2K4 servers automation using a UDP/IP Ethernet connection.
    - Fully compatible with the Qube XP-D, Datasat DC-20 and GDC servers automation using the serial port. *****

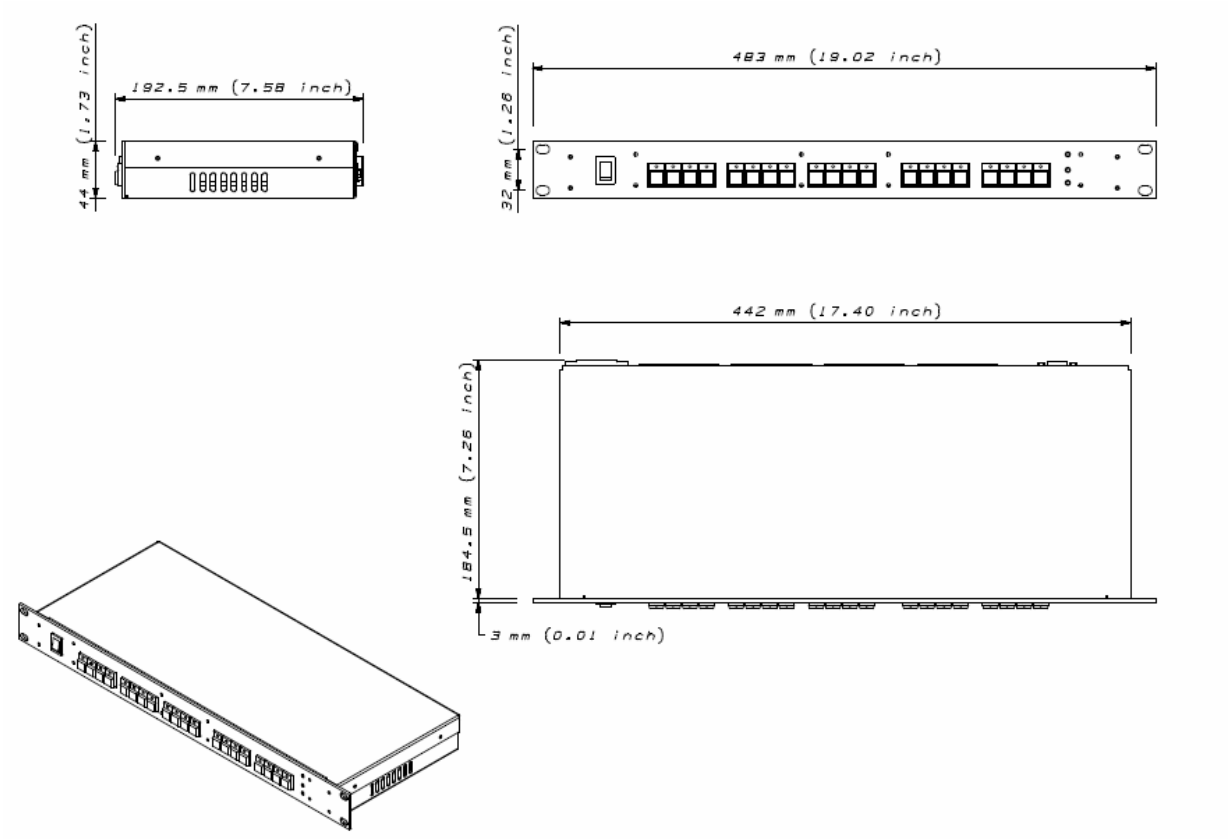
***** The Qube XP-D, Datasat DC-20 and GDC servers automation connection and configuration is not described in this version of the manual. It will be included in future versions.

11. ELECTRICAL PROPERTIES

Power Requeriments
• 100-240 VAC, • 50-60 Hz, • 50w from a centrally switched power source.

12. DIMENSIONS

Dimensions and Weight
483 x 183 x 44 mm.



APPENDIX A: SERIAL COMMANDS FOR DOLBY

Category	Type	Name	Command	Action	I/O hard
Input	Other	Play	31U31UA	Start Show	Input 1
Input	Other	Pause	32U32UB	Pause Show	Input 2
Input	Other	Stop	33U33UC	Stop Show	Input 3
Output	Lights	P01	51U51UA	Pulse	Output 1
Output	Lights	P02	52U52UB	Pulse	Output 2
Output	Lights	P03	53U53UC	Pulse	Output 3
Output	Lights	P04	54U54UD	Pulse	Output 4
Output	Other	P05	55U55UE	Pulse	Output 5
Output	Other	P06	56U56UF	Pulse	Output 6
Output	Other	P07	57U57UG	Pulse	Output 7
Output	Other	P08	58U58UH	Pulse	Output 8
Output	Other	P09	59U59UI	Pulse	Output 9
Output	Other	P10	5AU5AUJ	Pulse	Output 10
Output	Other	P11	5BU5BUK	Pulse	Output 11
Output	Other	P12	5CU5CUL	Pulse	Output 12
Output	Lights	H01	61U61UM	On	Output 1
Output	Lights	H02	62U62UN	On	Output 2
Output	Lights	H03	63U63UO	On	Output 3
Output	Lights	H04	64U64UP	On	Output 4
Output	Other	H05	65U65UQ	On	Output 5
Output	Other	H06	66U66UR	On	Output 6
Output	Other	H07	67U67US	On	Output 7
Output	Other	H08	68U68UT	On	Output 8
Output	Other	H09	69U69UU	On	Output 9
Output	Other	H10	6AU6AUV	On	Output 10

Output	Other	H11	6BU6BUW	On	Output 11
Output	Other	H12	6CU6CUX	On	Output 12
Output	Lights	L01	71U71UY	Off	Output 1
Output	Lights	L02	72U72UZ	Off	Output 2
Output	Lights	L03	73U73U0	Off	Output 3
Output	Lights	L04	74U74U1	Off	Output 4
Output	Other	L05	75U75U2	Off	Output 5
Output	Other	L06	76U76U3	Off	Output 6
Output	Other	L07	77U77U4	Off	Output 7
Output	Other	L08	78U78U5	Off	Output 8
Output	Other	L09	79U79U6	Off	Output 9
Output	Other	L10	7AU7AU7	Off	Output 10
Output	Other	L11	7BU7BU8	Off	Output 11
Output	Other	L12	7CU7CU9	Off	Output 12

APPENDIX B: COMMANDS FOR DOREMI SERVERS.

Category	Name	Command	Action	I/O hard
Output	P01	51U51UA\r	Pulse	Output 1
Output	P02	52U52UB\r	Pulse	Output 2
Output	P03	53U53UC\r	Pulse	Output 3
Output	P04	54U54UD\r	Pulse	Output 4
Output	P05	55U55UE\r	Pulse	Output 5
Output	P06	56U56UF\r	Pulse	Output 6
Output	P07	57U57UG\r	Pulse	Output 7
Output	P08	58U58UH\r	Pulse	Output 8
Output	P09	59U59UI\r	Pulse	Output 9
Output	P10	5AU5AUJ\r	Pulse	Output 10
Output	P11	5BU5BUK\r	Pulse	Output 11
Output	P12	5CU5CUL\r	Pulse	Output 12
Output	H01	61U61UM\r	On	Output 1
Output	H02	62U62UN\r	On	Output 2
Output	H03	63U63UO\r	On	Output 3
Output	H04	64U64UP\r	On	Output 4
Output	H05	65U65UQ\r	On	Output 5
Output	H06	66U66UR\r	On	Output 6
Output	H07	67U67US\r	On	Output 7
Output	H08	68U68UT\r	On	Output 8
Output	H09	69U69UU\r	On	Output 9
Output	H10	6AU6AUV\r	On	Output 10
Output	H11	6BU6BUW\r	On	Output 11
Output	H12	6CU6CUX\r	On	Output 12
Output	L01	71U71UY\r	Off	Output 1

Output	L02	72U72UZ\r	Off	Output 2
Output	L03	73U73U0\r	Off	Output 3
Output	L04	74U74U1\r	Off	Output 4
Output	L05	75U75U2\r	Off	Output 5
Output	L06	76U76U3\r	Off	Output 6
Output	L07	77U77U4\r	Off	Output 7
Output	L08	78U78U5\r	Off	Output 8
Output	L09	79U79U6\r	Off	Output 9
Output	L10	7AU7AU7\r	Off	Output 10
Output	L11	7BU7BU8\r	Off	Output 11
Output	L12	7CU7CU9\r	Off	Output 12