



Dolby Atmos® Interface DAC3202 Manual

Issue 1

Dolby Laboratories, Inc.

Corporate Headquarters

Dolby Laboratories, Inc.
100 Potrero Avenue
San Francisco, CA 94103-4813 USA
Telephone 415-558-0200
Fax 415-863-1373
www.dolby.com

European Headquarters

Dolby International AB
Apollo Building, 3E
Herikerbergweg 1-35
1101 CN Amsterdam Zuidoost
The Netherlands
Telephone 31-20-651-1800
Fax 31-20-651-1801

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NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

European Union (CISPR 22)

The Dolby Atmos Interface DAC3202 complies with the EMC requirement of EN55103-1 and EN55103-2 when operated in accordance with this manual.

WARNING: This is a class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Canada

This Class A digital apparatus complies with Canadian ICES-003. Cet appareil de la classe A est conforme à la norme NBM-003 de Canada.


China

警告

此为 A 级产品。在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户 对干扰采取切实可行的措施。

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. **WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
7. Clean only with dry cloth.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. No naked flame sources, such as lighted candles, should be placed on the apparatus.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where it exits from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
14. Do not expose the apparatus to dripping or splashing, and no objects filled with liquids, such as vases, should be placed on the apparatus.
15. **CAUTION:** Troubleshooting must be performed by a trained technician. To reduce the risk of electric shock, do not attempt to service this equipment unless you are qualified to do so.
16. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
17. This apparatus must be earthed (grounded) by connecting to a correctly wired and earthed power outlet.
18. Ensure that your mains supply is in the correct range for the input power requirement of the unit.
19. In order to reduce the risk of electrical shock, the power cord must be disconnected when the power supply assembly is removed.
20. This equipment is designed to mount in a suitably ventilated 19" rack; ensure that any ventilation slots in the unit are not blocked or covered.
21. The mains power disconnect device for this unit is the plug-in mains cord rather than a power switch. The mains cord must remain readily accessible for disconnecting mains power.
22. To avoid exposure to dangerous voltages and to avoid damage to the unit, do not connect the rear-panel Ethernet port to telephone circuits.

23. As the colors of the cores in the mains lead may not correspond with the colored markings identifying the terminals in your plug, proceed as follows:
- The green and yellow core must be connected to the terminal in the plug identified by the letter E, or by the earth symbol , or colored green, or green and yellow.
 - The blue core must be connected to the terminal marked with the letter N or colored black.
 - The brown core must be connected to the terminal marked with the letter L or colored red.

PRODUCT END-OF-LIFE INFORMATION



This product was designed and built by Dolby Laboratories to provide many years of service, and is backed by our commitment to provide high-quality support. When it eventually reaches the end of its serviceable life, it should be disposed of in accordance with local or national legislation. For current information please visit our website: www.dolby.com/environment.



This symbol that appears on the unit rear panel and in this manual is intended to alert the user to the presence of uninsulated “dangerous” voltage within the product’s enclosure that maybe of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important safety operating and maintenance instructions.

IMPORTANT SAFETY NOTICE

These units comply with safety standard EN60950-1. These units shall not be exposed to dripping or splashing and no objects filled with liquids, such as coffee cups, shall be placed on the equipment. To ensure safe operation and to guard against potential shock hazard or risk of fire, the following **must** be observed:

- o Ensure that your mains supply is in the correct range for the input power requirement of the unit.
- o Ensure **fuses** fitted are the **correct rating and type** as marked on the unit.
- o The unit **must be earthed** by connecting to a correctly wired and **earthed** power outlet.
- o The **power cord** supplied with this unit must be wired as follows:

Live—Brown Neutral—Blue Earth—Green/Yellow

GB

IMPORTANT – NOTE DE SECURITE

Ces unités se conformer à la norme de sécurité EN60950-1. Ne pas exposer ces appareils aux éclaboussures ou aux gouttes de liquide. Ne pas poser d'objets remplis de liquide, tels que des tasses de café, sur l'appareil. Pour vous assurer d'un fonctionnement sans danger et de prévenir tout choc électrique ou tout risque d'incendie, veuillez à ob les recommandations suivantes.

- o Le selecteur de tension doit être placé sur la valeur correspondante à votre alimentation réseau.
- o Les fusibles doivent correspondre à la valeur indiquée sur le matériel.
- o Le matériel doit être correctement relié à la terre.
- o Le cordon secteur livré avec le matériel doit être câblé de la manière suivante:

Phase—Brun Neutre—Bleu Terre—Vert/Jaune

F

WICHTIGER SICHERHEITSHINWEIS

Diese Geräte erfüllen die Sicherheitsnorm EN60950-1. Die Geräte darf nicht mit Flüssigkeiten (Spritzwasser usw.) in Berührung kommen; stellen Sie keine Gefäße, z.B. Kaffeetassen, auf die Geräte. Für das sichere Funktionieren der Geräte und zur Unfallverhütung (elektrischer Schlag, Feuer) sind die folgenden Regeln unbedingt einzuhalten:

- o Der Spannungswähler muß auf Ihre Netzspannung eingestellt sein.
- o Die Sicherungen müssen in Typ und Stromwert mit den Angaben auf dem Gerät übereinstimmen.
- o Die Erdung des Gerätes muß über eine geerdete Steckdose gewährleistet sein.
- o Das mitgelieferte Netzkabel muß wie folgt verdrahtet werden:

Phase—braun Nulleiter—blau Erde—grün/gelb

D

NORME DI SICUREZZA – IMPORTANTE

Queste unità sono costruite a norma di sicurezza EN60950-1. I prodotti non devono essere sottoposti a schizzi, spruzzi e gocciolamenti, e nessun tipo di oggetto riempito con liquidi, come ad esempio tazze di caffè, deve essere appoggiato sul dispositivo. Per una perfetta sicurezza ed al fine di evitare eventuali rischi di scossa elettrica o d'incendio vanno osservate le seguenti misure di sicurezza:

- o Assicurarsi che il selettore di cambio tensione sia posizionato sul valore corretto.
- o Assicurarsi che la portata ed il tipo di fusibili siano quelli prescritti dalla casa costruttrice.
- o L'apparecchiatura deve avere un collegamento di messa a terra ben eseguito; anche la connessione rete deve avere un collegamento a terra.
- o Il cavo di alimentazione a corredo dell'apparecchiatura deve essere collegato come segue:

Filo tensione—Marrone Neutro—Blu Massa—Verde/Giallo

I

AVISO IMPORTANTE DE SEGURIDAD

Estas unidades cumplen con la norma de seguridad EN60950-1. Estas unidades no deben ser expuestas a goteos o salpicaduras y no deben colocarse sobre el equipo recipientes con líquidos, como tazas de café. Para asegurarse un funcionamiento seguro y prevenir cualquier posible peligro de descarga o riesgo de incendio, se han de observar las siguientes precauciones:

- o Asegúrese que el selector de tensión esté ajustado a la tensión correcta para su alimentación.
- o Asegúrese que los fusibles colocados son del tipo y valor correctos, tal como se marca en la unidad.
- o La unidad debe ser puesta a tierra, conectándola a un conector de red correctamente cableado y puesto a tierra.
- o El cable de red suministrado con esta unidad, debe ser cableado como sigue:

Vivo—Marrón Neutro—Azul Tierra—Verde/Amarillo

E

VIKTIGA SÄKERHETSÅTGÄRDER!

Dessa enheter uppfyller säkerhetsstandarden EN60950-1. Dessa enheter får inte utsättas för yttre åverkan samt föremål innehållande vätska, såsom kaffemuggar, får ej placeras på utrustningen. För att garantera säkerheten och gardera mot eventuell elchock eller brandrisk, måste följande obas:

- o Kontrollera att spänningsväljaren är inställd på korrekt nätspänning.
- o Kontrollera att säkringarna är av rätt typ och för rätt strömstyrka så som anvisningarna på enheten föreskriver.
- o Enheten måste vara jordad genom anslutning till ett korrekt kopplat och jordat el-uttag.
- o El-sladden som medföljer denna enhet måste kopplas enligt följande:

Fas—Brun Neutral—Blå Jord—Grön/Gul

S

BELANGRIJK VEILIGHEIDS-VOORSCHRIFT:

Deze eenheden voldoen aan de EN60950-1. Deze apparaten mag niet worden blootgesteld aan vocht. Vanwege het risico dat er druppels in het apparaat vallen, dient u er geen vloeistoffen in bekertjes op te plaatsen. Voor een veilig gebruik en om het gevaar van elektrische schokken en het risico van brand te vermijden, dienen de volgende regels in acht te worden genomen:

- o Controleer of de spanningscarroussel op het juiste Voltage staat.
- o Gebruik alleen zekeringen van de aangegeven typen en waarden.
- o Aansluiting van de unit alleen aan een geaarde wandcontactdoos.
- o De netkabel die met de unit wordt geleverd, moet als volgt worden aangesloten:

Fase—Bruin Nul—Blauw Aarde—Groen/Geel

NL

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Introduction

The Dolby Atmos® Interface DAC3202 is a 1-U 19-inch rackmount unit, which receives digital audio from the Dolby Atmos Cinema Processor CP850 rear-panel **DOLBY ATMOS CONNECT** ports. The DAC3202 converts this data to analog audio (up to 32 channels), which can drive the analog input to the auditorium amplifiers. If more than 32 channels are required, you can connect a second DAC3202 to provide up to 64 output channels. In addition, you can use one or more of the CP850 16 analog outputs combined with the DAC3202 outputs (up to the maximum of 64 output channels).

1.1 DAC3202 Front Panel

Figure 1-1 shows the DAC3202 front-panel components.

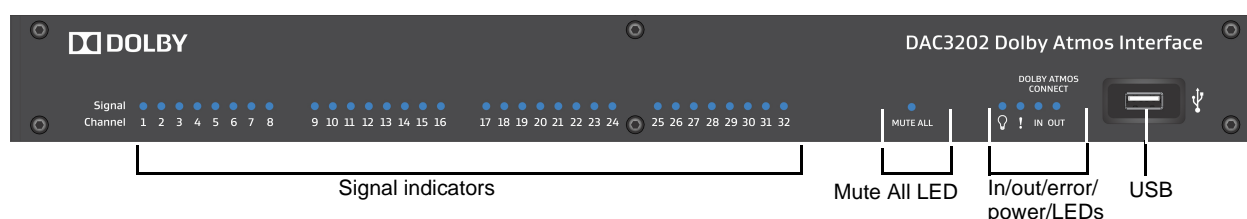


Figure 1-1 Dolby DAC3202 Front Panel

Following is a description of the DAC3202 front-panel components.

1.1.1 Signal Indicators

The **Signal** LEDs specify whether audio is present on the analog outputs of the various channels, as indicated by the number below the LEDs. These LEDs illuminate in blue if a signal is present.

1.1.2 Dolby Atmos Connect In LED

The **IN** LED indicates that the DAC3202 is connected to a CP850 (or upstream DAC3202) and is receiving Dolby Atmos Connect data. When connected properly, this LED illuminates in blue.

1.1.3 Dolby Atmos Connect Out LED

The **OUT** LED indicates that the DAC3202 is connected to another DAC3202 or a CP850 in loop-back mode. If the connection is valid, this LED illuminates in blue.

1.1.4 Power LED

This LED flashes in blue during the bootup process and illuminates in solid blue after the unit boots up.

1.1.5 Error LED

This LED illuminates in solid blue if the DAC3202 is set to an invalid state (for example, when using two DAC3202 units with the same channel configuration).

1.1.6 Mute All LED

This LED illuminates in blue during the bootup process and turns off after the unit completes the bootup process. It illuminates in blue if the DAC3202 is in a mute state.

1.1.7 USB Port

This port provides you with the capability of performing alternative maintenance procedures when you insert a USB drive, as described in [Alternative Maintenance Procedures](#).

1.2 DAC3202 Rear Panel

Figure 1-2 shows the DAC3202 rear-panel components.

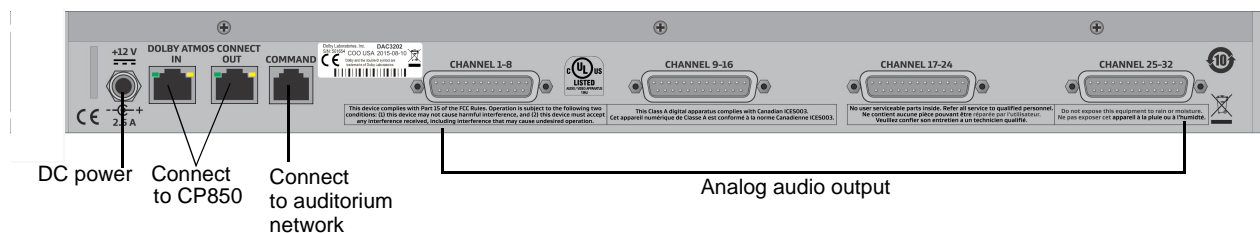


Figure 1-2 Dolby DAC3202 Rear Panel

Following is a description of the DAC3202 rear-panel components.

1.2.1 Power Port

Connect the provided power adapter to this port.

1.2.2 In/Out RJ45 Ports

Use these ports to connect to the CP850, as described in [Section 2.5](#).

1.2.3 Command Port

Use this port to connect to the auditorium network switch.

1.2.4 Analog Audio Output Connectors

The DAC3202 has four analog audio output connectors (**CHANNEL 1-8**, **CHANNEL 9-16**, **CHANNEL 17-24**, and **CHANNEL 25-32**) that conform to the TASCAM® pinouts shown in [Appendix A](#).

Installing the DAC3202

You can connect one or two Dolby Atmos® Interface DAC3202s to the CP850 and the auditorium amplifiers.

2.1 Connecting a Single DAC3202

To connect a single DAC3202 (to output up to 32 channels):

1. Rack mount the DAC3202 in a 1-U rackspace. The DAC3202 is eight inches deep, but it requires a rack with greater depth so that you can install the required cables.
2. Use a CAT5e (or greater) cable to connect the DAC3202 **COMMAND** port to the auditorium network switch.
3. Use a second CAT5e cable to connect the CP850 **DOLBY ATMOS CONNECT OUT** port to the **DOLBY ATMOS CONNECT IN** port on the DAC3202 rear panel.
4. Use a third CAT5e cable to connect the CP850 **DOLBY ATMOS CONNECT IN** port to the **DOLBY ATMOS CONNECT OUT** port on the DAC3202.

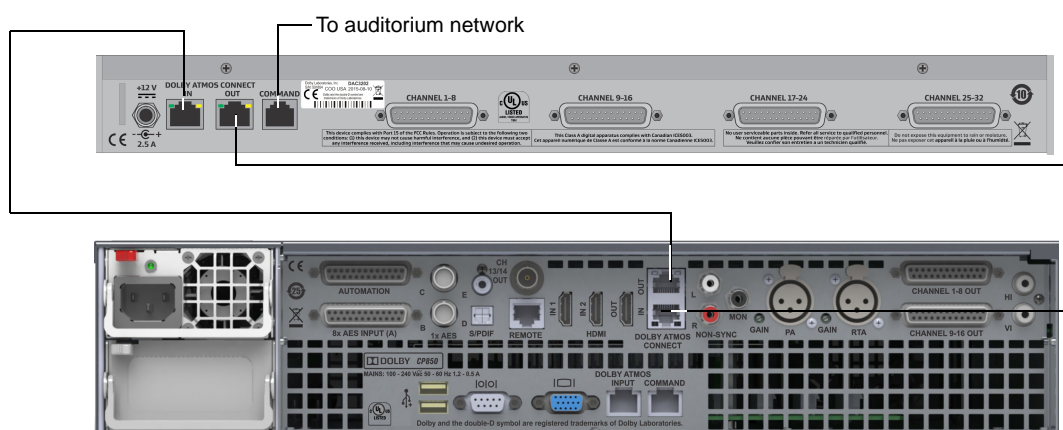


Figure 2-1 Connecting a Single DAC3202 to the CP850

5. Plug the unit into a power source, then connect your computer to the auditorium network switch.

Note: The DAC3202 automatically powers on when you connect the power cable, and boots up in less than two minutes. During start-up, the power LED (💡) on the DAC3202 front panel flashes on and off in blue and the **MUTE ALL** LED illuminates in solid blue. When the boot process is complete, the power LED illuminates in solid blue, the **MUTE ALL** LED turns off, and the **DOLBY ATMOS CONNECT** LEDs illuminate in blue.

6. Open your web browser, and enter the DAC3202 **COMMAND** port default IP address 192.168.1.5 to display the web client user-control screen. (Compatible browsers are Mozilla® Firefox®, Google™ Chrome™, Apple® Safari®, and Microsoft® Internet Explorer® v10.0 or later.)
7. Under the **command** section of the **network** tab, click **manual** for **IP configuration**. We recommend that you change the **IP address**, **netmask**, and **gateway** settings to work with your IP schema by clicking in the respective fields, making the required entries, and clicking **apply**. When prompted for credentials, the default password is *password*. If you are using the Dolby default IP scheme, we recommend that you change the third octet of the default IP address to match your auditorium number and the fourth octet to 141. For channels 1–32, this will be 192.168. x.141, where x = auditorium number.

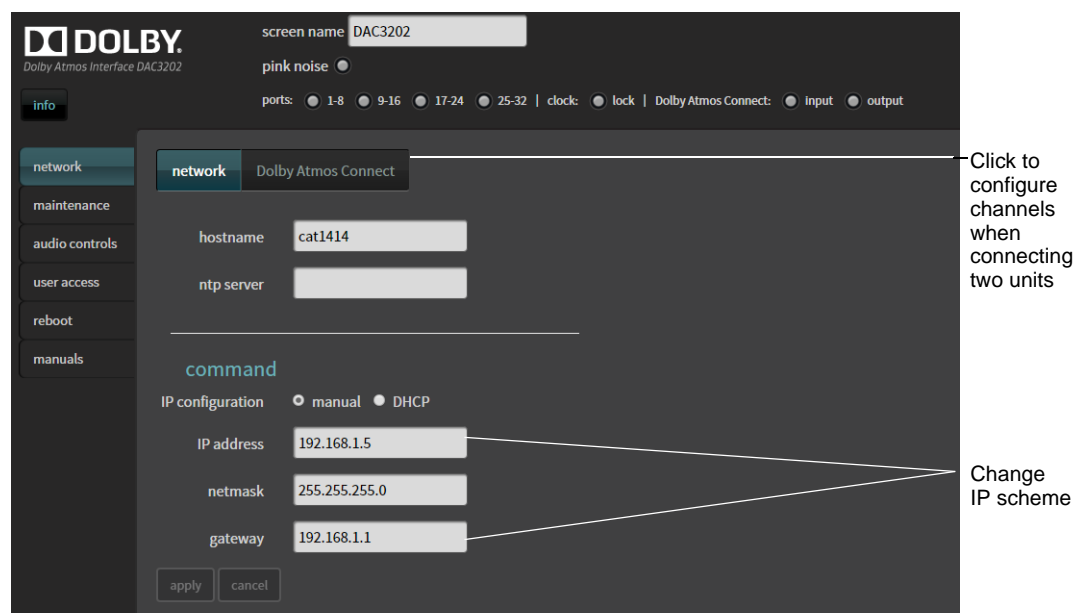


Figure 2-2 Network Setup

8. After connecting the DAC3202 to the CP850, use the four analog audio output connectors on the DAC3202 rear panel to connect to the auditorium amplifiers. These connectors conform to the TASCAM® pinouts listed in [Appendix A](#). If you are installing only one DAC3202, this completes your initial setup.

2.2 Connecting Two DAC3202s

To connect two DAC3202 units (to output up to 64 channels):

1. Connect the **COMMAND** port on each DAC3202 to the auditorium network switch.
2. Connect the CP850 **DOLBY ATMOS CONNECT OUT** port to the **DOLBY ATMOS CONNECT IN** port on the first DAC3202 rear panel.
3. Connect the **DOLBY ATMOS CONNECT OUT** port on the first DAC3202 to the **DOLBY ATMOS CONNECT IN** port on the second DAC3202.
4. Connect the CP850 **DOLBY ATMOS CONNECT IN** port to the **DOLBY ATMOS CONNECT OUT** port on the second DAC3202.
5. Follow steps 6 and 7 (on the previous page) for connecting a single DAC3202.
6. Plug only the second unit into a power source. If you are using the Dolby default IP scheme, we recommend that you change the fourth octet of the second unit to 142 which results in an IP address of 192.168. x.142 for channels 33–64, while the previously configured IP address for the first unit is 192.168. x.141 for channels 1–32 and x = auditorium number.
7. Click the **Dolby Atmos Connect** tab, and configure channels 33–64 for the second unit.

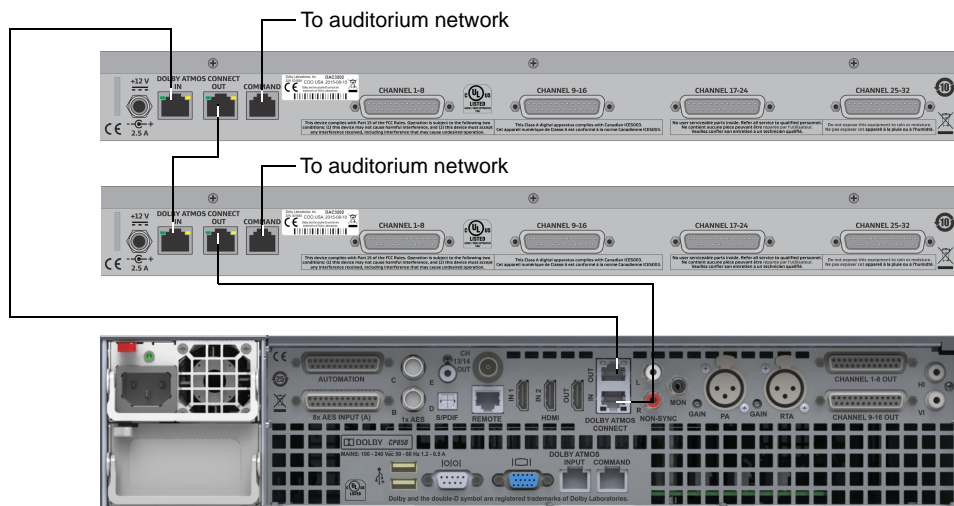


Figure 2-3 Connecting Two DAC3202s to the CP850

8. After connecting the DAC3202s to the CP850, use any (or all) analog audio output connectors on the DAC3202 rear panel to connect to the auditorium amplifiers, then power on both units.

The four analog audio output connectors conform to the TASCAM pinouts listed in [Appendix A](#).

Using the DAC3202

After installing one or two Dolby Atmos® Interface DAC3202s in your auditorium network, as described in [Chapter 2](#), you can configure and operate your system, as described on the following pages.

3.1 Connecting to the DAC3202

To connect to a DAC3202, open your web browser, and enter the DAC3202 **Command** port IP address to display the web client user-control screen. (Compatible browsers are Mozilla® Firefox®, Google™ Chrome™, Apple® Safari®, and Microsoft® Internet Explorer® v10.0 or later.)

The web-client user-control screen appears. The screen name (which is editable) and the audio and clock indicators appear at the top of the screen. The **clock:lock** LED illuminates in green when the DAC3202 locks to a valid AES67 audio clock signal from the CP850. The **ports** LEDs illuminate in green if the connections to the CP850 are correct, and the **Dolby Atmos Connect** parameters are properly configured (see [Section 3.2.1](#)). The web-client navigation bar appears on the left. This section of the web client appears in each DAC3202 screen.

The navigation bar at the left side of the screen shows that the **network** tab is active, as indicated by the green highlighting, and the network parameters appear in the center of the screen. In this screen, you can enter the host name and the Network Time Protocol (NTP) server settings. You can also configure the **COMMAND** port settings, as described in [Chapter 2](#). To reconfigure most of these settings, you need to enter your password at the prompt. (The default password is *password*.) After entering the desired settings, click the **apply** button.

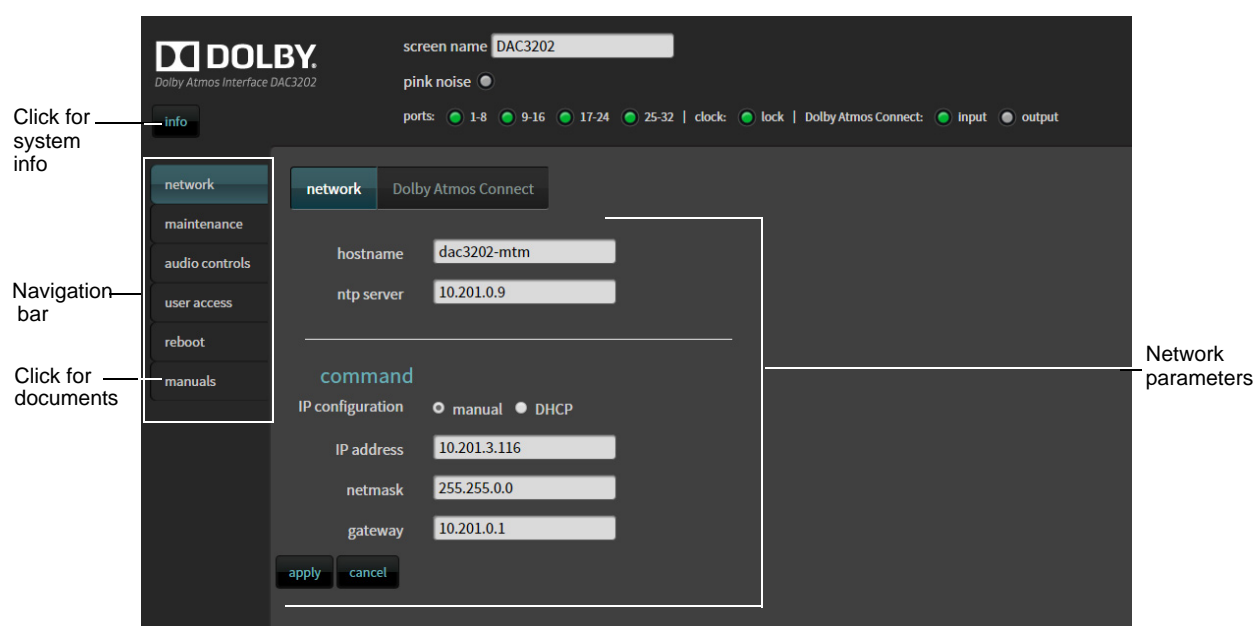


Figure 3-1 Web-Client User-Control Screen with Network Parameters

3.2 Navigation Bar

The DAC3202 navigation bar provides access to the DAC3202 **network**, **maintenance**, **audio controls**, and **user access** parameters. In addition, you can reboot the system and access user documentation from the navigation bar. Click the desired menu option to display the corresponding screen. To reconfigure most of these parameters and perform other functions, you need to enter your password at the prompt. (The default password is *password*.)

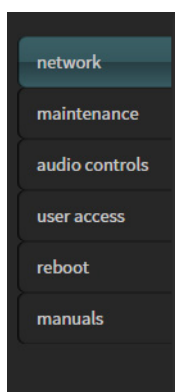


Figure 3-2 Navigation Bar

3.2.1 Dolby Atmos Connect Parameters

The Dolby Atmos connect parameters specify the input and output configuration for the corresponding ports. To configure these parameters, click **network** in the navigation bar, then click the **Dolby Atmos Connect** tab.

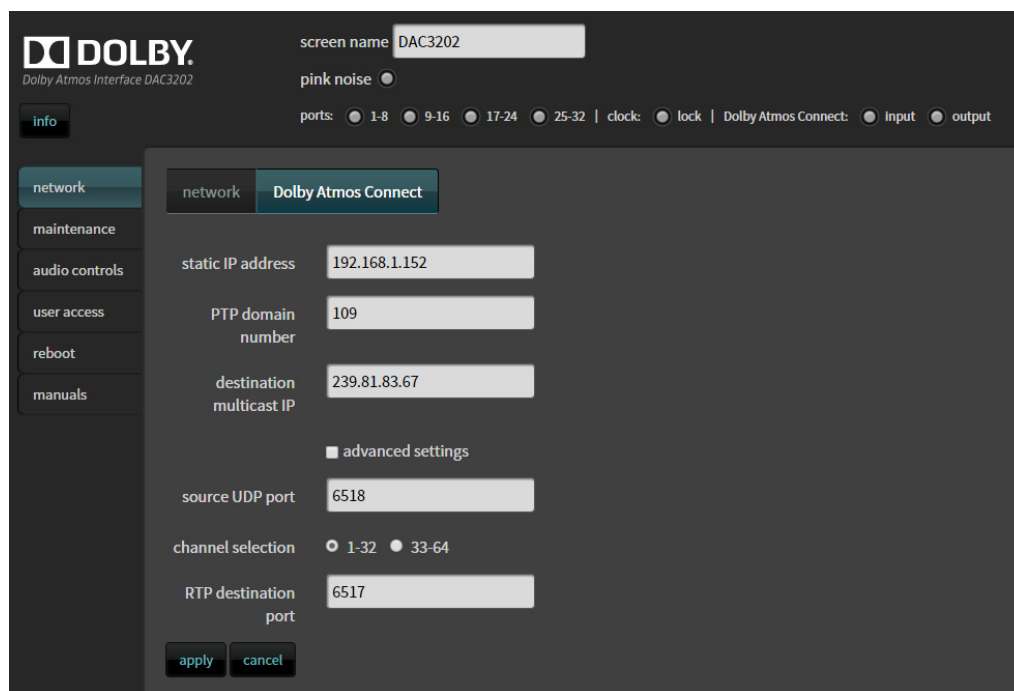


Figure 3-3 Dolby Atmos Connect Parameters

Following is a description of the Dolby Atmos connect parameters. To change any of these settings, enter the required parameter in the respective field (or click in the corresponding box) and click the **apply** button. To undo your changes, click the **cancel** button.

Static IP Address

In this field you can change the default Dolby Atmos connect static IP address.

PTP domain number

Precision Time Protocol (PTP) enables you to synchronize clocks throughout the network. A PTP domain is a collection of one or more PTP subdomains. The PTP domain number in this field must match the PTP domain number in the CP850.

Destination Multicast IP

The multicast IP address is a logical identifier for a group of network hosts, which can process datagrams or frames for group communication, where the system addresses information to a group of destination systems simultaneously. The multicast IP address in this field must match the multicast IP address in the CP850.

Source UDP Port

User Datagram Protocol (UDP) is an alternative communications protocol to Transmission Control Protocol (TCP). The system uses UDP to establish low-latency and loss tolerating connections between applications. Both UDP and TCP run on top of the Internet Protocol (IP) and are sometimes referred to as UDP/IP or TCP/IP. Both protocols send short packets of data, called datagrams.

UDP provides two services not provided by the IP layer. It provides port numbers to help distinguish different user requests and, optionally, a checksum capability to verify that the data arrived intact. The source UDP port number in this field must match the source UDP port in the CP850.

If you click in the **advanced settings** box, you can enter the desired UDP settings for each channel bank, as described next.

The screenshot displays the 'Dolby Atmos Connect' configuration page. At the top, there's a 'screen name' field with 'screen13-a' and a 'pink noise' toggle. Below this are port selection buttons (1-8, 9-16, 17-24, 25-32), a 'clock' status (lock), and 'Dolby Atmos Connect' status (input, output). The left sidebar contains navigation links: info, network (selected), maintenance, audio controls, user access, reboot, and manuals. The main content area shows the 'Dolby Atmos Connect' settings. Fields include 'static IP address' (192.168.1.152), 'PTP domain number' (109), and 'destination multicast IP' (239.81.83.67). An 'advanced settings' checkbox is checked, revealing a list of source UDP ports for different channel banks: 1-8 (6518), 9-16 (6519), 17-24 (6520), and 25-32 (6521). The 'RTP destination port' is set to 6517. 'apply' and 'cancel' buttons are at the bottom.

Figure 3-4 UDP Advanced Settings

You can apply different channels to the source UDP port. When the source UDP port number matches the source UDP port number in the CP850, Dolby Atmos connect channels 1–8 are applied to the port:

- When you increase this number by an integer, Dolby Atmos connect channels 9–16 are applied to this port.
- When you increase the number by two integers, Dolby Atmos connect channels 17–24 are applied to this port.
- When you increase this number by three integers, Dolby Atmos connect channels 25–32 are applied to this port.
- When you increase this number by four integers, Dolby Atmos connect channels 33–40 are applied to this port.
- When you increase this number by five integers, Dolby Atmos connect channels 41–48 are applied to this port.
- When you increase this number by six integers, Dolby Atmos connect channels 49–56 are applied to this port.
- When you increase this number by seven integers, Dolby Atmos connect channels 57–64 are applied to this port.

Channel Selection

If you are using two DAC3202s, you need to select 33-64 for this parameter on the second unit, as described in [Chapter 2](#).

RTP Destination Port

The system uses Real-time Transport Protocol (RTP) for transporting audio over IP. The RTP destination port number in this field must match the RTP destination port in the CP850.

3.2.2 Maintenance

To perform maintenance tasks, click **Maintenance** in the navigation bar.

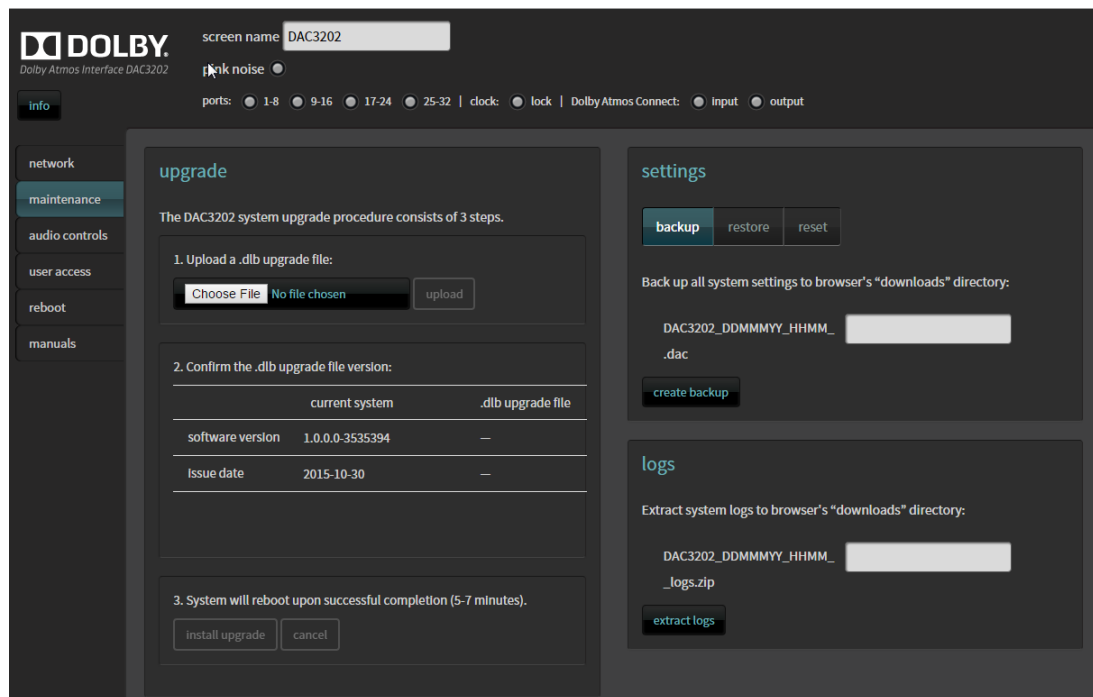


Figure 3-5 Maintenance Screen

Following is a description of all the maintenance tasks:

Upgrade

To upgrade your DAC3202 system software:

1. Obtain the .dlb upgrade file from Dolby Laboratories at <https://www.dolbycustomer.com>.
2. Copy the upgrade file to your local disk.
3. Click **Choose File** to browse to the upgrade file, then click the **upload** button.
4. Confirm the displayed upgrade file version, then click the **install upgrade** button.
If you need to cancel, click the **cancel** button.
5. Enter your password at the prompt (default password is *password*).
The system initiates the upgrade process, displays the progress, and reboots the CP850 when the upgrade is completed.

Settings

To back up your system settings:

1. Click the **backup** button and enter a name for your .dac restore file.
2. Click the **create backup** button to save the .dac restore file in your browser downloads directory on your PC.

To restore your system settings:

1. Click the **restore** button, then click **Choose File** to select a .dac restore file. You can select from two restore options: restore all of your system settings (except network tab settings) or restore all settings including network tab settings.
If you need to cancel, click the **cancel** button.
2. Click the **upload and restore** button to run the restoration process.

To reset your system settings:

1. Click the **reset** button.
You can reset your system to the factory defaults (except for network tab settings). If you need to cancel, click the **cancel** button.
2. Click the second **reset** button at the lower-left side of the settings pane to run the reset operation.

Logs

To download system logs, enter a name for your logs .zip file, then click the **extract logs** button to save a .zip file containing your logs in your browser downloads directory on your PC.

Alternative Maintenance Procedures

A dedicated DAC3202 maintenance application, separate from the web client user interface is provided for cases where there may be system issues. In such a case, you can use a USB drive to upgrade the system, back up and restore settings, and extract logs.

Alternative USB Upgrade Procedure

To perform this operation:

1. Obtain a .dlb upgrade file of a different version than the currently installed version from Dolby Laboratories at <https://www.dolbycustomer.com>, and copy it to the root (top) level of a USB drive. Supported file systems are vFAT, FAT32, FAT16, and NTFS.
2. Insert the USB drive into the DAC3202 USB port, then reboot the unit.

The system mounts the drive and checks for the presence of the .dlb file. If a .dlb file is present, the version number of the .dlb file is compared against the currently installed version. If the currently installed version is older, the system starts the upgrade. After the upgrade is complete, the system automatically reboots.

If you insert a USB drive after the boot process begins, no upgrade is performed. The USB-based upgrade is performed only when the drive is inserted prior to booting up.

If the upgrade fails, the system performs the backup/restore/logs extract process, as described in the next section, and then unmounts drive.

Alternative USB Backup, Restore, and Extract Logs Procedure

When you insert a USB drive that does not contain an upgrade file, you can perform the following tasks:

- Download a backup of the system settings to a `dac3202_backup.dac` file on the USB drive.
- Extract a copy of the system logs to the USB drive.
- Restore system settings to factory defaults if you save a text file with the name `dac3202_restore_defaults`, remove the `.txt` extension, and include the file on the USB drive.
- Restore system settings from a `dac3202_backup.dac` file if you change the name of that file to `dac3202_restore.dac` and include it on the USB drive.

To perform the above tasks, insert a USB drive into the DAC3202 USB port. The system mounts the drive and performs the following operations.

- Backs up the current settings on the USB drive. The settings file is named `dac3202_backup<N>.dac`, where N is a sequence number. The sequence number is determined as the system scans the drive to detect any previously created backup files. If none are found, the system creates `dac3202_backup0.dac`. If previous backups are found, the system uses the next number in the sequence.
- Extracts logs to a `.zip` file using the same sequence scheme as for backing up settings: `dac3202_logs0.zip`, `dac3202_logs1.zip`, and so on.
- Checks the USB drive for a file named `dac3202_restore_defaults`. If the system finds this file, the system settings are restored to the factory defaults. .
- If no `dac3202_restore_defaults` text file was found, the system checks the USB drive for a `dac3202_restore.dac` file. If such a file is found, the system restores your backup settings from the `.dac` file.

After the system restores any settings, the main DAC3202 application rereads the settings and applies them. In addition, the system saves a `dac3202_restore_complete.dac` file on the USB drive to confirm the restoration, and deletes the other restore files from the USB drive to avoid repeating the restore operation.

Finally, the system unmounts the USB drive.

3.2.3 Audio Controls

To control audio, click **audio controls** in the navigation bar. In this screen, you can generate pink noise and change the audio delay.

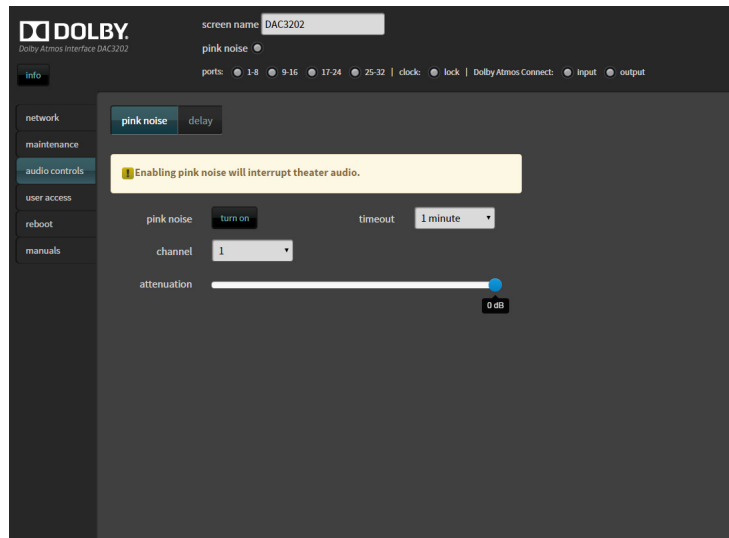


Figure 3-6 Audio Controls Screen

To turn on pink noise, click the **pink noise** tab, then select the desired channel and pink noise time-out interval, and use the slider to specify the attenuation. Then click the **turn on** button to generate pink noise. When the attenuation slider is set to 0 dB, the DAC3202 pink noise output voltage is 245 mV_{RMS}. The pink noise indicator at the top of the screen illuminates in green for the specified interval. To disable pink noise, click **turn off now** at the top of the screen.

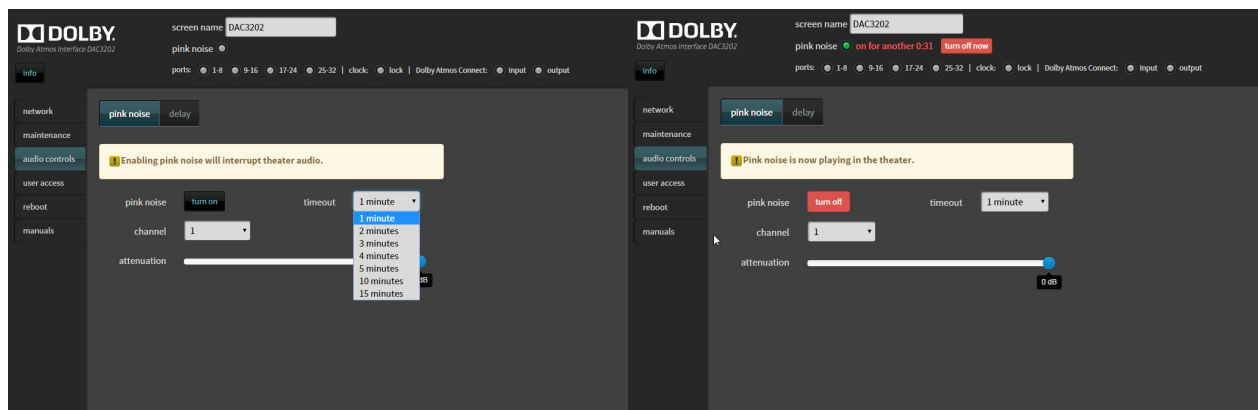


Figure 3-7 Turn On Pink Noise

To adjust audio delay, click the **delay** button and use the slider to specify the global audio delay for up to 336 samples (7 milliseconds), then click **apply**.

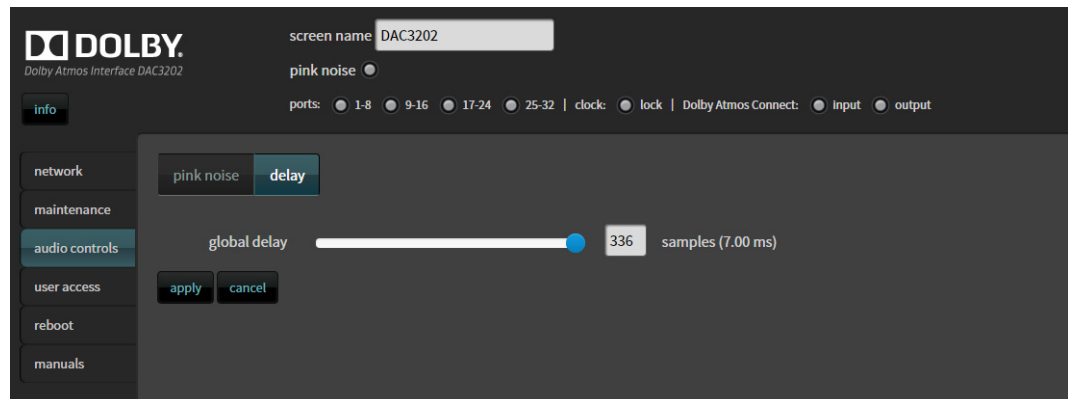


Figure 3-8 Adjust Audio Delay

3.2.4 User Access

To configure user access, click **user access** in the navigation bar. To change the password, enter the new password in the corresponding field, enter it again in the **confirm password** field, then click **change password**.

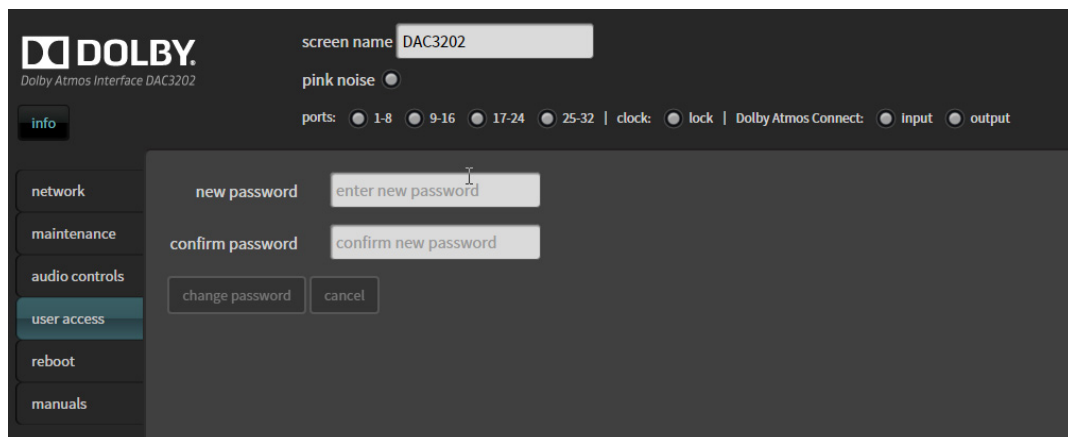


Figure 3-9 User Access Screen

3.2.5 Reboot

To reboot the DAC3202, click **reboot** in the navigation bar, enter your password at the prompt (or to cancel, click the **cancel** button) and then click the **reboot** button.

3.2.6 Manuals

To access DAC3202 user documentation, click **manuals** in the navigation bar.

Pinout Information

A.1 DAC3202 Analog Output Connectors

The Dolby Atmos® Interface DAC3202 has four analog audio output connectors (**CHANNEL 1-8**, **CHANNEL 9-16**, **CHANNEL 17-24**, and **CHANNEL 25-32**). The pinout conforms to the TASCAM® standard.

Table A-1 DAC3202 Analog Output Connectors

Pin	Description
1	Channel 8 +
2	Ground
3	Channel 7 –
4	Channel 6 +
5	Ground
6	Channel 5 –
7	Channel 4 +
8	Ground
9	Channel 3 –
10	Channel 2 +
11	Ground
12	Channel 1 –
13	N/C
14	Channel 8 –
15	Channel 7 +
16	Ground
17	Channel 6 –
18	Channel 5 +
19	Ground
20	Channel 4 –
21	Channel 3 +
22	Ground
23	Channel 2 –
24	Channel 1 +
25	Ground