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Z5570/71.05x **Manual 1.1 en**



General information

Z5570/71.05x Manual

Version: 1.1 en, 04/2018, D2058.EN .01

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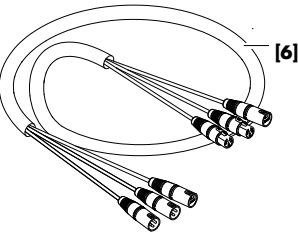
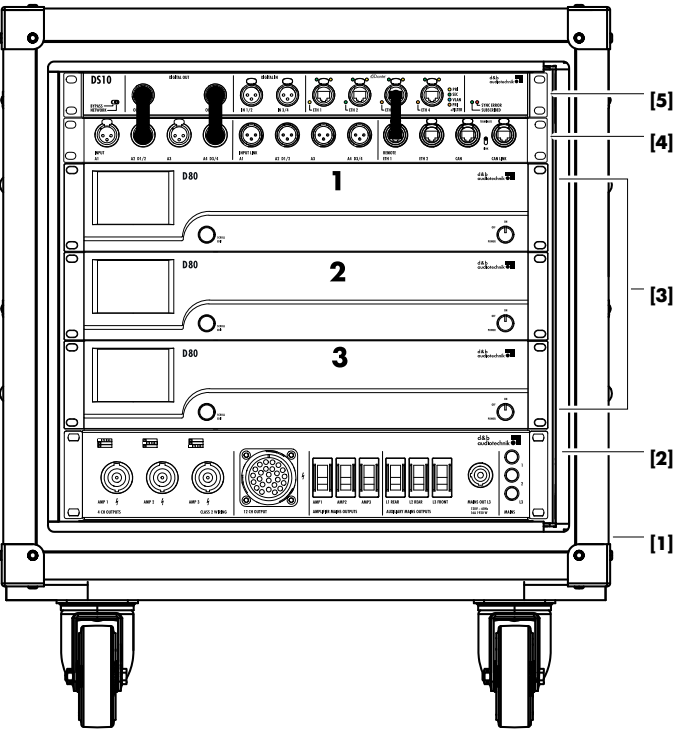
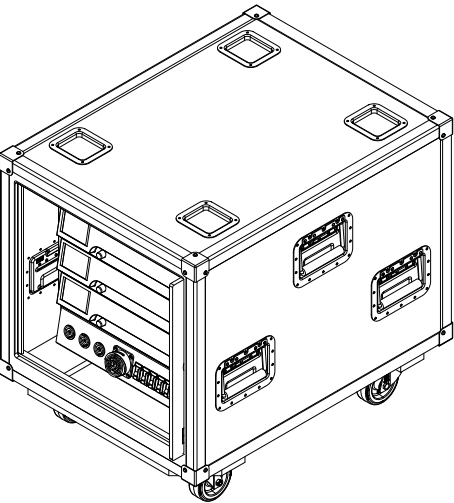
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1 D80 Touring Rack Assembly 10 RU NEMA



1.1 Intended use

The Z5570/71.05x D80 Touring Rack Assembly NEMA is designed as a closed system rack providing mains power distribution and connector interfaces for 3 x D80 amplifiers. For this purpose, the Touring Rack is equipped with a mains power distribution device (Z5566.001), which also serves as a loudspeaker connector panel.

Also incorporated is an I/O panel (Z5338), which serves as a connector interface for both analog and digital audio signals as well as four network connectors for either Ethernet or CAN-Bus remote capabilities.

Optionally, a d&b DS10 Audio Network Bridge (Z4010) is included to allow direct connection to the Dante audio network.

1.2 Scope of supply

Before starting up, please verify the shipment for completeness and proper condition of the items.

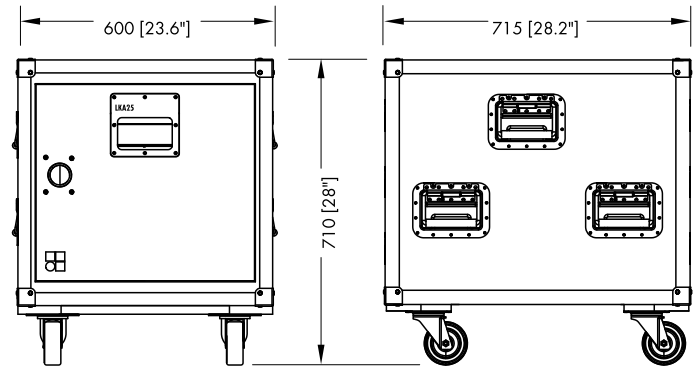
If there is any sign of obvious damage, do not operate the Rack Assembly and contact your local dealer from whom you received it.

Note: Depending on the ordered rack assembly variant, the Rack Assembly comprises the following components:

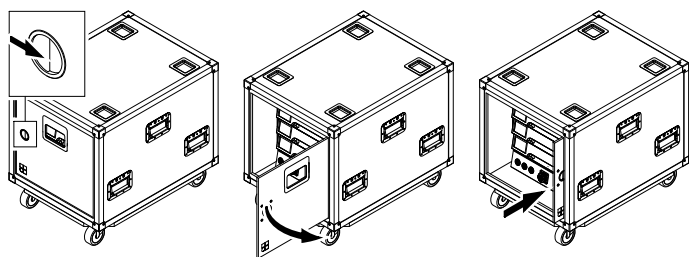
Pos.	Qty.	d&b Code	Description
[1]	1	Z5570/71.00x .050	Touring Rack Assembly 10 RU (NEMA) - with shock mounted 19" frame.
Including:			
[2]	1	Z5566.001	Mains power distribution and LS Connector panel (NEMA).
[3]	3	Z2710	D80 Amplifier. (To be ordered separately.)
[4]	1	Z5338	I/O Panel.
[5]	1	Z4010	DS10 Audio Network Bridge. If the rack assembly is ordered without a DS10, a 1 RU rack drawer is included instead.
[6]	1	Z5333.001	Rack link cable.
		D2058.EN .01	Z5570/71.05x Manual.

Dimensions and weight

Height x width x depth 710 x 600 x 715 mm
..... 28 x 23.6 x 28.2"
Net weight (without D80) 72 kg / 156.5 lb
Total weight (with D80) 128 kg / 282.2 lb



2 Handling, cooling and placement



2.1 Handling

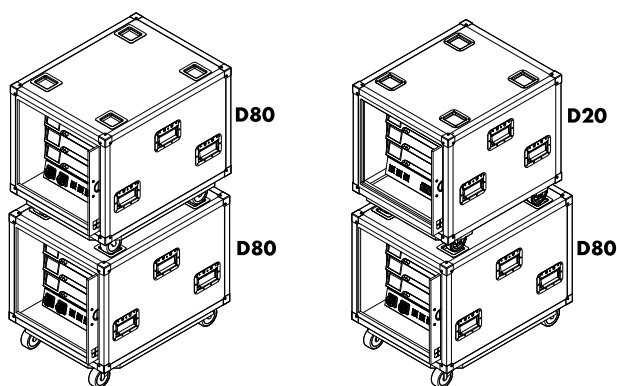
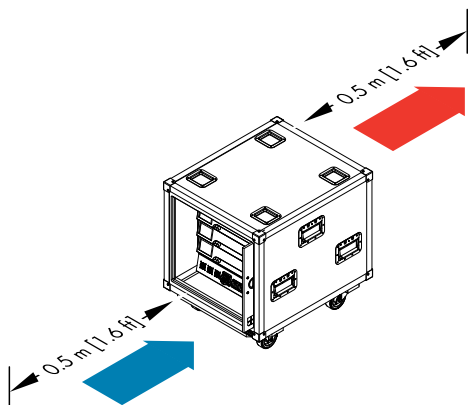
The Touring Rack is equipped with two sliding doors allowing quick and easy access to the front and rear panels of the devices.

1. Unlock the door lock mechanism.
2. Open the door and ...
3. push the door into its park position.

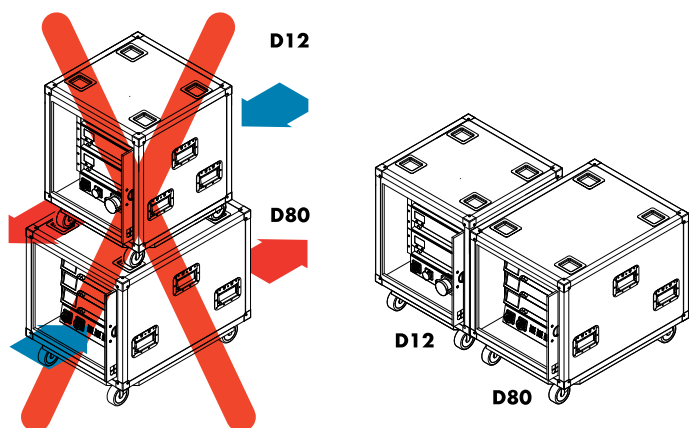
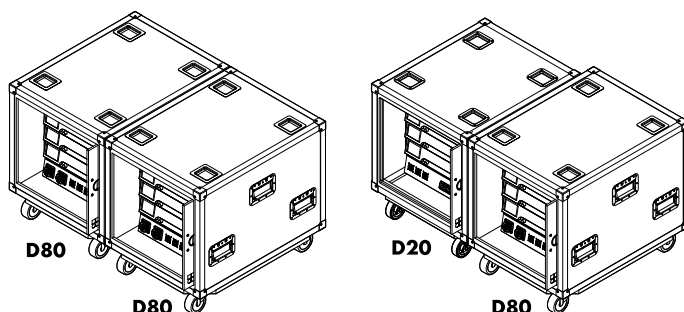
2.2 Cooling and placement

When using touring rack assemblies such as the d&b Z5570/71.00x D80 Touring Rack Assembly or any other touring rack containing D80 amplifiers, make sure to provide sufficient space of 0.5 m (1.6 ft) at the front and rear of the touring rack to ensure adequate cooling airflow.

Make sure both the front and rear doors are opened and pushed into their park positions to provide sufficient cooling.



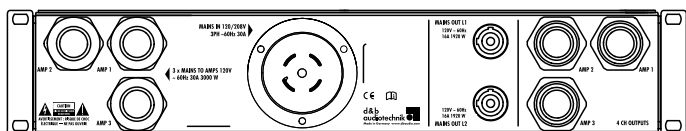
D80 Touring Rack Assemblies as well as D80 and D20 Touring Racks can be stacked or positioned side by side.



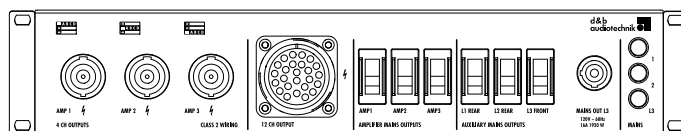
When combining D80 Touring Rack Assemblies with Z3010 D12 Touring Rack Assemblies or any other rack assemblies that produce an opposing airflow, observe the following restrictions:

- Do **not stack** D12 Touring Racks or any other rack assemblies with opposing airflow on top of the D80 Touring Rack.
- D80 and the D12 Touring Rack Assemblies can be positioned side by side.

3 Z5566.001 Mains Power Distributor and LS Panel - NEMA



Z5566.001 Rear panel



Z5566.001 Front panel

3.1 Intended use

The Z5566.000 Mains Power Distributor is designed and dimensioned to provide and distribute the mains power supply necessary for three D80 amplifiers. It also serves as a loudspeaker connection panel for different connection options.

It is a 2 RU, protective class 1 unit with IP class 20 (NOT rain-, drip-, or splash-proof!).

The Z5566.000 Mains Power Distributor must not be used for any other purpose or outside the system rack.

3.2 Rear panel

3.2.1 MAINS IN



WARNING!

Potential risk of electric shock.

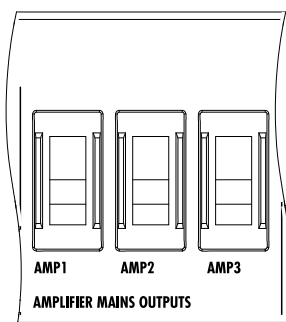
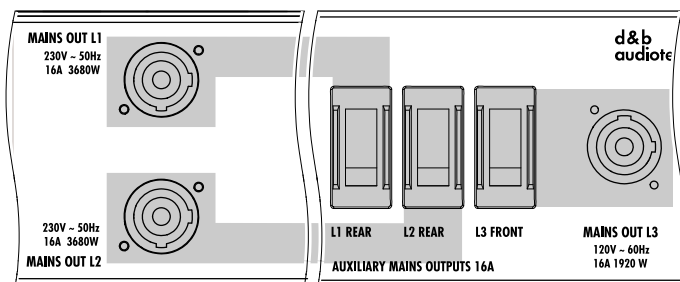
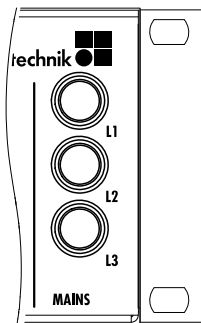
The Mains Power Distributor is a protective class 1 unit. A missing earth (ground) contact may cause dangerous voltages in the housing and controls and may lead to electric shock.

- Connect the unit to mains power supplies with protective earth only.
- If there is any sign of obvious damage to the power cord and/or NEMA mains connector socket, do not use the unit and replace it before further use.
- Do not connect or disconnect the NEMA mains connector under load or live.
- Please ensure the NEMA mains connector is properly connected and locked.
- Please ensure the mains connector is accessible at any time to disconnect the rack assembly in case of malfunction or danger.

The Z5566.001 Mains Power Distributor is supplied with a NEMA 30 A 3ØY 120/208 VAC male connector socket that accepts a corresponding NEMA female connector.

Required mains supply network configuration

30 A 3ØY 120/208 VAC ~60 Hz.



3.3 Front panel

3.3.1 MAINS

When the Rack is connected to the onsite mains power supply, the three mains indicators display the presence of the onsite mains supply lines (phase conductor L1-L2-L3).

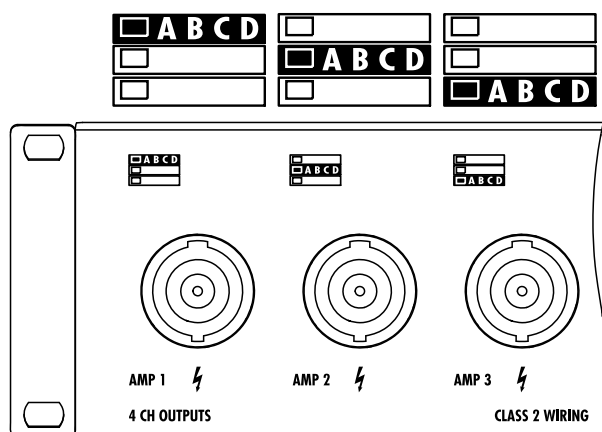
3.3.2 AUXILIARY MAINS OUTPUTS 16A

Three auxiliary mains outputs (powerCON sockets) are provided. One socket is mounted on the front and two sockets on the rear panel. They are intended for the connection of low current devices such as notebooks or additional Ethernet switches.

The sockets are equipped with dedicated circuit-breakers (16 A / C-type). Please refer to the assignment as shown in the graphic opposite.

3.3.3 AMPLIFIER MAINS OUTPUTS

For each amplifier mains power line, a dedicated circuit breaker (30 A / B-Frame type) is provided.



3.3.4 4 CH OUTPUTS - NL8

NOTICE!

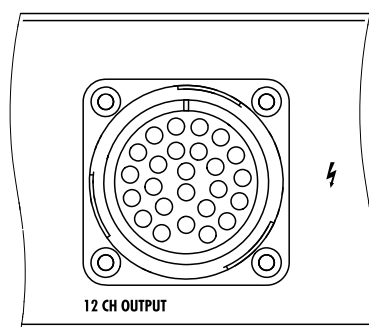
The 4 CHANNEL OUTPUT connector is only intended as an interface to a rack panel or to loudspeaker multicores and breakout adapters.

Do not connect any loudspeaker cabinets, neither passive nor active systems, to this connector, otherwise there is a risk of damaging the loudspeaker components or the amplifier.

Each of the 4 CH OUTPUTS connectors represents the 4 CHANNEL OUTPUT of the respective D80 amplifier. Each connector carries the output signals of all four channels of the amplifier with the following pin assignment.

1+/- = Channel A pos. / neg.	2+/- = Channel B pos. / neg.
3+/- = Channel C pos. / neg.	4+/- = Channel D pos. / neg.

Please refer to the corresponding channel assignment label above each connector as shown in the graphic opposite.






3.3.5 12 CH OUTPUT

One 12 CH OUTPUT multipin connector (LKA25) is provided to allow efficient system wiring using the d&b MC24 multicore system (Z5328.xxx MC24 LKA25 F/M Multicore, Z5325.000 Break-out adapter LKA25M to 6 x NLT4M, Z5327.000 Break-out adapter LKA25M to 12 x NLT4M and Z5326.000 Break-in adapter 3 x NLT8F to LKA25F).

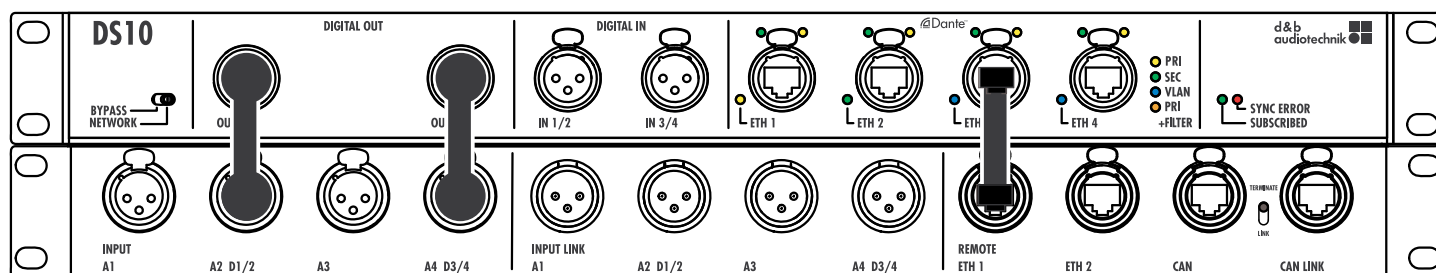
The d&b MC24 Multicore System combines a 12 amplification channels cable (24 lines 4 mm²) with an LKA25 F/M connector.

For this reason, the connector carries the output signal of twelve (12) amplifier channels.

Pin equivalents of the LKA25 connectors and the corresponding 4 CHANNEL OUTPUT (NL8) connectors of the respective amplifier are listed in the following table:

12 CH OUTPUT AMP 1/2/3								
LKA25	NL8	Amplifier	LKA25	NL8	Amplifier	LKA25	NL8	Amplifier
A	1+	AMP 1 	I	1+	AMP 2 	Q	1+	AMP 3 
B	1-		J	1-		R	1-	
C	2+		K	2+		T	2+	
D	2-		L	2-		U	2-	
E	3+		M	3+		V	3+	
F	3-		N	3-		W	3-	
G	4+		O	4+		X	4+	
H	4-		P	4-		Y	4-	

4 DS10 and I/O panel



4.1 DS10 configurations

The DS10 in combination with the I/O panel is supplied in a prewired configuration.

The digital outputs (OUT 1/2 and OUT 3/4) are linked to the corresponding input sockets (A2 D1/2 and A4 D3/4) of the I/O panel to feed the digital audio signals to the amplifiers.

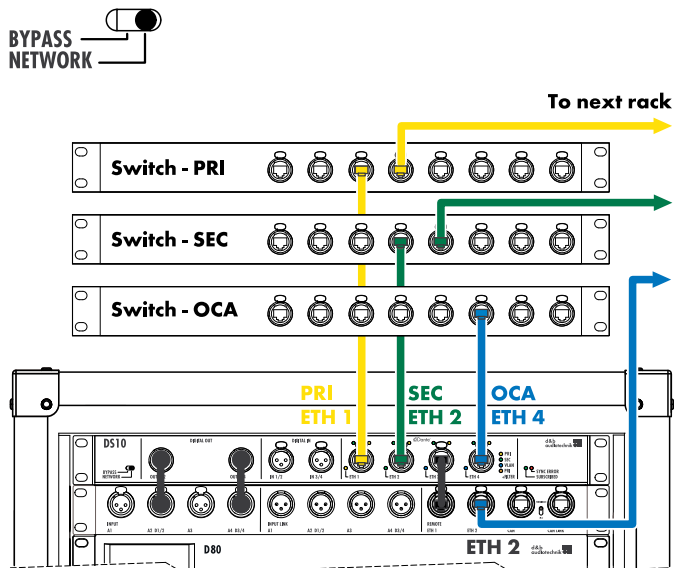
In addition, the ETH 3 connector of the DS10 is linked to the ETH 1 connector of the I/O panel to provide access to the amplifiers.

The DS10 in combination with the I/O panel allows various configurations. Two recommended configurations are detailed below.

Note: For detailed information on how to configure the DS10, please refer to the DS10 manual, which can be downloaded from the d&b product page at www.dbaudio.com.

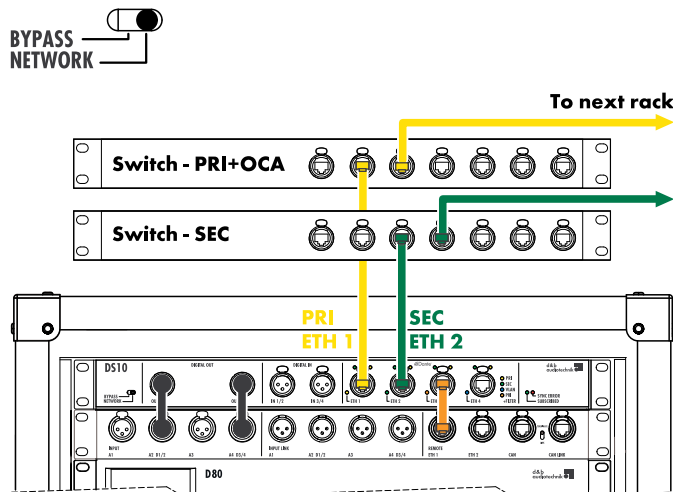
Ensure the BYPASS/NETWORK switch of the DS10 is set to NETWORK.

PRI + OCA on separate LANs DS10 mode*: Redundant + VLAN

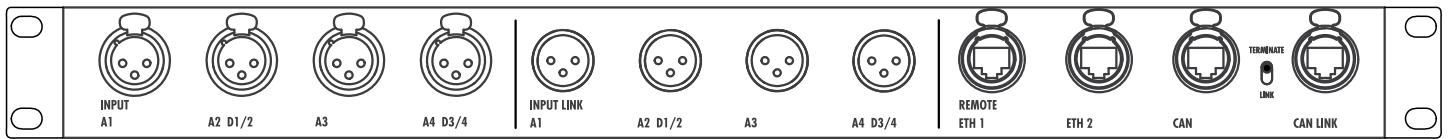


* DS10 factory default configuration

PRI + OCA on the same LAN DS10 mode: Redundant + Multicast Filter



4.2 I/O panel



For systems not using Dante audio, inputs and input links can be directly connected to the I/O panel

4.2.1 INPUT section

The INPUT section represents the input connectors of the first amplifier while the other amplifiers are linked within the rack. The INPUT section allows both analog and digital audio signals to be fed to the amplifier.

4.2.2 INPUT LINK section

The INPUT LINK section represents the link output connectors of the last amplifier and allows the linking of further system racks using the enclosed rack link cable (Z5333 Rack link).

4.2.3 REMOTE section

The REMOTE section allows the daisy chaining of rack assemblies within a remote network using the enclosed rack link cable (Z5333 Rack Link).

For detailed specifications, please refer to the following sections:

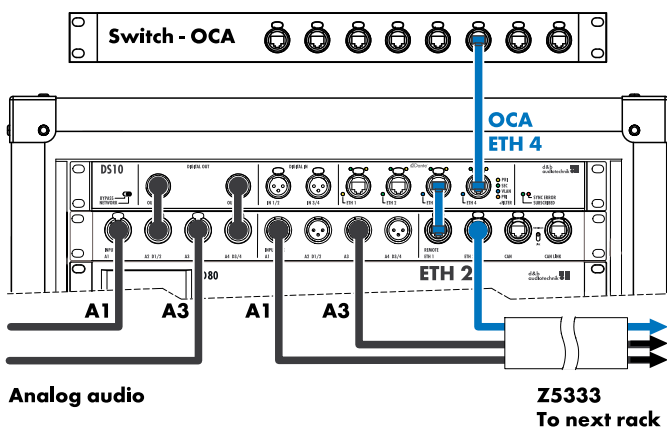
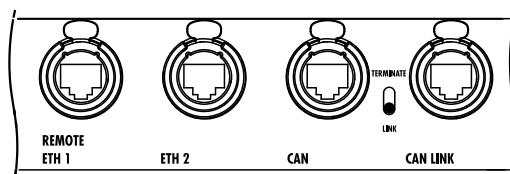
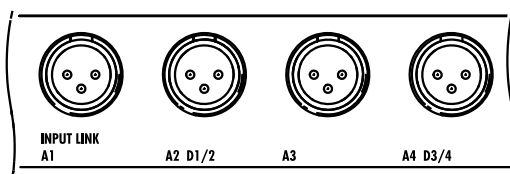
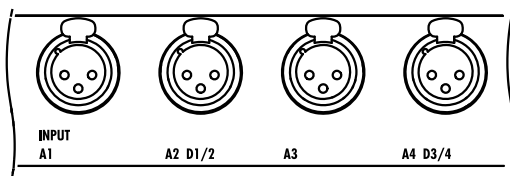
- ⇒ Ethernet network
- ⇒ CAN-Bus network

Ethernet network

For remote purposes via Ethernet/OCA, it is strongly recommended to use the prewired configuration in combination with the DS10 when linking entire rack assemblies, as shown in the graphic opposite.

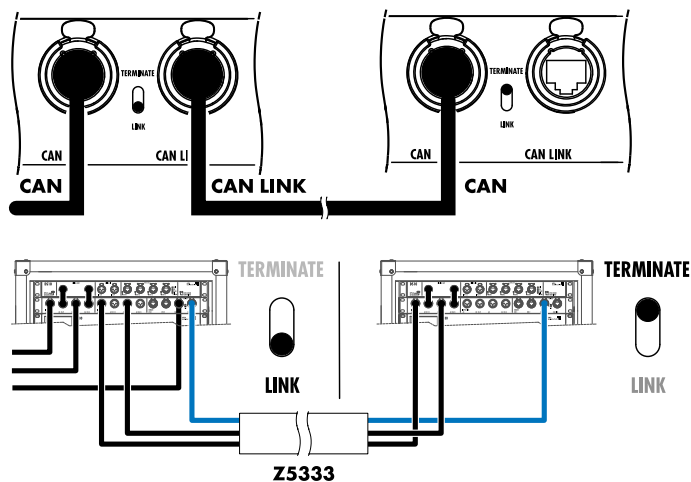
It is recommended to link a maximum of up to 6 rack assemblies in this way.

Do not link/daisy chain entire rack assemblies using the ETH 1/ETH 2 connector sockets of the I/O panel.

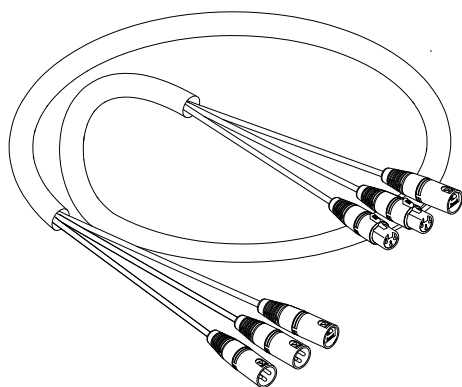


I/O panel, rack link example:
 2ch Analog audio and Ethernet/OCA
DS10 mode: Redundant + VLAN

CAN-Bus



I/O panel, rack link example:
2ch Analog audio and CAN



CAN-Bus network

CAN

Represents the CAN input of the first amplifier while the other amplifiers are linked within the rack.

CAN LINK

Represents the CAN output of the last amplifier.

TERMINATE/ LINK

The built-in termination switch allows two settings:

1. **LINK:** In system racks, at the start of and within a CAN-Bus segment, set the switch to LINK.
2. **TERMINATE:** On the last system rack of a CAN-Bus segment, set the switch to TERMINATE

Note: A detailed description of remote control via the d&b Remote network (CAN-Bus) is given in the technical information TI 312 (d&b code D5312.EN) which can be downloaded from the d&b website at www.dbaudio.com.

4.3 Z5333 Rack Link

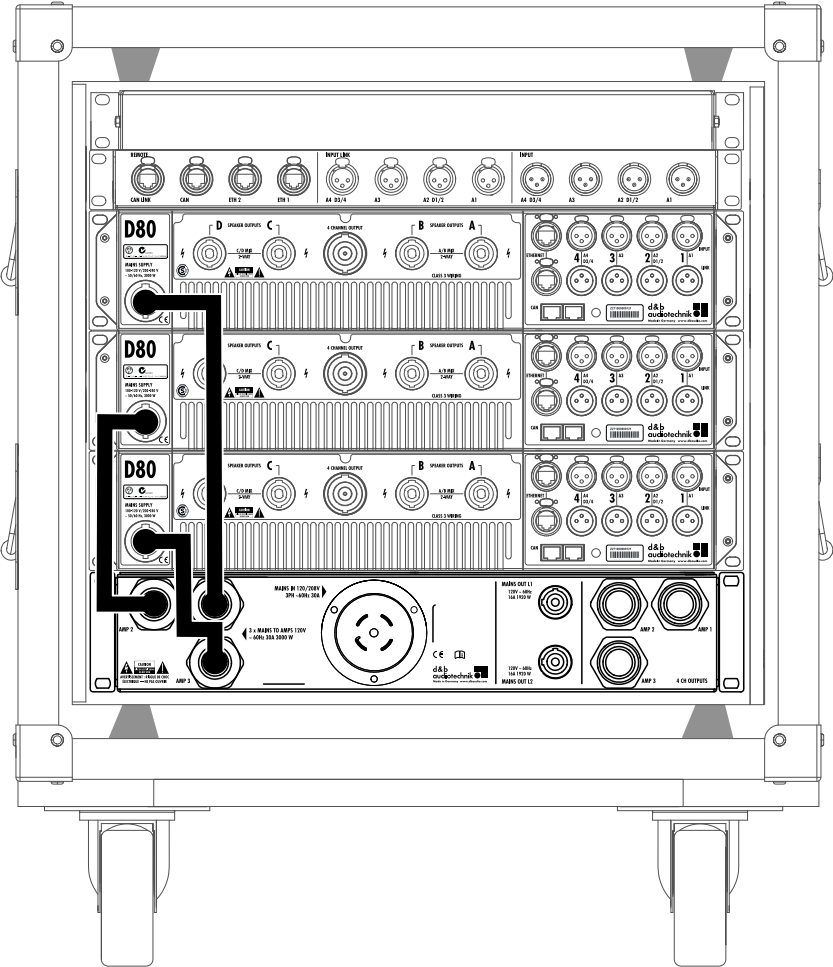
The rack link cable allows multiple system racks to be linked together.

It is suitable for both analog and digital audio signals as well as for network wiring (Ethernet or CAN-Bus networks).

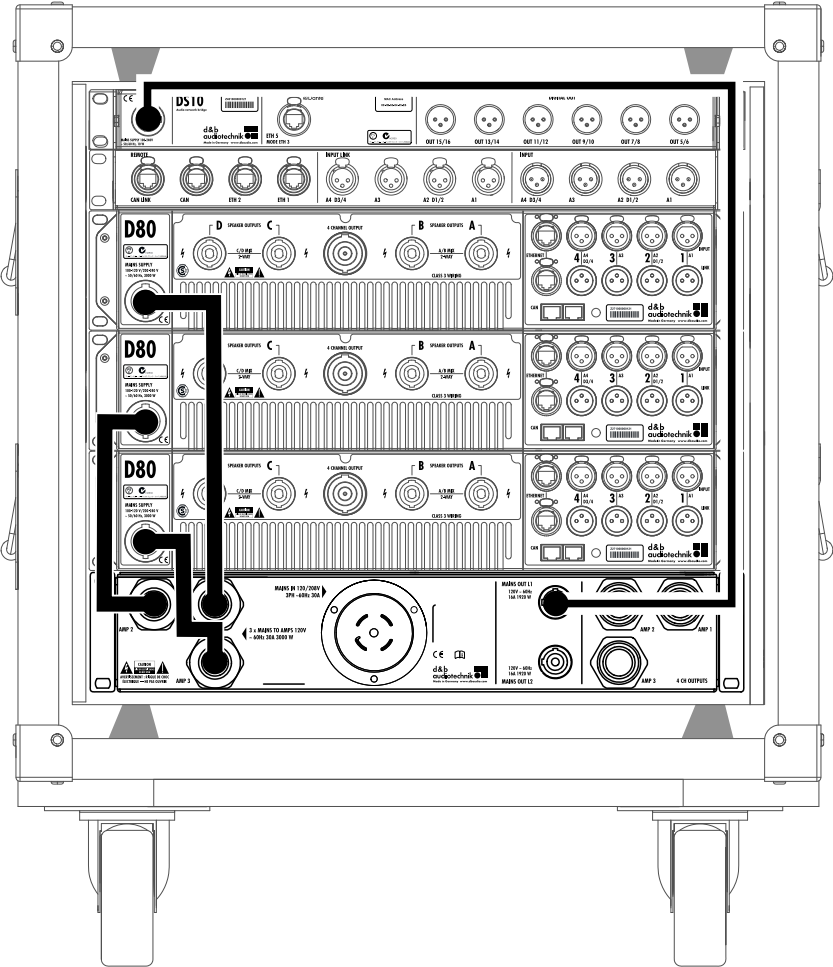
Technical specifications

Audio connector	2 x XLR female to 2 x XLR male
.....	with color markup
Audio signal capability	Analog
.....	Digital AES3
Network connector	etherCON
Network cable	CAT 5E STP
Length	2 m / 6.5 ft

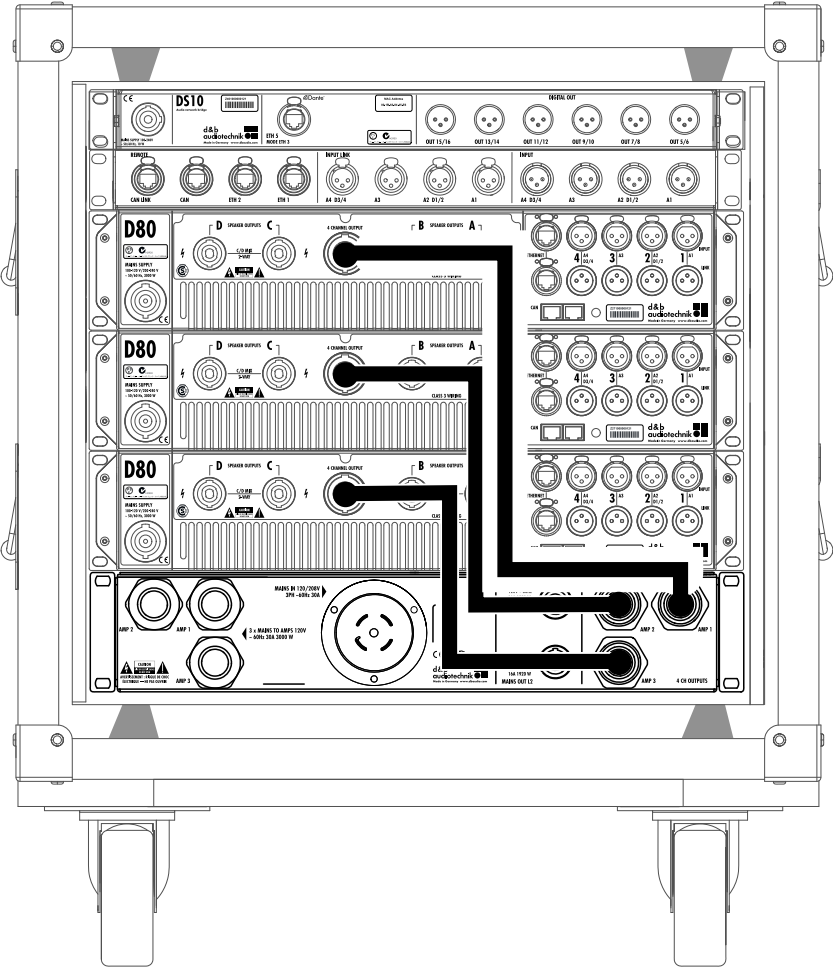
Mains power connection and internal mains supply distribution - standard



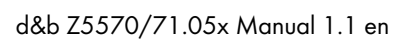
Mains power connection and internal mains supply distribution - DS10



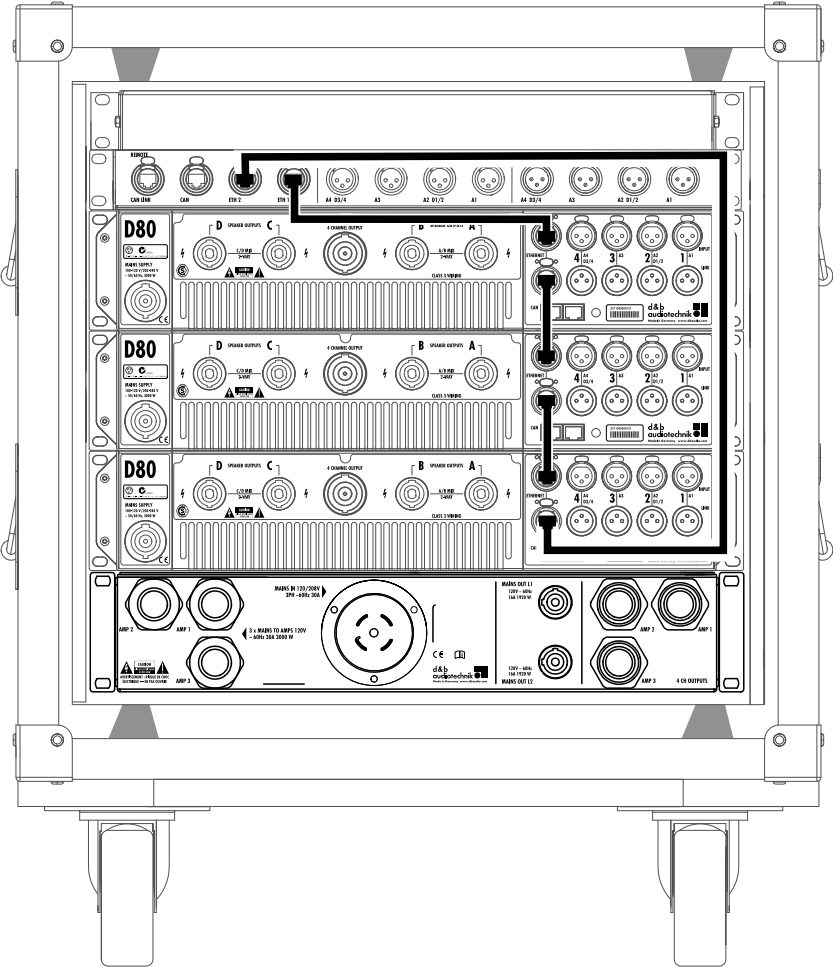
Internal 4 CHANNEL OUTPUT wiring



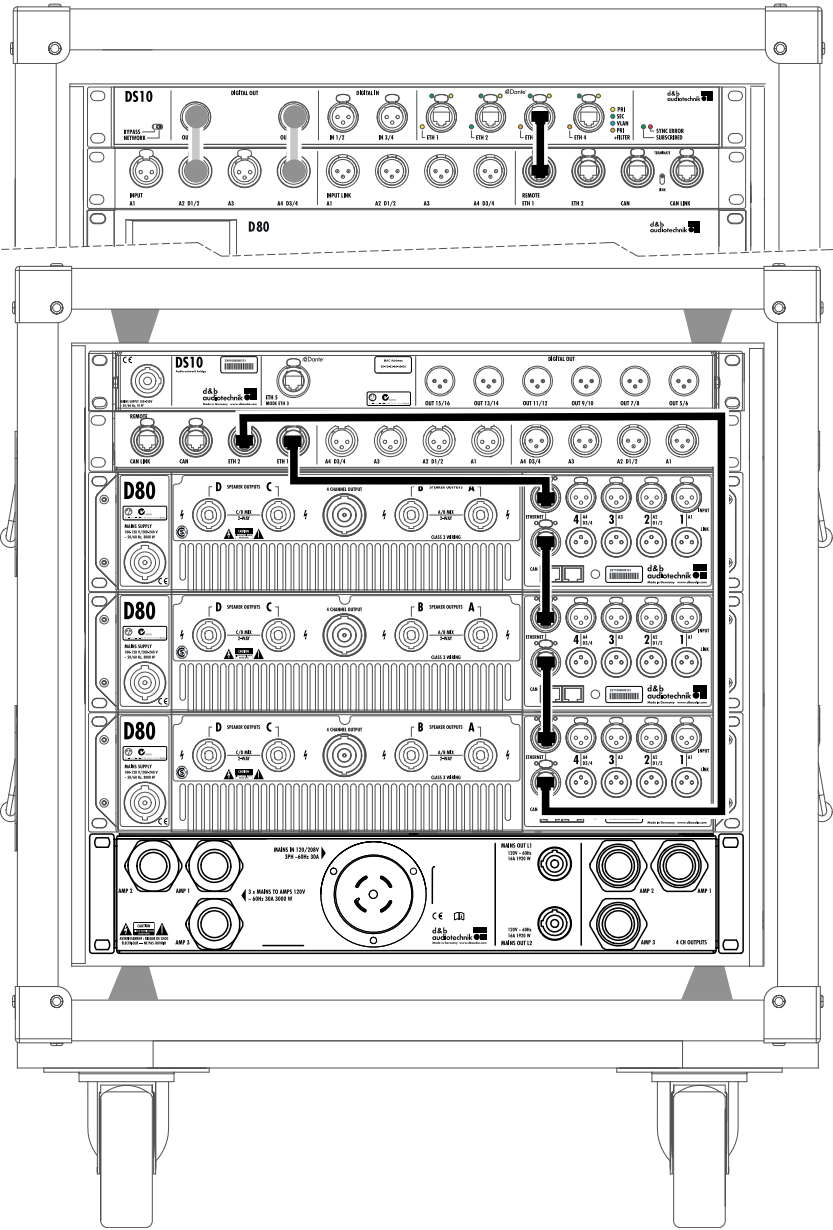
16



Internal ETHERNET wiring - standard



Internal ETHERNET wiring - DS10



Internal CAN-Bus wiring

