General information

Z5330.001 Manual

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Keep this manual with the product or in a safe place so that it is available for future reference.

When reselling this product, hand over this manual to the new owner.

If you supply d&b products, please draw the attention of your customers to this manual. Enclose the relevant manuals with the systems. If you require additional manuals for this purpose, you can order them from d&b.

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1.1. Intended use

The Z5330.001 D80 Touring rack assembly 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 (X5335), 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 network connectors for either Ethernet or CAN-Bus remote capabilities.

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 the rack assembly.

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Qty.</th>
<th>d&amp;b Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1]</td>
<td>1</td>
<td>Z5330.001</td>
<td>Touring rack assembly 10 RU (CEE) - with shock mounted 19&quot; frame.</td>
</tr>
</tbody>
</table>

Including:

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Qty.</th>
<th>d&amp;b Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[3]</td>
<td>3</td>
<td>Z2710</td>
<td>D80 Amplifier. (To be ordered separately.)</td>
</tr>
<tr>
<td>[5]</td>
<td>1</td>
<td></td>
<td>Rack drawer 1 RU.</td>
</tr>
<tr>
<td>[6]</td>
<td>1</td>
<td>Z5333</td>
<td>Rack link cable (contained in the rack drawer [5]).</td>
</tr>
</tbody>
</table>


Dimensions and weight

Height x width x depth: 710 x 600 x 780 mm

28 x 23.6 x 30.7"

Total weight: 128 kg / 282 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 to the rear into its park position.

2.2. Cooling and placement
When using the d&b Z5330 D80 Touring rack assembly, make sure to provide sufficient space of 0.5 m (1.6 ft) at the front and rear of the touring rack to ensure sufficient cooling airflow.

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 D12 Touring rack assemblies or any other rack assembly that produces an opposing airflow, observe the following restrictions:
- Do not stack D80 and D12 Touring racks or any other rack assemblies with opposing airflow.
- D80/D12 Touring rack assemblies can be positioned side by side.
3.1. Intended use
The X5335 Mains power distributor is designed and dimensioned to provide and distribute the mains power supply necessary for the three D80 amplifiers. It also serves as a loudspeaker connection panel for different connection options. It is a protective class 1 unit with IP class 20 (NOT rain-, drip-, or splash-proof!).

The X5335 Mains power distributor must not be used for any other purpose or outside the system rack.

3.2. Rear panel
3.2.1. AMP 1 / AMP 2 / AMP 3
Three fixed single-phase mains power lines (L1-L2-L3), each fitted with a powerCON-HC® mains connector, are provided for the internal mains power supply of the amplifiers.

NOTICE!
The mains power distributor device has no built-in circuit-breaker for the amplifier’s mains power lines. Protection is provided by the onsite sub-distribution.

3.2.2. MAINS SUPPLY
The X5335 Mains power distributor is supplied with a fixed 3-phase power cord equipped with a 32 A CEE (Cekon) mains connector.

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 CEE mains connector, do not use the unit and replace it before further use.
- Please ensure the mains connector is accessible at any time to disconnect the unit in case of malfunction or danger.
- Do not connect or disconnect the CEE mains connector under load or live.

Required mains supply network configuration
3-phase 230/400V - 50/60 Hz - 32 A_{max}.
3.2.3. MAINS LINK - 32 A CEE

The MAINS LINK socket allows further system racks to be linked to the mains power supply.

**NOTICE!**

To avoid any overload of the onsite mains power supply, we recommend you to link no more than **one** further system rack to the respective mains power supply line.

---

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 16 A

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.

Each socket can be switched on and off by its dedicated switch. These switches also serve as circuit-breakers for the corresponding socket.

Please refer to the switch assignment as shown in the graphic opposite.
3.3.3. 4 CH OUTPUTS - NL8

**NOTICE!**

The 4 CH OUTPUTS connectors are only intended as an interface to a rack panel or to loudspeaker multicores such as d&b Z5343.xxx and breakout adapters such as d&b Z5347.xxx.

Do not connect any loudspeaker cabinets, neither passive nor active systems, to the 4 CH OUTPUTS connectors, 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.

<table>
<thead>
<tr>
<th>Pin Assignment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1+/—</td>
<td>Channel A pos. / neg.</td>
</tr>
<tr>
<td>2+/—</td>
<td>Channel B pos. / neg.</td>
</tr>
<tr>
<td>3+/—</td>
<td>Channel C pos. / neg.</td>
</tr>
<tr>
<td>4+/—</td>
<td>Channel D pos. / neg.</td>
</tr>
</tbody>
</table>

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

3.3.4. 6 CH OUTPUTS - LKS 19 F

The 6 CH OUTPUTS multipin connectors (LKS 19 F) are used in connection with the d&b Z5320.xxx cabling system to allow efficient system wiring using loudspeaker multicore cables.

Each connector carries the output signal of six amplifier channels. Please refer to the corresponding channel assignment label above each connector as shown in the graphic opposite.
### 3.3.5. NL8 F / LKS 19 F - Pin assignments

<table>
<thead>
<tr>
<th>4 CH OUTPUTS</th>
<th>6 CH OUTPUTS</th>
<th>LKS 19 F - 1</th>
<th>Section</th>
<th>Pin #</th>
<th>LKS Pin-out - Front view</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AMP 1</strong></td>
<td><strong>NL8 F</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CH A/B/C/D</td>
<td>CH A: 1+</td>
<td></td>
<td>1</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH A: 1—</td>
<td></td>
<td>6</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH B: 2+</td>
<td>LKS Pin-out - Front view</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH B: 2—</td>
<td></td>
<td>1</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH C: 3+</td>
<td></td>
<td>6</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH C: 3—</td>
<td></td>
<td>1</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH D: 4+</td>
<td></td>
<td>2</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH D: 4—</td>
<td></td>
<td>2</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td><strong>AMP 2</strong></td>
<td><strong>LKS 19 F - 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CH A/B/C/D</td>
<td>CH A: 1+</td>
<td></td>
<td>3</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH A: 1—</td>
<td></td>
<td>4</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH B: 2+</td>
<td></td>
<td>3</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH B: 2—</td>
<td></td>
<td>4</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH C: 3+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH C: 3—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH D: 4+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH D: 4—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AMP 3</strong></td>
<td><strong>CH A/B/C/D</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CH A/B/C/D</td>
<td>CH A: 1+</td>
<td></td>
<td>2</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH A: 1—</td>
<td></td>
<td>1</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH B: 2+</td>
<td></td>
<td>3</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH B: 2—</td>
<td></td>
<td>2</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH C: 3+</td>
<td></td>
<td>3</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH C: 3—</td>
<td></td>
<td>4</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH D: 4+</td>
<td></td>
<td>3</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH D: 4—</td>
<td></td>
<td>4</td>
<td>GND</td>
<td></td>
</tr>
</tbody>
</table>

**LKS 19 F - 2**

<table>
<thead>
<tr>
<th>Section</th>
<th>Pin #</th>
<th>LKS Pin-out - Solder side</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>GND</td>
<td></td>
</tr>
</tbody>
</table>

**AMP 1**

<table>
<thead>
<tr>
<th>AMP 1</th>
<th>CH A/B/C/D</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMP 1</td>
<td>CH A/B/C/D</td>
</tr>
</tbody>
</table>

**AMP 2**

<table>
<thead>
<tr>
<th>AMP 2</th>
<th>CH A/B</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMP 2</td>
<td>CH A/B</td>
</tr>
</tbody>
</table>

**AMP 3**

<table>
<thead>
<tr>
<th>AMP 3</th>
<th>CH A/B/C/D</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMP 3</td>
<td>CH A/B/C/D</td>
</tr>
</tbody>
</table>
4.1. INPUT
The INPUT section represents the input connectors of the first amplifier while the other two amplifiers are linked within the rack. The INPUT section allows both analog and digital audio signals to be fed to the amplifier.

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

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

Ethernet network
ETH 1 Represents the upper etherCON connector of the first amplifier and may be used as input while the other two amplifiers are linked within the rack.

ETH 2 Represents the bottom etherCON connector of the last (third) amplifier and may be used as output.

Note: In a daisy chain topology, if one device or an entire rack fails or is switched off, this also affects all subsequent devices and/or system racks which are then no longer connected to the network either.

A detailed description of remote control via Ethernet is given in the technical information TI 310 (d&b code D5310.EN) which can be downloaded from the d&b website at www.dbaudio.com.
CAN-Bus network

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

CAN LINK
Represents the CAN output of the last (third) 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.
The rack link cable allows further 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

**Rack link example:**
- 4ch Digital audio and CAN-Bus
- 2ch Analog audio and CAN-Bus
6.1. EU declaration of conformity (CE symbol)
This declaration applies to:

**d&b Mains power distributor CEE, X5335.000**

manufactured by d&b audiotechnik GmbH.

All products of type X5335.000 are included, provided they correspond to the original technical version and have not been subject to any later design or electromechanical modifications.

We herewith declare that said products are in conformity with the provisions of the respective EC directives including all applicable amendments.
- 2006/95/EG Low Voltage
- 2004/108/EG Electromagnetic Compatibility

The following standards have been applied:
- HD 384.4.41 S2 DIN VDE 0100-410
- HD 384.4.473 S1 / 384.4.43 S1 DIN VDE 0100-430
- HD 384.5.51 S2 DIN VDE 0100-510
- HD 384.5.54 S1 DIN VDE 0100-540
- HD 384.6.61 S2:2003 DIN VDE 0100-600
- EN 60065 resp. EN60950 DIN 57100 740

d&b audiotechnik GmbH of Backnang accepts responsibility for this declaration.

Backnang, 2013-07-11

Frank Bothe,
Head of R&D
d&b audiotechnik GmbH

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6.2. WEEE Declaration (Disposal)

Electrical and electronic equipment must be disposed of separately from normal waste at the end of its operational lifetime.

Please dispose of this product according to the respective national regulations or contractual agreements. If there are any further questions concerning the disposal of this product, please contact d&b audiotechnik.