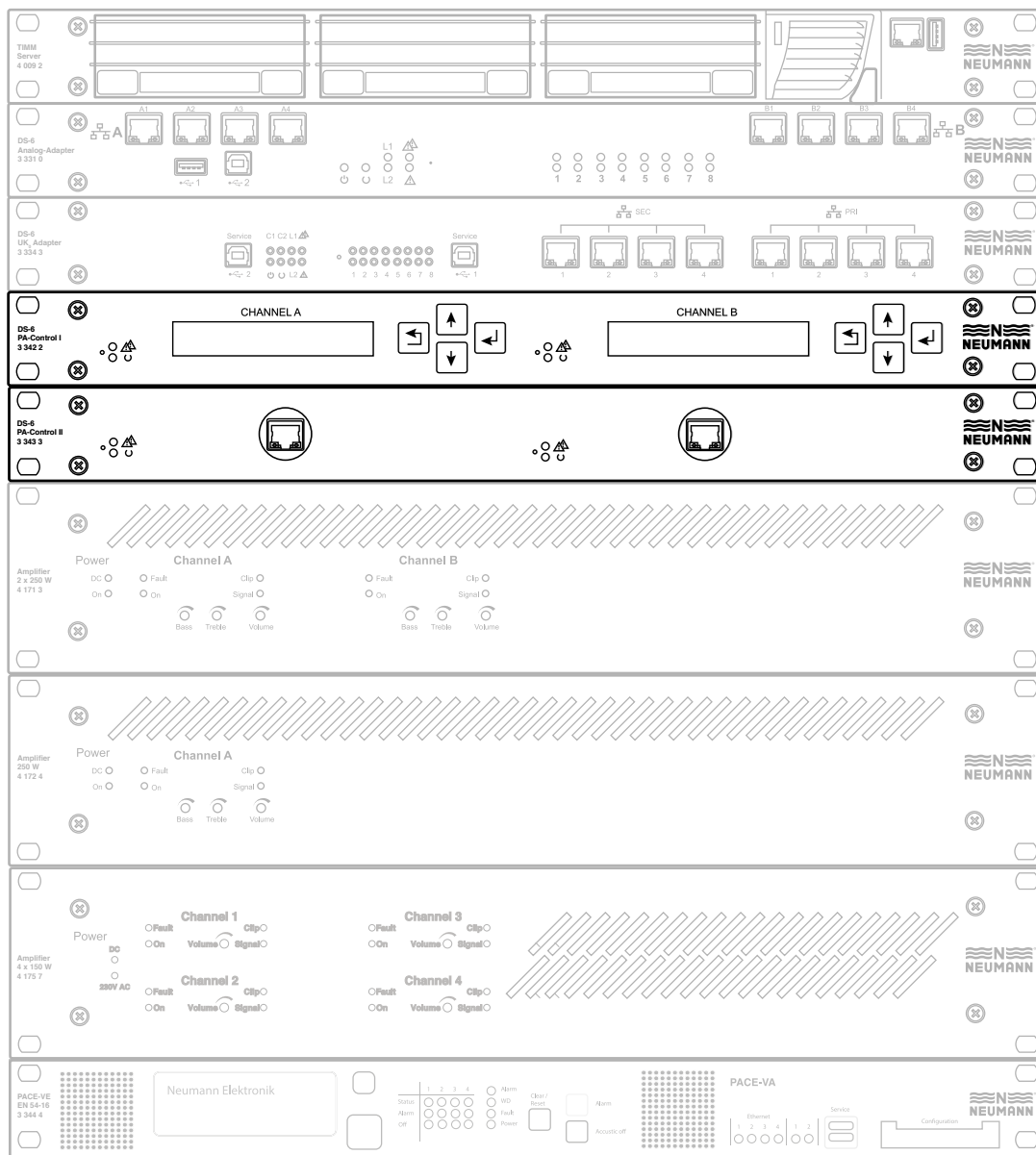
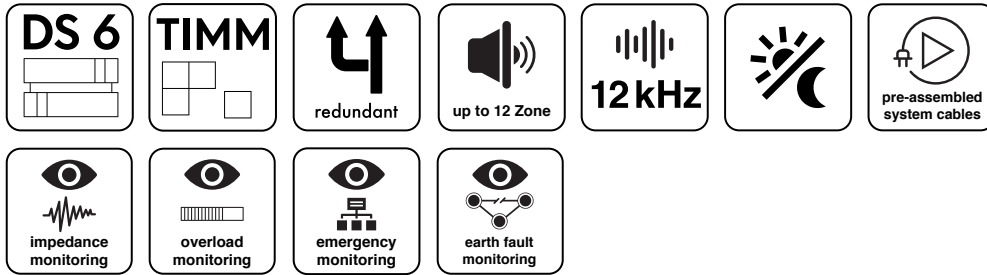


Overview

# DS-6 PA-Control I and II

## ELA monitoring and control devices



**3 343 3**  
**3 342 2**

DS-6 PA-Control I + II  
Edition 01-2020 / Page 1  
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# Established Neumann Elektronik quality

**2 completely autonomous channels for fully redundant operation with 2 DS-6 Ethernet RJ45 LAN interfaces each**

**Speaker circuit impedance monitoring**

**Speaker circuit current monitoring**

**Earth fault monitoring of the loudspeaker line**

**Amplifier monitoring with N+1 average function**

**1 or optionally up to 6 zones or loudspeaker circuits can be controlled per channel (12 in total)**

**Volume night-time reduction**

**Amplifier failure monitoring even during public address**

**For automatic switchover to redundant amplifiers no pilot tone monitoring necessary, no additional power loss at the amplifier**

**1 or optionally 2 loudspeaker loop monitoring**

**Optional environmental noise dependent volume control**

**Network monitoring**

**Main and secondary fault signal contact with NC and NO contact**

**Depending on the unit RS232 interface for configuration and error messages on the front and rear, or control panel with display and RS232 interface for configuration and error messages on the rear**

**Monitored 48V to 60V supply input**

**3 343 3**  
**3 342 2**

DS-6 PA-Control I + II  
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As ELA control units, the DS-6 PA Control I and II combine the control and monitoring of a 100 V PA system with a maximum amplifier power of 2 x 250 W on a DS-6 system.

In its compact 19" design with one height unit, the units replace a large number of individual components, which all required a great deal of wiring.

A modern sound reinforcement system with DS-6 PA Controls can be wired almost completely with pre-assembled system cables in a pluggable manner. Depending on the version of the PA-Control, the configuration can be carried out via the control panel with display or the serial interface, or in the case of the PA-Control II only via the serial interface on the unit. A remote solution is also available as an option, in which case the serial interface is integrated into the network via additional components, which are available as accessories. By means of integrated software packages, impedance monitoring, amplifier failure, overload and earth fault detection of the sound system can be configured.

As a standard feature, sound reinforcement from one zone or loudspeaker circuit is possible with NEUMANN amplifiers, delivery number 4 172 4 (mono, 1 channel) or 4 171 3 (stereo, 2 channel). By means of optional additional components which can be integrated into the unit, an extension to up to six zones with the above mentioned monitoring systems is possible. In addition, the cable loops can be monitored in zone one, as well as in the optional zone two, in the case of ring-shaped cabling, and in the event of an interruption, power can be supplied on both sides.

## Configuration

3 342 2	Control panel with display and RS232 interface on the rear
3 343 3	RS232 interface on the front and rear

## Mechanical data

Installation dimensions	Width: 19", height: 1HE according to DIN EN 60297 Installation depth (housing without connectors): 284 mm
Weight	approx. 4 kg

## Technical data

Audio channels	2 channels
Network Interfaces	2 x LAN per channel
Operating voltage	2 x 43V DC... 72V DC
Nominal power consumption min.	4W per channel
Nominal power consumption max.	8W per channel
Max. power to be monitored	250W per channel

## Environmental conditions

Permissible temperature range	+5 ... +40°C
Protection class	IP20 according to DIN EN 60529

**3 343 3**  
**3 342 2**

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## Accessories

Item no.	Article	Description
4 171 3	Amplifier 2 x 250 Watt	Amplifier, 2 x 250 / 300 W, Class D technology, 100V and 50V output, floating
4 172 4	Amplifier 250 Watt	Amplifier, 250 / 300 W, Class D technology, 100V and 50V output, floating
22 2 5203 343 6	Additional plate 2 ... 4 zones	Analogue additional plate for expansion to up to 4 zones or speaker circuits
22 2 5303 343 7	Additional plate 2 ... 6 zones	Analogue additional plate for expansion to up to 6 zones or speaker circuits
22 2 5303 332 3	Additional plate 2 ... 6 zones+	Analogue additional plate for expansion to up to 6 zones or loudspeaker circuits and environmental noise dependent volume control
64 1 0136 197 8	Standard steel cabinet	Pre-wired standard steel cabinet with temperature controlled roof fan, swing frame, power supply, circuit breaker and switch, including wiring and mounting material. Dimensions: width: 800mm, height: 2000mm, depth: 600mm.
62 2 0236 197 8	Accident - Unit 2HE	Consisting of 250W emergency amplifier, including circuit breaker, system cables and mounting material.
62 2 0336 197 9	Redundancy - Unit 1U	Consisting of 19" switch, including circuit breaker, socket, cables and mounting material
62 2 0436 197 0	Battery - Unit 3U	Consisting of emergency power battery 48V 18AH in 19" case, including cables and mounting material.
62 2 0536 197 1	I/O module - unit on mounting rail	Consisting of I/O module, power supply unit, terminal blocks, cables and mounting material for rear panel mounting. Various software packages are available for the I/O module unit, of which one software can always be saved to an I/O module unit:
27 9 1004 475 9		Fault management
27 9 1904 475 8		Flashlight connection
27 9 1704 475 6		2-wayVirtual keystroke
27 9 2004 475 0		Impedance measurement NTP

**3 343 3**  
**3 342 2**

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Edition 01-2020 / Page 4  
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## Accessories

Item no.	Article	Description
22 3 0303 332 1	System cable DS-6 PA-Control to amplifier, 0.7 m length	For connecting a DS-6 PA Control to an amplifier.
22 2 0903 332 6	System cable zones - loop/back panel	This system cable is used to route the ABs of zones 1 ...6, for further cabling on terminal blocks on the rear wall and to route the returns of zones 1 and 2 from the terminal blocks to DS-6 PA Control.
	System cable 100V-AB-Bus, 0.3 m length	For connecting the 100V-AB bus of two DS-6 PA Control devices in emergency mode and for one channel.
	System cable extension 100V AB bus, 0.7 m length	For extending the system cable. This allows the system cable 100V-AB-Bus to be extended to a length of 1m.
96 9 1640 391 8	pre-assembled single wires, 0.3 m length socket housing	For extending the system cable 100V-AB bus to connect a further amplifier in case of emergency.
96 9 1640 381 7		To extend the complete bus width, 6 single wires and a socket housing are required per DS-6 PA Control.
22 4 0503 332 4	single wires, 0.7 m length	For extending the system cable 100V AB bus to connect an emergency amplifier. 2 single wires are required for each backup amplifier.
99 9 1980 162 4	System cable NF-ab bus, 0,5 m length	For connecting the NF-ab bus of two DS-6 PA Control devices and for one channel.
99 9 1980 165 7	System cable NF-ab bus, 1,0 m length	For connecting the NF-ab bus of two DS-6 PA Control devices and for one channel.
22 4 060 3332 5	System cable extension, 0,7 m length	For extending the NF-ab bus to connect one or maximum two backup amplifiers. Four wires for the first and four wires for the second backup amplifier.
	Bridge for the 100V AB bus	During operation of the system and with DS-6 PA Control removed.
96 9 1630 210 7	Bridge for the NF-ab bus	During operation of the system with DS-6 PA Control removed.

**3 343 3**  
**3 342 2**

DS-6 PA-Control I + II  
Edition 01-2020 / Page 5  
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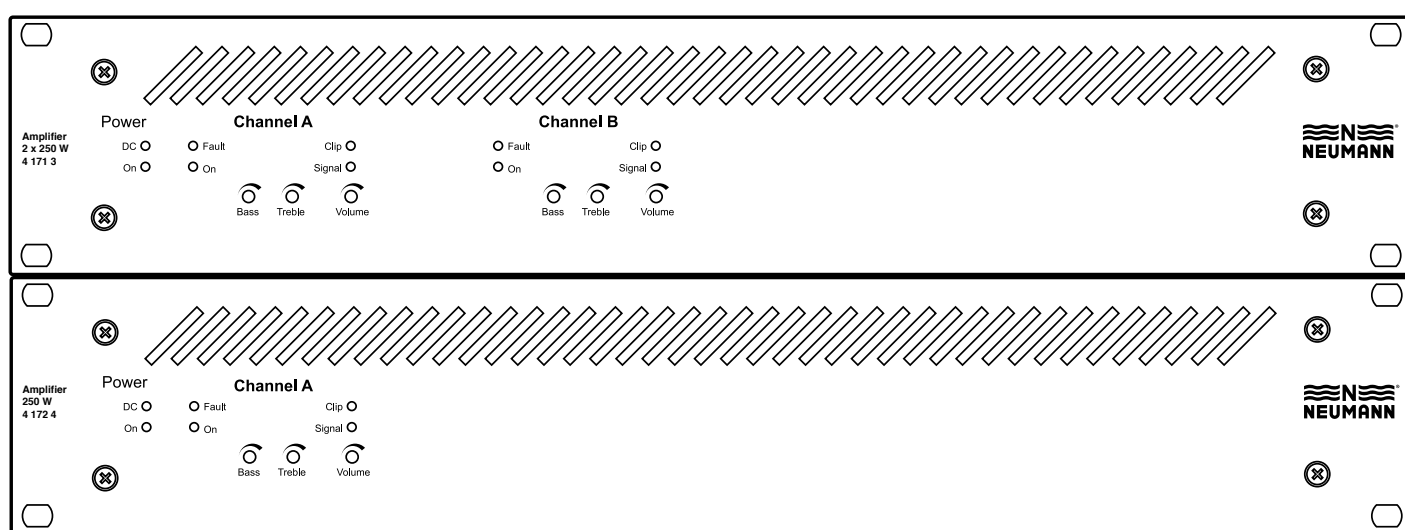
 **NEUMANN**

# DS-6 PA-Control I and II

## Complementary amplifiers

4 171 3 Amplifier 2 x 250 Watt

4 172 4 Amplifier 250 Watt



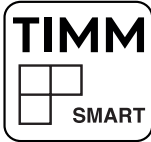
- Class D technology 100V and 50V output, ungrounded
- High efficiency
- Low heat generation
- No active ventilation required
- Low installation depth (important for cabinet installation)
- Control LEDs for all signal and operating states on
- Front panel: Power ON, DC, signal OK, clipping, faultLoudness, treble and bass control accessible from the front (adjustable with a screwdriver)
- Transformer balanced inputs
- Potential-free amplifier switch-on
- Potential-free fault signal switch-over contact monitoring: Fuse failure, overload, overtemperature
- Protective circuit against open circuit, short circuit, overload
- 230V/115V AC input voltage (switchable)
- 48V/60V DC input voltage
- Amplifier is open circuit and short circuit proof
- High-quality toroidal core output and mains transformers
- All supply lines are plugged in, with detachable screw connections

3 343 3  
3 342 2

DS-6 PA-Control I + II  
Edition 01-2020 / Page 6  
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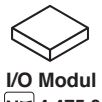
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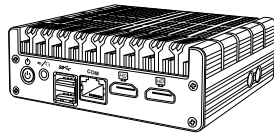
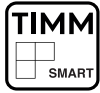
I/O Modul  
NE 4 475 0

↓↑



CANopen

↓↑



NE 3 358 9  
TIMM SMART



WEB Server



Config / state



SNMP / MIB

Com Server Application

Gateway Application

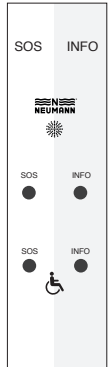
Speechbox\* NE 5 067 8

SIP-Trunk\* NE 5 065 6

Phone Server\* NE 5 034 2

MODBUS / TCP-IP\* NE 5 068 9

CANopen\* NE 3 373 6



←  
→  
NIS

↓↑

DS 6 UK<sub>0</sub> II Adapter NE 3 334 3

and / or

DS 6 PA Control I NE 3 343 3

and / or

DS 6 PA Control II NE 3 343 3

and / or

DS 6 Analog adapter x8 NE 3 331 0

and / or

DS 6 Plug-in unit analog NE 2 390 4

and / or

DS 6 PACE EN 54-16 NE 3 331 0

↔

DS 6 PC Call station „all-in-one“ NE 1 296 8

DS 6 MTSD Call station NE 1 045 0

DS 6 MTSD IP42 Call station NE 1 0854

DS 6 Intercom call station (rack-mounted) NE 1 278 8  
NE 1 279 9

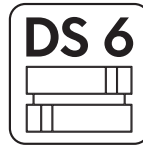
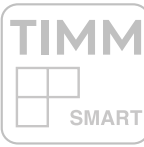
DS 6 Call station (panel-mounted) NE 1 28X X<sup>1</sup>

DS 6 Crane call station NE 1 156 3

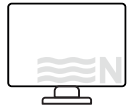
DS 6 WFD IP Call station NE 1 5XX X<sup>1</sup>

DS 6 WFD IP Compact call station NE 1 87X X<sup>1</sup>

<sup>1)</sup>: various models; product numbers depending on individual requirements.



I/O Modul  
NE 4 475 0



PC Call station  
„all-in-one“  
NE 1 296 8



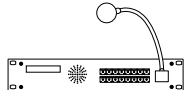
Built-in call station  
(panel assemblies)  
NE 1 29X X<sup>1</sup>



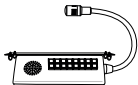
MTSD IP42  
Call station  
NE 1 085 4



MTSD  
Call station  
NE 1 045 0



Rack mounting station  
19 Zoll  
NE 1 27X X<sup>1</sup>



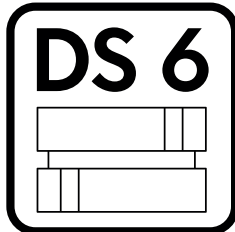
Crane call station  
NE 1 156 3



WFD IP  
Weatherproof  
compact call station  
NE 1 87X X<sup>1</sup>



WFD IP Weatherproof  
intercom station  
NE 1 59X X<sup>1</sup>  
NE 1 681 6



1-n



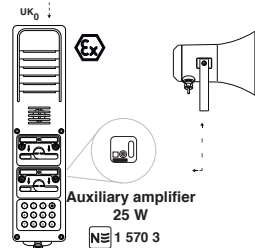
UK<sub>0</sub> II Adapter 8x  
NE 3 334 3



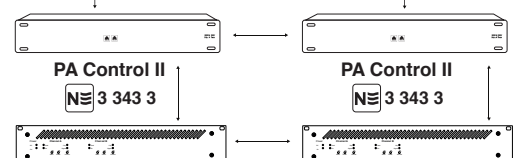
MTSA  
Call station  
NE 1 75X X<sup>1</sup>



MTSD  
UK<sub>0</sub> Call Station  
NE 1 84X X<sup>1</sup>

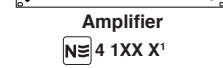


WFD-Ex  
Explosion-proof call  
station UK<sub>0</sub>  
NE 1 5XX X<sup>1</sup>

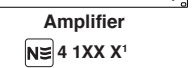


PA Control II  
NE 3 343 3

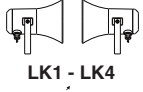
PA Control II  
NE 3 343 3



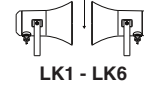
Amplifier  
NE 4 1XX X<sup>1</sup>



Amplifier  
NE 4 1XX X<sup>1</sup>



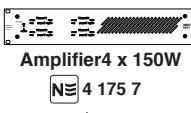
LK1 - LK4



LK1 - LK6



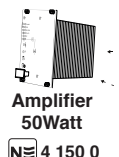
LK1 - LK6



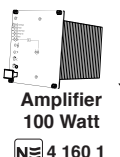
Amplifier 4 x 150W  
NE 4 175 7



Third-Party  
Hardware



Amplifier  
50Watt  
NE 4 150 0



Amplifier  
100 Watt  
NE 4 160 1



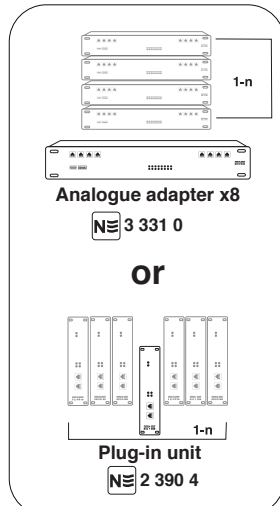
Diffuse emitter  
NE 4 805 7



Diffuse emitter  
NE 4 805 7



UHF (Ultra High Frequency)



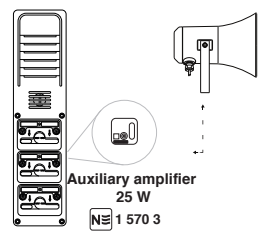
Analogue adapter x8  
NE 3 331 0

OR

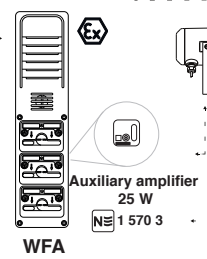
Plug-in unit  
NE 2 390 4



WFAK Analogue  
call station compact  
WFAK Additional housing  
NE 1 9XX X<sup>1</sup>



WFA  
Weatherproof call station  
NE 1 5XX X<sup>1</sup>



WFA  
Weatherproof call station  
NE 1 5XX X<sup>1</sup>



WL 1 Watt  
Universal amplifier  
NE 1 841 4

1) different models;  
product numbers according to  
individual requirements  
2) optional





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[www.neumann-elektronik.com](http://www.neumann-elektronik.com)**

**3 343 3  
3 342 2**

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