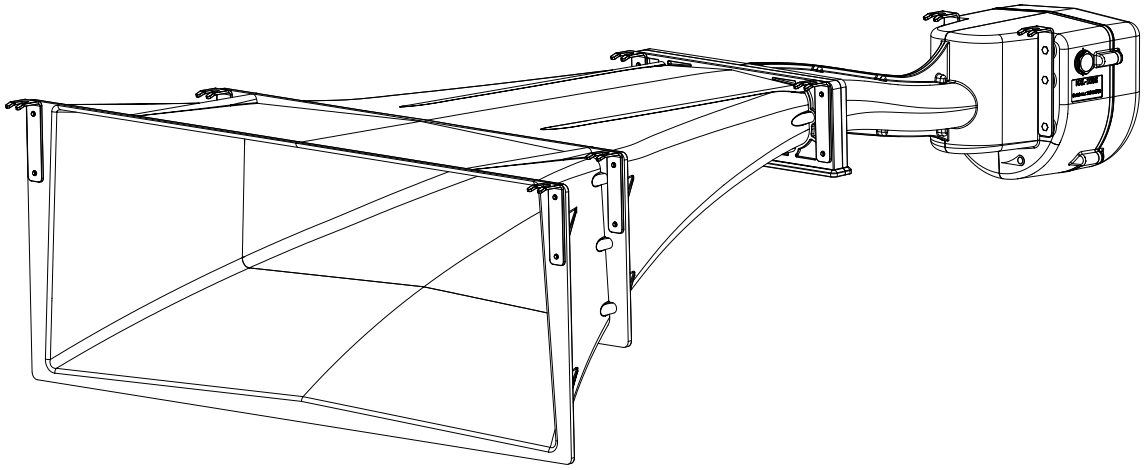
MANUAL

Product	NXL-100S NXL-100S-RH	**Part numbers**	0200201 and 0200202
Document version	1.0	**Document status**	Release
Notes	Full Height and Reduced Height (RH) product variants 0200201 = Standard with cable gland on left side (front view) 0200202 = RH variant as 0200201		

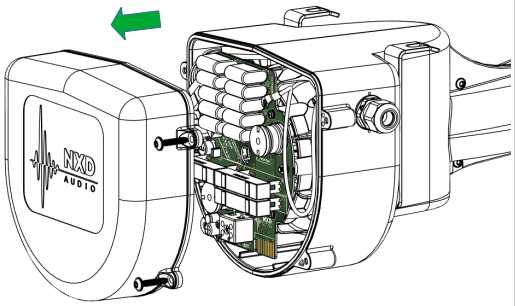
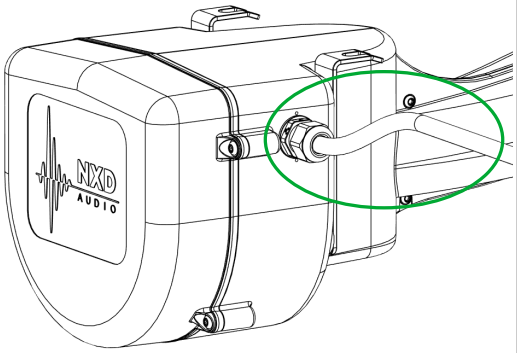
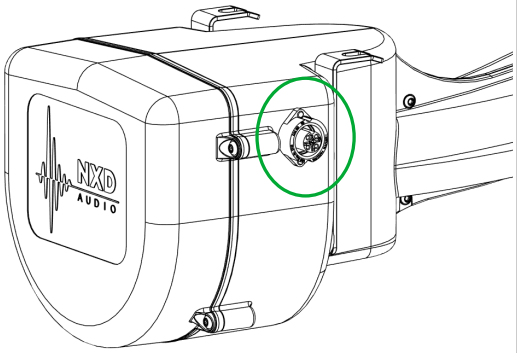
WIRING INSTRUCTIONS

This document describes the detailed wiring instructions for the NXL-100S and NXL-100S-RH advanced tunnel horn loudspeaker. The device is equipped with an internal ceramic screw terminal block and offers configuration for tap selection and end-of-line monitoring.

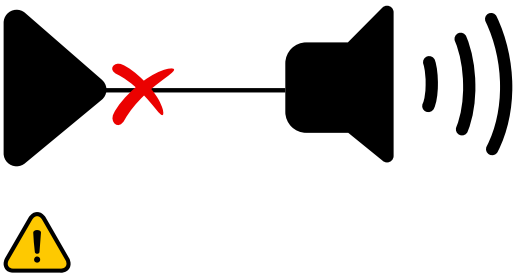
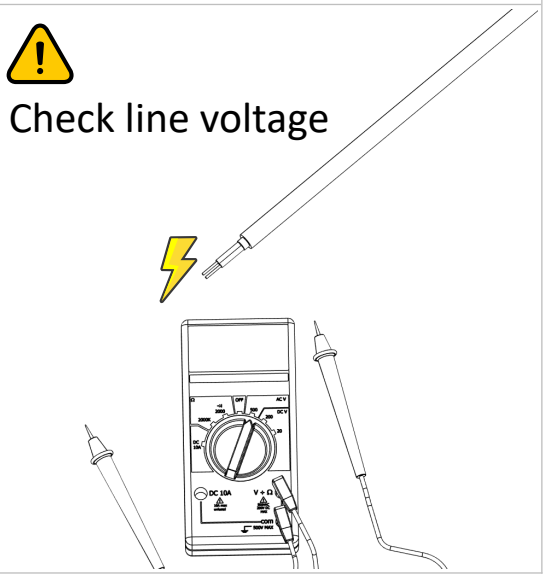


CONTENTS

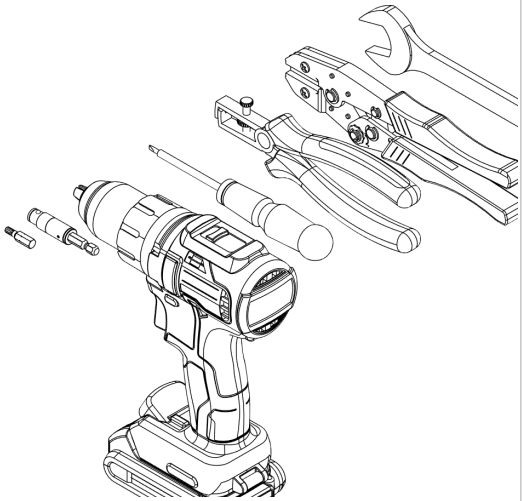
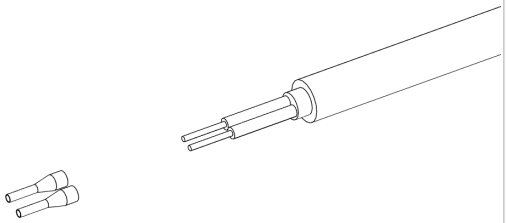
SETUP

1.	To connect the device, the rear cover must normally be removed.	
2.	If opening the rear compartment during installation is not desirable, the device can be ordered with a pre-assembled cable stub or a connector. Please make sure that you order the right variant!	
		

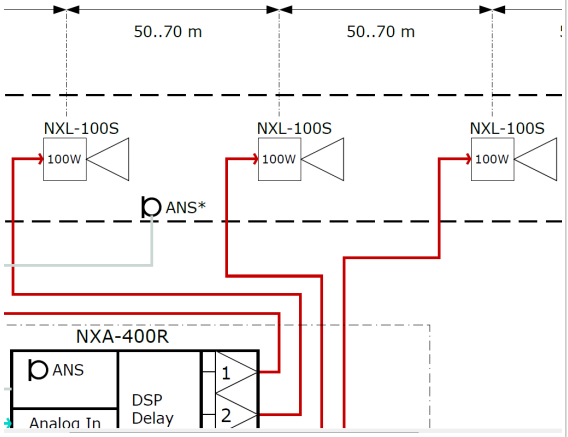
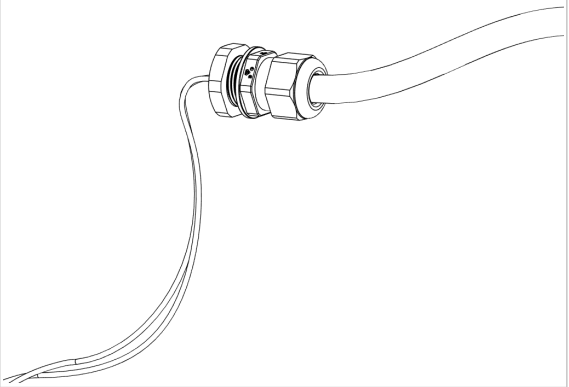
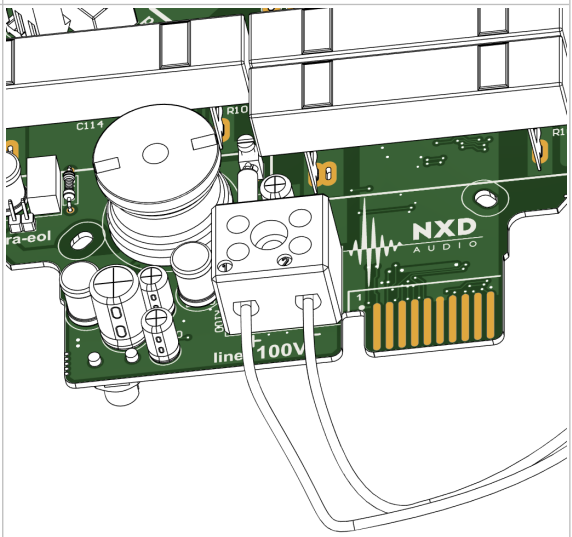
SAFETY INFORMATION

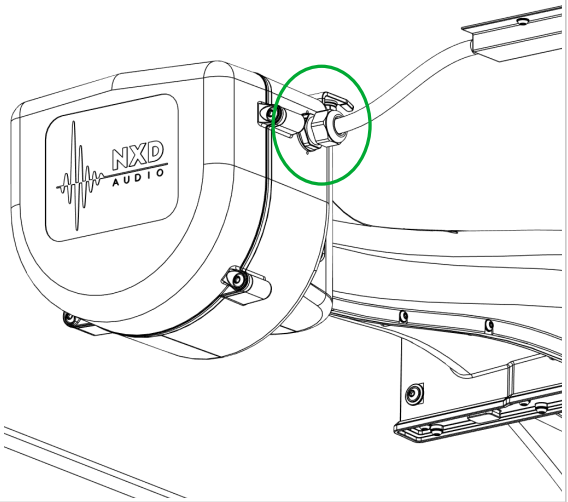
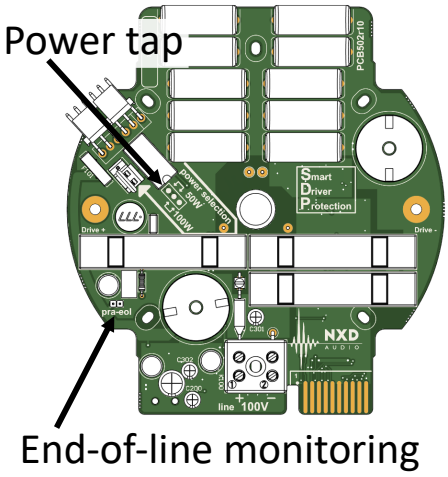
1.	Only instructed or skilled persons are allowed to connect or configure the device.	
2.	Driving amplifiers should be unpowered or disconnected.	
3.	Always check for the absence of dangerous voltage on the line before connecting the wiring.	

Required Tools and Parts

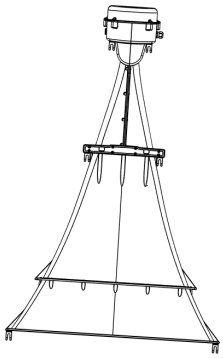
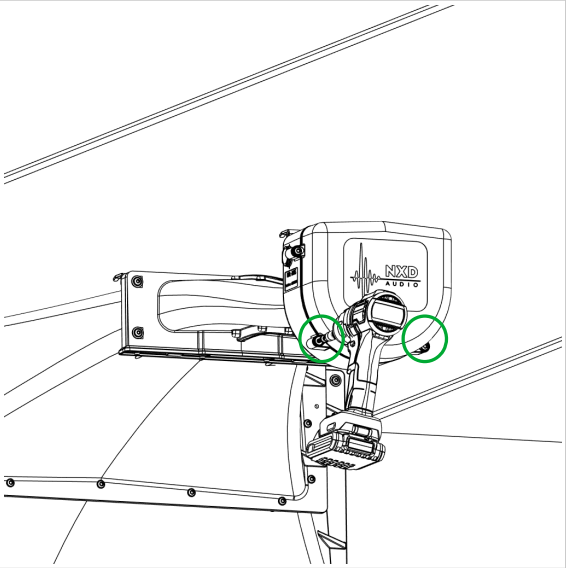
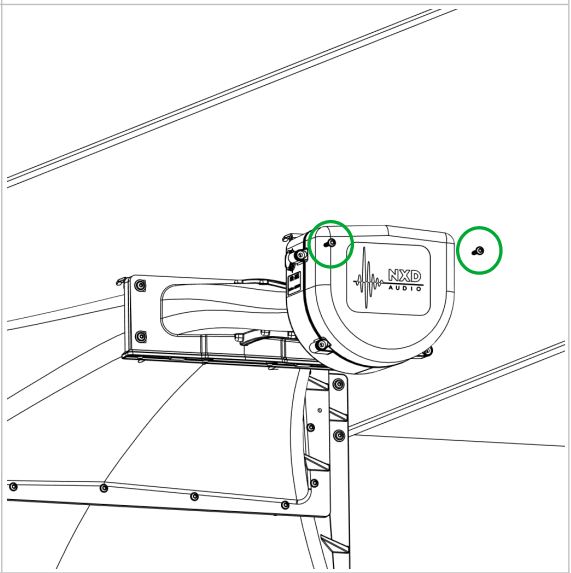
1.	The following tools are typically needed: Torx T25 bit. Torque adapter 3.0 Nm. Cordless drill or manual drive tool. Insulated flathead screwdriver with a tip size of 0.5 by 3.0 mm. Wire stripping pliers. Here we show a pretty basic one but it may be more convenient to use a tool that combines functionality for cable sheath removal and wire stripping. A tool for crimping wire ferrules. A tool for tightening the cable gland. To avoid damage to the plastic cable gland, a dedicated commercially available tool may be preferable to the spanner we show here. The gland compression nut size is M24.	
2.	The following parts are typically required: Two-core cable of the proper core diameter, outer diameter and flammability specifications. The gland supports cables with a round cross-section and outer diameter of 6 to 12 mm. Use ferrules with plastic collars for wires with stranded cores. The ferrule type must match the diameter of the cable core. A tip length of 8 mm will typically work.	

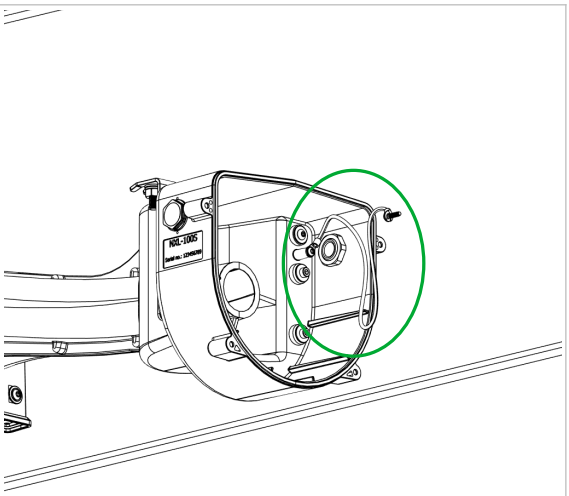
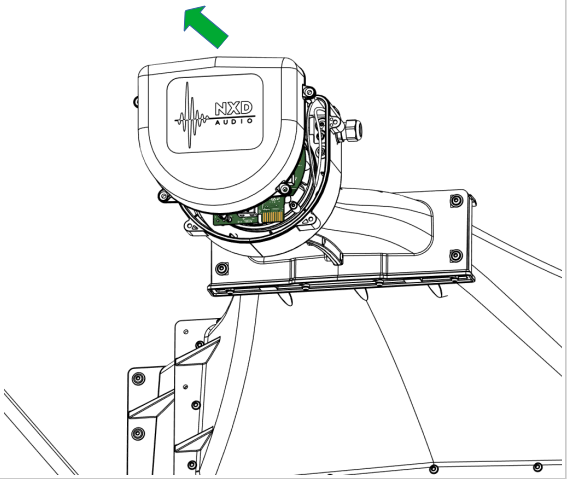
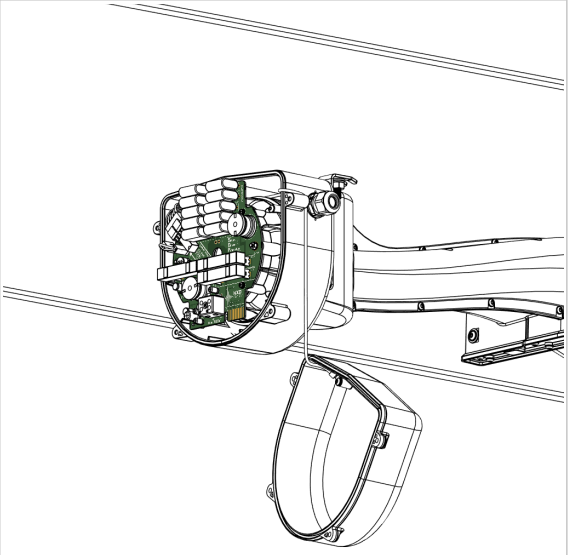
PREPARATION

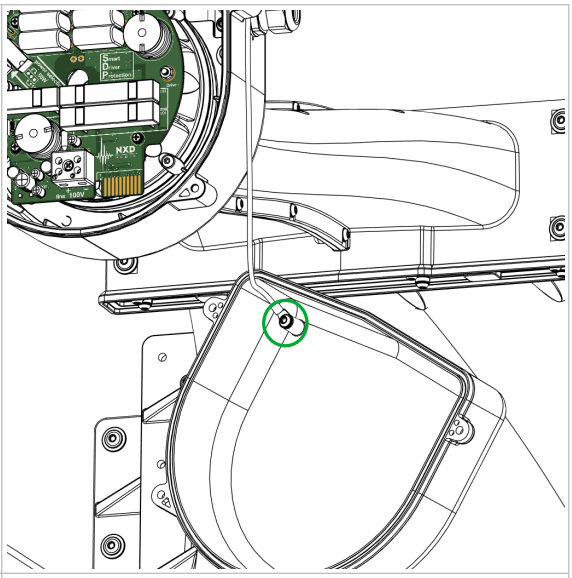
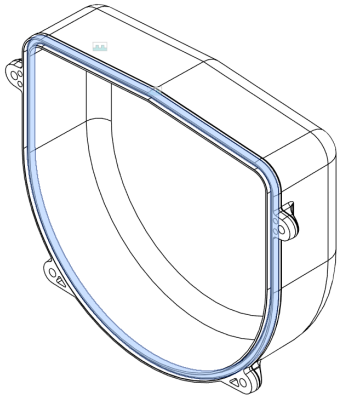
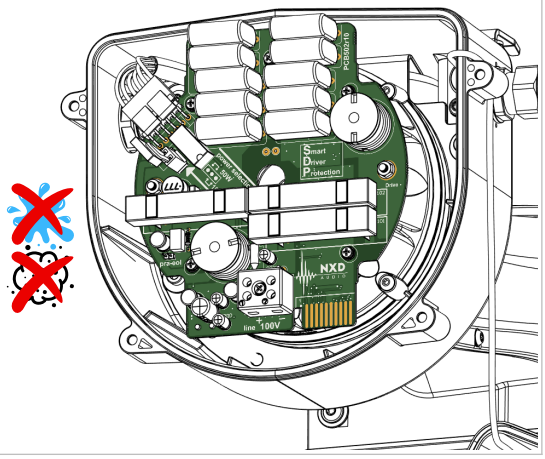
1.	Ensure that wiring lengths and conductor cross-sections have been assessed with regard to the maximum allowable electrical losses.	
2[a].	Verify that the selected cable fits into the gland and the terminal block.	
2[b].	The maximum wire size is 2.5 mm^2 for cable with stranded cores. In case of solid cores, this is increased to 4 mm^2.	

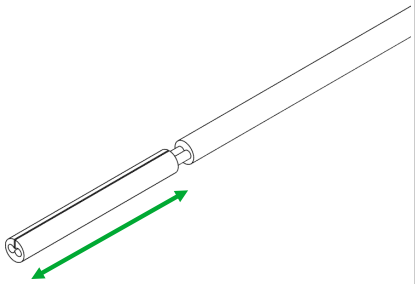
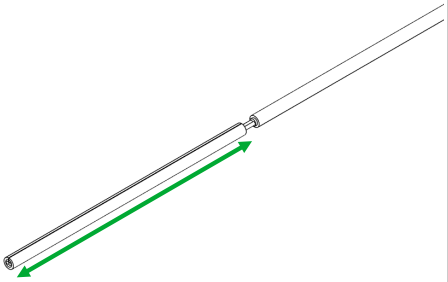
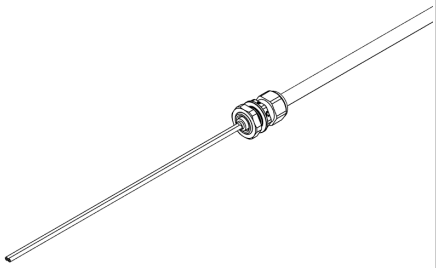
3.	Check that the details of the intended wiring paths are known and correspond to the product in question. As standard, the device is equipped with a cable gland that is located on the indicated position, but other variants also exist.	
4.	Verify that the required configuration for power tapping and end-of-line monitoring is known.	

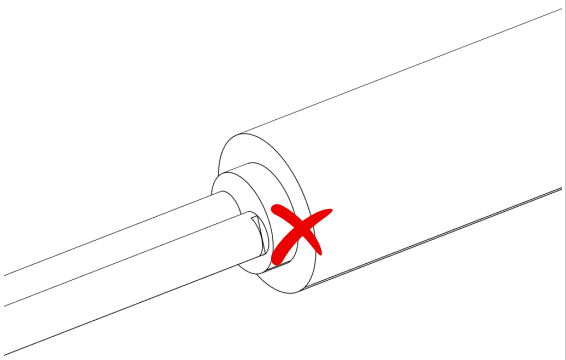
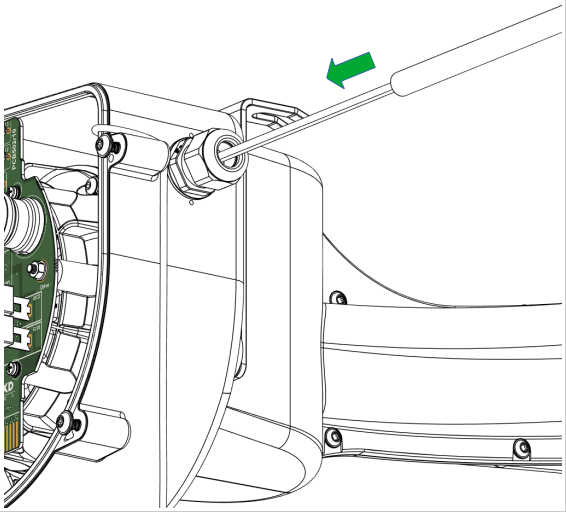
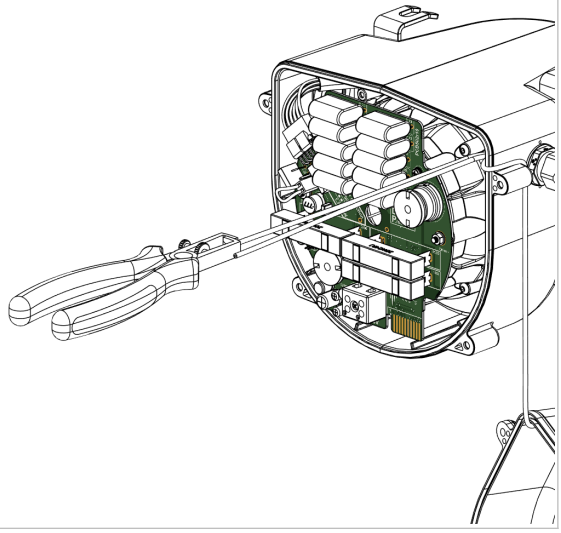
WIRING

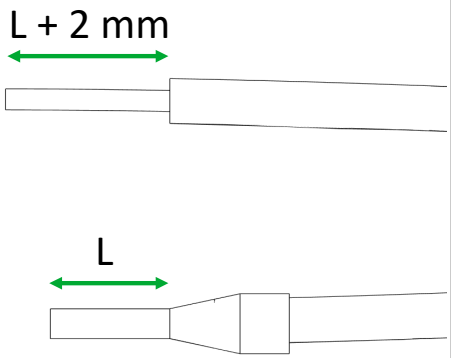
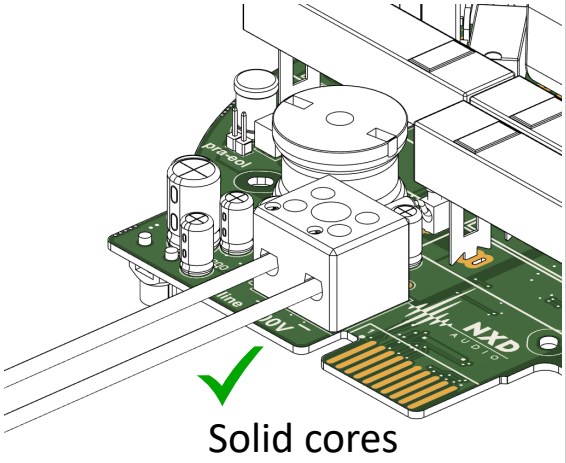
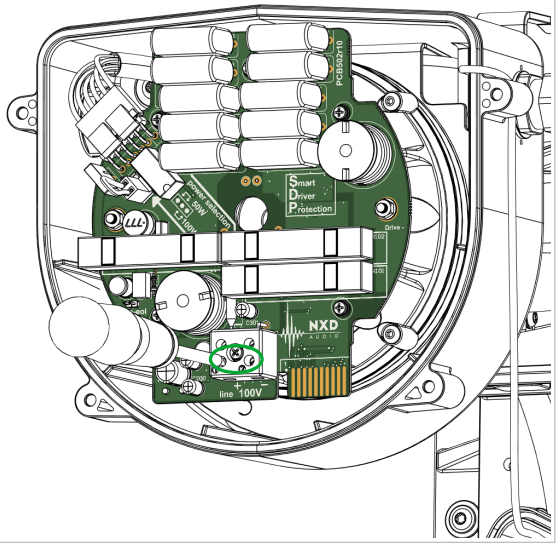
1.	Make sure to follow all applicable safety procedures.	 Follow safety procedures
2.	The rear cover is fixed with four T25 torx screws (M5 x 25). Start by removing the two lower screws.	
3.	Next remove the upper two screws. Keep the rear cover in place when removing the last screw.	

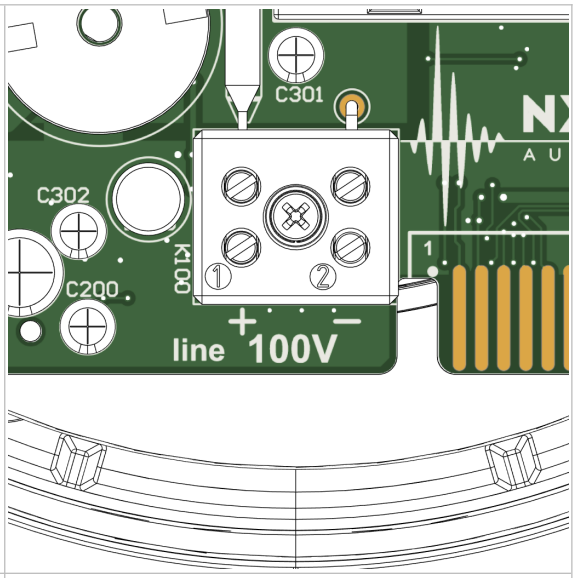
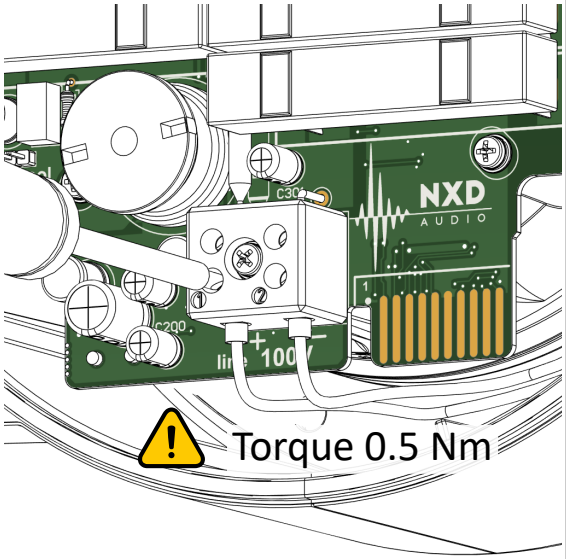
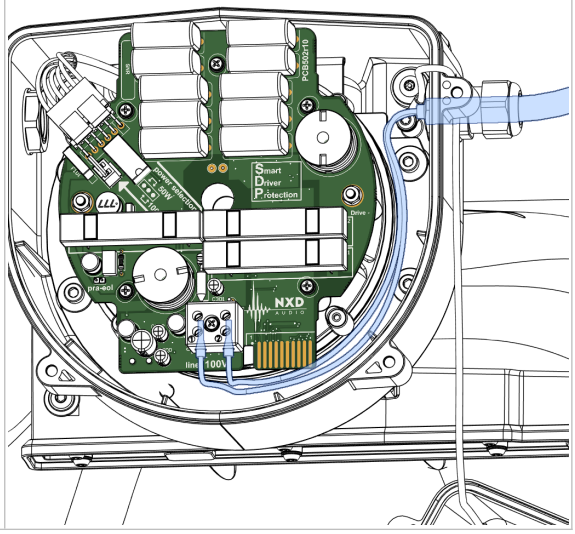
4[a].	Internally this cover is secured by a short rubber cord; also called the retention strap. The rear cover can hang from this strap when the screws are removed.	
4[b].	Remove the rear cover by pulling it to the rear.	
4[c].	Now pass the cord over the upper boss as indicated. Do not lead it over the gland!	

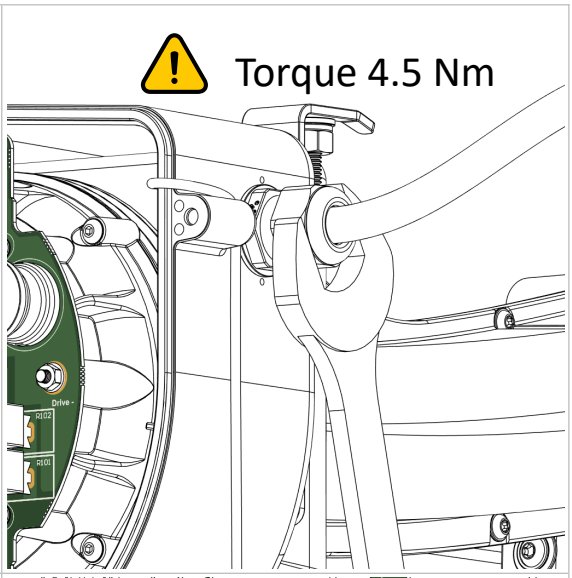
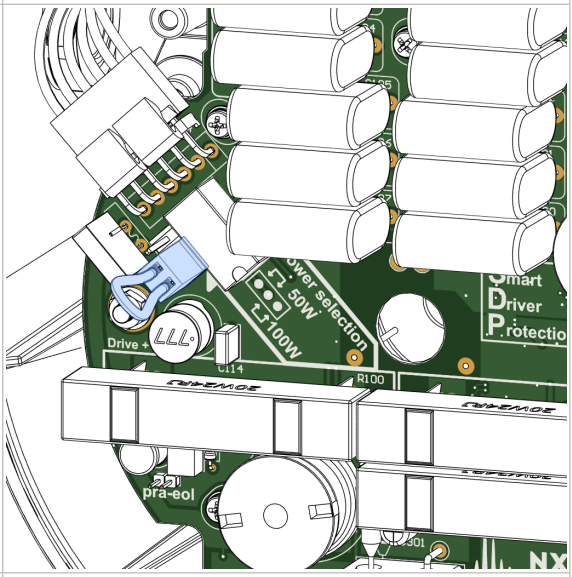
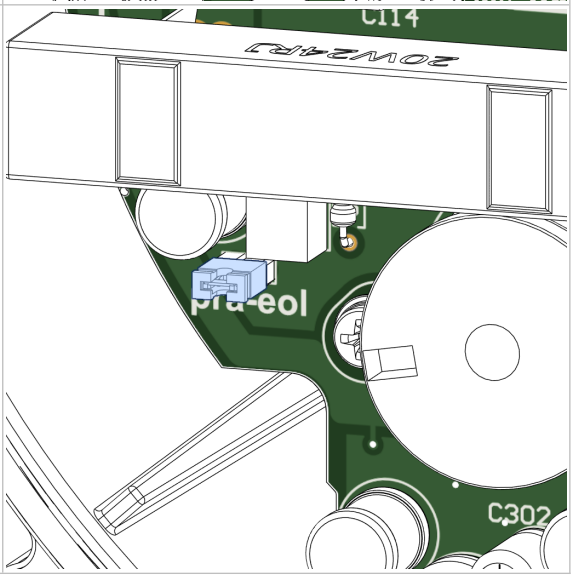
4d.	The cord has a hook on both sides. If it is required to remove the rear cover completely, it is most convenient to unhook the cord at the rear cover side. To do this, the T20 torx screw (M4 x 15) must be loosened a few turns.	
5.	The rear cover has a groove that contains a gasket. Make sure that this gasket is not lost or damaged during the work.	
6.	Avoid the ingress of dust, dirt and moisture into the rear compartment when the rear cover is not mounted.	

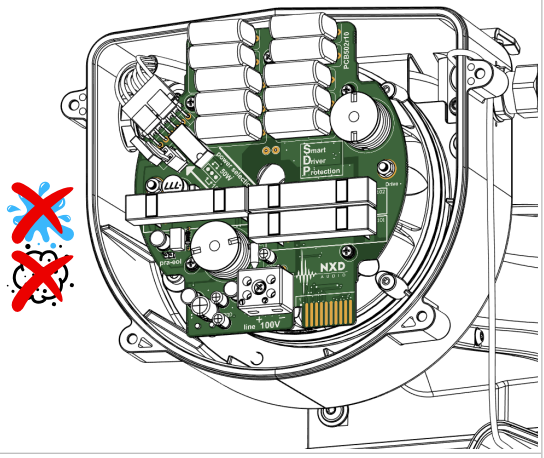
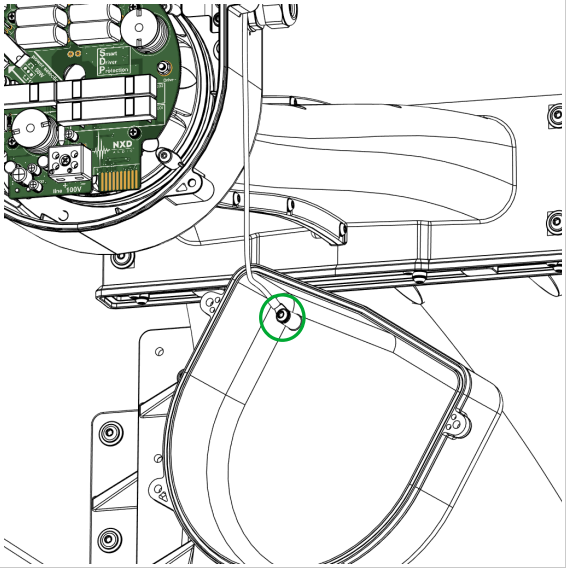
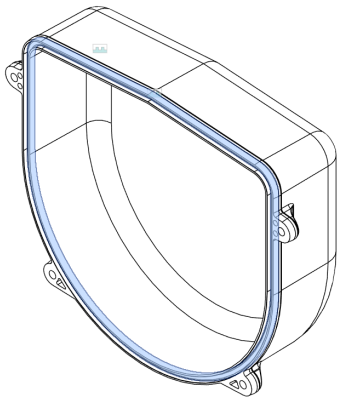
7[a].	Strip the sheath from the end of the cable. Strip about 70 mm in case of flexible and relatively thin cable.	 70 mm for flexible cable
7[b].	In case of thicker and more rigid cable, it may be required to increase the stripping length to about 270 mm.	 270 mm for rigid cable
7[c].	The sheath is in that case removed over the full internal length of the cable. This avoids too sharp cable bending and also simplifies replacement of the driver assembly in case of servicing.	

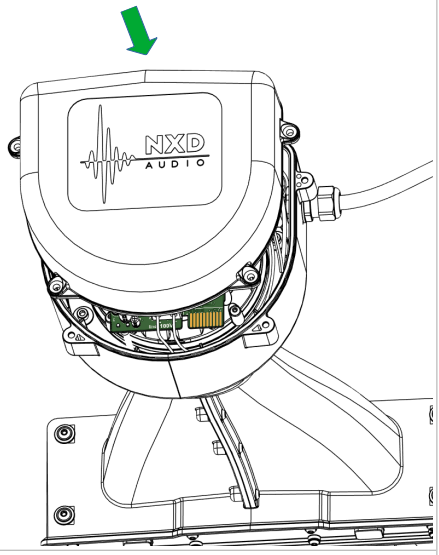
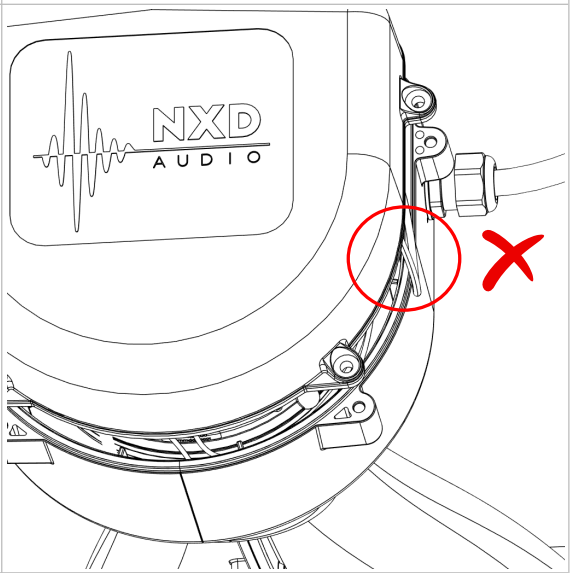
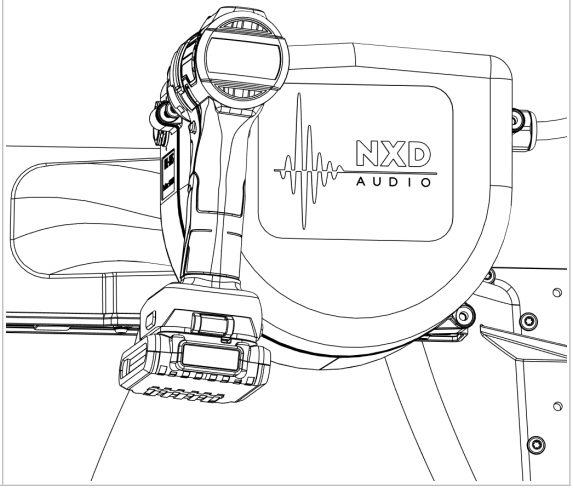
7[d].	The use of a dedicated sheath stripping tool is highly recommended to avoid damage to the core insulation.	
8.	Feed the cable into the gland and through the rear compartment.	
9[a].	Proceed by stripping the insulation from the conductor cores.	

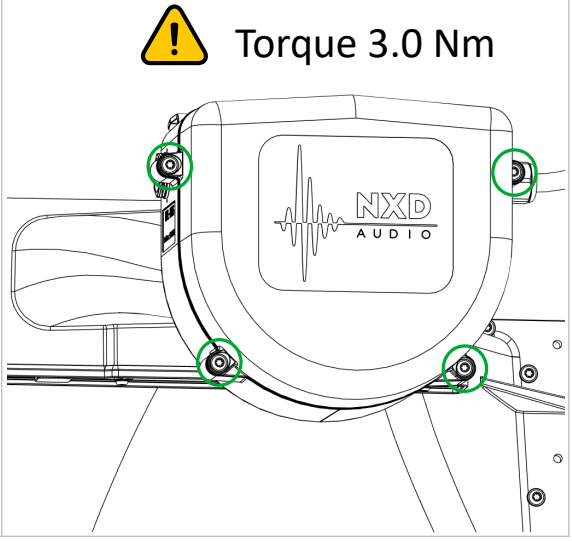
9[b].	In case of stranded core cable, the stripping length depends on the tip length of the ferrule. When placing the ferrules, the end of the core should be flush with the front of the ferrule. Typically the stripping length will be 2 to 3 mm higher than the ferrule tip length.	
9[c].	No ferrules are used for solid core cable, so the stripping length must be shorter to prevent the uninsulated cable core from protruding too much from the terminal block. Usually, a stripping length of about 7 mm will work.	
10[a].	Connect the cable after it has been prepared with the ferrules crimped on if necessary. Loosen the two screws on the terminal block being careful not to let them fall out.	

10[b].	Pay attention to the correct polarity when inserting the wires into the terminal block.	
10[c].	Fasten the terminal block screws with a torque of 0.5 Nm.	
11.	Provide proper internal routing to prevent the cable from being pinched when the rear cover is mounted.	

12.	Tighten the gland with 4.5 Nm torque.	
13.	Verify the position of the power selection jumper, the factory default setting is 100 W. Move this wire jumper to the 50 W position if required.	
14.	To enable the built-in BOSCH Praesensa PRA EOL end-of-line monitoring circuit, the 0.1 inch jumper should be placed on both header pins.	

15.	After verifying that the device is properly connected and configured, the rear cover can be mounted. Verify that the rear compartment is clean before mounting the cover.	
16.	Attach the retention strap in case it was disconnected.	
17.	Also check that the gasket is still present.	

18[a].	Mount the rear cover and hold it in place.	
18[b].	Make sure that the retention strap and internal wiring are not pinched.	
19[a].	Insert the screws. Start with the upper screws and do not fully tighten yet. Keep the speed below 500 rpm or below the maximum allowable speed for your torque adapter, whichever is lower.	

19[b].	As a last step, after all screws have been installed, tighten them gradually to a torque of 3.0 Nm. Do not over-tighten the screws as this may result in thread stripping.	

Document Revision

1.0	13-07-2026	Start version.

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