PATCH PANEL “Easy Patch”

96 Bantam (TT) Jacks

50 pin D-subminiature

NPPA-TT-SD50

INSTRUCTION MANUAL

“Easy Patch”NPPA-TT-SD50

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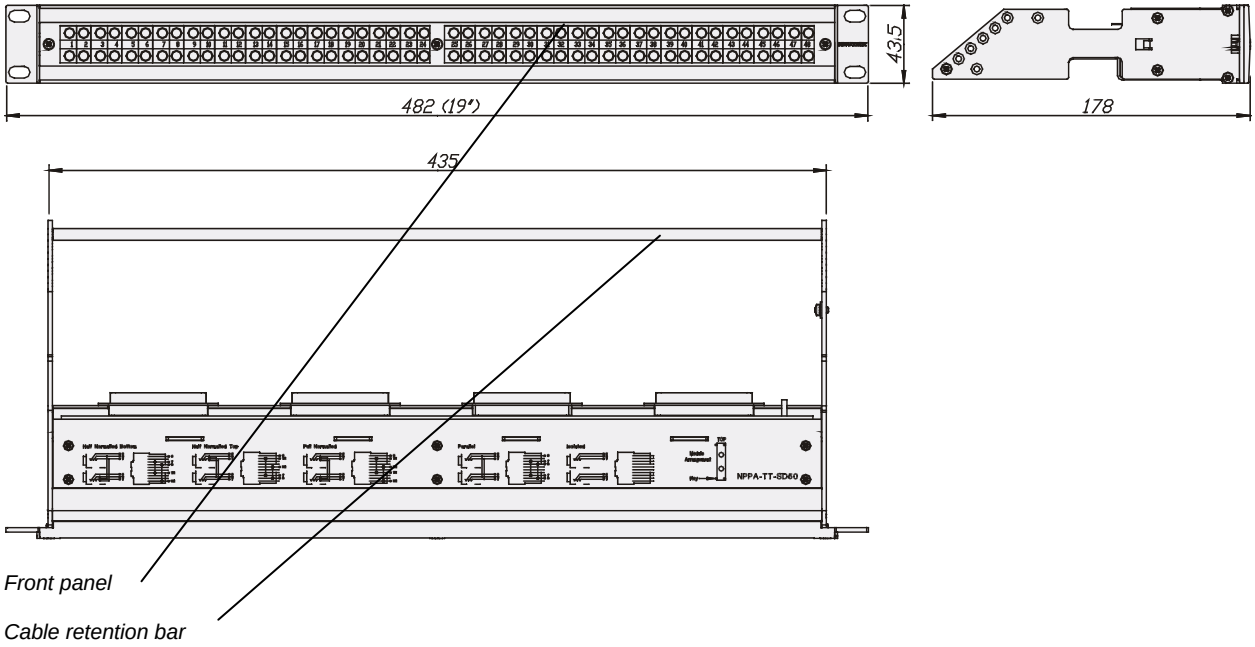
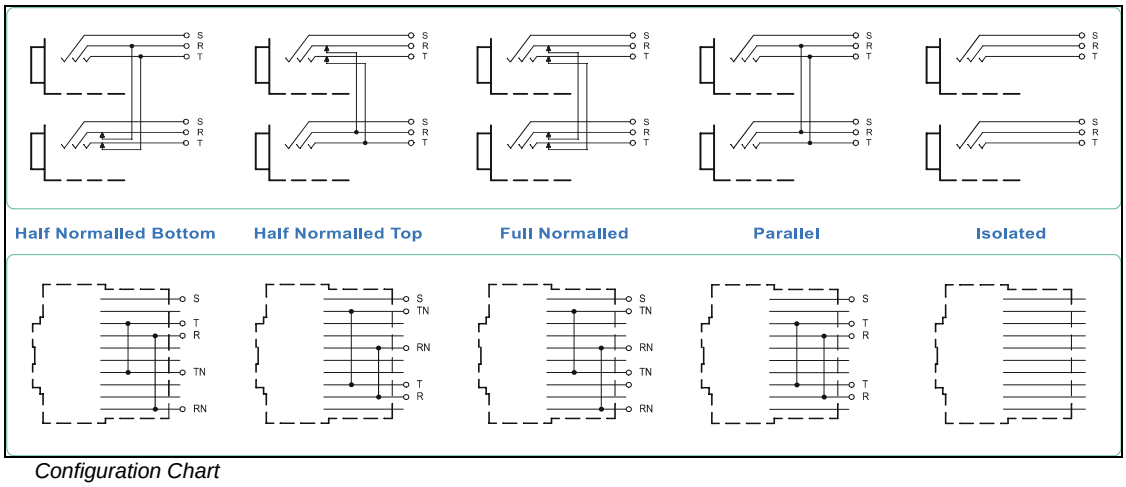
Dimensional Drawings “Easy Patch” NPPA-TT



1) Electrical configuration

The ***NEUTRIK®”Easy Patch”*** is fitted with high quality, long life ***NEUTRIK® NJ3TTA*** double contact jacks (2 x 48) with drastically improved contact integrity. The ***NEUTRIK® NJ3TTA*** double contact jacks are gold plated and prewired. The ***NEUTRIK®”Easy Patch”*** is an innovative and compact patching system (just 1 U high) for 19” rack mounting. Robustly housed in black coated steel casing and featuring precision aluminum fittings it is built to last. The ***NEUTRIK®”Easy Patch”*** is suitable for analog and digital audio signals.

The new generation of the ***NEUTRIK®”Easy Patch”*** is easily programmable for any out of five electrical configurations (*half normalled bottom row, half normalled top row, full normalled, parallel, isolated*). The programming feature allows to set all possible switching configurations inside the jack pairs or “***Plug-in Unit***s” with a specially designed mechanism and individually for each channel.

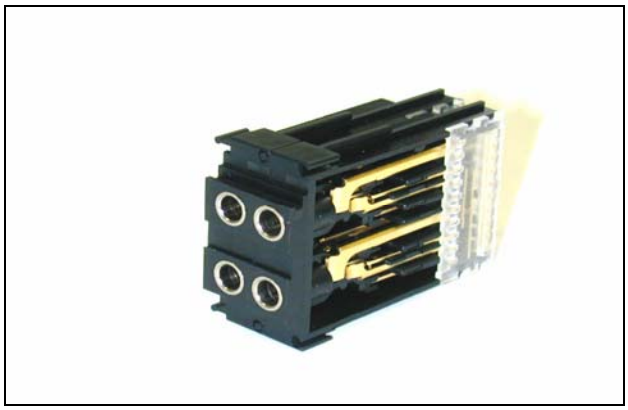


Configuration Chart

The standard configuration on ***”Easy Patch”NPPA-TT-SD50*** is half normalled bottom row. Modules ***NJ3TTA-4-.x.*** consisting of two “***Plug-in Unit***s” (or four jacks ***NJ3TTA***) with prefabricated normalling are also available.

2) Re-Configuration and Replacement

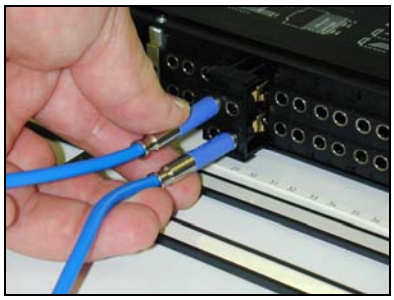
Each individual jack pair or “***Plug-in Unit***” can be exchanged or re-configured without fuss even while the unit is “on air”.
For replacement or re-configuration just remove the easy accessible module consisting of two “***Plug-in Unit***s”.



*Module with two “**Plug-In Units**”*

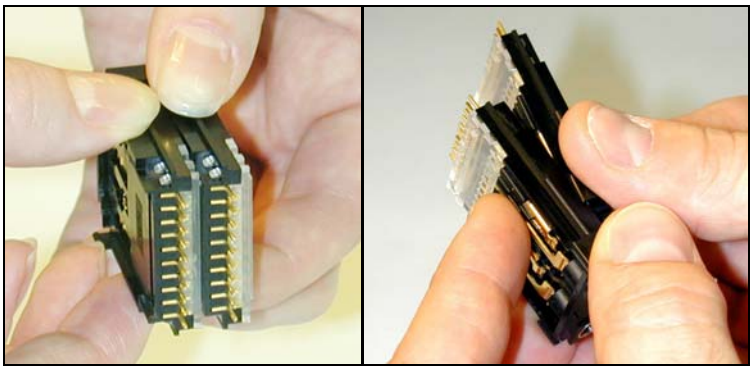
First ∂ remove the front panel by unscrewing the 3 black cross-recessed screws (M3x8 *Taptite*), remove the two side-stops, • **push out the channel identification strips** and ÷ simply pull one module with two “***Plug-in Unit***s” out of the casing using the supplied ***disassembling pliers***. Alternatively the “***Plug-in Unit***s” may be pulled out by the use of two Bantam plugs (diagonally plugged in).

∂ Remove Front Panel *• Push out channel ID strip* *÷ Pull out module* *Dissassembling pliers*



Alternative way to pull out module

\ The two “*Plug-in Unit*s” are separated by ≠ spreading apart the rear parts to unlock the fixing mechanism till it is possible ≡ to slide the “*Plug-in Unit*s” against each other in axial direction.

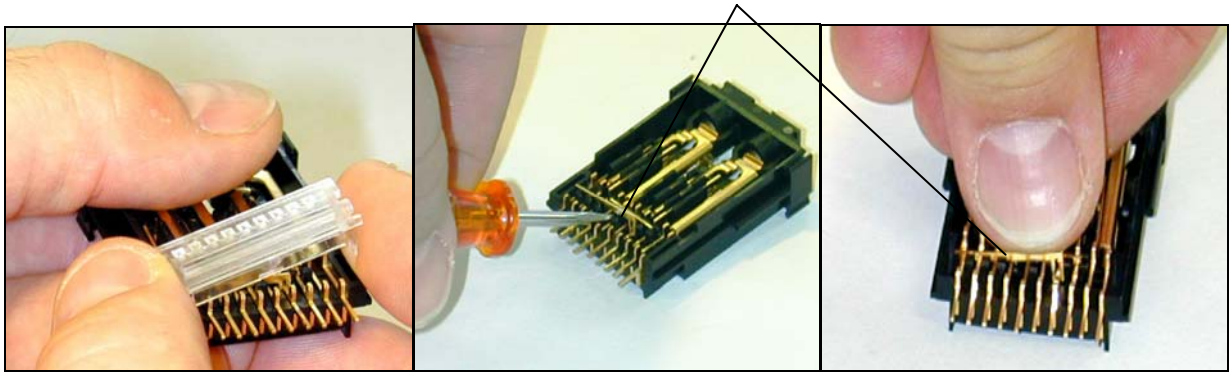


≠ spread apart the rear parts *≡ Slide “Plug-In Units” against each other*

\ Then ≈ remove the cover with a tiny grip at the side and carefully … pull out the configuration bars you need to exchange (preferably using a small screw-driver).
Carefully | insert new bars by pressing them in parallel at both ends.

K **Attention**: To ensure best contact conditions never reuse the configuration bars once being put in place! Always take new ones!

Configuration bars

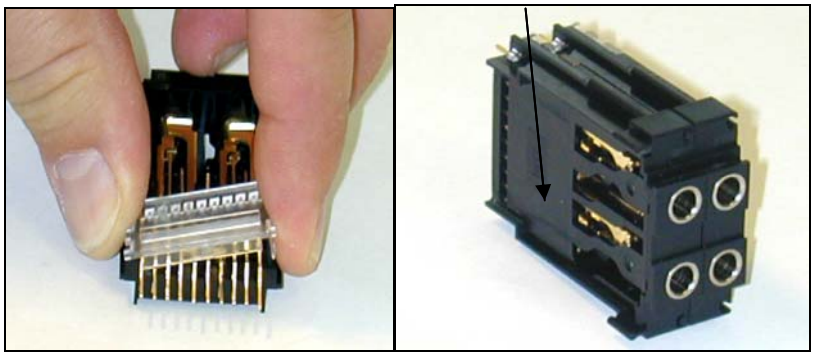


≈ Remove the cover *… Pull out configuration bars* *| Insert new bars*

K Keep the contacts and switches in place with the thumb while manipulating the normalling contacts.

Finally — snap on the cover (Insert it first at one side and then snap slightly into the opposite groove with a light pressure on the nose).
The two “***Plug-in Unit***s” have to be re-assembled in the right way ↵ so that the thicker body marked “left” is put on the left side with the mark outside and readable.

“left”



— *Snap on the cover* ↵ *Re-assemble module*

To complete, push the new or re-configured two “***Plug-in Unit***s” into the casing again with the mark on the left side(If more than one module are removed always assemble from the center to the right or left side and be careful that the keys on the left side of the “***Plug-in Unit***s” find their guiding slots. If all ***“Plug-in Unit***s**”** are removed start at the casing support in the center and assemble to the right and left side). Slide in again the channel identification strips (best from the outside inwards) and fix the front panel again with the black cross-recessed screws. Don’t forget to insert the side-stops before fixing the screws (see page 9).

3) Grounding variations

The patch panel is terminated with **4 Sub-D connectors** each of them corresponding to groups (**Sub-D groups**) of 12 channels. Each **Sub–D connector** has only **two ground contacts:**

- **one** for the **top row** connecting all top row ground contacts
- **one** for the **bottom row** connecting all bottom row ground contacts

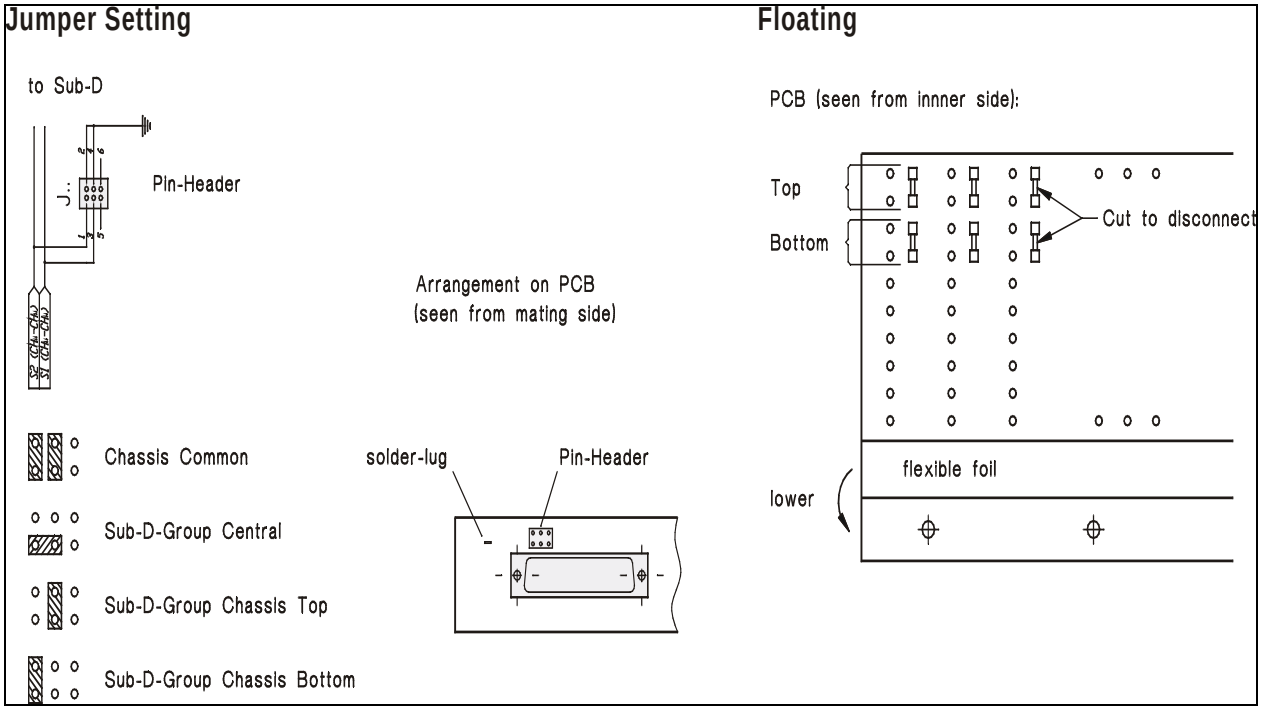
Each **Sub-D group** is configured by its own **jumper block.** The flexible grounding system provides the following alternatives to choose from:

- **Chassis Common**: All channel grounds (top & bottom row) are connected via PCB and jumpers to the patch panel chassis as **standard** (delivery configuration).

- **Sub-D-Group-Central**: Ground contacts of top and bottom row are connected but **separated** from chassis.

- **Sub-D-Group-Chassis Top or Bottom**: Either top or bottom ground contacts are connected to chassis.

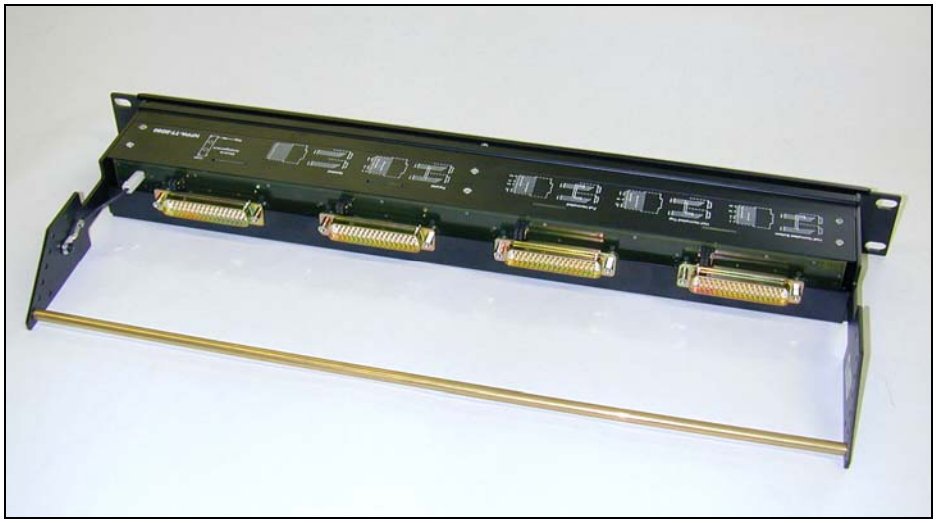
- **Floating of individual channels:** The ground contacts of top and/ or bottom jacks of each channel can be disconnected from a Sub-D Group by cutting the tracks between the corresponding solder pads.



Grounding Variations

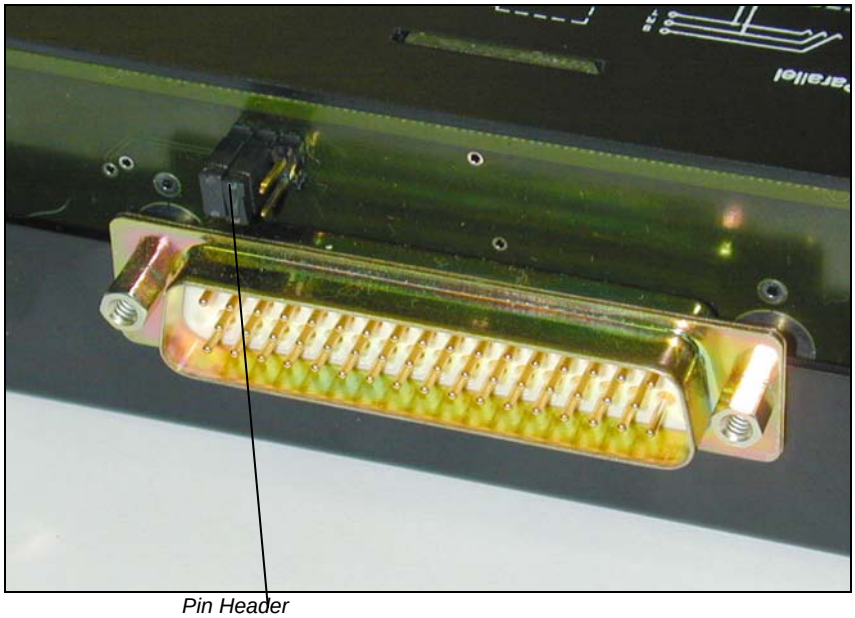
4) Wiring

Four Sub-D connectors with **50 pins** each enable fast and easy wiring even with the patch panel installed in the rack.



Rear front for wiring

50 pin Sub-D connector terminal (SD50)



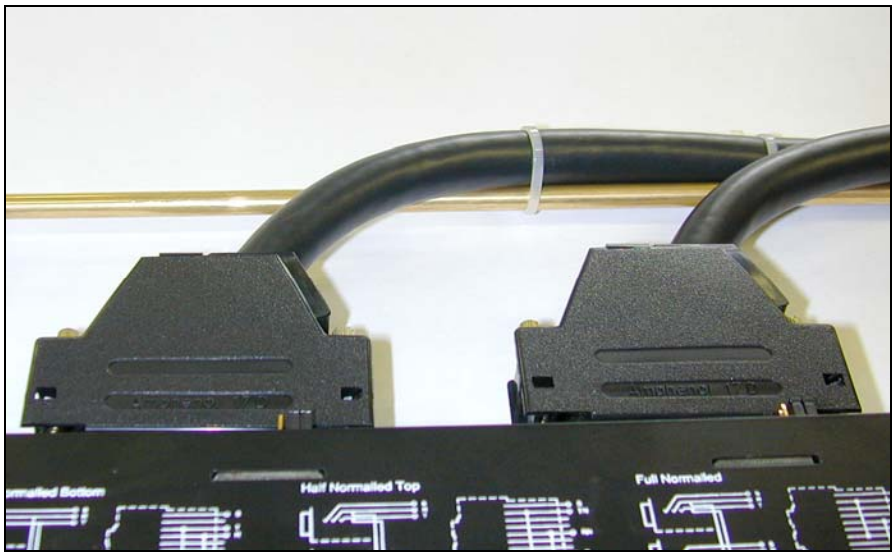
Pin Header

5) Cable retention to the unit:

The built in cable retention bar is at the back of the casing. Simply attach the cables with cable ties to the bar .

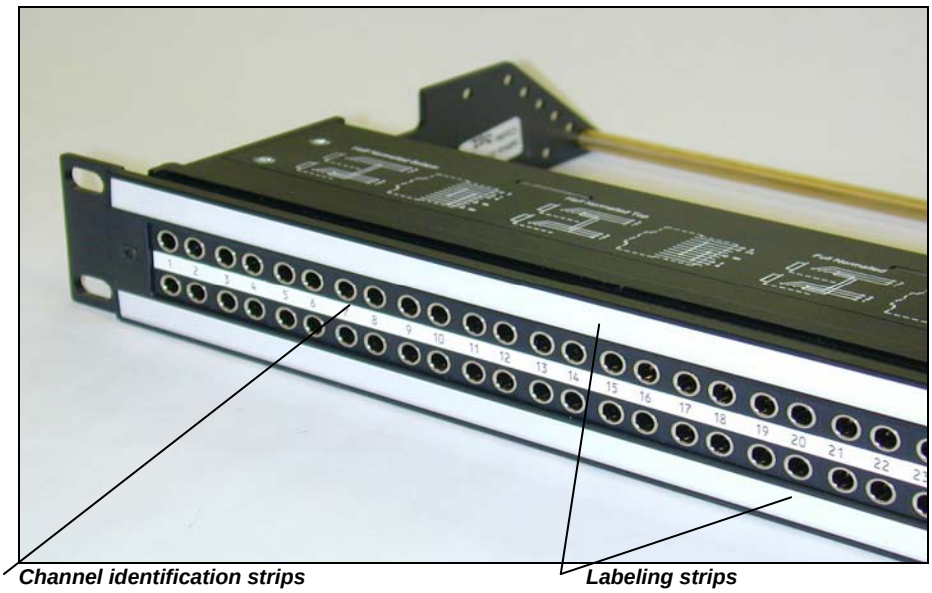
For large and heavy bundles there is an additional strain relief bar NPPA-S available. It is attached to the casing with four screws.

Cable retention bar



6)Channel identification

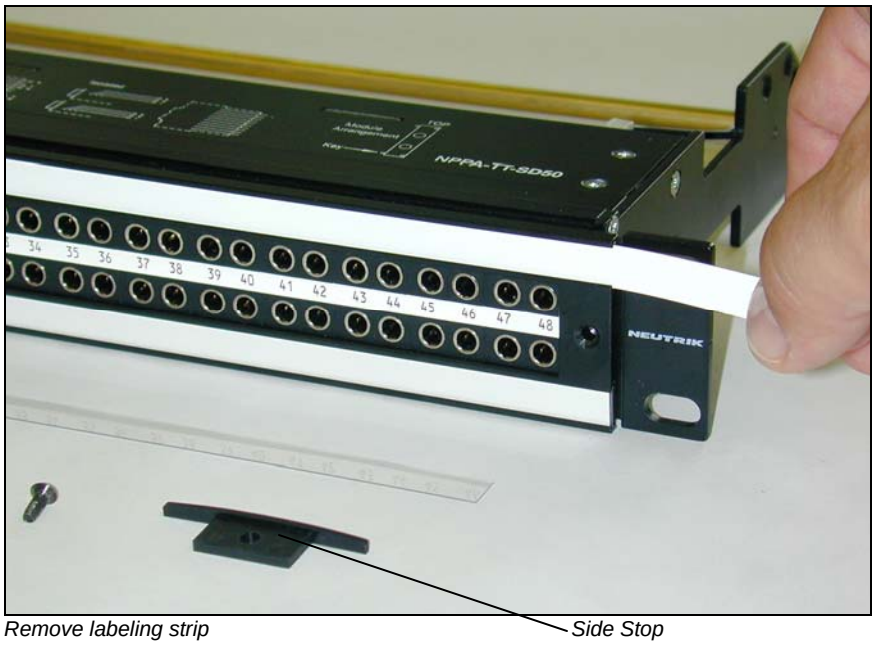
The front panel is equipped with **channel identification strips** located in the center of the channels and marked with the channel numbers 1-24 and 25-48 respectively.



Channel identification strips ***Labeling strips***

For the perfect management of the system and for individual identification according to customer’s needs there are two large and separate **labeling strips**, one for the bottom and one for the top row.

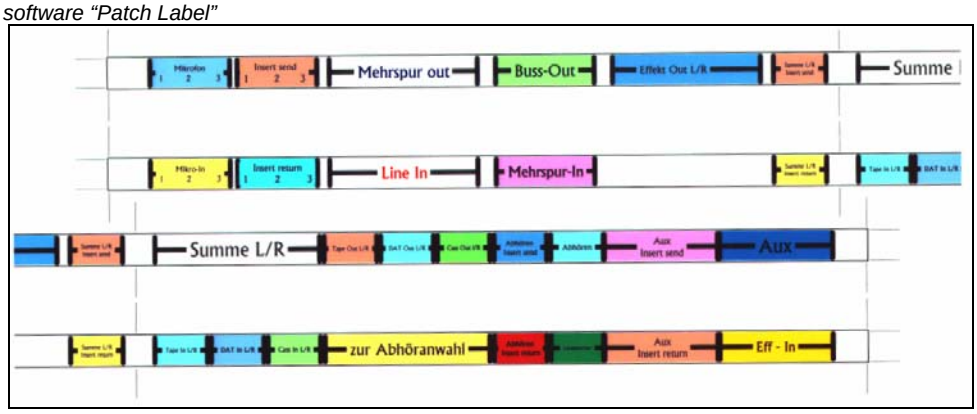
To write on the paper you have to unscrew one of the outer fixing screws of the front panel. Then pull out the side-stop, the transparent foil and the paper strip itself.
After marking is done assemble the parts in reversed sequence.



Remove labeling strip *Side Stop*

K**NOTE**: For easy and perfect marking You can use our designation software **“PatchLabel”** which is available on our web site **www.neutrik.com** free of charge.

Print-Out software “Patch Label”



7.Technical data:

7.1) Electrical

Frequency range:	DC to > 50 MHz
Digital suitability:	Digital audio acc. to AES/EBU
Channel separation:	> 100 dB @ 10 kHz, 600 Ω terminated
	> 40 dB @ 6 MHz , 110 Ω terminated
Insulation resistance:	> 10^9 Ω @ 500 V dc
Connector contact resistance:	<20 mΩ
Switch contact resistance:	< 25 mΩ
Dielectric strength:	1000 V dc

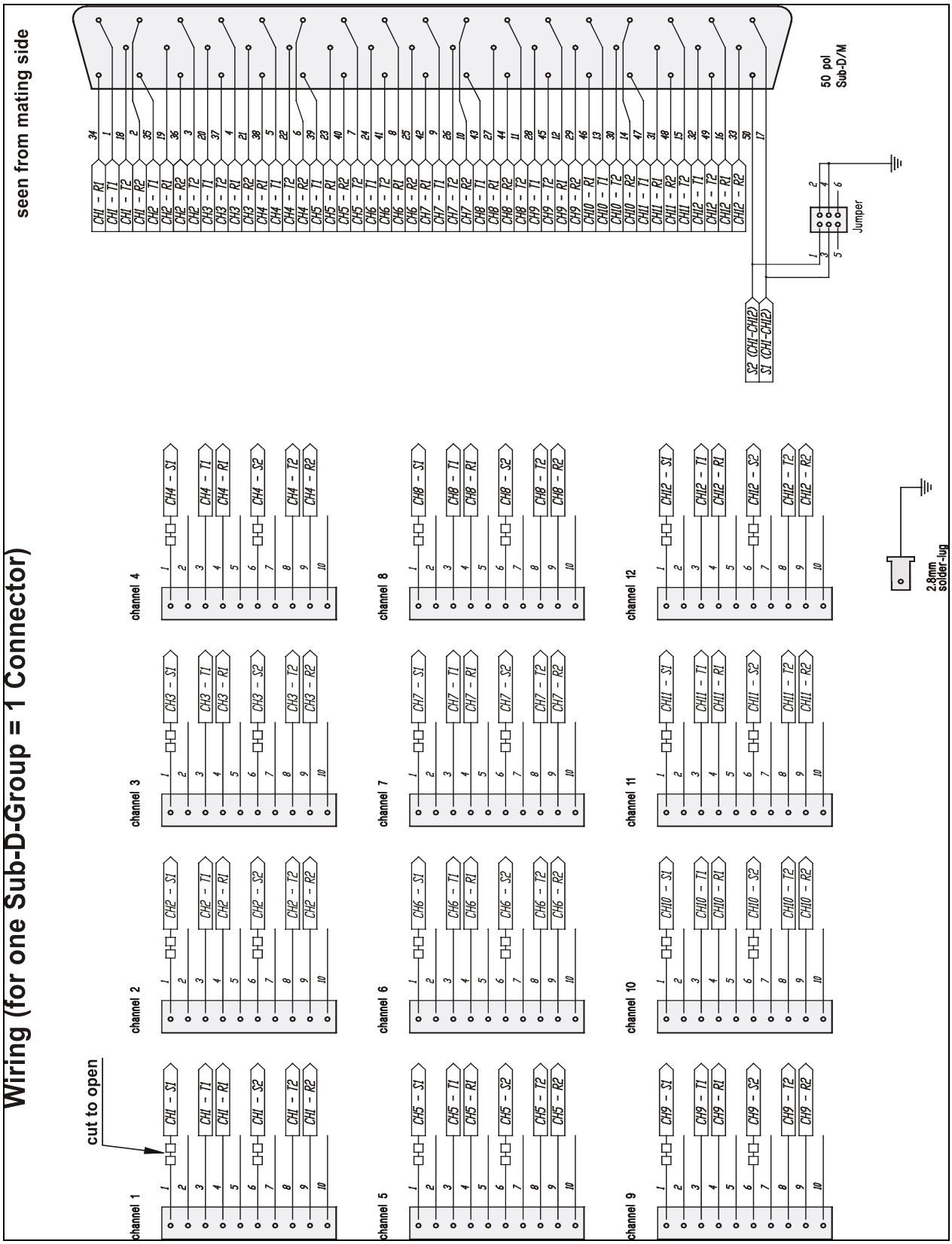
7.2) Mechanical

Lifetime:	> 5.000 Insertion / withdrawal cycles
Insertion / Withdrawal force:	< 10 N / > 8 N
Cable retention force:	70 N max per cable retention bar
Dimensions (rack mount):	482 mm (W) × 44 mm (H) (19” × 1 U)
Depth:	178 mm (7”)
Weight:	2.2 kg
Temperature range:	-30° C to +80° C

7.3) Materials

Jack housing:	PA 66 blend
Jack contacts:	CuSn6 – TRIBOR® plated
	(0.2 μm AuCo over 2 μm NiP)
Casing:	Steel and aluminum,
	black coated
Front Panel:	AlMgSi 0.5 F22

8) Wiring Diagram



Wiring diagram for one Sub-D group

9) Contents of supply

9.1) Standard supply

The compact **NEUTRIK®”Easy Patch” NPPA-TT-SD50** consists of:

- Black coated **steel casing** with aluminum fittings
- **2 x 48** highly integrated ***NEUTRIK® NJ3TTA*** jacks with gold plated double contacts and specially designed normalling mechanism (standard: half normalled bottom row)
- **Integrated internal pre-wiring** with selectable flexible grounding system
- **4 50 pin D-subminiature terminals**
- **1** Built–in **cable retention bar**
- spare normalling **configuration bars**
  - **48 Normal 1** : “short”, bridges 5 contacts
  - **96 Normal 2** : “medium”, bridges 6 contacts
  - **48 Normal 3** : “long” , bridges 7 contacts
- **1** Dissassembling pliers
- **1** Instruction Manual

9.2) Options and Accessories

Order Information for Pre-configured **„Plug-in Units“** and **Accessories:**

- **NJ3TTA-4-HNB** blocks of **2** channels**; half normalled bottom row;** cover identification color: **clear**
- **NJ3TTA-4-HNT** blocks of **2** channels**; half normalled top row;** cover identification color: **yellow**
- **NJ3TTA-4-FN** blocks of **2** channels**; full normalled;** cover identification colour: **green**
- **NJ3TTA-4-P** blocks of **2** channels**; parallel;** cover identification color: **red**
- **NJ3TTA-4-I** blocks of **2** channels**; isolated;** cover identification color: **orange**

- **NPPA-S** optional **Strain relief bar**
- **NKTT0x** **Patch cable (** available in different lengths and colours)