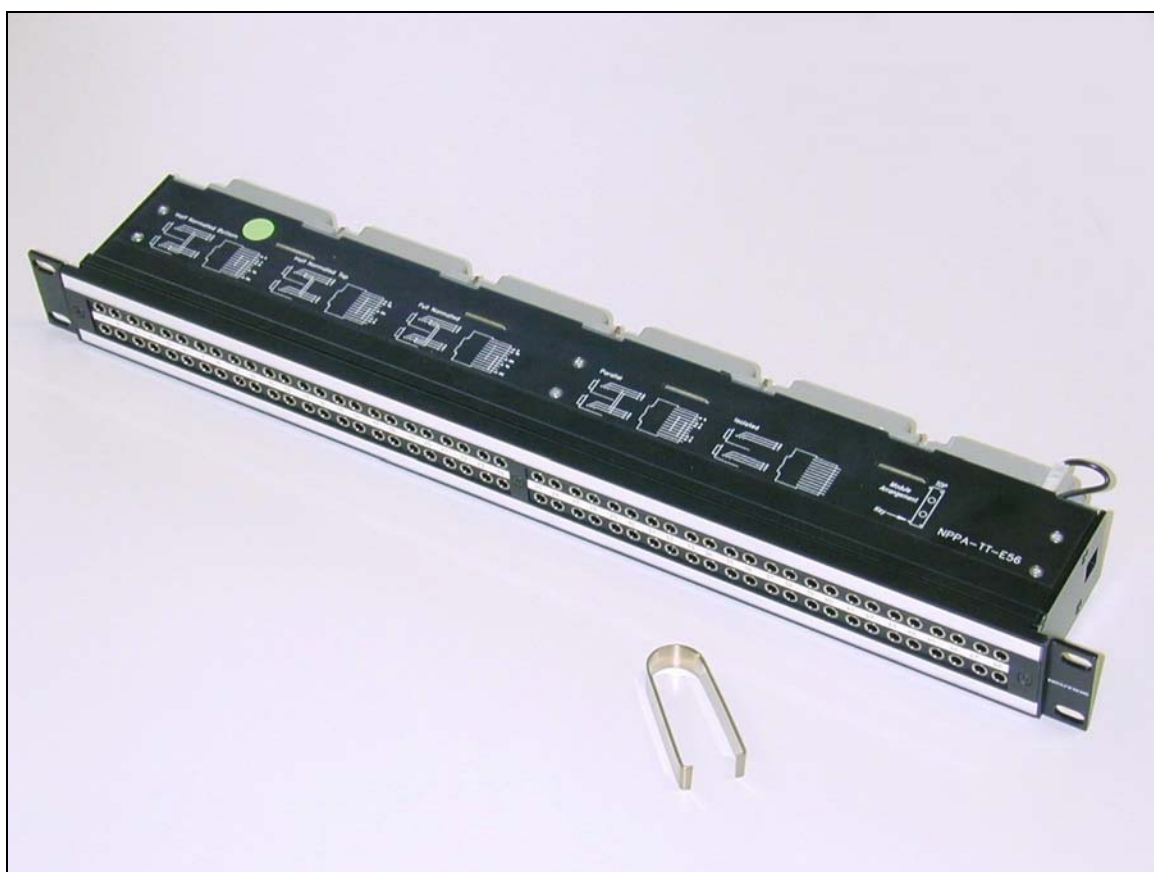


PATCH PANEL “Easy Patch”

96 Bantam (TT) Jacks
EDAC 56-pin termination
NPPA-TT-E56

INSTRUCTION MANUAL

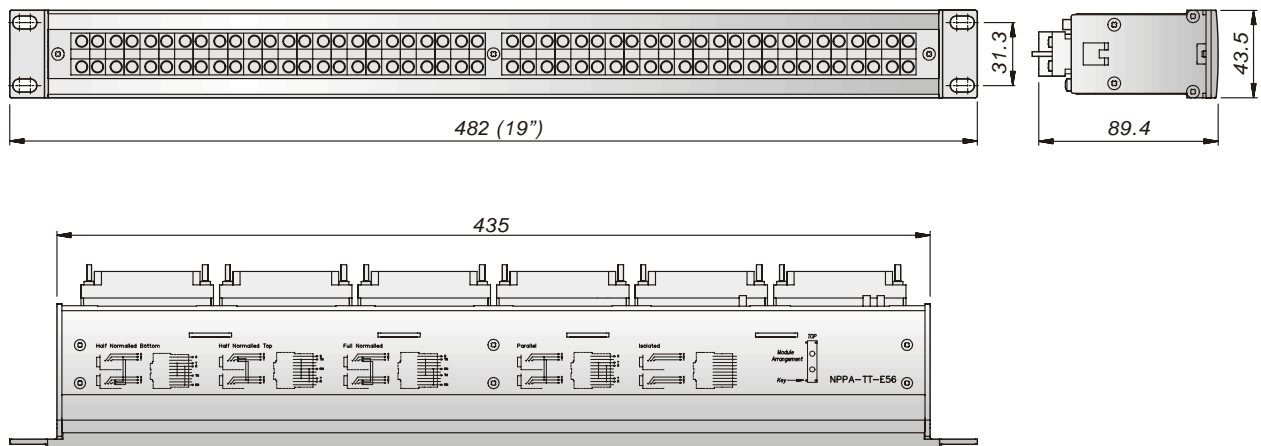


“Easy Patch” NPPA-TT-E56

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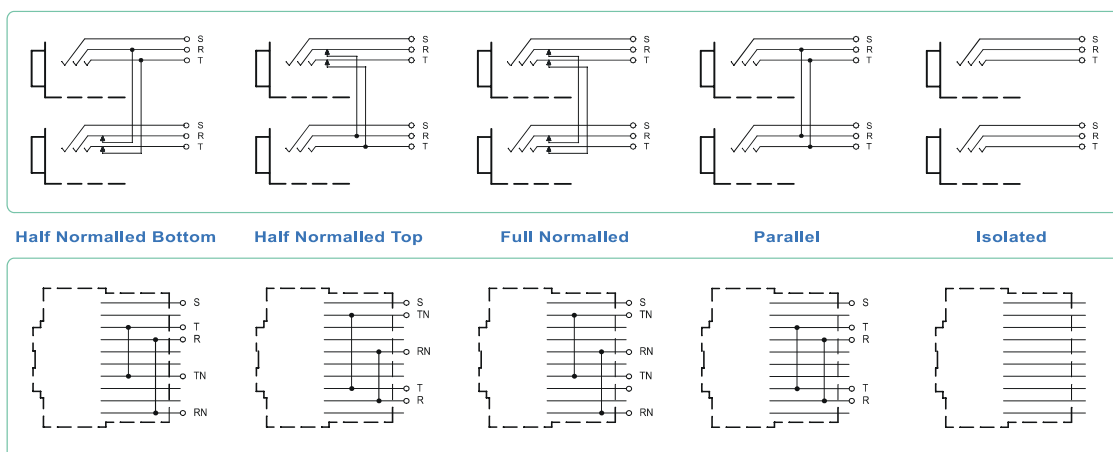
Dimensional Drawings "Easy Patch" NPPA-TT-E56



1. Electrical configuration

The **NEUTRIK® "Easy Patch"** is equipped 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 Units**" with a specially designed mechanism and individually for each channel.



Configuration Chart

The standard configuration of the **"Easy Patch" NPPA-TT-E56** is half normalled bottom row. Modules **NJ3TTA-4-.x** consisting of two "**Plug-in Units**" (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 Units**".



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, \bullet push out the channel identification strips and \div simply pull one module with two "**Plug-in Units**" out of the casing using the supplied **disassembling pliers**. Alternatively the "**Plug-in Units**" may be pulled out by the use of two Bantam plugs (diagonally plugged in).



∂ Remove Front Panel



\bullet Pull out channel ID strip

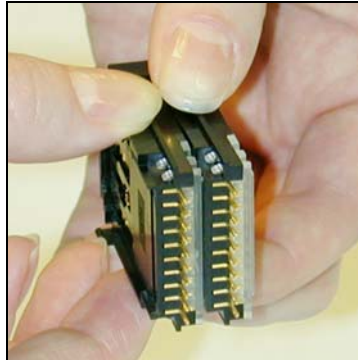


\div Pull out module Disassembling pliers

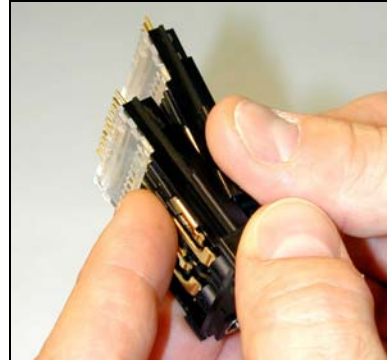


Alternative way to pull out module

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



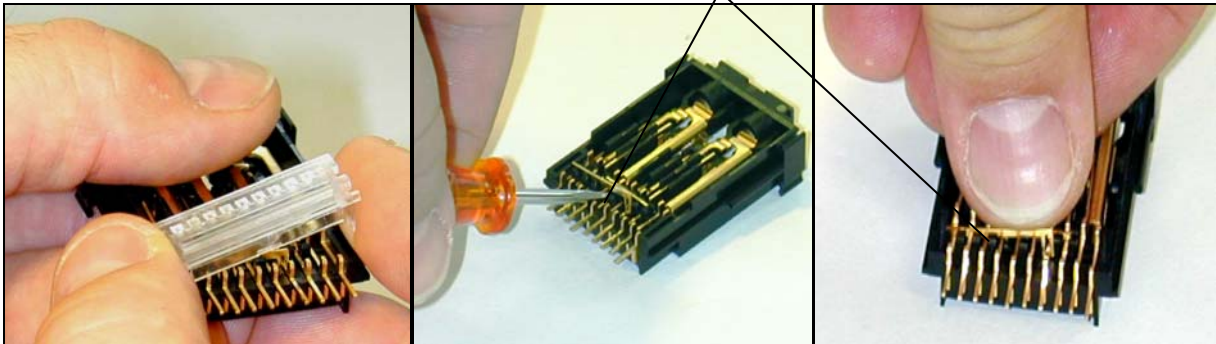
≠ spread apart the rear parts



≡ 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



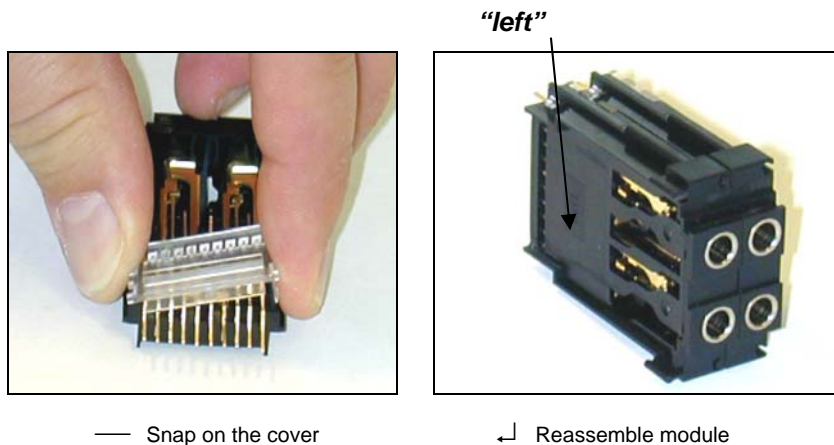
≈ Remove the cover

... 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 Units”** 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.



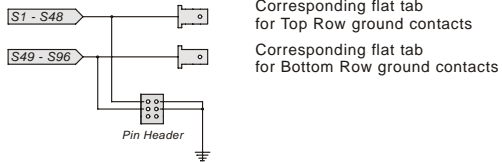
- To complete, push the new or re-configured two **“Plug-in Units”** into the casing again with the mark on the left side (If more than one module is removed always assemble from the center to the right or left side and be careful that the keys on the left side of the **“Plug-in Units”** find their guiding slots. If all **“Plug-in Units”** 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 10).

3. Grounding variations

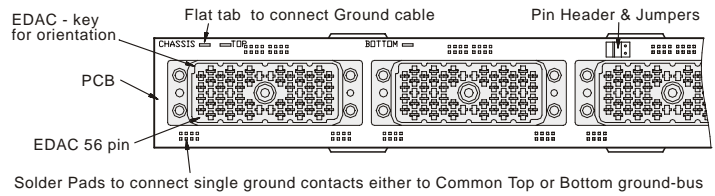
The flexible grounding system provides the following alternatives.

- **Individual:** Each channel ground (“S” terminal) is connected to the dedicated ground conductor (drain wire) of the incoming cable shield, no connection between the solder pads. This is the standard configuration.
- **Central:** All channel grounds (individual Top and Bottom row) are connected via the Top and Bottom PCB bus by connecting the solder pads. The connection between Top and Bottom bus is made by jumpers.
- **Chassis Common:** The same as Central but with jumpers connecting the Top and Bottom row bus to the chassis flat tab which is connected to chassis via ground cable.

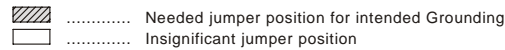
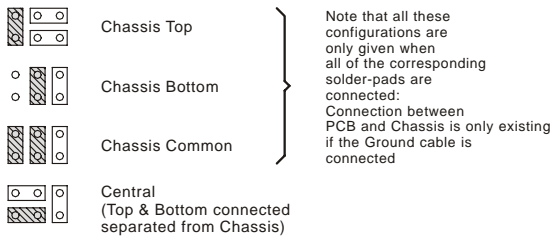
Symbolic structure of ground connection:



Arrangement on PCB (seen from mating side)



Configurations



NOTE: In standard configuration there is no ground connection between top and bottom row unless it is provided by an inserted patch cable. If this is required, as in the case of phantom powered microphone lines, make the connection via patch cable or by the normalling feature.

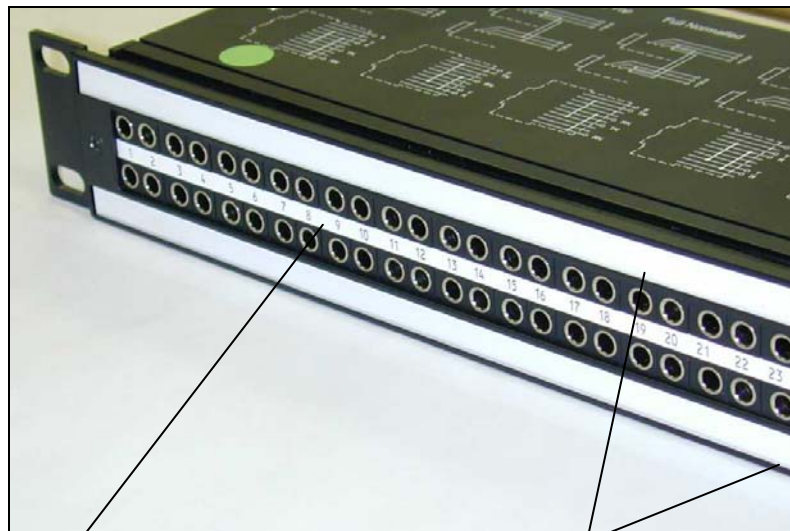
4. Cable retention

The ELCO®-EDAC® 56 connector is fixed to the housing by means of 4 screws. The plug itself is secured by one screw.



5. 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.

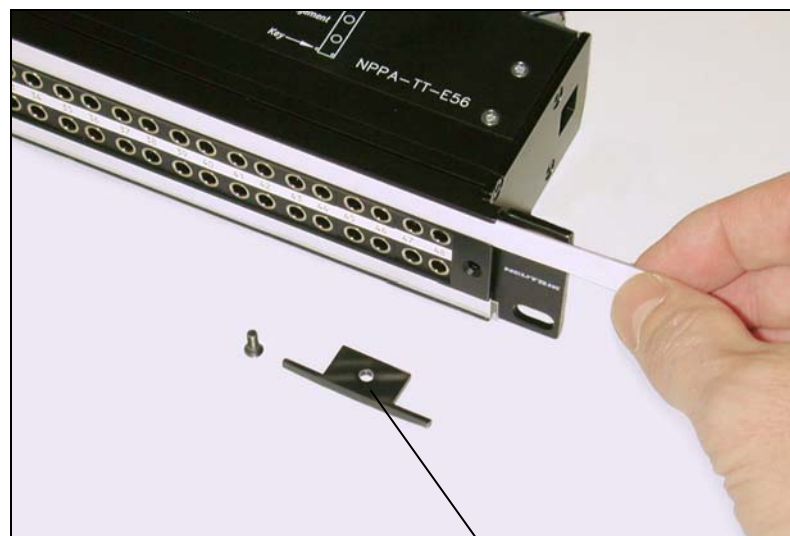


Channel identification strips

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.

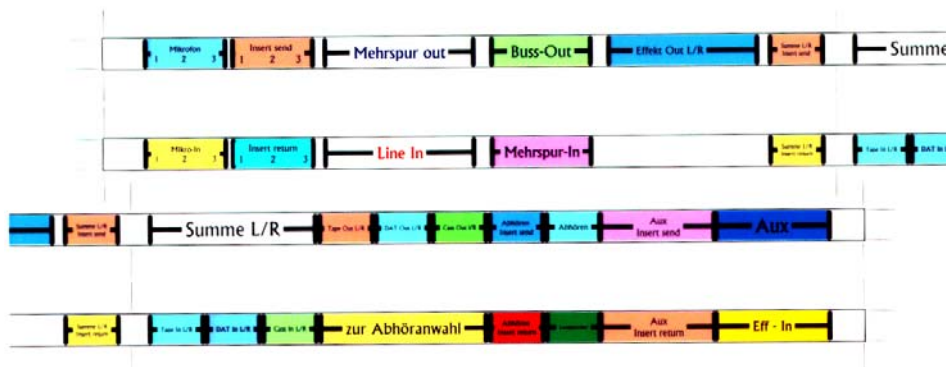


Remove labeling strip

Side Stop

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”



6. Technical data

6.1 Electrical

Frequency range:	DC > 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

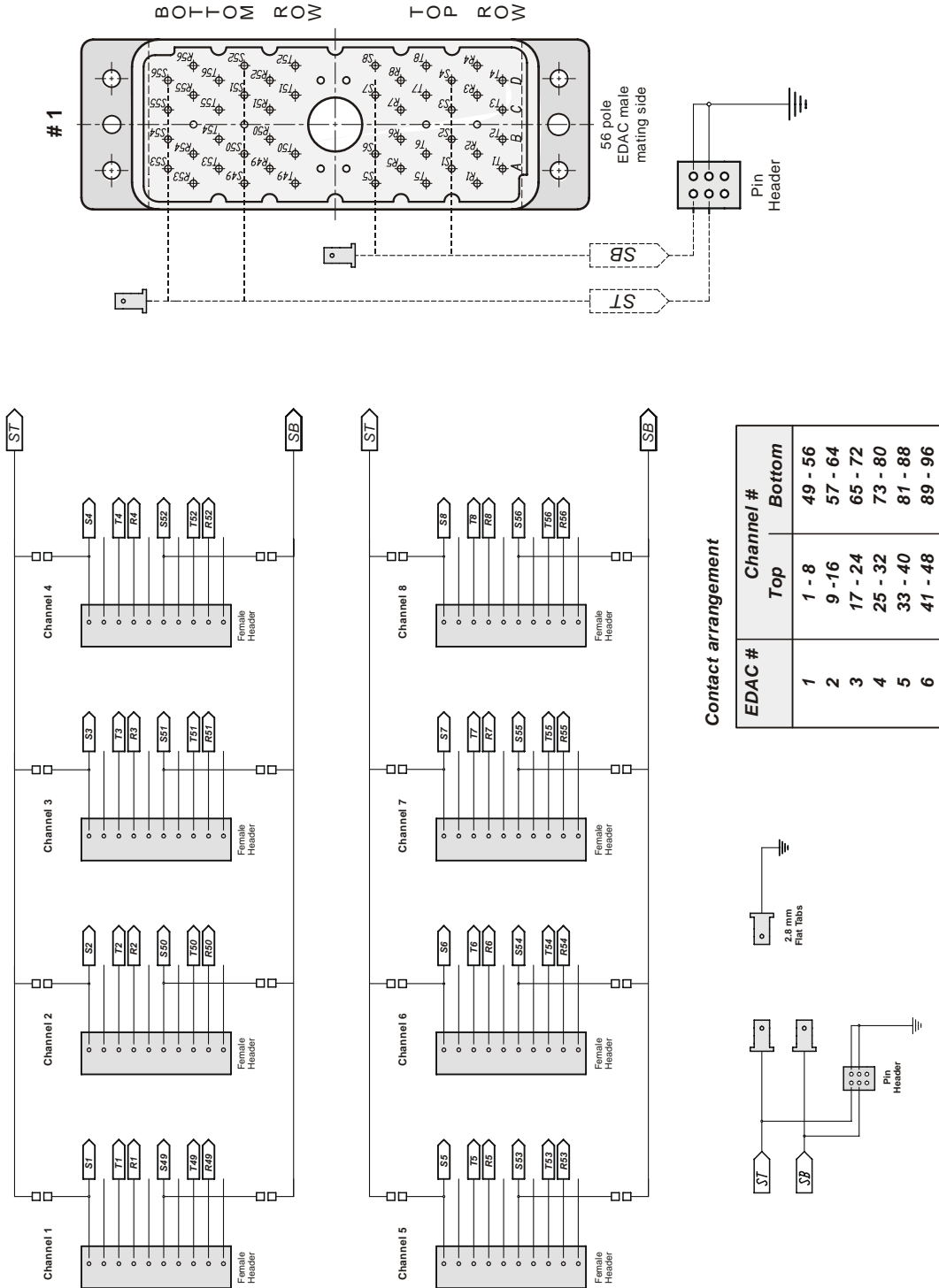
6.2 Mechanical

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:	89 mm (3.5")
Weight:	2.1 kg
Temperature range:	-30°C to +80°C

6.3 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

7. Wiring diagram



8. Content of supply

8.1 Standard supply

The compact **NEUTRIK®** "Easy Patch" **NPPA-TT-E56** 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
- **6 ELCO®-EDAC® 56-pin male connectors**
- Chassis integrated cable retention
- 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 Disassembling pliers**
- **1 Instruction Manual**

8.2 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 color: **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**
- **NKTT0x** **Patch cable** (available in different lengths and colors)