



PRODUCT MANUAL

etherCON® TOP Cable Connector | NE8MXR1-B-TOP

1 PRODUCT EXAMPLE



NE8MXR1-B-TOP

The product is a rugged RJ45 carrier cable connector with locking feature (receptacle side) for outdoor use.

It offers easy retracting of the shell to set free the RJ45 plug to allow connectivity with commodity RJ45 receptacles.

2 GENERAL

Introducing the latest innovation in ethernet connectivity, expanding the NEUTRIK etherCON® TOP portfolio. Designed to withstand the harshest outdoor conditions, this connector combines durability with versatility, ensuring reliable performance in any environment and application.

With this unique design, the TOP connector allows for the first time to easily retract its shell, providing compatibility with standard RJ45 receptacles. This feature allows flexible and universal usage in various applications.

Please note that the RJ45 carrier cable connector includes an RJ45 plug.

It is designed for use with non pre-assembled cables only.

ATTENTION:

Does not intermate with the CAT6 receptacle NE8FDY-C6 and NE8FDY-C6-B.

A TECHNICAL DATA

Product

Title	NE8MXR1-B-TOP
Product family	etherCON®
Connection type	RJ45 carrier cable connector
Gender	male
IMPORTANT	Cable connectors do not include RJ45 plug. RJ45 cable assembly must be provided by end user!

Mechanical

Cable O.D.	5.5 - 8.0 mm
Wiresize	AWG26/1 - AWG 27/1 (solid) AWG24/1 - AWG 27/7 (stranded)
Insertion force	≤ 30 N
Withdrawal force	≤ 30 N
Lifetime	min. 1'000 mating cycles min. 100 retracting cycles



Material

Boot	Thermoplastic elastomer (TPE)
Shell	Zinc diecast (ZnAl4Cu1)
Strain relief	Polyketon (PK)
Sleeve	Polyamid (PA6, Gf15%)

Environmental

Protection class	IP65 (mated) IP65 (closed sealing cap)
Temperature range	-30 °C to +80 °C



Read the operating instructions carefully, and observe the safety instructions in particular.

If you do not follow the safety instructions and the information on proper handling in this operating manual, we accept no liability for any resulting personal injury or damage to property.

In addition, the warranty/guarantee will become void in such cases.

3 ASSEMBLY INSTRUCTION

Step 1 ASSEMBLE THE HOUSING



A Slide the bushing over the housing.

Step 2 ASSEMBLE THE CABLE

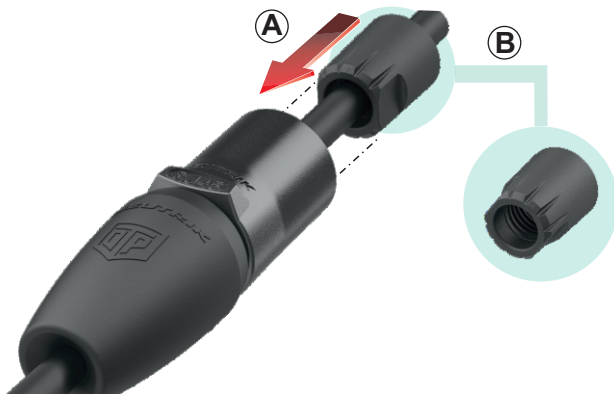


A Slide the connector over the cable.

B A cable lubricant can be used to simplify the boot assembly, especially for large cable diameters.

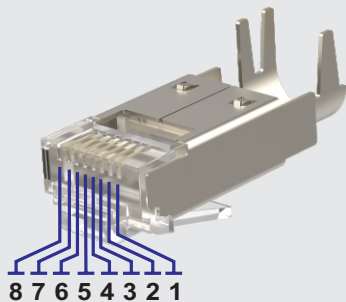


Step 3 ASSEMBLE THE CHUCK



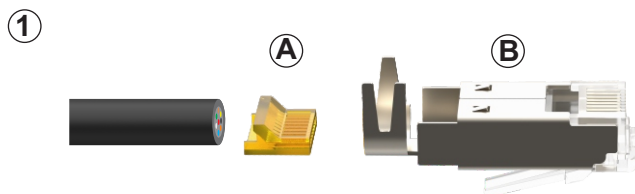
- (A) Slide the clamping sleeve over the cable.
- (B) Make sure the clamping sleeve is in the correct position. See picture.

Step 4 ASSEMBLE RJ45 PLUG



Consider the cable end termination either according to the TIA 568A or T568B standard.

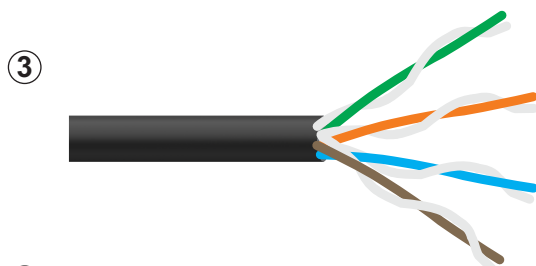
Connection			
RJ 45 PIN No.	Color code		
	T568A		T568B
1	W - G		W - O
2	G		O
3	W - O		W - G
4	BL		BL
5	W - BL		W - BL
6	O		G
7	W - BR		W - BR
8	BR		BR



Assemble of the wire manager (A) and RJ 45 plug (B).



Strip outer jacket 20 mm long.

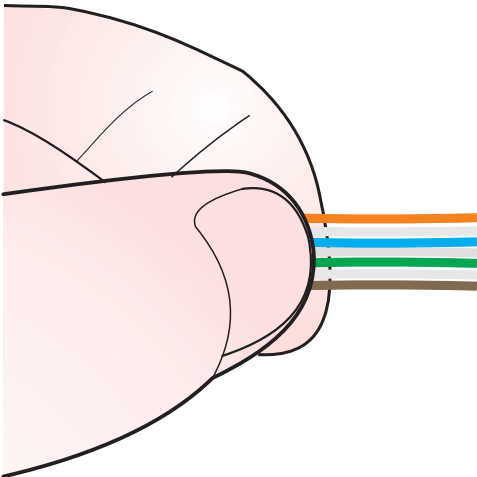
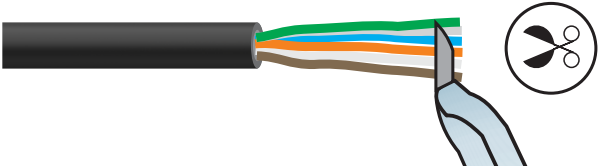
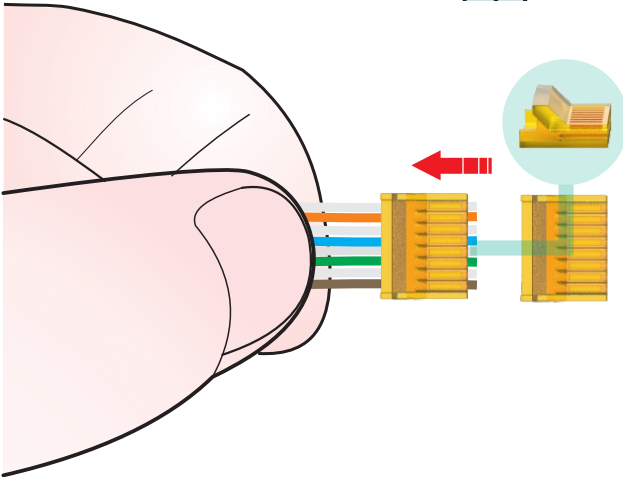
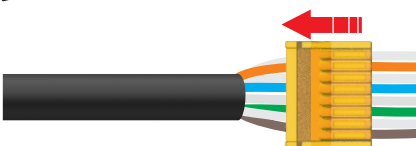
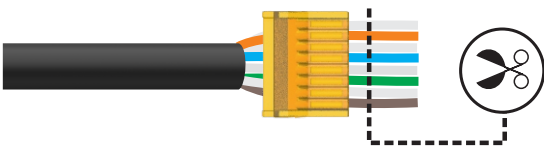
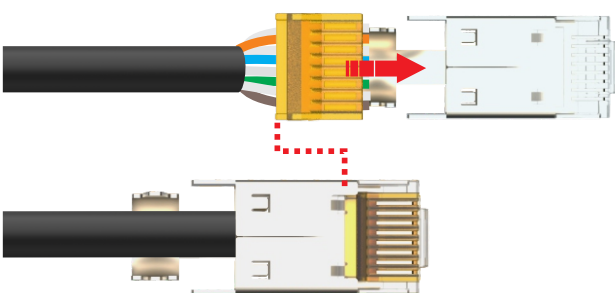


Separate pairs in bundles.



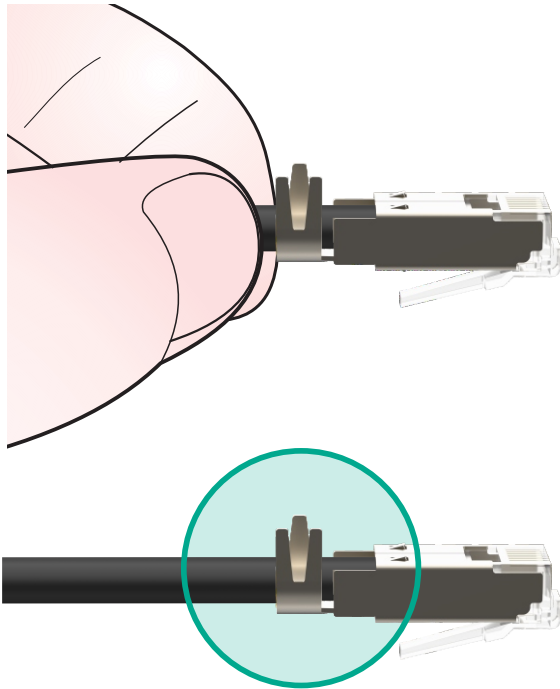
Straighten and separate into individual leads.



- ⑤  **Organize leads into proper order and trim edge to be even.**
- ⑥  **Wire lead ends shown organized and trimmed.**
- ⑦  **Insert the wire manager and the wires into the open end.**
- ⑧  **Slide wire manager into position to the end of the wires.**
- ⑨  **Trim leads about 1 mm with a straight cut.**
- ⑩  **Insert wires and wire manager into RJ 45 plug and push fully forward.**
- Attention:**
Make sure the wire manager locks in all the way. A small flathead screwdriver may be used to push the wire manager into its final position.
- Terminate plug with hand terminator or any other suitable crimp tool.**

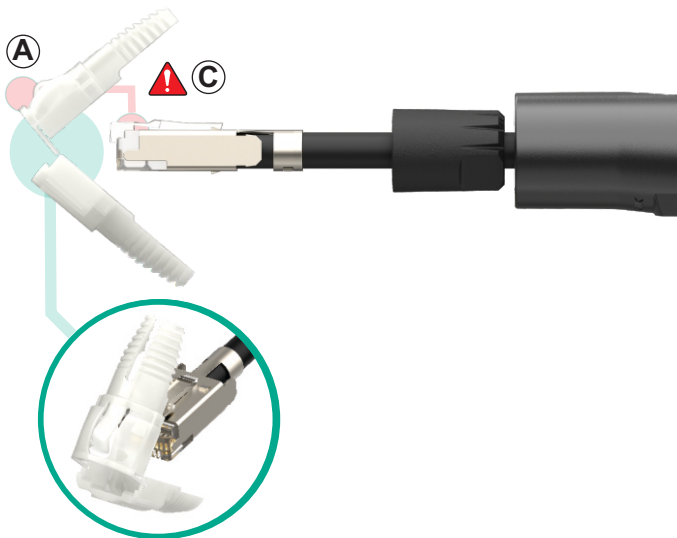


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In the case of using shielded cable crimp shield to connector.

Step 5 ASSEMBLE CHUCK



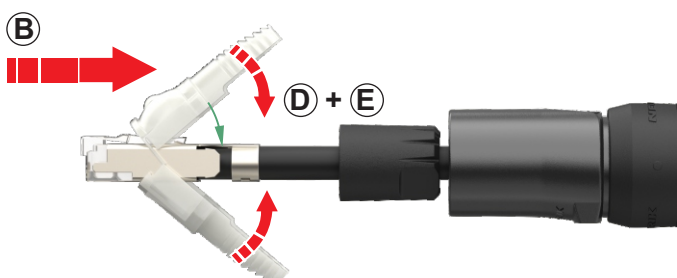
Position the chuck onto the RJ45.

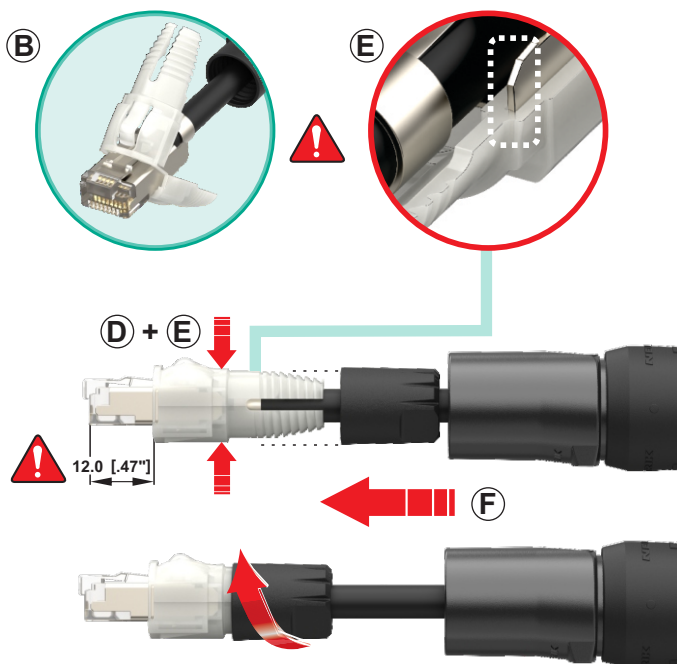
- Ⓐ Open the chuck.
- Ⓑ Slide the RJ45 through the chuck on the right position.

Ⓒ **Attention:**
The position of the latch of the RJ45 must match the position of the chuck.

- Ⓓ Fold the chuck together and hold it in position for the next step.

Ⓔ **Attention:**
Make sure that the thread of the chuck is aligned correctly.



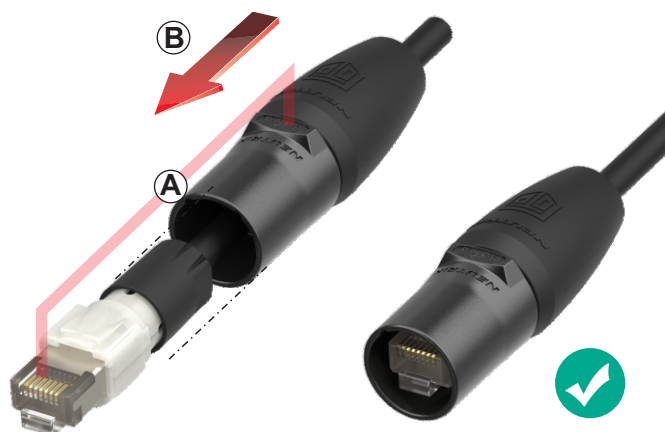


Ⓕ Slide the sleeve onto the chuck thread and tighten it.

- Recommended distance min. 12.0 mm (0.47").
- Tip: Plug the RJ45 into a chassis during assembly.

Example:
etherCON
Chassis
Connector

Step 6 ASSEMBLE CHUCK



- Ⓐ Align the parts. The contacts of the RJ45 are in line with the flat spot of the connector housing.
- Ⓑ Slide the housing over the RJ45 assembly, you hear and feel it locking.

4 Application and Safety Instructions

A Assembly

- Ensure the use of appropriate personal protective equipment during the assembly and processing of the product.
- Neutrik components must only be assembled with designated and specified parts.
- Replacement parts are suitable only when used in combination with the designated components.
- The product's characteristics are guaranteed only in the intended combination.
- The assembling party is responsible for ensuring proper assembly in compliance with local regulations.
- Assembly must be carried out by professionals.
- Suitable personal protective equipment must be used during assembly and further processing of the product.
- The safety evaluation of this product was conducted according to standard requirements under laboratory conditions.



- Product safety in the intended application must be ensured by the respective involved party after assembly to a cable or installation in an electronic device or similar.

B Application

- The product is exclusively intended for installation in electronic equipment or similar devices.
- The product is not intended for use in medical applications.
- The product is not intended for use in potentially explosive or flammable environments.

C Operation

- Before plugging in, check the contact area for dry surfaces.
- Product surfaces may cause burns at elevated ambient temperatures. Ensure the use of appropriate protective equipment.
- Neutrik products and components should only be combined with designated Neutrik Group brands and components.
- To ensure IP65 protection in the unconnected state, use the designated accessories.
- If visible damage is present, the product should be checked for suitability.
- When using with other products, suitability and safety must be assessed before commissioning and appropriate safety measures taken if necessary.
- Children must be supervised to ensure they do not play with the product.

D Cleaning

- Clean only with dry and lint-free materials or compressed air.
- The product must not be cleaned while under load. It may only be cleaned when it is not connected to any voltage and without the use of cleaning agents.

E Damages

- Handle products with care.
- In case of visible damages, check the suitability of the product for use.
- The product must be protected from mechanical impacts. Avoiding mechanical influences is the responsibility of the operating party.

F DISPOSAL



Electronic devices are recyclable materials and do not belong in household waste. Dispose of the product at the end of its service life in accordance with the applicable legal regulations.

5 More Information on the website



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www.neutrik.com

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