s88-N Adapter (s88-N)

For the connection of 6-pole connectors
of s88-devices with Ethernet patch cables (RJ-45)

X Version S88-A-BL
Item no. 44-09100-01

X Version S88-A-BR
Item no. 44-09110-01

X Version S88-A-SL
Item no. 44-09200-01

X Version S88-A-SR
Item no. 44-09210-01

tams elektronik

Information and tips:

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Warranty and servic:

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C€

EU declaration of conformity

C€ This product conforms with the EC-directive mentioned below and is therefore CE certified.

2011/65/EG on the restriction of the use of certain hazardous substances in electrical and electronic equipment (ROHS). Underlying standard: EN 50581.

1. Getting started

Intended use

The s88-N adapter is designed to be operated according to the instructions in this manual in model building, especially with model railways. Any other use is inappropriate and invalidates any guarantees.

The s88-N adapter should not be mounted by children under the age of 14.

Reading, understanding and following the instructions in this manual are mandatory for the user.

Checking the package contents

Please make sure that your package contains:

- one adapter,
- this manual.

Connection cables (Ethernet patch cable, 6-conductor connecting cable) are not included in the package.

2. Operation overview

Standard s88-N (s88-N)

The standard s88-N regulates the assignment of commercial Ethernet patch-cables with RJ-45 connections for use in s88 feedback systems. Unlike the 6-conductor connecting cables frequently used, the patch-cables used in computer networks are screened against outside electric signals. Thus using patch-cables reduces the liability to interference considerably.

Adapters S88-A

The adapters S88-A have connections for both an Ethernet patch-cable (RJ-45) according to the standard s88-N and a 6-conductor s88-connecting cable. They allow

- to connect advices for the s88 bus with customary 6-pin connections via patch cables (RJ-45) to each other;
- to connect an advice for the s88 bus with customary 6-pin connections to a s88-device with RJ-45 connections according to s88-N.

Versions of the adapters S88-A

The adapters are available in four different versions for different mounting situations:

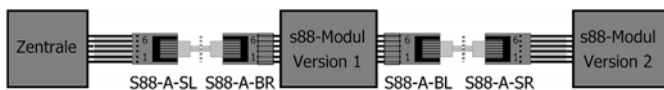|	Version of the adapter´s 6-pole connector	For s88-device with 6-pole connector in direction
S88-A-BR	socket	control unit
S88-A-BL	socket	downstream module
S88-A-SR	plug	control unit
S88-A-SL	plug	downstream module

Connection socket or plug?

If there is space available and if the adapter can be securely mounted to the s88 device, it makes sense to use adapters with sockets. With some devices it is impossible securely mounting an adapter with socket. With those devices connecting an adapter with connecting plug via a short 6-conductor connecting cable (e.g. S88-15) is recommended.

Direction "central unit" or "following module"?

The wires of the s88-data line are numbered from 1 to 6 and are assigned differently. In order to ensure the data transfer, the wires 1 to 6 have to be connected continuously to each other. Normally, the s88 feedback modules are designed so that the flat 6-conductor connecting cables do not have to be twisted.

For this reason the adapters are available with two different PIN assignments. The version "R" is used with those s88 devices showing their 6-pole connecting plug in direction of the central unit, the version "L" for those modules and devices showing their 6-pole connecting plug in direction of the following module.

Examples for possible mounting situations

Explanations for the examples:

1	The central unit shown does not allow connecting an adapter with socket. That is the reason why the connection is made via a short 6-connector connecting cable and an adapter with plug. As the central unit´s connection shows in direction of the following module, an adapter version "L" is required
2 3	This version of a s88 module allows you to fit adapters with socket directly. At the modules connection showing in the direction of the central unit an adapter version "R" is used, at the connection showing in the direction of the following module an adapter version "L" is used.
4	With this version of a s88 module, no adapter with socket can be used. For this reason the connection is made via a short 6-connector connecting cable and an adapter with plug. As the module´s connection shows in direction of the central unit, an adapter version "R" is required.

3. Mounting the adapter

Connect the adapter to the patch cable and the s88 feedback module or device. For this purpose use an adapter with socket or an adapter with plug and a short 6-connector connecting cable.

> ⚠ **Caution**:
>
> Avoid constructions which allow the adapter to be moved after having been connected. Due to (involuntary) movements of the adapter the connections of the s88 module or the digital device and their mounting can be damaged.

4. Check list for trouble shooting

The central unit, the memory or the interface do not show the proper status.

Possible cause: The connection(s) between the adapter and the connected device and / or the patch cable have been interrupted.→ Check the connection(s).

Possible cause: You have mounted an adapter not corresponding to the set mounting direction. → Check if mounting direction and the chosen adapter correspond to each other and, if necessary, exchange the adapter.

Hotline

If problems with your module occur, our hotline is pleased to help you (mail address overpage).

Repairs

You can send in a defective module for repair (address overpage). In case of guarantee the repair is free of charge for you. With damages not covered by guarantee, the maximum fee for the repair is 50 % of the sales price according to our valid price list. We reserve the right to reject the repairing of a module when the repair is impossible for technical or economic reasons.

Please do not send in modules for repair charged to us. In case of warranty we will reimburse the forwarding expenses up to the flat rate we charge according to our valid price list for the delivery of the product. With repairs not covered by guarantee you have to bear the expenses for sending back and forth.

5. Guarantee bond

For this product we issue voluntarily a guarantee of 2 years from the date of purchase by the first customer, but in maximum 3 years after the end of series production. The first customer is the consumer first purchasing the product from us, a dealer or another natural or juristic person reselling or mounting the product on the basis of self-employment. The guarantee exists supplementary to the legal warranty of merchantability due to the consumer by the seller.

The warranty includes the free correction of faults which can be proved to be due to material failure or factory flaw. With kits we guarantee the completeness and quality of the components as well as the function of the parts according to the parameters in not mounted state. We guarantee the adherence to the technical specifications when the kit has been assembled and the ready-built circuit connected according to the manual and when start and mode of operation follow the instructions.

We retain the right to repair, make improvements, to deliver spares or to return the purchase price. Other claims are excluded. Claims for secondary damages or product liability consist only according to legal requirements.

Condition for this guarantee to be valid, is the adherence to the manual. In addition, the guarantee claim is excluded in the following cases:

- if arbitrary changes in the circuit are made,
- if repair attempts have failed with a ready-built module or device,
- if damaged by other persons,
- if damaged by faulty operation or by careless use or abuse.