



U 100-230

U 100-48

base unit



Operating manual

Warranty conditions

The general terms and conditions of ASTROBit GmbH apply. You will find these in the current catalogue or on the Internet under www.astro-kom.de.

Description of performance

The U 100 series is used to convert IP data streams into CATV signals. The base unit (U 100-230 or U 100-48) can accommodate up to three signal converters. The U 100-230 base unit can accommodate as well as up to two U 100-SNT power supply units for the U 1xx signal converters.

The U 100 base unit features the following performance characteristics:

- ☐ Mains power and signal supply for Uxx signal converters / controllers
- ☐ Supply of up to 3 signal converters / controllers
- ☐ Fans integrated into monitoring
- ☐ Output signals are fed out separately via F connectors
- ☐ Optional: redundant power supply for the base unit
- ☐ Status signalling for signal converters and power supply units
- ☐ Horizontal air flow allows close-fitting installation

General information

Symbols used in these instructions

Pictograms are visual symbols with specific meanings. You will encounter the following pictograms in this installation and operating manual:

Warning about situations in which electrical voltage and non-observance of the instructions in this manual pose a risk of fatal injuries.

Warning about various dangers to health, the environment and material.

Recycling symbol: indicates components or packaging materials which can be recycled (cardboard, inserts, plastic film and bags). Used batteries must be disposed of at approved recycling points. Batteries must be completely discharged before being disposed of.

This indicates components which must not be disposed of with household rubbish.

VORSICHT: Changes or modifications of the device not expressly approved by GmbH or any licensed party responsible for compliance will void the user's authority to operate the equipment!

HINWEIS: This operating manual was created to provide the most important instructions for operating the U 100 base units. We expressly recommend reading this manual before installing or operating the devices.

The ASTRO company confirms the information in this manual to be correct at the time of printing, but it reserves the right to make changes, without prior notice, to the specifications, the operation of the device and the operating manual.



Before using the device, read the operating manually carefully and store it for future reference.

General safety

ACHTUNG: *Disconnect both power plugs before opening the device!*

To avoid danger as far as possible, you must adhere to the following:

- ☐ The device must not be opened; exceptions: maintenance, installation and servicing.
- ☐ The electrical system supplying current to the device, e.g. a house installation, must incorporate safety devices against excessive current, short-circuiting and earth leakages in accordance with EN 60950-1.
- ☐ Both mains plugs function as a mains disconnect and must therefore be accessible and functional at all times. The device is already in operation when one power unit is connected to the operating voltage. If the second power supply unit is also used, one will operate in no-load operation as long as the other power supply unit is supplying the device. The device may only be repaired by sending it in to ASTRO with an exact description of the fault.
- ☐ Operating displays indicate the current operating status of the device, as well as any DC voltages disconnected from the mains that are supplying the device components. However, operating displays that are not lit up in no way indicate that the device is completely disconnected from the mains or is voltage-free.
- ☐ Read carefully: EN 60728 -11 – Safety requirements / No service tasks during electrical storms!
- ☐ To operate the device U 100-230 (protection class I), it must be connected to mains power sockets with a protective earth conductor.

Assembly instructions

WICHTIG: *The U 100 base unit may only be installed using guide rails! If the device is only affixed by the screws in the front panel, this will damage the base unit.*

WICHTIG: *The outputs of the signal converter must not be operated without connecting a combining network or terminating impedance!*

- ☐ The device may only be operated and connected in dry rooms. It must not be exposed to spraying or dripping water, or to similar influences. If condensation appears, wait until the device is completely dry.
The device may only be assembly on level, non-flammable materials or bases.
- ☐ The permitted ambient temperature range is 0 - 45 °C (ETS 300 019-1-3 class 3.1).
- ☐ The device is primarily designed for operation in metallically conductive 19" racks with sufficient air convection. It should be operated away from heat radiation and other heat sources. The device may only be installed in rooms in which the permitted ambient temperature can be adhered to, even under varying climatic conditions. To avoid trapped heat, it must be well ventilated on all sides. Installing the device in a niche or covering the ventilation openings is not permitted. No objects may be placed on the device.
- ☐ The subscriber network must be earthed correctly in accordance with EN 60728-11, and must remain earthed even when the device is removed. The potential equalisation on the U 100 is effected via the fastening plates on the device, or via the earth connection on the back of the device. Devices within hand's reached must be incorporated into the potential equalisation together. Operating the device without an earth conductor, device earthing or device potential equalisation is not permitted!



Device description

The delivery consists of the following parts:

- ☐ U 100-230 or U 100-48 base unit
- ☐ Operating manual

Figure 1, top:

Base unit U 100, front

[1] Status messages

Slots:

L: left

M: middle

R: right

Power supply unit:

P: Power supply

Figure 1, middle:

U 100, rear

[2] Power supply I

[3] Earth connection

[4] Power supply II

Figure 1, bottom:

optional version with 48 V power supply unit

[5] Fuse

[6] Mains supply

[7] Earth connection

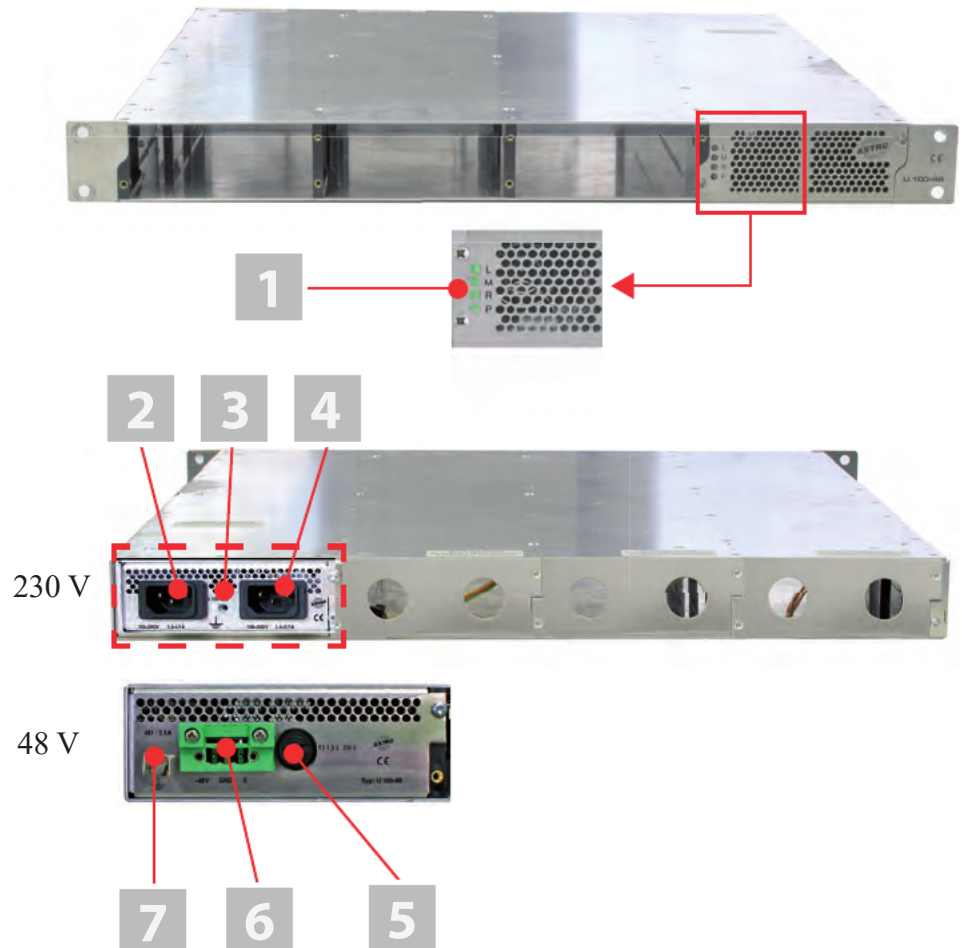


Figure 1: U 100 - base unit

The base units U 100-230 and U 100-48 feature a CE marking. This confirms that the products conform to the relevant EC directives and adheres to the requirements specified therein.



Disposal

All of our packaging material (cardboard boxes, inserts, plastic film and bags) is completely recyclable. Electronic devices must not be disposed of with household waste, but rather – according to DIRECTIVE 2002/96/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL from January 27, 2003, on waste electrical and electronic equipment – must be properly disposed of. When it is no longer in use, please bring the device for disposal to one of the public collection points for this purpose.

ASTRO Bit is a member of the Elektro system solution for the disposal of packaging materials. Our contract number is 80395.



Connecting and installing the modules

Observe the instructions on installation and connection described in the section "Important!"

Ensure that the mains voltage, signal sources etc. are properly connected to the device using the corresponding connections. The local mains voltage must be the same as the supply voltage required to operate the device (see section "Technical data").

Installing the signal converter in the base unit

Start by removing the dummy plates on the front of the U 100 base unit by removing the two fastening screws from the dummy plate.

Then push the plug-in module through the opening on the front side of the U 100 until the front plate of the plug-in module is flush with the U 100 housing.

Now use the two fastening screws to connect the plug-in module to the base unit.

Coding and installing the backplane

HINWEIS: A detailed description of how to install a module in the base unit you will find in the operation manual of each of the available modules. Consecutively the installation is explained in short for one of the backplane types as an example.

A backplane is included with every U 1xx signal converter. This is used to establish a mechanical connection between the signal converter and the base unit. Both the mains HF connections and the network connections are connected to this backplane. There is usually a temperature-controlled fan for cooling the signal converter on the backplane. This can be replaced while the device is operating.

To ensure the position of the backplane, and therefore the position of the respective signal converter in the U 100 base unit, is correct, you must plug a corresponding jumper into the circuit board on the backplane. Proceed as described in the following.

- [1] Left slot
- [2] Middle slot
- [3] Right slot

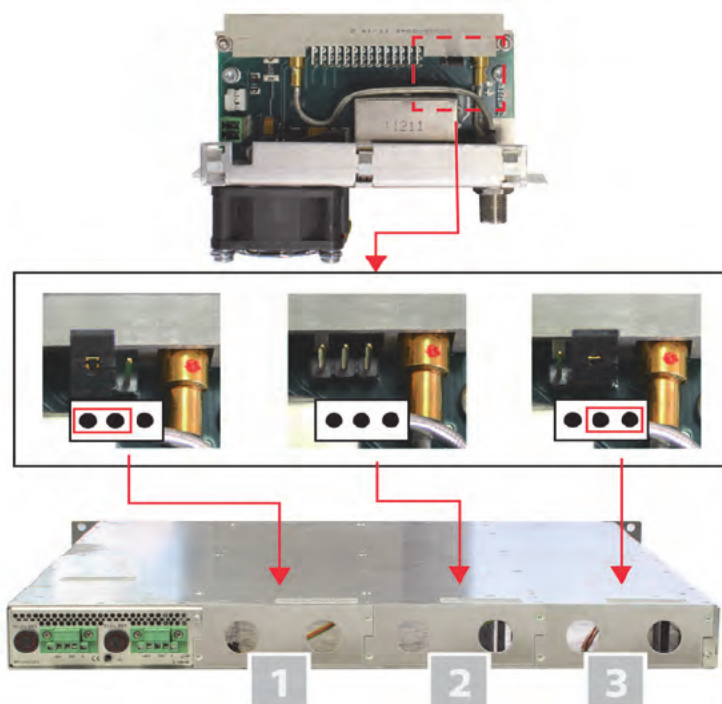


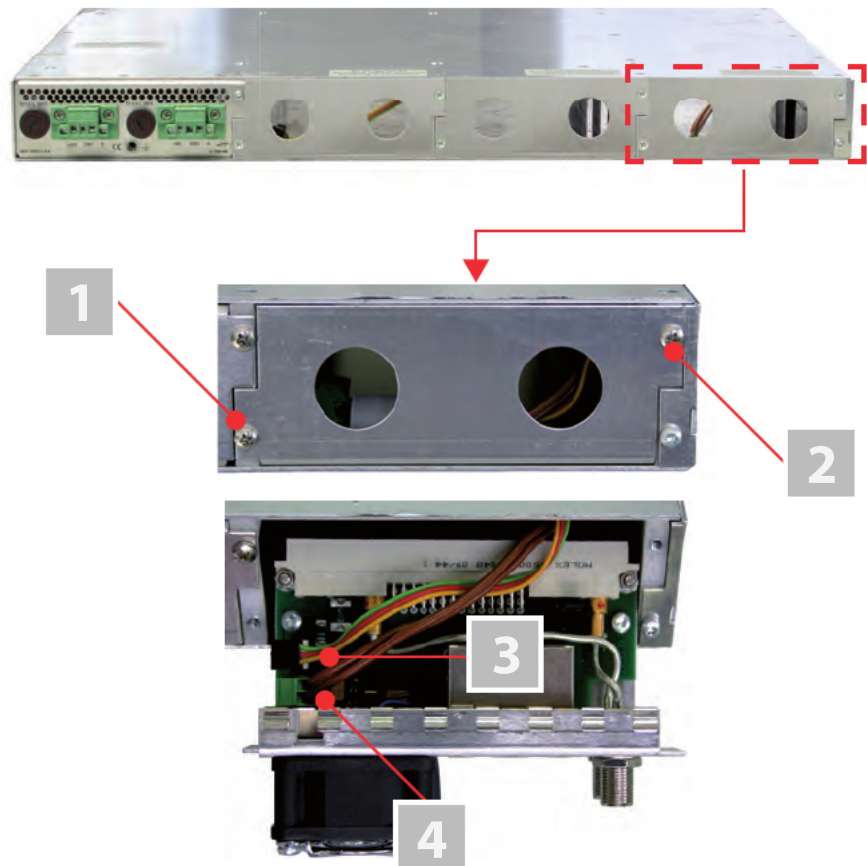
Figure 2: Coding the backplane by plugging in the bridge

To prepare the backplane for installation, proceed as follows:

Plug the bridge into the installation position provided in accordance with figure 3 (page 8).

HINWEIS: A bridge which has not been correctly plugged into the corresponding installation position will result in incorrect LED displays on the front of the U 100 base unit (see section "Device description"). Furthermore, the correct position cannot be displayed on the web browser user interface.

You can now install the backplane in the base unit. To do so, proceed as follows:



- [1, 2] Phillips-head screws
- [3] Cable for signal supply
- [4] Cable for power supply

Figure 3: Installing the backplane in the base unit

AUFGABE

1. When the U 100 base unit is in its delivery state, the three installation slots for the backplanes are covered by dummy plates (see figure 3, above). Start by removing the Phillips-head screws [1] and [2] from the dummy plate at the required installation position (left, middle or right) and remove the dummy plate.
2. You can now see the two connection cables for the selected slot (power supply and signal cable). Connect the cables to the backplane as shown in figure 3 (above).
3. Now carefully insert the backplane into the slot of the U 100. Make sure the cables are not jammed. You can push the backplane into the housing by applying light pressure.

ERGEBNIS:

The backplane is now connected and installed. Once installed, it should correspond to the figure at the left.

HINWEIS: You can learn how to connect a plug-in module to your PC or laptop by reading the operating manual for the respective signal converter.





Troubleshooting

If the device is not functioning correctly, please perform the following checks:

- ☐ Check whether the device has been connected to the specified mains voltage.
- ☐ Check whether the signal cable is connected correctly, and that there are no breaks or short circuits in the connectors.

If the problem cannot be resolved, please contact the ASTRO customer service.

Maintenance and repair

The device must not be opened other than for repair purposes. Repairs may only be carried out at the factory or at workshops, or by persons, authorised by ASTROBit GmbH.
Read carefully: EN 60728-11 Safety requirements: No service work during thunderstorms.

HINWEIS: In the event of repairs, DIN VDE regulations 0701 - 0702, where applicable, must be adhered to, and these are secondary to the relevant data specifications in DIN EN 60950-1. **You must disconnect the power plug before opening the base unit!**

Service tasks

The following tasks, which involve the removal of screw connections, can be performed by appropriately instructed service personnel: Removal and installation of signal converters and power supply units, even when the U 100 is operating.

Replacing power supply units

After removing the screws from the cover of the power supply chamber (ASTRO logo), the power supply unit can be pulled forwards by hand using the mounting tab. When installing power supply units, do not touch the fan or fan grille and only use the mounting tab affixed to the power supply unit. When the tasks are complete, the cover of the power unit chamber must be replaced. Continuous operation of the device is not permitted without this cover.

ACHTUNG: Do not put your hand or any objects into the power unit chamber!
HINWEIS: The U 100-230 base unit must only be operated with the original power unit(s)!

Replacing converter modules

Converter modules can be pulled out to the front after removing the safety screw in the front covers (see section "Connecting and installing the module")

Technical data

Type		U 100 - 48	U 100 - 230
Ordr number		380 100	380 101
EAN-Code		4026187611064	4026187611149
Common data			
Input voltage	[V]	- 48 V DC	230 V AC
Power consumption	[W]	depends on mounting	
Dimensions		19" / 1 HU	
Ambient temperature	[°C]	0...+45	

Further information on power consumption you will find in the operating manuals of the converter modules. When module types are mounted you will get further information on power consumption on request at the ASTRO after sales service.





ASTRO Strobel Kommunikationssysteme GmbH

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These operating instructions have been written by:

ASTRO Bit GmbH

Olefant 1-3, D-51427 Bergisch Gladbach (Bensberg)

Tel.: 02204/405-0, Fax: 02204/405-10

eMail: kontakt@astro.kom.de

Internet: www.astro-kom.de

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