



## **UNICABLE™ Satellite Multiswitch**

### **Instructions for Use**



P.200  
P.200-P  
MS4/1(8)PIN-4  
MS4/1(8)PEN-4  
MS8/1(8)PIN-4

Dear Customer,

Thank you for buying the EMP-Centauri product. Before installing and operating the product read carefully these instructions for use. Keep these instructions for use in a safe place. The product may be installed and connected only in strict compliance with these instructions for use and applicable standards.

### **Field of product application, warranty**

The product (multiswitch, amplifier, etc.) is designed for the distribution of television and radio signals, both satellite and terrestrial, in home installations. The warranty does not apply to products used for other purposes than those specified herein. The user shall be responsible for any injury or loss of property incurred as a result of any use which was not in agreement with these instructions for use.

The product uses technologies protected by copyrights and patents. Any disassembling of the product and any changes thereof are prohibited. To ensure quality warranty and after-warranty services, please keep all documents about your purchase and repairs of the product, if any. We recommend keeping the original packaging of the product throughout the warranty period.

### **Product takeover**

Make sure the following accessories are enclosed to the product:

- Screws and dowels to fix the product on the wall (4 pcs)
- F connectors designed for installation on the coaxial cable (the number corresponds to the number of product input and output connectors)



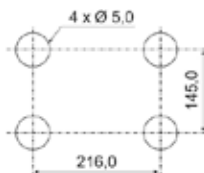
If some accessories are missing, please contact your dealer.

### **Product placement**

Fix the product firmly on a wall or another hard and inflammable surface. The product shall be in no case held only with the connected cables. Place the product in a dry environment, do not expose it to rain or excessive humidity or dropping or running water. Do not place any containers with liquids (vases etc.), naked flame source (lighted candle etc.) on the product nor place them near the product. Do not install the product close to heat sources such as radiators or air ventilators, in places exposed to direct sunshine or in places with high dust pollution, mechanical vibrations or impacts. Use the product only in moderate climates (not in tropical climate). Choose an installation place where the product is protected against liquids (water) or foreign objects. Make sure that the product and its electric connections are out of the reach of children. Make sure that the ventilation openings on the product are not covered or blocked, e.g. with a newspaper, tablecloth or curtains and that the space around the product is sufficiently ventilated. The free space on sides should be at least 20 cm and the space over its top at least 50 cm. The mains plug shall remain readily operable for product disconnection if needed!

### **Product installation**

Use the enclosed screws and dowels for installation. Drill holes for the screws as shown in the drawing:

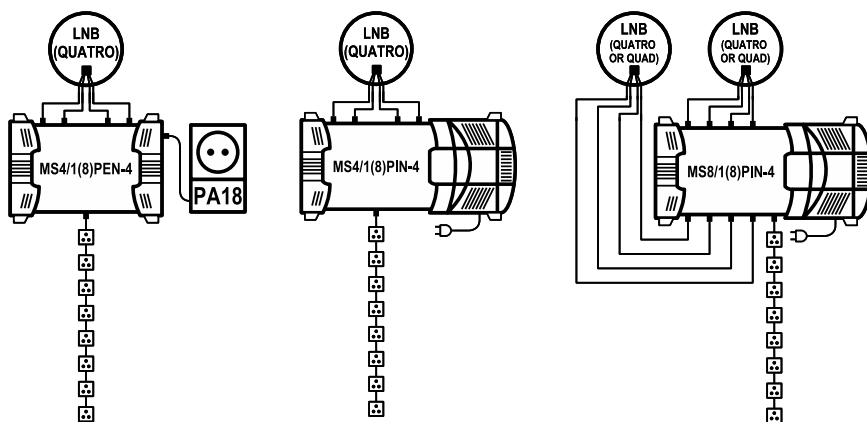


To connect the product inputs and outputs use high-quality coaxial cable designed for satellite reception and F connectors. Use a high-shielding coaxial cable, min. 90dB. If F connectors are not attached onto the cables, remove first the outer cable sheath in the length of approx. 15 mm. Then roll up the metal shielding braid and the shielding foil underneath and cut the shielding with scissors to ca. 5 mm. Then remove ca. 10 mm of the inner plastic insulation so that ca. 5 mm of the insulation remains in place.



Then carefully screw on the F connector on the cable end until the plastic insulation levels with the connector opening. Prevent short circuit between the inside conductor and the shielding. The short circuit prevents reception, it is difficult to identify and in extreme cases it may even damage the product or satellite receiver! The coaxial cables shall not be broken, the minimum bending radius shall be 5 cm.

Use the following or similar connection diagram to install the product.



Connect the cables from satellite converters (LNB) to the multiswitch connectors identified with LNB symbols. When making connections pay close attention to identification of quatro LNB connectors!

- Connect the input marked with 13 V / 0 kHz (LNB A) with the converter output Vertical Low.
- Connect the input marked with 18 V / 0 kHz (LNB B) with the converter output Horizontal Low.
- Connect the input marked with 13 V / 22 kHz (LNB C) with the converter output Vertical High.
- Connect the input marked with 18 V / 22 kHz (LNB D) with the converter output Horizontal High.
- Connect the input marked with 13 V / 0 kHz (LNB E) with the converter output Vertical Low (MS8/1(8)PIN-4 only).
- Connect the input marked with 18 V / 0 kHz (LNB F) with the converter output Horizontal Low (MS8/1(8)PIN-4 only).
- Connect the input marked with 13 V / 22 kHz (LNB G) with the converter output Vertical High (MS8/1(8)PIN-4 only).
- Connect the input marked with 18 V / 22 kHz (LNB H) with the converter output Horizontal High (MS8/1(8)PIN-4 only).

It is possible to use a quad LNB (with MS8/1(8)PIN-4 only), the quad compatibility is ensured automatically. Multiswitches are not equipped with a TERR input. The output connector is marked with OUT, connect the output cable with through (up to 7) and 1 end wall sockets.

Multiswitches use a UNICABLE™ technology, it is possible to connect up to 8 subscribers with only 1 cable. Subscribers are connected with through (up to 7) and 1 end wall sockets. Use only quality through wall sockets designed for satellite reception compatible with a UNICABLE™ technology (DC through taps).

Every subscriber has assigned 1 of 8 communication frequencies, frequency table is on the multi-switch sticker. We recommend

- use the higher communication frequency for a subscriber socket located the nearest the multi-switch and the lowest communication frequency for a subscriber socket located the longest the multiswitch.
- in case using a multiswitch for less than 8 subscriber use the lowest communication frequencies.

We also recommend to write the communication frequency on all wall sockets because the receiver has to be set on the communication frequency. Used satellite receiver has to support a UNICABLE™ technology (usually marked with the UNICABLE™ logo).

### **Technical parameters**

4in/1out (P.200, P.200-P, MS4/1(8)PEN-4, MS4/1(8)PIN-4) or 8in/1out (MS8/1(8)PIN-4) UNICABLE™ multiswitches with an internal power supply (P.200-P, MS4/1(8)PIN-4, MS8/1(8)PIN-4) or with an external power supply (P.200, MS4/1(8)PEN-4, power supply not included) for distribution of satellite signals from up to 2 satellite positions and for up to 4 subscribers connected via one cable. For MS8/1(8)PIN-4, the quad compatibility is ensured automatically. These multiswitches can be used only with satellite receiver marked with an UNICABLE™ logo. Every receiver has to be set to the one of communication frequencies (1 frequency for 1 receiver), frequency table is printed on the multiswitch sticker.

| <b>SPECIFICATIONS</b>   | <b>P.200, MS4/1(8)PEN-4</b>   | <b>P.200-P, MS4/1(8)PIN-4</b>                                   | <b>MS8/1(8)PIN-4</b>  |
|---|---|---|---|
| Number of Inputs  | 4   |   | 8   |
| Number of Outputs   | 1 (for up to 8 subscribers)   |   |   |
| Frequency Range   | SAT 950-2150 MHz  |   |   |
| Gain  | SAT 10 dB avg   |   | SAT 8 dB avg  |
| Isolation   | 30 dB min   |   |   |
| Maximum Input Level*  | SAT 85 dBuV   |   |   |
| Maximum Output Level*   | SAT 95 dBuV   |   | SAT 93 dBuV   |
| Control   | DiSEqC protocol according to prEN50494, supported UNICABLE™ technology  |   |   |
| Power Consumption   | 240 mA (12 V) from receiver + LNB from an external power supply 12-18 V (can be used power supply PA12 or PA18) | 240 mA (12 V) from receiver + LNB from an internal power supply | 230 mA (12 V) from receiver + LNB from an internal power supply |
| Dimensions (w,d,h)  | 17.4 x 15.2 x 8.7 cm  | 26.5 x 15.2 x 8.7 cm  |   |
| Temperature Range   | -30°C - +70°C   |   |   |
| * TERR: EN 50083-3/60dB IMA <sub>3</sub> [dBuV]; SAT: EN 50083-3/35dB IMA <sub>3</sub> [dBuV] |   |   |   |

| <b>SPECIFICATIONS</b>  | <b>P1U27</b>                                 |
|------------------------|--|
| Input Voltage          | 90-265 V AC, 50/60 Hz                        |
| Output Voltage         | 18 V DC                                      |
| Maximal Output Current | 1.5 A (18 V)                                 |
| Efficiency             | 75% min                                      |
| Dimensions             | 12.6 x 15.2 x 8.7 (power cord length 130 cm) |
| Temperature Range      | -30 - +70 °C                                 |

## Safety

The product shall be properly grounded for safety reasons. Use the earthing terminal to ground the product identified with the symbol of grounding. **WARNING!** Connect product into the grid only after it is completely connected and checked. Make sure the antennas are grounded properly.

The product operation is indicated with a LED diode on the power supply.

**Never open the powered product as this may result in an electrical accident! Never work on the product, TV set or other powered products during or before a storm! A lightning stroke into the antenna may cause dangerous overvoltage in the product metallic parts. If you have any doubts about proper grounding of the feeder turn to a qualified electrician for help because antennas and their feeders are subject to earthing regulations.**

The product uses an alternate current, see product specifications. Make sure the local grid voltage corresponds to the operating voltage of the product. Ensure sufficient air circulation to prevent internal overheating of the product. Use the product in dry conditions only. If the product gets into contact with liquids (e.g. dropping water or spilled drinks) it shall be disconnected from the grid immediately. Do not place any objects on the power supply line to prevent its damage or constriction and make sure it is not in contact with hot objects. **To prevent an electric accident the cover can be opened, the product can be installed or cleaned only when disconnected from the power grid. Use only dry cloth to clean the product and do not use any liquid agents.** The product should be disconnected from the grid also if it is not to be used for a long period of time. When disconnecting the product, never pull the cable but always the plug to prevent damage of the cable. Make sure the plug is firmly inserted into the outlet. Wobbly plugs and outlets result in fire risks. **The product shall be serviced by qualified experts only.**

## Troubleshooting

**Disconnect plugs of the product, satellite receiver and TV set from the grid whenever working with the antenna connectors or antenna equipment. Any work on energized equipment may result in a fatal electric accident!** If you have to enter places with a risk of fall, pay attention to your safety. Repairs should be performed by qualified personnel only. In case of a failure, check systematically for potential defects. Make sure the satellite antenna is properly fixed, connected and adjusted and that the satellite receiver is installed, connected and switched on according to the available instructions. A frequent defect is short-circuit on the product input, which prevents power supply of converters. Check whether the connectors are carefully and correctly connected on the product, converters as well as satellite receiver. When there is a short-circuit on the product input, it disconnects the power supply from product. The diode inside the power supply is off. If this is the case, disconnect the product from the grid and then find and remove the short-circuit on the product input. Then re-plug the product into the grid. Broken or interrupted coaxial cables may cause defects as well. The most frequent defects are in connector joints, e.g. if the central conductor is too short and fails to make contact in the connector. Also the shielding braid shall make good contact with the connector coat. Sometime a reset of the multiswitch microprocessor is enough to fix the problem: pull out the power plug of the satellite receiver and of the multiswitch and then re-plug them a few seconds later. If you are unable to remove the defect yourselves, contact your distributor.

## Product maintenance

**Always disconnect power supply cables of all installed products when performing any maintenance on the product installation or antenna equipment!**









Check regularly the ventilation openings on the product power supply for blocking or fouling. Use only dry cloth for cleaning.

Coaxial cables installed outdoors should be replaced once in a few years, because they are exposed to climatic conditions. Not only the cables quality but also their age is of essence, particularly for receipt of weak satellite signal. Check regularly connection cables in the installation.

Every 2 years unscrew the coaxial cable and clean connector contacts or shorten the coaxial cable by approx. 2 cm and screw on the F connector again because this is where corrosion occurs most frequently.

Regularly check the power supply condition and its line connector. If the line is damaged or worn on the surface, have the product serviced. Any damage of the power supply cover shall be serviced as well.

### **Explanation of symbols on the product**

|   |  |
|---|--|
|  | conformity marking   |
|  | for indoor use only  |
|  | class II device  |
|  | safety transformer   |
|  | DC power supply  |
|  | fuse protected   |
|  | grounding  |
|  | UNICABLE™ technology (UNICABLE™ is a trademark of FTA Communication technologies / Luxembourg) |

### **Disposal instructions**

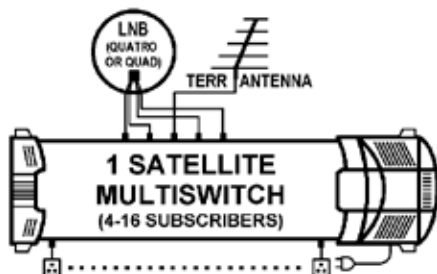
According to the EU Directive, electric and electronic products marked with one of the following symbols shall not be disposed of together with municipal waste.



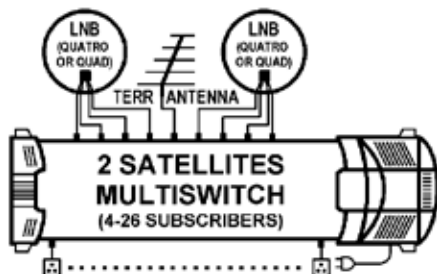
Use local waste collection and recycling systems to return retired products.

**We also offer the following products from our production program:**

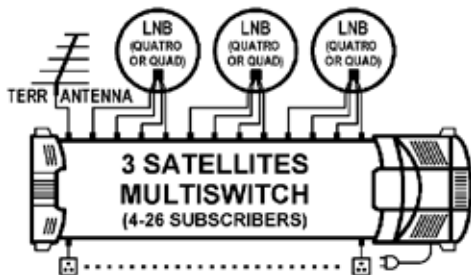
P.142-UP, P.143-UP, P.146-UP, P.147-UP (MS5/4PIU-4, MS5/8PIU-4, MS5/12PIU-5, MS5/16PIU-5)



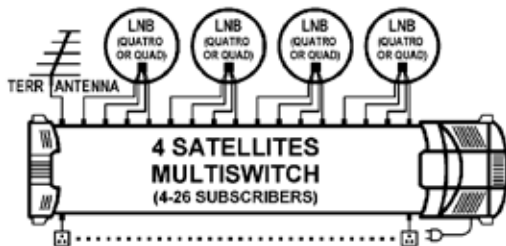
MS9/4PIU-5, MS9/6PIU-5, MS9/8PIU-5, MS9/10PIU-6, MS9/12PIU-6, MS9/16PIU-6, MS9/20PIU-6, MS9/26PIU-6



MS13/4PIU-6, MS13/8PIU-6, MS13/12PIU-6, MS13/16PIU-6, MS13/20PIU-6, MS13/26PIU-6



MS17/4PIU-6, MS17/8PIU-6, MS17/12PIU-6, MS17/16PIU-6, MS17/20PIU-6, MS17/26PIU-6



**EMP-CENTAURI s.r.o.**  
5. května 690, 339 01 Klatovy  
Czech Republic  
info@emp-centauri.cz • www.emp-centauri.cz