

MS9/9+6ECU-4
MS9/9+10ECU-4

MS9/9+16ECU-12
MS9/9+20ECU-12

MS9/9+26ECU-17
MS9/9+30ECU-17

Dear Customer,

congratulations on the purchase of the EMP-Centauri product. Before its installation and putting into operation, read carefully the entire operation manual. Keep the purchase and rework (if any) records for future need.

1) Field of Application, Warranty

The product is designed for the distribution of satellite & terrestrial (including cable) TV and radio signals. Its main purpose is to allow connecting of multiple user to the common antenna (SMATV).

The manufacturer provides for E.LITE CLASS products extended 4 (four) years warranty from the date of purchase, see details in EMP-Centauri's General trade conditions, published at manufacturer's website www.emp-centauri.cz.

It is prohibited to dismantle the product and make any interventions in it. Repairs or any interventions in the product may be performed only by EMP-Centauri company, or other companies authorized by EMP-Centauri.

2) Technical Specifications

Products are cascaded multiswitches for distribution of terrestrial and satellite signals from 2 satellite positions (12 polarities) to up to 30 users, depending on model. All trunk lines are passive.

Terrestrial band can be switched passive / active for user's outputs. The insertion loss can be adjusted in the range 5–20 dB for groups of user's outputs.

The multiswitch is DC supplied from connected satellite receivers, DC2.1 socket for external power is connected to all satellite trunk lines. DC pass is provided through the TERR line.

Specification	MS9/9+6 ECU-4	MS9/9+10 ECU-4	MS9/9+16 ECU-12	MS9/9+20 ECU-12	MS9/9+26 ECU-17	MS9/9+30 ECU-17
Number of Trunk Lines	9 (8 x SAT, 1 x TERR)					
Number of User Outputs	6	10	16	20	26	30
Frequency Range	SAT 950–2150 MHz, TERR 40–862 MHz					
Insertion Loss – User Outputs*	SAT 5–20 dB TERR 8 / 25 dB		SAT 5–20 dB TERR 12 / 26 dB		SAT 5–20 dB TERR 20 / 35 dB	
Insertion Loss – Trunk Lines*	SAT 3 dB, TERR 5 dB				SAT 5 dB, TERR 6 dB	
Isolation – User Outputs (min)	20 dB					
Isolation – Trunk Lines (min)	25 dB					
Maximum Input level**	SAT 105 dBuV, TERR 105 dBuV					

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Max. Level at User Outputs**	SAT 100 dBuV TERR 97 dBuV		SAT 100 dBuV TERR 93 dBuV		SAT 100 dBuV TERR 85 dBuV	
Current drawn	100 mA (per user output)					
Dimensions (w,d,h)	18.6 x 14.6 x 5.1 cm		18.6 x 24.5 x 5.1 cm		18.6 x 33.2 x 5.1 cm	
Temperature Range	-25 – +60 °C					

Notes: * average values; SAT: adjustable range, TERR: switchable active / passive
 ** according to EN 50083-3/35dB IMA3 (SAT), EN 50083-3/60dB IMA3 (TERR)

3) Product Takeover

Make sure that the product is not damaged. In the case of damage please contact your dealer.

4) Product Storing and Installation

We recommend the device to be installed and serviced by the qualified technician.

The product must not be stored and installed:

- in the place with excessive humidity
- in the place with dropping or splashing water,
- in the place with excessive dust pollution, mechanical vibrations or impacts
- in the place out of temperature limits specified in the section 2) Technical Specifications
- close to heat sources (radiators or air ventilators, direct sunshine etc.)
- in the reach of children

Use the apparatus only in moderate climates (not in tropical climate).

Fix the product firmly on a wall or another hard and inflammable surface with screws and dowels. The product shall be in no case held only by the connected cables.

Further instructions:

- ensure the free space at least 10 cm around the product for the sufficient air circulation
- do not cover the product (with curtains etc.)
- do not place any containers with liquids (vases, glasses etc.) or naked flame sources (lighted candle etc.) on the product or near the product

5) Product Connection

Connect the product in accordance with this manual and valid regulation in you country. Use high quality 75 Ω coaxial cable designed for satellite reception. The coaxial cables shall not be broken, the minimum bending radius should be 5 cm. Mount the F connectors (screw, crimp or compress type) on the ends of coaxial cables. Connect the F connectors into the F sockets of product and fasten them with an appropriate force.

- Connect input F sockets marked “A” – “D”, “TERR” with outputs of preceding device in the cascade (LNB/antenna, amplifier, cascadable multiswitch)
- Connect output F sockets marked “A” – “D”, “TERR” with inputs of following device in the cascade (cascadable multiswitch, amplifier) or with 75 Ohm terminators (DC-blocked)
- Connect output F sockets marked “1”, “2”, “3”... with wall sockets or receivers or terminate them with 75 ohm terminators*

- Connect connector marked with protective earth symbol with protective bonding conductor
- Connect DC2.1 socket marked “DC 12V” with power supply

* Termination is not required if terrestrial reception is not used.

Warning! DC power is present at the TERR line, avoid short circuit!

6) Product Settings

Turn the knob “act. pass.” to switch between active and passive mode of terrestrial band. Turn knobs “- 5dB - 20 dB” to adjust signal level of satellite signals for groups of user’s outputs, as indicated at the sticker.

Each connected satellite receiver must be properly set up to have access to all connected LNBs. Follow instruction manual for satellite receiver or TV set. The most common styles of setup are shown in the table:

SAT SYSTEM (LNB)	Setting style 1	Setting style 2	Setting style 3
A	DiSEqC 1.0: 1 of 4	DiSEqC 1.0: A	committed: AA
B	DiSEqC 1.0: 2 of 4	DiSEqC 1.0: B	committed: AB

7) Safety

Due to security reasons the product and wiring in which the product is connected, must be grounded properly. Use the terminal identified with the appropriate symbol to ground the product. Make sure the antennas are properly protected against lightning.

The product should be disconnected from the wiring immediately if it gets into contact with liquids (dropping water, spilled drinks etc.).

8) Product Maintenance

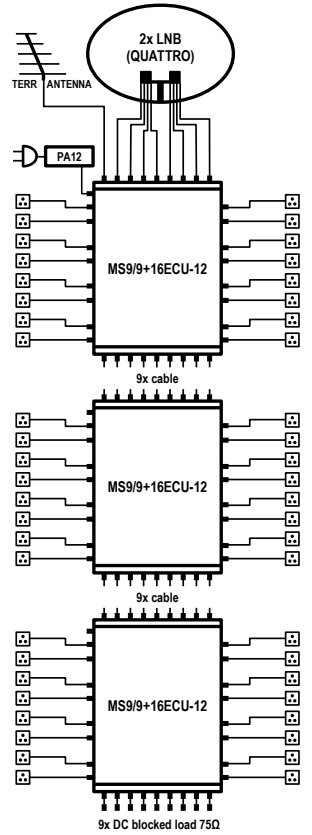
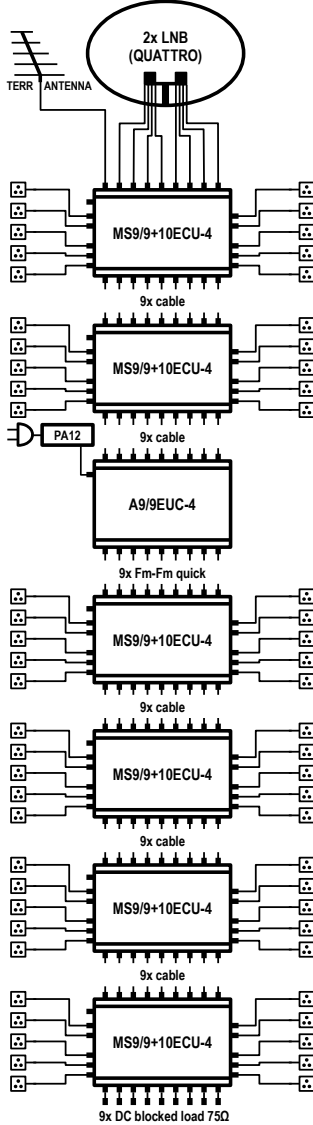
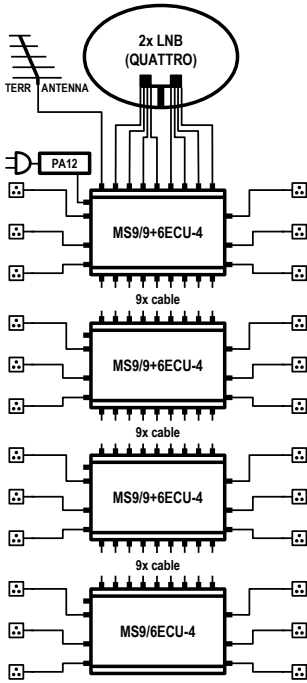
The maintenance operation is especially cleansing of the product. Use only dry cloth to clean the product and do not use any liquid agents.

Coaxial cables installed outdoors should be replaced once in a few years. Unscrew all F connectors and clean connector contacts, resp. shorten the coaxial cable by approx. 2 cm, every 2 years.

9) Symbols Explanation

	Certificate of conformity		Protective earth
	According to EU directive, electric and electronic devices which are identified by one of the following symbols must not be disposed of together with municipal waste. When disposing of the old device, use local waste collection and separation systems.		

10) Wiring Examples



More wiring examples are shown at the manufacturer's website.

11) Contact

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