

G1/1ECN22kHz-1
G1/1ECNpos-1

G1/1ECNopt-1
G1/1ECNposopt-1

G1/1ECNman-1
G1/1ECN-1

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 terrestrial TV and radio signals, particularly to amplify received signals, especially in case of long coaxial cables.

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 generators of various control signals, that are used in satellite distribution systems: 22 kHz tone for switching to "high band", DiSEqC 1.0 commands for selection of required LNB. Transmission of command is triggered either manually or by voltage at control inputs. Some models are factory pre-set to particular command, which is triggered by power-on.

Generators transmit DC, however 22 kHz tone and all associated information are contained, analysed and possible used for transmitting of new commands.

Specification	G1/1ECN 22kHz-1	G1/1ECN pos-1	G1/1ECN opt-1	G1/1ECN posopt-1	G1/1ECN man-1	G1/1ECN-1
Inputs / Outputs	1 / 1					
Frequency Range	SAT 950–2150 MHz					
Insertion Loss	2 dB (avg.)					
Generated control signals	22 kHz (continuous tone)	DiSEqC 1.0 Position	DiSEqC 1.0 Option	DiSEqC 1.0 Position Option	DiSEqC 1.0 Band, Polarization Position, Option	
Mechanical trigger	yes	no			yes	no
Electrical trigger	external*	internal*				ext & int*
Current consumption	30 mA				40 mA	
Dimensions (w,d,h)	7.3x6.0x3.2	7.6 x 6.0 x 3.2 cm			7.6x5.7x3.1	7.6x4.4x3.1
Temperature Range	-25 – +60 °C					

* internal trigger – induced by electrical signaling in coaxial cable
external trigger – induced by voltage change at control inputs

3) Product Takeover

Make sure that the product is not damaged. In the case of damage or missing accessories 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).

If the product is equipped with outer plastics, fix it firmly on a wall or another hard and inflammable surface with screws and dowels

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. To connect the product inputs and outputs use high-quality 75 Ω coaxial cable designed for satellite (or terrestrial) reception. The coaxial cables shall not be broken, the minimum bending radius shall be 5 cm.

Mount the F connectors on the ends of cables. You can use screw, crimp or compress types of connectors. Connect the cables into the F sockets of product and fasten them with an appropriate force.

- Connect input “IN” to controlled device (LNB, multiswitch)
- Connect output “OUT” to next device (usually satellite receiver)
- If applicable, connect also control inputs marked “0/12 V” to source of control voltage

6) Product settings and brief description of operation

G1/1ECN22kHz-1 generates continuous tone 22 kHz according to position of manual flip-flop switch or voltage at control input

G1/1ECNpos-1 generates automatically DiSEqC 1.0 command “Position 1”

G1/1ECNopt-1 generates automatically DiSEqC 1.0 command “Option 1”

G1/1ECNposopt-1 generates automatically DiSEqC 1.0 command “Position 1” & “Option 1”

G1/1ECN-1, G1/1ECNman-1 generates automatically DiSEqC 1.0 commands “Band”, “Polarization”, “Position” & “Option” according to generator’s control inputs (manual switches at G1/1ECNman-1, voltage 12V at G1/1ECN-1). Resulting command reflects status of all control inputs.

Examples of most commonly used settings:

Selection of second satellite position („B“, „AB“):

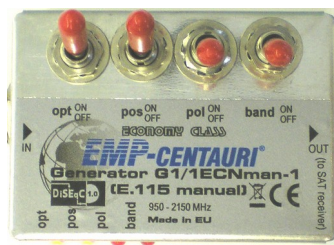
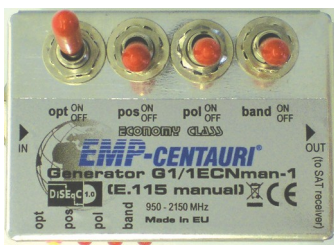
Input 3 (pos) ON
Input 4 (opt) OFF

Selection of third satellite position („C“, „BA“):

Input 3 (pos) OFF
Input 4 (opt) ON

Selection of fourth satellite position („D“, „BB“):

Input 3 (pos) ON
Input 4 (opt) ON



Note: The generated command is the result of logical function “OR” (logical sum) between state of generator’s control inputs and the command captured from satellite receiver.

Example: Within the frame of DiSEqC 1.0 the command for low band has logical value “OFF” and command for high band has logical value “ON”. The result of logical function “OR” is “ON”, if any of inputs (or both) has logical value “ON”. The result is “OFF” only if both input states are “OFF”. Generator thus can set – for example – high band anytime, but is not able to select low band, if the receiver requires high band. For change to low band the generator must be in accordance with satellite receiver.

Respective LED diode always indicates actual state of resulting command, whether it is triggered by the change of state of generator’s control input, or by activity of connected satellite receiver.

Not relevant DiSEqC commands incoming from satellite receiver are repeated by the generator regardless of the state of control inputs.

7) Safety




If you have to enter places with a risk of fall, pay attention to your safety. Due to security reasons the product and wiring in which the product is connected, must be grounded according to valid local regulations. Connect all devices to power grid only after all connections are finished and checked.

Never work on the wiring (including satellite and terrestrial receivers, TVs) during or before a storm. A lightning stroke into the antenna may cause dangerous overvoltage in the product metallic parts. The product should be disconnected from the wiring immediately if it gets into contact with liquids (dropping water, spilled drinks etc.).

8) Product Maintenance

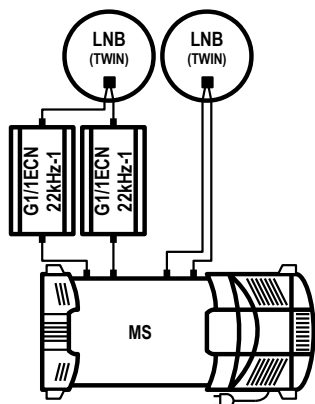
Always disconnect the product from wiring before performing any maintenance of the product. Use only dry cloth to clean the product and do not use any liquid agents.

9) Symbols Explanation

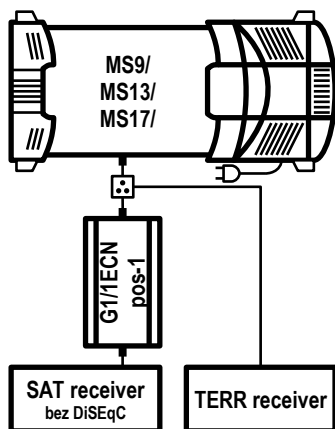
	Certificate of conformity
	International standard for digital satellite equipment control, number (1.0, 1.1, 1.2 or 2.0) determines DiSEqC version
	According to EU directive, electric and electronic devices which are identified by one of the following symbols must not be disposed of together with municipal waste. When disposing of the old device, use local waste collection and separation systems.

11) Wiring Diagrams

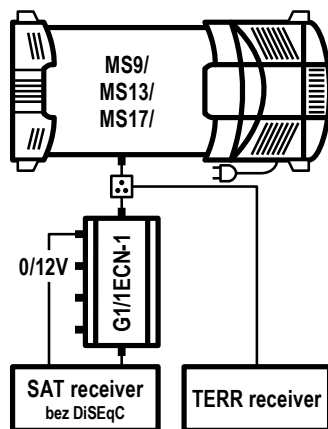
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G1/1ECNpos-1



G1/1ECN-1



More wiring examples are presented at manufacturer's website.

11) Contact

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