

7 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

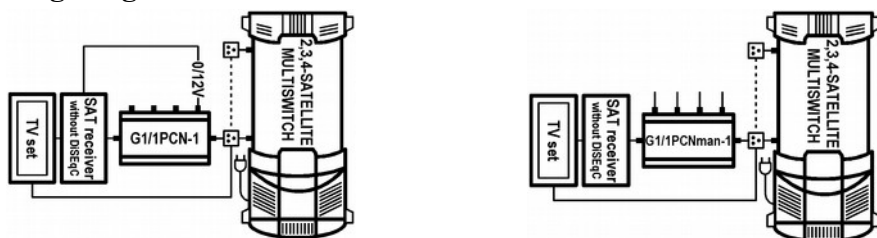
Always disconnect the product from wiring before performing any maintenance of the product. If you have to enter places with a risk of fall, pay attention to your safety.

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.

10 Wiring Diagrams



Contact

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Instruction Manual

1/002868 C

G1/1PCN-1

G1/1PCNman-1

EMP-CENTAURI®

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 (SAT) and terrestrial (TERR), TV and radio signals. **We recommend the device to be installed and serviced by the qualified technician.** EMP-Centauri's PROFI CLASS products are covered under 6 (six) years warranty from the date of purchase. The warranty shall not apply to the product used for other than the specified purpose. The user will be responsible for injury or material damage which may arise in consequence of any product use in contradiction with the manual. 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

In/Iout universal generators, which are able to generate any commands (analogue + DiSEqC) utilized in satellite distribution systems. Generators are controlled by means of 4 RCA (cinch) sockets (0/12 V DC, G1/1PCN-1) or 4 manual switches (G1/1PCNman-1). Operation mode of generator is set up by DIP switch (16 operation modes are available).

SPECIFICATIONS	G1/1PCN-1	G1/1PCNman-1
Number of inputs	1	
Number of outputs	1	
Frequency range	SAT 950–2300 MHz	
Insertion loss (avg)	2 dB	
Current consumption (avg)	40 mA (18 V DC) from receiver	
Dimensions (w,d,h)	7.5 x 4.4 x 2.8 cm	7.5 x 3.6 x 4.3 cm
Temperature range	-30 – +70 °C	

3 Product Takeover

Make sure that the product is not damaged. Please contact your dealer in the case of damage.

4 Product Storing and Installation

The product must not be stored and installed in the place with excessive humidity, in the place with dropping or running water, in the place with high 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.) and in the reach of children. 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 your country. Use high quality 75 Ω coaxial cable designed for satellite terrestrial 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 F socket marked IN with output of a multiswitch.
- Connect F socket marked OUT with satellite receiver.
- Connect selected RCA socket with 0/12 V outlet of satellite receiver or with other supply of control voltage 0/12 V DC (G1/1PCN-1 only).

The wiring examples are shown in the section 10 Wiring Diagrams or at www.emp-centauri.eu.

6 Product Settings and Operation

The generator emits at its F-socket marked “IN” analog and DiSEqC commands according to the state of generator's control inputs and according to commands incoming from satellite receiver connected to F-socket marked “OUT”. The state of control inputs is defined here as voltage on RCA sockets (model G1/1PCN-1) or as position of control levers (model G1/1PCNman-1). The class of generated commands is determined by the operating mode, which is to be set up by levers of miniature DIP switch, see following paragraphs.

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 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.

Within operating modes for DiSEqC 1.1 a 1.2 function “OR” is performed upon individual bits of the number which is the parameter of generated command.

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.

DiSEqC commands incoming from satellite receiver, which are not relevant to currently selected operating mode, are repeated by the generator regardless of the state of control inputs.

Note: It is necessary to disconnect the product shortly from DC supply after any change of operating mode, otherwise the change will not become effective.

Description of basic usages:

DiSEqC 1.0 – for setting up polarization, band and for LNB selection (up to 4 positions)

According to change of control inputs the product generates DiSEqC 1.0 commands for polarization, band, „position“ and „option“. Analog commands incoming from satellite receiver are coded into respective DiSEqC 1.0 commands. DiSEqC 1.0 commands incoming from satellite receiver are repeated.

Mode	Config. levers	Control input 1	Control input 2	Control input 3	Control input 4
9	4 ON 1,2,3 OFF	OFF: low band ON: high band	OFF: vert. polarization ON: horiz. polarization	OFF: position 0 ON: position 1	OFF: option 0 ON: option 1

Notes to setting:

- for selection of satellite position 1 (“A”, “AA”) keep inputs 3 & 4 in OFF state
- for selection of satellite position 2 (“B”, “AB”) set input 3 to ON and input 4 to OFF
- for selection of satellite position 3 (“C”, “BA”) set input 3 to OFF and input 4 to ON
- for selection of satellite position 4 (“D”, “BB”) set input 3 & 4 to ON
- in case you need to set up high band using 22 kHz tone (e.g. for LNB), use mode 1 instead

DiSEqC 1.1 – for selection of inputs of DiSEqC 1.1 switches

According to change on control inputs the product generates DiSEqC 1.1 positions 0–15 for “uncommitted switch”. DiSEqC 1.1 commands incoming from satellite receiver are repeated.

Mode	Config. levers	State of control inputs				Input of the switch
		1	2	3	4	
14	1,3,4 ON; 2 OFF	OFF	OFF	OFF	OFF	1
		ON	OFF	OFF	OFF	2
		OFF	ON	OFF	OFF	3
		ON	ON	OFF	OFF	4
		OFF	OFF	ON	OFF	5
		ON	OFF	ON	OFF	6
		OFF	ON	ON	OFF	7
		ON	ON	ON	OFF	8
		OFF	OFF	OFF	ON	9
		ON	OFF	OFF	ON	10
		OFF	ON	OFF	ON	11
		ON	ON	OFF	ON	12
		OFF	OFF	ON	ON	13
		ON	OFF	ON	ON	14
		OFF	ON	ON	ON	15
		ON	ON	ON	ON	16

DiSEqC 1.2 – for selection of inputs of DiSEqC 1.2 switches

According to change on control inputs the product generates command “goto mn” with parameter 0–15. DiSEqC 1.2 commands incoming from satellite receiver are repeated.

Mode	Config. levers	State of control inputs	Input of the switch
11	2,4 ON; 1,3 OFF	Resulting command is determined by the combination of states of control inputs, see table above	

Overview table of all available generator’s operating modes:

Mode	Config. levers	Function	Typical usage
1	all OFF	DiSEqC 1.0 + analog commands	multiswitch
2	1 ON; 2,3,4 OFF	analog commands	LNB
3	2 ON; 1,3,4 OFF	DiSEqC 1.2 + analog commands	DiSEqC 1.2 switch + LNB
4	1,2 ON; 3,4 OFF	DiSEqC 1.2 + DiSEqC 1.0 + analog commands	cascade of switches + LNB
5	3 ON; 1,2,4 OFF	DiSEqC 1.1 + DiSEqC 1.0 + analog commands	cascade of switches + LNB
6	1,3 ON; 2,4 OFF	DiSEqC 1.1 + analog commands	DiSEqC 1.1 switch + LNB
7	2,3 ON; 1,4 OFF	Reset + DiSEqC 1.1 + DiSEqC 1.0 + analog commands	factory default
8	1,2,3 ON; 4 OFF	Reset + DiSEqC 1.2 + DiSEqC 1.0 + analog commands	factory default
9	4 ON; 1,2,3 OFF	DiSEqC 1.0	multiswitch
10	1,4 ON; 2,3 OFF	repeater	regenerate DiSEqC commands
11	2,4 ON; 1,3 OFF	DiSEqC 1.2	DiSEqC 1.2 switch
12	1,2,4 ON; 3 OFF	DiSEqC 1.2 + DiSEqC 1.0	cascade of switches
13	3,4 ON; 1,2 OFF	DiSEqC 1.1 + DiSEqC 1.0	cascade of switches
14	1,3,4 ON; 2 OFF	DiSEqC 1.1	DiSEqC 1.1 switch
15	2,3,4 ON; 1 OFF	Reset + DiSEqC 1.1 + DiSEqC 1.0	factory default
16	all ON	Reset + DiSEqC 1.2 + DiSEqC 1.0	factory default