

**PRODUCT DESCRIPTION**

The multiswitches are designed for use in medium and large size SAT and terrestrial TV distribution systems. The multiswitches ensure an independent access of every subscriber to any SAT IF or terrestrial line.  
 The housing of multiswitches meets more stringent screening requirements according to EN50083-2, class A.  
 The multiswitches are intended for indoor use only. Suitable for moderate and tropical climates.

**SAFETY INSTRUCTIONS**

Installation of the multiswitches must be done according IEC60728-11 and national safety standards.  
 The multiswitches are powered from the stabilized power supply +18V. This voltage is not dangerous to life.  
 External power supply must have a short circuit protection.  
 Any repairs must be done by a qualified personnel.  
 To avoid damaging of the multiswitch do not connect the supply voltage until all cables have been connected correctly.  
 To disconnect multiswitch from powering completely:

- 1) If multiswitch is powered via HHi, HLo lines, disconnect cables from HHi, HLo lines.
- 2) If multiswitch is powered from external power supply via AUX connector, disconnect external power supply from the mains socket. The mains socket must be easily accessible.

The multiswitch shall not be exposed to dripping or splashing water and no objects filled with liquids, such as vases, shall be placed on it.

Avoid placing the multiswitch next to central heating components and in areas of high humidity.  
 No naked flame sources, such as lighted candles, should be placed on multiswitch.  
 If the multiswitch has been kept in cold conditions for a long time, keep it in warm room no less than 2 hours before powering.

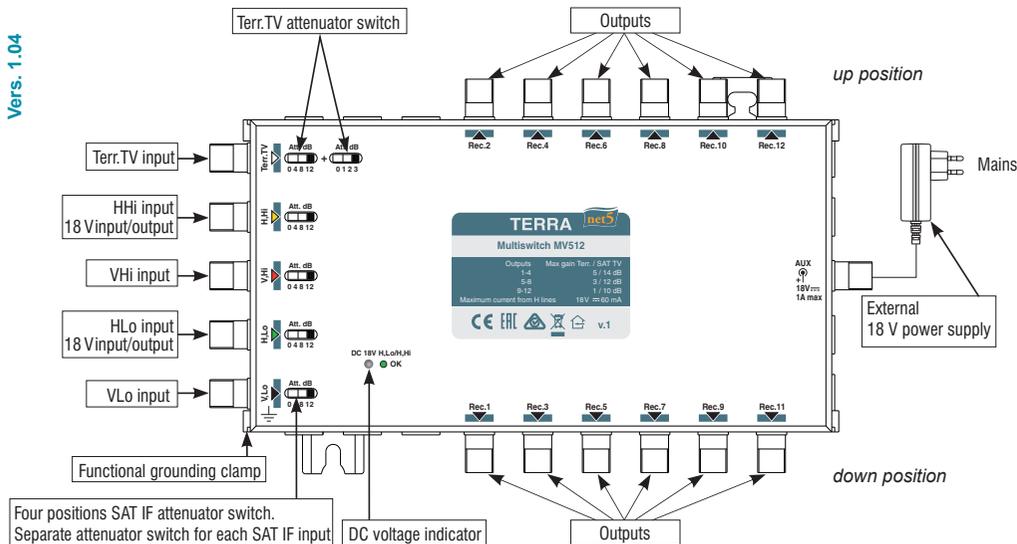
The ventilation should not be impeded by covering the multiswitch with items, such as newspapers, table-cloths, curtains.  
 From top, front and bottom of installed multiswitch must be at least 5 cm free space.

**WARNING!** Before connecting cables to multiswitch, be sure that cables shield and multiswitch functional grounding clamp have common potential. Otherwise, floating voltage can damage product.

**MONTAGE VIEW**

Mount the multiswitch in vertical position with RF input connectors on the left side. The multiswitch must be fixed with steel screws Ø 4-5 mm. The screws are not included in a package.

Vers. 1.04



**OPERATING**

Each SAT IF input line has a separate four positions attenuator with 0, 4, 8, 12 dB attenuation values.  
 Terrestrial TV input line has two four positions attenuator with 0, 4, 8, 12 dB and 0, 1, 2, 3 dB values. Total attenuation value is the sum of attenuation values of each separate attenuator. For example: first attenuator set to 4 dB, second to 1 dB. Total attenuation will be 5 dB.

Access to SAT TV lines is controlled by 14/18 V and 0/22 kHz signals, which come from subscriber's receiver through RF cable. SAT TV circuits of the multiswitch are powered from the receivers and did not need any external power supply. Terrestrial TV path is powered through horizontal polarization SAT TV lines (H, Lo; H, Hi). Horizontal polarization lines inside distribution system are powered from launch amplifier (SA51), but they can be powered from external 18 V power supply connected to rear side DC connector AUX in the case of installation of single multiswitch. Current through this connector should not exceed 1 A max.

**TECHNICAL CHARACTERISTICS**

Type	MV508	MV512	MV516	
Ordering number	02720V1	02721V1	02722V1	
Number of outputs	8	12	16	
Frequency range	SAT IF	950-2400 MHz		
	Terr. TV	47-862 MHz		
Gain (fixed slope pre-correction)	SAT IF	outputs 1-4	5 ÷ 14 dB	
		outputs 5-8	4 ÷ 12 dB	
		outputs 9-12	3 ÷ 10 dB	
	Terr. TV	outputs 1-4	-1 ÷ 5 dB	
		outputs 5-8	-2 ÷ 3 dB	
		outputs 9-12	-3 ÷ 1 dB	
Gain adjustment	SAT IF	12 dB by 4 dB step		
Terr. TV	15 dB by 1 dB step			
Output level for SAT IF (IMD3=35 dB)*	105 dBµV			
Output level for Terr. TV (IMD3=60 dB)*	outputs 1-4	88 dBµV	88 dBµV	88 dBµV
	outputs 5-8	86 dBµV	86 dBµV	86 dBµV
	outputs 9-12	-	84 dBµV	84 dBµV
	outputs 13-16	-	-	82 dBµV
SAT inputs decoupling	≥ 30 dB			
Outputs decoupling	SAT IF	≥ 30 dB**		
	Terr. TV	≥ 35 dB		
Rejection	Terr. TV/SAT	≥ 30 dB		
	SAT/Terr. TV	≥ 40 dB		
Current consumption from receiver	< 65 mA			
Current consumption from inputs H lines or from external power supply	+ 18 V ---60 mA			
Control signals	14/18 V, 0/22 kHz			
Operating temperature range	-20° ÷ + 50° C			
Dimensions/Weight (packed)	187x135x30 mm/0.6 kg	227x135x30 mm/0.7 kg	267x135x30 mm/0.9 kg	

\* 2 equal carriers  
 \*\* in splitting mode (the same input selected on the outputs) isolation ≥ 27 dB

This product complies with the relevant clauses of the European Directive 2002/96/EC. The unit must be recycled or discarded according to applicable local and national regulations.

Equipment intended for indoor usage only.

Functional grounding. Connect to the main potential equalization.

TERRA confirms, that this product is in accordance to following norms of EU: EMC norm EN50083-2, safety norm EN60065, RoHS norm EN50581.

TERRA confirms, that this product is in accordance with Custom Union Technical Regulations: "Electromagnetic compatibility of technical equipment" CU TR 020/2011, "On safety of low-voltage equipment" CU TR 004/2011.

TERRA confirms, that this product is in accordance with safety standard AS/NZS 60065 and EMC standards of Australia.