# MULTISWITCHES MV908L, MV912L, MV916L

### PRODUCT DESCRIPTION

This series of multiswitches has 8 satellite TV IF inputs, one terrestrial TV input and up to 16 subscriber's outputs. They ensure an independent access of every subscriber to any SAT IF or terrestrial input.

Multiswitches are designed for use in large SAT and terrestrial TV distribution systems.

Terrestrial TV input has LTE signal suppression filter.

The housing of multiswitches meets more stringent screening requirements according to EN50083-2, class A.

The multiswitches are intended for indoor use only.

# SAFETY INSTRUCTIONS

The multiswitches are powered from the stabilized power supply +18V. This voltage is not dangerous to life.

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.

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, near highly combustible materials 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.

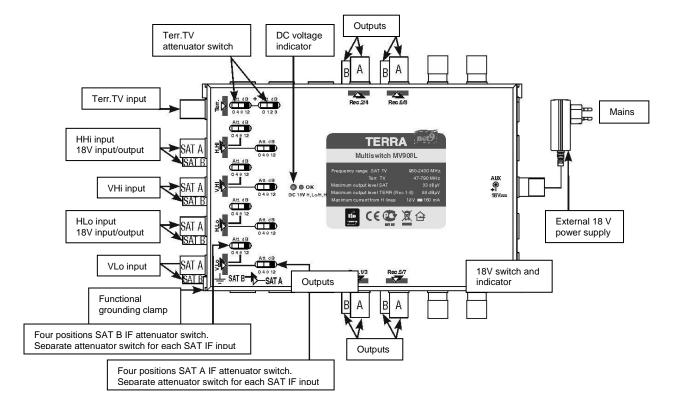
The ventilation should not be impeded by covering the multiswitch with items, such as newspapers, table-cloths, curtains.

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 clamp have common ground. Otherwise, floating voltage can damage product.

#### MONTAGE VIEW

Mount the multiswitch in vertical position with RF input connectors on the left side.



# **OPERATING**

SAT IF signals must be connected as shown on the label of multiswitch to ensure correct access to SAT TV signals. It is important to equalize average signal level from satellites. Use gain controls for each satellite line to achieve this goal.

The purpose of the control near the terrestrial TV input is to adjust optimal level of terrestrial TV signal. Maximal level must not exceed the upper limit (see specifications), at the same time it must not be too low to avoid interference from SAT TV lines.

The subscriber's access to terrestrial TV line is permanent. Subscriber access to SAT TV lines is controlled by either analogue control signals or DiSEqC signals, which comes from the receiver through RF cable.

Analogue control signals:

14V/18V - polarization selection (vertical/horizontal)

 $0\ kHz/22\ kHz$  - band selection (low/high band)

 $22\ kHz$  tone burst - satellite selection (satellite A/B)

DiSEqC control signals according DiSEqC 2.0 protocol for specifications (see www.eutelsat.com).

Without DiSEqC signal and tone burst only satellite A will be accessible.

Multiswitch is powered from network central power supply through horizontal polarization lines (H,Lo; H,Hi). It also can be powered from external 18 V power supply connected to rear side connector "AUX 18V". Such feeding is useful in small networks where amplifiers SA51, SA91L with central power supply is absent.

To improve isolation from other SAT TV lines put 75 Ohm terminations with DC blocking on idle connectors if they are.

# TECHNICAL CHARACTERISTICS

TECHNICAL	CHARACT	ERISTICS			
Type			MV908L	MV912L	MV916L
Number of outputs			8	12	16
Frequency range	SAT IF			950-2400 MHz	
	Terr. TV			47-790 MHz	
Gain	SAT IF			$3 \div 8 \text{ dB}$	
(fixed slope	Terr. TV	outputs 1-8		4 ÷ 7 dB	
pre-correction) outputs 9-12		-	3 ÷ 5 dB		
		outputs 13-16		-	$2 \div 3 \text{ dB}$
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)*				$93~dB\mu V$	
Output level for Terr. TV outputs 1-8			$88~dB\mu V$		
(IMD3=60 dB)* outputs 9-12		- $86 \text{ dB}\mu\text{V}$			
		outputs 13-16		-	$86~dB\mu V$
SAT inputs decoupling				> 30 dB	
Outputs decoupling			> 30 dB		
Current consumption from receiver			60 mA max.		
Current consumption from inputs H lines			12 V $^{\div}$ 18 V 160 mA max. at 18 V		
or from external p	ower supply				
DC pass through connector "Aux 18 V"			18 V 1 A max.		
Control signals			14/18 V, 0/22 kHz, tone burst or DiSEqC 1.0, DiSEqC 2.0 or compatible version		



Operating temperature range Dimensions / Weight (packed)

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.

 $-20^{\circ} \div + 50^{\circ} \, \text{C}$ 

187x135x52 mm / 1.26 kg



The device has integrated LTE filter.



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 to following norms of Russian Federation: EMC  $\Gamma$ OCT P 51318.22-2006,  $\Gamma$ OCT P 51318.24-99,  $\Gamma$ OCT P 51317.3.2-2006,  $\Gamma$ OCT P 51317.3.3-2008 and safety norm  $\Gamma$ OCT IEC 60950-1-2011.

 $<sup>\</sup>ast$  2 equal carriers; output level by DIN45004B - add 3 dB to mentioned above value