



## SEM 5X

# USER'S MANUAL





## Chapter 1. Installation.

### 1.1. Safety Measures

- 1.- Never place the equipment next to hot sources.
- 2.- Never undergo the equipment to temperatures that exceed the level of operation of the device.
- 3.- Do not expose the equipment to dripping or splashing.
- 4.- Do not place objects filled with liquids on the equipment.
- 5.- Respect ventilation slots of this equipment. Avoid covering them with any object.
- 6.- Keep clean and without obstacles a minimum radius of 40 cm around this equipment.
- 7.- Avoid locations with possibilities of spilling liquids on the inside of the device, and with important changes of temperature.
- 8.- Never open the equipment yourself due to electric risk. In case of problems, go always to qualified technicians..
- 9.- Never, under no circumstances, open the equipment connected to the electrical net.
- 10.- During the handling it is better to disconnect the equipment of the electrical net.
- 11.- Respect the electricity security rules during the assembling. Use materials that obey the current law.
- 12.- The connecting plug must be accessible in a fast and simple way to have a fast disconnection.
- 13.- Never touch the plug with wet hands. Also, disconnect always the device before handling the connections..
- 14.- Never put any heavy object over the device, as it could get damaged.
- 15.- If the equipment is going to remain some time without use, it is recommendable to disconnect it from the electrical net.
- 16.- The repairmen and the maintenance of the equipment must be done by TV and radio specialist technicians.

### 1.2. Box Content



SEM 5X



User's manual

### 1.3. Description and connections

This family of multiswitches is used to make installations with a certain number of connected users and it is compatible with digital and analogical signals.

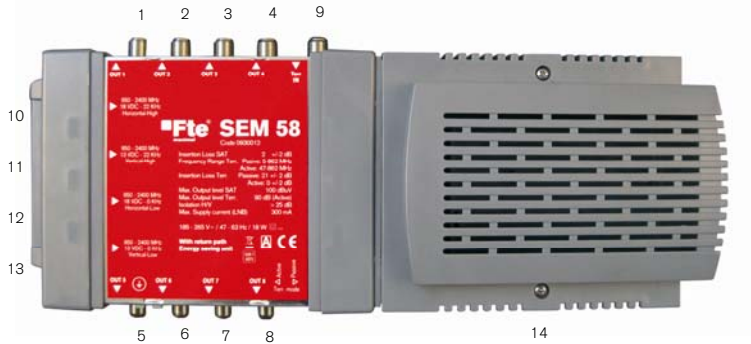
The models available allow us to distribute 4 polarities of a satellite for 6, 8, 12, 16, 24 or 32 receivers making an independent commutation in order to receive in each receiver the 4 polarities of satellite. The inputs are independent for each polarity of the satellite.

All the models of this family are provided with an inner amplification in order to avoid the derivation loses and the distribution of the terrestrial bans is active, models SEM 524 and SEM 532 are provided with an active return path of 5-65MHz. The commutation criterion of the satellite signal will be made by the means of Toneburst or DiseqC 2.0 (13/18V and 0-22kHz).

These models can be used for single, twin and Quattro LNC, they also include an additional generator of 22kHz so we can use LNC QUAD.

Switching criterion	Polarity / Band
13 V / 0kHz	Vertical / low
18 V / 0kHz	Horizontal / low
13 V / 22kHz	Vertical / high
18 V / 22kHz	Horizontal / high

## SEM 58



- 1-8 47-2300 MHz: Output (SAT + TERR) \*
- 9 INPUT 47 – 862 MHz : Terrestrial signal input
- 10 INPUT 950 – 2400 MHz 18V / 22 kHz : Satellite signal input
- 11 INPUT 950 – 2400 MHz 18V / 0 kHz : Satellite signal input
- 12 INPUT 950 – 2400 MHz 13V / 22 kHz : Satellite signal input
- 13 INPUT 950 – 2400 MHz 13V / 0 kHz : Satellite signal input
- 14 AC IN: Power supply cable ( 230V AC, 50Hz )

(\*) Note: In order to identify the outputs in the others models it is indicated with arrow in the direction of the connector and the number of the respective output.

#### 1.4. Accesories and example of installation

##### Accesories



Parabolic antenna 80cmØ  
Mod. PR 80 Code. 0798021



LNC Universal Quattro  
Mod. LNC 544 Code.0400067



Outdoor antenna UHF  
Mod. EVO 45 Code. 9003910

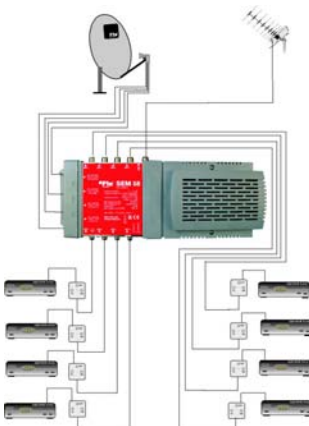
##### Example of installation



Satellite digital receiver  
Mod. MAX S202 Code.0720024



Satellite digital receiver  
Mod. MAX S101 HDMI Code.0720036



Example of an installation for 8 users with 4 satellite polarities, distributed by a SEM 58 multiswitch. It allows the full reception (analogical and digital) of a satellite. The multiswitch does not introduce losses in the terrestrial output therefore it does not need previous amplification. In this case in order to access to the different satellite polarities, the receiver must be provided with DiSeqC 1.0 standard commutation or upper.

## Chapter 2. Configuration

### Terrestrial band Switch

The models SEM 524 and SEM 532 are provided with a switch that allows commuting the terrestrial band between active and passive.

The possible configurations that this switch offers are the following:

Switch	Terrestrial	Return Path
Active	80-862 MHz (Active)	5-65 MHz (Active)
Passive	5-862 MHz (Passive)	

## Chapter 3. Technical features

Ref.	SEM 56	SEM 58	SEM 512	SEM 516	SEM 524	SEM 532
Code	0930010	0930012	0930014	0930016	0930018	0930020
Nr. of TERR/SAT inputs	1/4					
Outputs	6	8	12	16	24	32
Terrestrial (Passive)						
Terrestrial Switch	Passive					
Frequency range	5-862 MHz					
Losses	20+/-2 dB	21+/-2 dB	23+/-2 dB	24+/-2 dB	28+/-2 dB	30+/-2 dB
Terrestrial (Active)						
Terrestrial Switch	Active					
Frequency range	47-862 MHz				80-862 MHz	
Losses	0+/-2 dB					1+/-1 dB
Max. Output level	95 dB				90 dB	
Regulation	-				10 dB	
Return channel (Active)						
Terrestrial Switch	-				Active	
Frequency range	-				5-65 MHz	
Losses	-				15+/-2dB	
Satellite						
Frequency range	950-2400 MHz					
Losses	0+/-2 dB					
Isolation H,V	>25 dB					>30 dB
Isolation SAT, SAT	>20 dB					
Máx. Output level	105 dBµV		95 dBµV			
Feeding, consumption	180-265V, 47-63Hz, 18W					
Generator 22kHz	Yes					
Max. Consumption	500mA					
Dimensions (mm)	350x115x80		400x115x80	450x125x80	540x125x80	
Weight (g)	860	880	1000	1150	1340	1380

## Chapter 4. Conformity Declaration

### CONFORMITY DECLARATION



"WE, FTE MAXIMAL, DECLARE THAT THE PRODUCTS  
SEM 56, SEM 58, SEM 512,  
SEM 516, SEM 524 AND SEM 532  
ARE IN CONFORMITY WITH FOLLOWING DIRECTIVES  
Low Voltage Directive 2006/95/EC  
EMC Directive 2004/108/EC"

If you wish a copy of the conformity declaration, please contact to the company



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