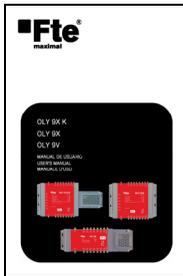


## Chapter 1. Installation.

### 1.1. Safety Measures

- 1.- Never place the device next to hot sources.
- 2.- Never undergo the device to temperatures that exceed its level of operation.
- 3.- Never expose the device to leakings nor splatterings.
- 4.- Never place objects that contain liquids over the device.
- 5.- Respect the ventilation slots of the device, do not cover them with any kind of object.
- 6.- The space around the device must be free of objects, in a minimum radius of 40cm.
- 7.- Avoid locations with possibilities of spilling liquids on the inside of the device, and with important changes of temperature.
- 8.- Never open the device by yourself due to electric risk. In case of problems, go always to qualified technicians
- 9.- Never, under no circumstances, open the device when connected to the electrical net.
- 10.- During the handling it is better to disconnect the device from the electrical net.
- 11.- Obey 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, since it could get damaged.
- 15.- If the device 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 device must be done by TV and radio specialised technicians

### 1.2. Box content



User's Guide

Depending of model selected, the box will has one of these equipments:



Headend cascade multiswitch OLY 9X K



Cascade multiswitch OLY 9X



Cascade line amplifier OLY 9V

### 1.3. Description and connections

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

The models available allow us to distribute 8 polarities of two different satellites plus the terrestrial signal.

Being a cascade installation, the signal can be distributed for 4, 6, 8 or 16 receivers per floor, making an independent commutation in order to receive in each receiver the 4 polarities of each satellite mixed with the terrestrial signal.

In the headend we will install the headend cascade multiswitch OLY 9X K, which incorporates a power supply to feed the 8 inputs towards de LNCs (12/18V).

From here on, for each distribution of the following floors, a cascade multiswitch OLY 9X will be used.

In case the distances might be too long, the losses can be compensated by a cascade line amplifier OLY 9V installed in the trunk line.

These multiswitches work with 13/18V and also with the DiSEqC 2.0 standards.

#### Headend cascade multiswitches

- These models have a feeding input level of 180-265VAC and 18 W of consumption.
- The feeding input has a LED that shows the status of the device, it is also provided with electrical protections in order to avoid overvoltage.
- The satellite band is active and it is fed by the satellite receivers of each user.

#### Cascade Multiswitches

- The pass outputs are passive in satellite and terrestrial band.
- The derivation outputs in F.I. are active and they are fed by the satellite receivers of each user.

#### Cascade line amplifier

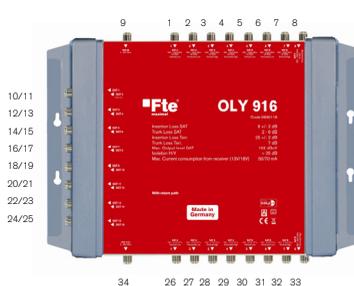
- The device can be used as post and pre-amplifier.
- These models have a feeding input level of 180-265VAC and 9 W of consumption.
- The feeding input has a LED that shows the status of the device.
- It makes an amplification of each one of the 8 satellite inputs and the terrestrial signal (47/80-862 MHz).

#### OLY 916 K (Headend Cascade Multiswitch)



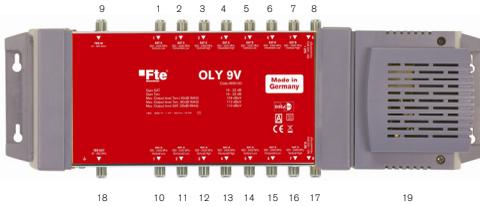
- 1-4. INPUT SAT A 950–2400 MHz: Satellite Input A
- 5-8. INPUT SAT B 950–2400 MHz: Satellite Input B
- 9. INPUT 5 – 862 MHz: Terrestrial Input
- 10-25. OUTPUT 5-2400MHz: Derivation Output (SAT + TERR)
- 26-33. SAT-IF-OUTPUT 950-2400 MHz: Satellite Pass Outputs
- 34. TERR OUTPUT 5-862 MHz: Terrestrial Pass Output
- 35. AC IN: Feeding Cable ( 230V AC, 50Hz )

#### OLY 916 (Cascade Multiswitch)



- 1-4. INPUT SAT A 950–2400 MHz: Satellite Input A
- 5-8. INPUT SAT B 950–2400 MHz: Satellite Input B
- 9. INPUT 5 – 862 MHz: Terrestrial Input
- 10-25. OUTPUT 5-2400MHz: Derivation Output (SAT + TERR)
- 26-33. SAT-IF-OUTPUT 950-2400 MHz: Satellite Pass Outputs
- 34. TERR OUTPUT 5-862 MHz: Terrestrial Pass Output

## OLY 9V (Cascade line amplifiers)



- 1-4. INPUT SAT A 950–2400 MHz: Satellite Input A
- 5-8. INPUT SAT B 950–2400 MHz: Satellite Input B
- 9. INPUT 47 – 862 MHz: Terrestrial Input
- 10-17. SAT-IF-OUTPUT 950-2400 MHz: Satellite Output
- 18. TERR OUTPUT 47-862 MHz: Terrestrial Output
- 19. AC IN: Feeding cable ( 230V AC, 50Hz )

### Note:

1. 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 series EVO 45  
Mod. EVO 45 Code. 9003910

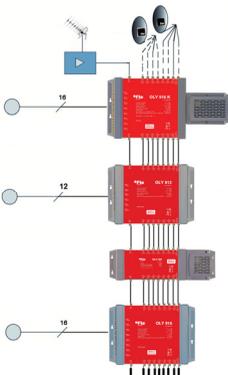
### Example of installation



Satellite digital receiver  
Mod. MAX S102 E Code. 0720040



Satellite digital receiver HD  
Mod. MAX S500 HD Code. 0720200



Example of an installation for 44 users with 8 polarities distributed in cascade, with a headend cascade multiswitch headend OLY 916 K, two cascade multiswitches (OLY 1716 and OLY 912) and a cascade multiswitch OLY 9V making post-amplifiers functions.

It allows the full reception (analogical and digital) of two satellites to all the users of the installation. As it is showed in the example this kind of installations are used to deliver service to a great number of users.

It is advisable not to put more than 2 or 3 line amplifiers in the installation, in order to maintain the quality of the signal.

In case of installation with two structures the cables should be divided from LNCs to the different main channels.

In this case, in order to get to the different polarities of the two satellites, the receiver must have DiSEqC 1.0 commutation standards or upper.

## Chapter 2. Technical features

## Headend cascade multiswitch

Ref.	OLY 94 K	OLY 96 K	OLY 98 K	OLY 912 K	OLY 916 K
<b>Code</b>	0930100	0930102	0930104	0930106	0930108
<b>Nr of TERR/SAT inputs</b>	1/8				
<b>Nr of TERR/SAT outputs</b>	1/8				
<b>Derivation outputs</b>	4	6	8	12	16
<b>Terrestrial (Passive)</b>					
Frequency range	5-862 MHz				
Derivation losses	21+/-2 dB	22+/-2 dB	23+/-2 dB	25+/-2 dB	
Pass losses	4-6 dB				
Isolation SAT, TERR	>40 dB				
Isolation REC, REC	>25 dB				
<b>Satellite</b>					
Frequency range	950-2400 MHz				
Derivation losses	6+/-2 dB				
Pass losses	2-4 dB			2-6 dB	3-6 dB
Isolation H,V	>25 dB				
Isolation SAT, SAT	>40 dB				
Max. Output level (35dB IMR3)	102 dB $\mu$ V				
<b>Feeding, Consumption</b>	180-265V, 47-63Hz, 18 W				
<b>Max. Current LNC (12/18Vdc)</b>	350 mA /700 mA				
<b>Current consumption receiver (13/18Vdc)</b>	50 mA /70 mA				
<b>Dimensions</b>	400x100x80 mm			400x190x80 mm	
<b>Weight</b>	1070 g	1085 g	1100 g	1600 g	1620 g

## Cascade multiswitch

Ref.	OLY 94	OLY 96	OLY 98	OLY 912	OLY 916
<b>Code</b>	0930110	0930112	0930114	0930116	0930118
<b>Nr of TERR/SAT inputs</b>	1/8				
<b>Nr of TERR/SAT outputs</b>	1/8				
<b>Derivation outputs</b>	4	6	8	12	16
<b>Terrestrial (Passive)</b>					
Frequency range	5-862 MHz				
Derivation losses	21+/-2 dB	22+/-2 dB	23+/-2 dB	24+/-2 dB	25+/-2 dB
Pass losses	4 dB	5 dB		6 dB	7 dB
Isolation SAT, TERR	>40 dB				
Isolation REC, REC	>25 dB				
<b>Satellite</b>					
Frequency range	950-2400 MHz				
Derivation losses	6+/-2 dB				
Pass losses	2-3 dB	2-4 dB		2-6 dB	
Isolation H,V	>25 dB				
Isolation SAT, SAT	>40 dB				
Max. Output level (35dB IMR3)	102 dB $\mu$ V				
<b>Current consumption receiver (13/18Vdc)</b>	50 mA /70 mA				
<b>Dimensions</b>	280x110x80 mm			280x190x80 mm	
<b>Weight</b>	780 g	820 g	860 g	1380 g	1390 g

**Cascade line amplifiers**

<b>Ref.</b>	<b>OLY 9V</b>
<b>Code</b>	0930120
<b>Nr of TERR/SAT inputs</b>	1/8
<b>Nr of TERR/SAT outputs</b>	1/8
<b>Terrestrial (Active)</b>	
Frequency range	47-862 MHz
Gain	19-22 dB
Max. Output level (60dB IMR2)	104 dB $\mu$ V
Max. Output level (60dB IMR3)	112 dB $\mu$ V
<b>Satellite</b>	
Frequency range	950-2400 MHz
Gain	18-22 dB
Max. Output level (35dB IMR3)	110 dB $\mu$ V
<b>Consumption</b>	180-265V, 47-63Hz, 9 W
<b>Dimensions</b>	330x115x65 mm
<b>Weight</b>	1100 g

## Chapter 3. Conformity Declaration



## CONFORMITY DECLARATION

"WE, FTE MAXIMAL, DECLARE THAT THE PRODUCTS  
 OLY 94 K, OLY 96 K, OLY 98 K, OLY 912 K, OLY 916 K,  
 OLY 94, OLY 96, OLY 98, OLY 912, OLY 916 AND OLY 9V  
 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