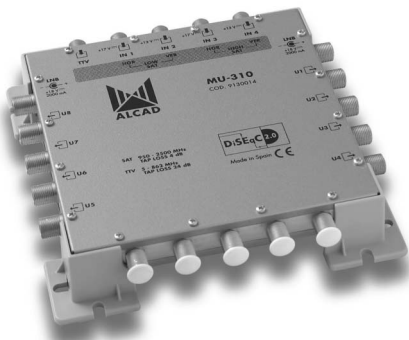




SISTEMA DE MULTICONMUTADORES  
MULTISWITCH SYSTEM  
SYSTÈME MULTICOMMUTATEUR



**SERIE 913 SERIES**

# MULTICONMUTADORES - MULTISWITCHES - MULTICOMMUTATEURS

CÓDIGO-CODE-CODE	9130013			9130014			9130015			
MODELO-MODEL-MODELE	MU-110			MU-310			MU-610			
Entradas/salidas/derivaciones Inputs/outputs/taps Entrées/sorties/dérivations		5 / 0 / 4			5 / 0 / 8			5 / 0 / 16		
Rango de frecuencia Frequency range Gamme de fréquences	Band	VR/TV	SAT		VR/TV	SAT		VR/TV	SAT	
	MHz	5-862	950-2150	2150-2500	5-862	950-2150	2150-2500	5-862	950-2150	2150-2500
Atenuación de derivación Tap loss Atténuation de dérivation	dB ±TOL	24 ±3,0	4 ±3,0		24 ±3,0	4 ±3,0		24 ±3,0	4 ±3,0	
Equalización fija Fixed equalization Pente fixe	dB	9	8	-	9	8	-	9	8	-
Nivel de salida Output level Niveau de sortie	dB $\mu$ V	-	100 (IMD <sub>3</sub> -35 dB) 90 (IMD <sub>2</sub> -35 dB)		-	100 (IMD <sub>3</sub> -35 dB) 90 (IMD <sub>2</sub> -35 dB)		-	100 (IMD <sub>3</sub> -35 dB) 90 (IMD <sub>2</sub> -35 dB)	
Rechazo entre bandas Rejection between bands Rejection entre bandes	dB	>25 TV/SAT >65 SAT/TV								
Desacoplo entre usuarios Isolation between users Découplage entre utilisateurs	dB	>40 TV >30 SAT								
Desacoplo de conmutación Isolation of switching Découplage de commutation	dB	>30 SAT/SAT								
Conmutación de las salidas Switching the outputs Commutation des sorties		DiSEqC 2.0 13 V $\overline{\text{---}}$ /17 V $\overline{\text{---}}$ 0/22 KHz								
Alimentación de las LNB Power supply of the LNB Alimentation des LNB		2000 mA / 18 V $\overline{\text{---}}$								
Consumo desde el receptor Consumption from the receiver Consumation du récepteur	mA	50 $\pm$ 2,0 (12..20 V $\overline{\text{---}}$ )								

IMD<sub>3</sub> -35 dB: 2 equal carriers, EN 50083-5  
 IMD<sub>2</sub> -35 dB: 2 equal carriers, EN 50083-5

Data published in compliance with the definitions and measurement methods of the following standards: EN 50083-3, EN 50083-4 and EN 50083-5

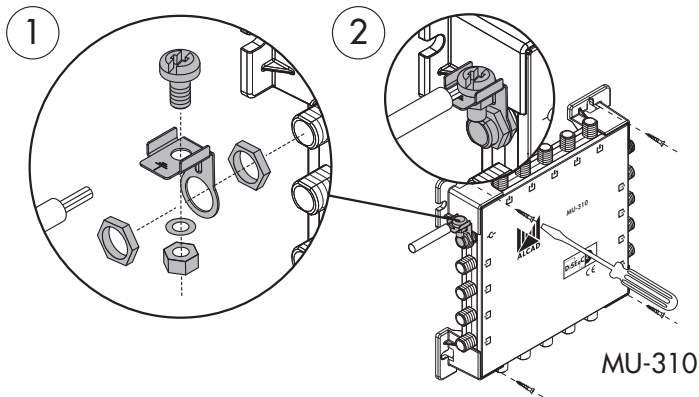
# ALIMENTADOR - POWER SUPPLY - ALIMENTATION

CÓDIGO-CODE-CODE		9130054	
MODELO-MODEL-MODELE		FU-612	
Tensión de salida Output voltage Tension de sortie	V $\overline{\text{---}}$	18	
	mA	2000 (In continuous operation)	
Tensión de red Mains voltage Tension secteur	V $\sim$	230 $\pm$ 15%	240 $^{+10\%}_{-18\%}$ 50/60 Hz
	VA	105	

## EQUIPO COMPLETO - COMPLETE SYSTEM - ÉQUIPEMENT COMPLET

		913 SERIES	
Temperatura en proximidad del equipo Operating temperature close to equipment Température en proximité de l'équipement	°C	-10..+65	
Temperatura ambiente con/sin ventilador Room temperature with/without fan Température ambiante avec ou sans ventilateur	°C	-10..+55/+45	
Índice de protección Protection index Indice de protection		IP 20	

## CÓMO FIJAR EL MULTISWITCH Y CONECTAR LA TOMA DE TIERRA HOW TO FIX THE MULTISWITCH AND CONECT TO THE EARTH COMMENT FIXER LE MULTISWITCH ET CONECTÉ À LA PRISE DE TERRE

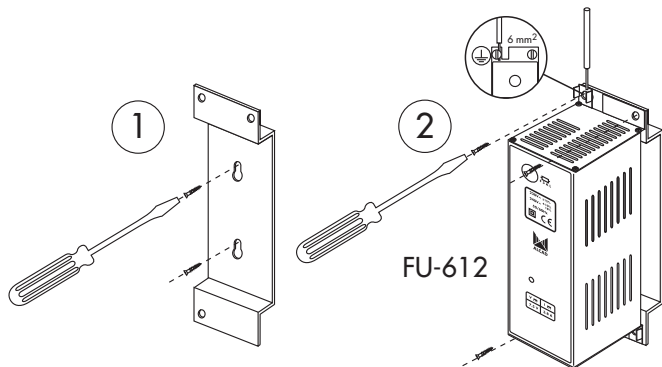


# CÓMO FIJAR LOS ALIMENTADORES

## HOW TO FIX THE POWER SUPPLIES

### COMMENT FIXER LES ALIMENTATIONS

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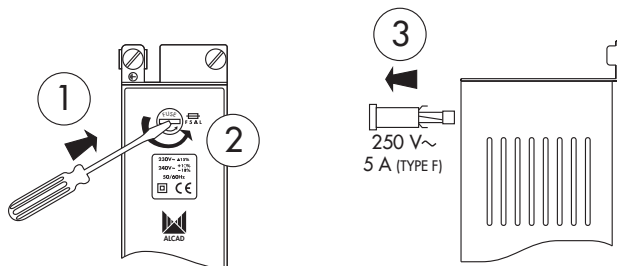


# CÓMO SUSTITUIR EL FUSIBLE

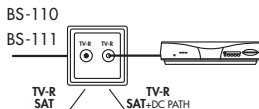
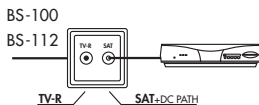
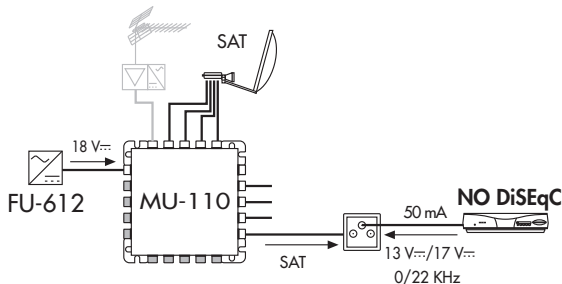
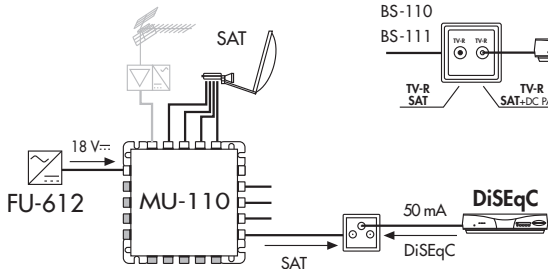
## REPLACING THE FUSE

### REPLACER LE FUSIBLE

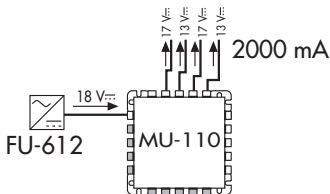
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# CONMUTACIÓN DE LAS SALIDAS SWITCHING THE OUTPUTS COMMUTATION DES SORTIES



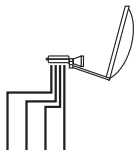
## CÓMO ALIMENTAR LAS LNB HOW TO FEED THE LNB COMMENT ALIMENTER LES LNB



INSTALACIÓN DE LNBS  
INSTALLING LNB  
INSTALLATION DES LNB

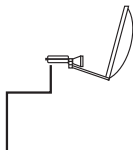
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QUATRO



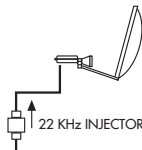
High Horizontal  
High Vertical  
Low Horizontal  
Low Vertical

UNIVERSAL



Low Horizontal  
Low Vertical

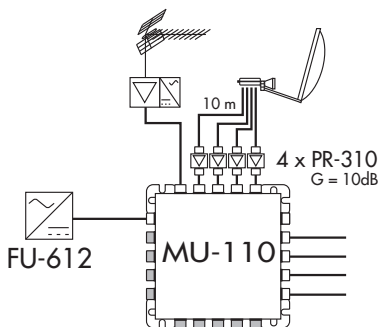
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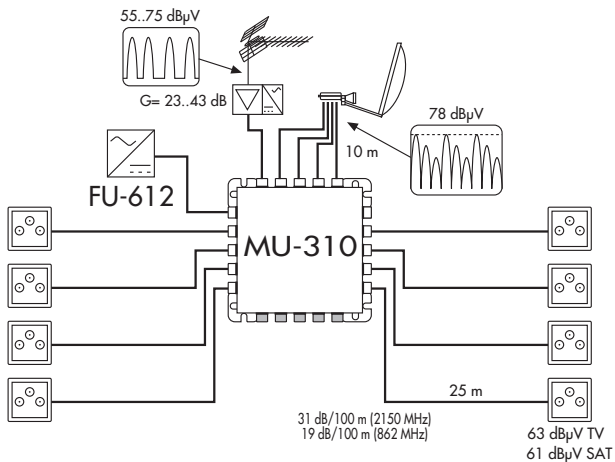
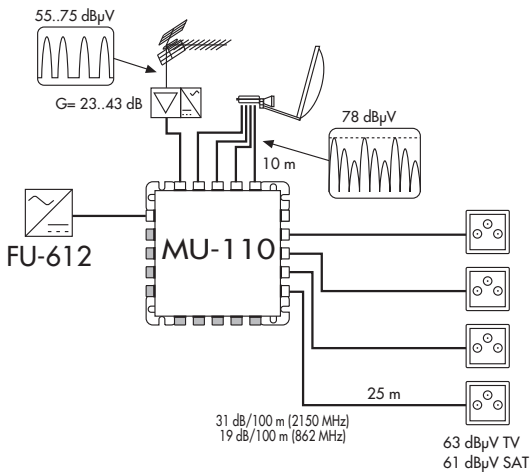


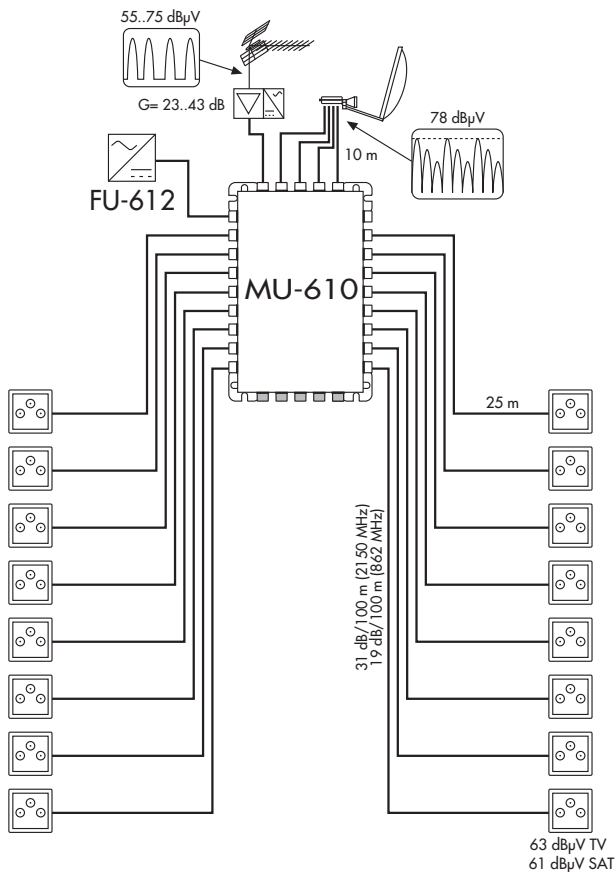
High Horizontal  
High Vertical

PREAMPLIFICACIÓN DE LA SEÑAL DE ANTENA  
PREAMPLIFICATION OF THE ANTENNA SIGNAL  
PRE AMPLIFICATION DU SIGNAL D'ANTENNE

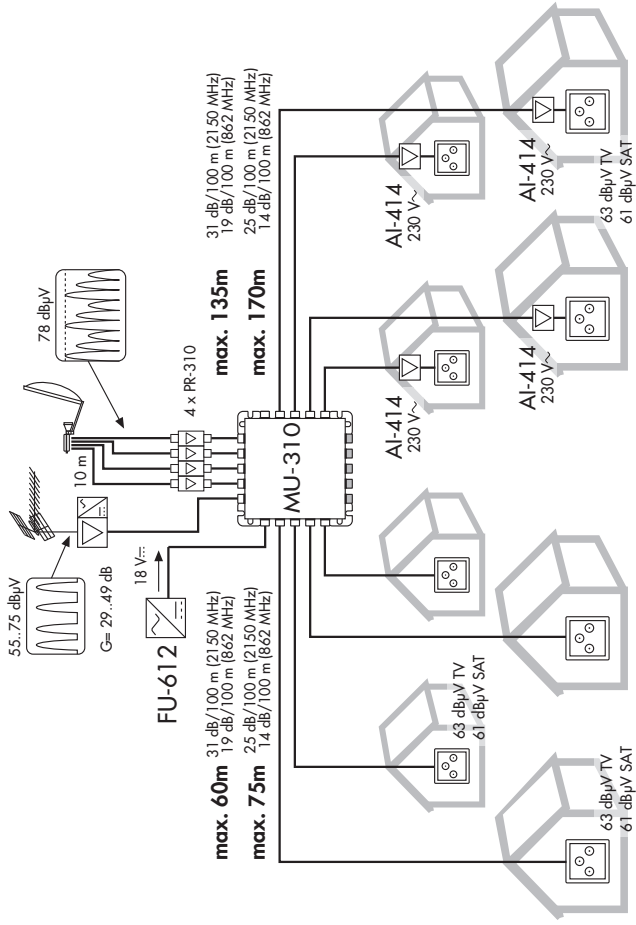
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### Instrucciones de seguridad

No esponga el equipo a goteo o proyecciones de agua. No sitúe objetos llenos de líquido, como vasos, sobre el equipo. No sitúe fuentes de llama desnuda, tales como velas encendidas, sobre el equipo. No cubra las aberturas de ventilación del equipo con objetos, tales como periódicos, cortinas, etc. Instale el equipo dejando un espacio libre alrededor para disponer de una ventilación suficiente. Instale el equipo de modo que la clavija de red de alimentación o el conector del equipo sean fácilmente accesibles.

### Safety Instructions

Do not place the equipment where water can drip or splash onto it. Do not place objects containing liquid, such as glasses, on the equipment. Do not place sources of naked flame, such as burning candles, on the equipment. Do not block the ventilation slots of the equipment with objects such as newspapers, curtains, etc. When installing the equipment, leave some free space around it to provide adequate ventilation. Install the equipment in such a way that the mains supply plug or the connector of the equipment can be easily reached.

### Consignes de sécurité

N'exposez pas l'équipement à des projections ou gouttes d'eau. Ne posez pas d'objets contenant du liquide, tels que des verres, sur l'équipement. Ne mettez pas de source de flamme, comme des bougies, sur l'équipement. Ne bouchez pas les ouvertures de ventilation de l'équipement avec des objets comme des journaux, des rideaux, etc. Installez l'équipement en laissant un espace libre tout autour de lui afin de permettre une ventilation suffisante. Installez l'équipement de telle sorte que la prise d'alimentation d'électricité ou le connecteur de l'équipement soit facilement accessible.



## DECLARATION OF CONFORMITY

according to EN ISO/IEC 17050-1:2004

**Manufacturer's Name:** ALCAD, S.A.  
**Manufacturer's Address:** Pol. Ind. Arreche-Ugalde, 1  
Apdo. 455, 20305 IRÚN (Guipúzcoa), SPAIN

declares that the product

**Model Number(s):** MU-110, MU-310, MU-610, FU-612  
**Product Description:** MULTISWITCH SYSTEM  
**Product Option(s):** INCLUDING ALL OPTIONS

is in conformity with:

Safety: EN 50083-1:1993

EMC: EN 50083-2:2001

The product herewith complies with the requirements of the Low Voltage Directive 2006/95/EC and the EMC Directive 2004/108/EC.

**Supplementary Information:** To comply with these directives, do not use the products without covers and operate the system as specified.



Irún(SPAIN), 17 Apr 2008



Francisco Navarro  
General Manager

Especificaciones sujetas a modificación sin previo aviso  
Specifications subject to modifications without prior notice  
Les spécifications sont soumises à de possible modifications sans avis préalable



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ISO 9001

