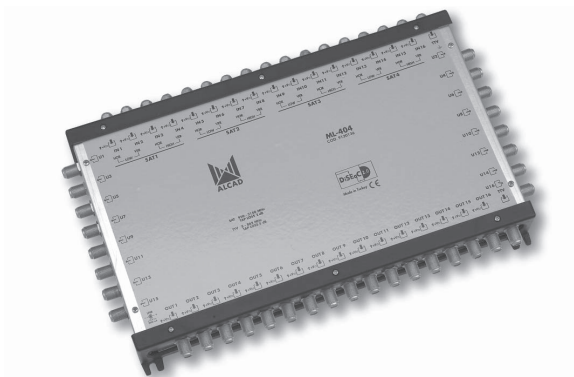




SISTEMA DE MULTICONMUTADORES
MULTISWITCH SYSTEM
MULTISWITCH SISTEMI
SYSTÈME MULTICOMMUTEUR



SERIE 913 SERIES

MULTICONMUTADORES - MULTISWITCHES- MULTISWITCH'LER - MULTICOMMUTATEURS

CODIGO-CODE-CODE	9130089		9130090		9130091		
MODELO-MODEL-MODELE	MB-402		MB-403		MB-404		
Entradas/salidas/derivaciones Inputs/outputs/taps Giriş/çıkış/yan çıkış Entrées/sorties/dérivations		17/0/8		17/0/12		17/0/16	
Rango de frecuencia Frequency range Frekans Gamme de fréquences	Band	TV	SAT	TV	SAT	TV	SAT
	MHz	47-862	950-2150	47-862	950-2150	47-862	950-2150
MODO PASIVO - PASSIVE MODE - PASIF DURUM - MODE PASSIF							
Atenuación de derivación Tap loss Yan çıkış kaybı Atténuation de dérivation	dB ±TOL	20 ±2,0	0 ±2,0	21 ±2,0	1 ±2,0	21 ±2,0	1 ±2,0
Nivel de salida Output level Çıkış seviyesi Niveau de sortie	dBµV	110 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	110 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	110 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)
MODO ACTIVO - ACTIVE MODE - AKTIF DURUM - MODE ACTIF							
Atenuación de derivación Tap loss Yan çıkış kaybı Atténuation de dérivation	dB ±TOL	0 ±2,0	0 ±2,0	1 ±2,0	1 ±2,0	1 ±2,0	1 ±2,0
Nivel de salida Output level Çıkış seviyesi Niveau de sortie	dBµV	99 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	96 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	96 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)
MODO ACTIVO/PASIVO - ACTIVE/PASSIVE MODE - AKTIF/PASIF DURUM - MODE ACTIF/PASSIF							
Ecuación de derivación Tap equalization Yan çıkış eğimi Egalisation de dérivation	dB	3	3	2	3	2	3
Rechazo entre bandas Rejection between bands Girişler arası izolasyon Rejection entre bandes	dB	>25 TV/SAT >65 SAT/TV					
Desacoplo entre usuarios Isolation between users Yan çıkışlar arası izolasyon Découplage entre utilisateurs	dB	>25 TV >30 SAT					
Desacoplo de conmutación Isolation of switching Anatharma Découplage de commutation	dB	>30 SAT/SAT					
Conmutación de las salidas Switching the outputs Uydu seçimi Commutation des sorties		DiSeqC 2.0 14 V \pm /18 V \pm 0/22 KHz					
Alimentación de las LNB Power supply of the LNB LNB beslemesi Alimentation des LNB		2050 mA / 13 V \pm					
Consumo desde el receptor Consumption from the receiver Uydu alıcısından çekilen akım Consumation du récepteur	mA	42 ±2,0 (14/18 V \pm)					

IMD₃ -35 dB: 2 equal carriers, EN 50083-5

IMD₂ -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

MULTICONMUTADORES - MULTISWITCHES- MULTISWITCH'LER - MULTICOMMUTATEURS

CÓDIGO-CODE-CODE	9130092		9130093		9130174		
MODELO-MODEL-MODELE	MB-405		MB-406		MB-408		
Entradas/salidas/derivaciones Inputs/outputs/taps Giriş/çıkış/yan çıkış Entrées/sorties/dérivations		17/0/20		17/0/24		17/0/32	
Rango de frecuencia Frequency range Frekans Gamme de fréquences	Band	TV	SAT	TV	SAT	TV	SAT
	MHz	47-862	950-2150	47-862	950-2150	47-862	950-2150
MODO PASIVO - PASSIVE MODE - PASIF DURUM - MODE PASSIF							
Atenuación de derivación Tap loss Yan çıkış kaybı Atténuation de dérivation	dB ±TOL	22 ±2,0	2 ±2,0	22 ±2,0	2 ±2,0	25 ±2,0	6 ±2,0
Nivel de salida Output level Çıkış seviyesi Niveau de sortie	dBµV	110 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	110 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	110 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)
MODO ACTIVO - ACTIVE MODE - AKTIF DURUM - MODE ACTIF							
Atenuación de derivación Tap loss Yan çıkış kaybı Atténuation de dérivation	dB ±TOL	2 ±2,0	2 ±2,0	2 ±2,0	2 ±2,0	5 ±2,0	6 ±2,0
Nivel de salida Output level Çıkış seviyesi Niveau de sortie	dBµV	95 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	95 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	95 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)
MODO ACTIVO/PASIVO - ACTIVE/PASSIVE MODE - AKTIF/PASIF DURUM - MODE ACTIF/PASSIF							
Ecuación de derivación Tap equalization Yan çıkış eğimi Egalisation de dérivation	dB	1	2	1	2	1	2
Rechazo entre bandas Rejection between bands Girişler arası izolasyon Rejection entre bandes	dB				>25 TV/SAT >65 SAT/TV		
Desacoplo entre usuarios Isolation between users Yan çıkışlar arası izolasyon Découplage entre utilisateurs	dB				>25 TV >30 SAT		
Desacoplo de conmutación Isolation of switching Anatharma Découplage de commutation	dB				>30 SAT/SAT		
Conmutación de las salidas Switching the outputs Uydu seçimi Commutation des sorties					DiSeqC 2.0 14 V \pm /18 V \pm 0/22 KHz		
Alimentación de las LNB Power supply of the LNB LNB beslemesi Alimentation des LNB					2050 mA / 13 V \pm		
Consumo desde el receptor Consumption from the receiver Uydu alıcısından çekilen akım Consumation du récepteur	mA				42 ±2,0 (14/18 V \pm)		

IMD₃-35 dB: 2 equal carriers, EN 50083-5
IMD₂-35 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

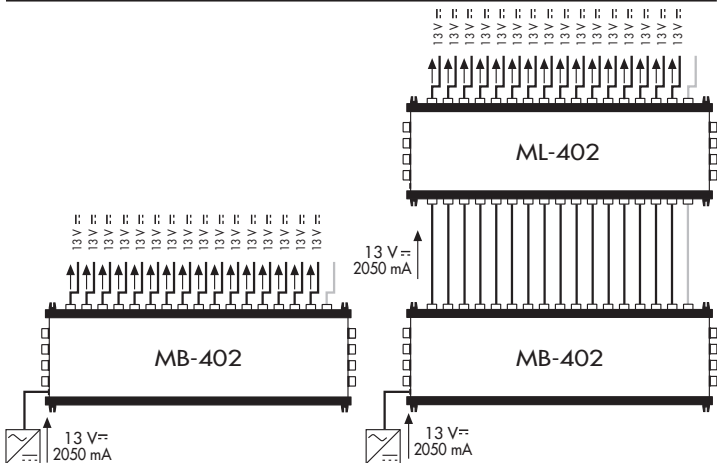
MULTICONMUTADORES - MULTISWITCHES- MULTISWITCH'LER - MULTICOMMUTATEURS

CÓDIGO-CODE-CODE	9130134		9130135		9130136		
MODELO-MODEL-MODELE	ML-402		ML-403		ML-404		
Entradas/salidas/derivaciones Inputs/outputs/taps Giriş/çıkış/yan çıkış Entrées/sorties/dérivations		17/17/8		17/17/12		17/17/16	
Rango de frecuencia Frequency range Frekans Gamme de fréquences	Band	TV	SAT	TV	SAT	TV	SAT
	MHz	47-862	950-2150	47-862	950-2150	47-862	950-2150
MODO PASIVO - PASSIVE MODE - PASIF DURUM - MODE PASSIF							
Atenuación de derivación Tap loss Yan çıkış kaybı Atténuation de dérivation	dB ±TOL	22 ±2,0	0 ±2,0	24 ±2,0	1 ±2,0	24 ±2,0	1 ±2,0
Nivel de salida Output level Çıkış seviyesi Niveau de sortie	dBµV	110 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	110 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	110 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)
MODO ACTIVO - ACTIVE MODE - AKTIF DURUM - MODE ACTIF							
Atenuación de derivación Tap loss Yan çıkış kaybı Atténuation de dérivation	dB ±TOL	2 ±2,0	0 ±2,0	4 ±2,0	1 ±2,0	4 ±2,0	1 ±2,0
Nivel de salida Output level Çıkış seviyesi Niveau de sortie	dBµV	99 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	96 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	96 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)
MODO ACTIVO/PASIVO - ACTIVE/PASSIVE MODE - AKTIF/PASIF DURUM - MODE ACTIF/PASSIF							
Ecuación de derivación Tap equalization Yan çıkış eğimi Egalisation de dérivation	dB	3	3	2	3	2	3
Atenuación de paso Through loss Geçiş kaybı Atténuation de passage	dB ±TOL	4,5 ±1,0	2,0 ±1,0	4,5 ±1,0	3,0 ±1,0	4,5 ±1,0	4,0 ±1,0
Rechazo entre bandas Rejection between bands Girişler arası izolasyon Rejection entre bandes	dB				>25 TV/SAT >65 SAT/TV		
Desacoplo entre usuarios Isolation between users Yan çıkışlar arası izolasyon Découplage entre utilisateurs	dB				>25 TV >30 SAT		
Desacoplo de conmutación Isolation of switching Anatharma Découplage de commutation	dB				>30 SAT/SAT		
Conmutación de las salidas Switching the outputs Uydu seçimi Commutation des sorties					DiSEqC 2.0 14 V± /18 V± 0/22 KHz		
Alimentación de las LNB Power supply of the LNB LNB beslemesi Alimentation des LNB					2050 mA / 13 V±		
Consumo desde el receptor Consumption from the receiver Uydu alıcısından çekilen akım Consumation du récepteur	mA				42 ±2,0 (14/18 V±)		

MULTICONMUTADORES - MULTISWITCHES- MULTISWITCH'LER - MULTICOMMUTATEURS

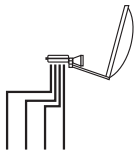
CODIGO-CODE-CODE	9130137		9130138		9130175		
MODELO-MODEL-MODELE	ML-405		ML-406		ML-408		
Entradas/salidas/derivaciones Inputs/outputs/taps Giriş/çıkış/yan çıkış Entrées/sorties/dérivations		17/17/20		17/17/24		17/17/32	
Rango de frecuencia Frequency range Frekans Gamme de fréquences	Band	TV	SAT	TV	SAT	TV	SAT
	MHz	47-862	950-2150	47-862	950-2150	47-862	950-2150
MODO PASIVO - PASSIVE MODE - PASIF DURUM - MODE PASSIF							
Atenuación de derivación Tap loss Yan çıkış kaybı Atténuation de dérivation	dB ±TOL	26 ±2,0	2 ±2,0	26 ±2,0	2 ±2,0	28 ±2,0	5 ±2,0
Nivel de salida Output level Çıkış seviyesi Niveau de sortie	dBµV	110 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	110 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	110 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)
MODO ACTIVO - ACTIVE MODE - AKTIF DURUM - MODE ACTIF							
Atenuación de derivación Tap loss Yan çıkış kaybı Atténuation de dérivation	dB ±TOL	6 ±2,0	2 ±2,0	6 ±2,0	2 ±2,0	8 ±2,0	5 ±2,0
Nivel de salida Output level Çıkış seviyesi Niveau de sortie	dBµV	95 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	95 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)	95 (DIN 45004B)	100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB)
MODO ACTIVO/PASIVO - ACTIVE/PASSIVE MODE - AKTIF/PASIF DURUM - MODE ACTIF/PASSIF							
Ecuación de derivación Tap equalization Yan çıkış eğimi Egalisation de dérivation	dB	1	2	1	2	1	2
Atenuación de paso Through loss Geçiş kaybı Atténuation de passage	dB ±TOL	4,5 ±1,0	4,0 ±1,0	4,5 ±1,0	4,0 ±1,0	6,0 ±2,0	4,5 ±2,0
Rechazo entre bandas Rejection between bands Girişler arası izolasyon Rejection entre bandes	dB				>25 TV/SAT >65 SAT/TV		
Desacoplo entre usuarios Isolation between users Yan çıkışlar arası izolasyon Découplage entre utilisateurs	dB				>25 TV >30 SAT		
Desacoplo de conmutación Isolation of switching Anatharma Découplage de commutation	dB				>30 SAT/SAT		
Conmutación de las salidas Switching the outputs Uydu seçimi Commutation des sorties					DiSEqC 2.0 14 V± /18 V± 0/22 KHz		
Alimentación de las LNB Power supply of the LNB LNB beslemesi Alimentation des LNB					2050 mA / 13 V±		
Consumo desde el receptor Consumption from the receiver Uydu alıcısından çekilen akım Consumation du récepteur	mA				42 ±2,0 (14/18 V±)		

CÓMO ALIMENTAR LOS MULTISWITCHES
HOW TO FEED THE MULTISWITCH
MULTISWITCH BESLEMESİ
COMMENT ALIMENTER LE MULTICOMMUTATEUR



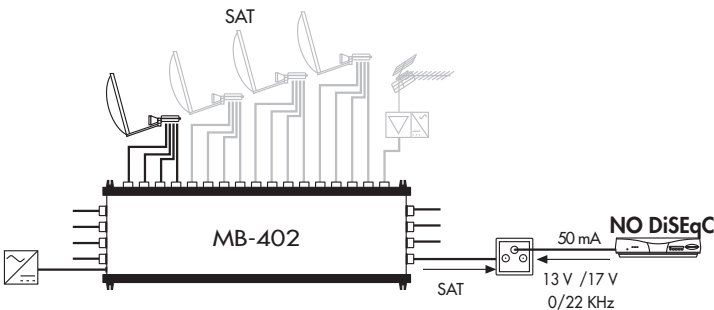
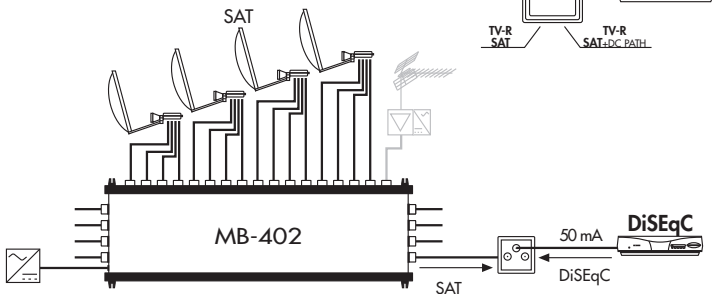
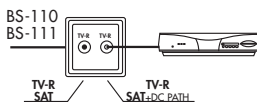
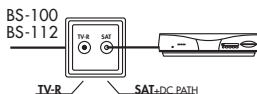
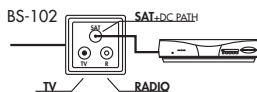
INSTALACIÓN DE LNBS
INSTALLING LNB
LNBS KULLANIMI
INSTALLATION DES LNB

QUATRO

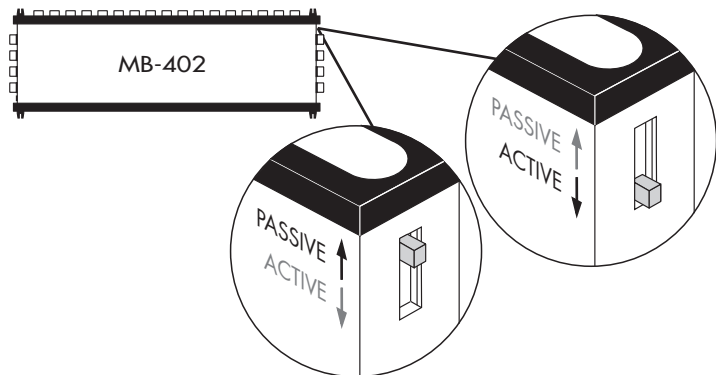


High Horizontal
High Vertical
Low Horizontal
Low Vertical

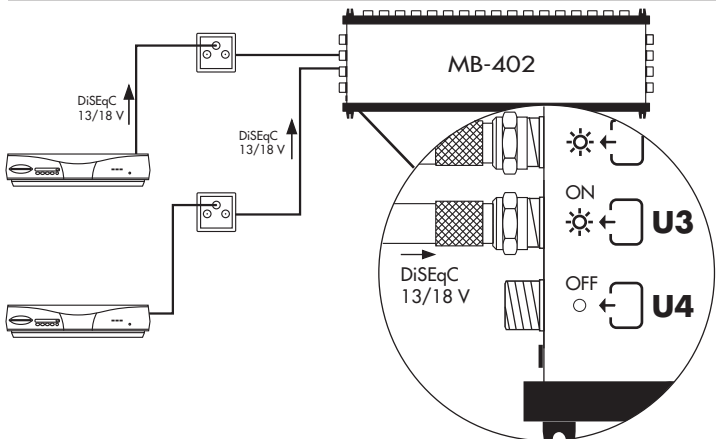
CONMUTACIÓN DE LAS SALIDAS SWITCHING THE OUTPUTS UYDU SECİMİ COMMUTATION DES SORTIES



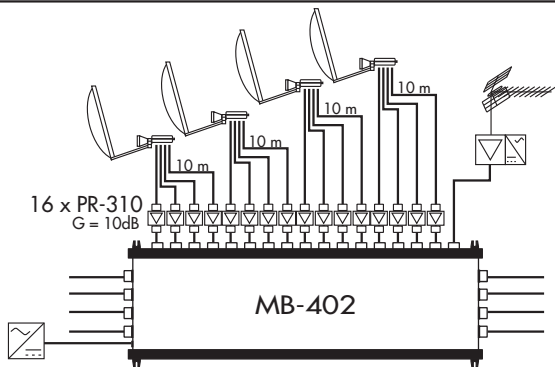
CONMUTADOR ACTIVO/PASIVO
ACTIVE-PASSIVE SWITCH
AKTIF-PASIF ANAHTAR
INTERREPTEUR ACTIF-PASSIF



LED DE CONEXIÓN DE USUARIO
USER CONNECTION LED
ABONE BAĞLANTI LEDİ
LED DE CONNEXION DE L'UTILISATEUR

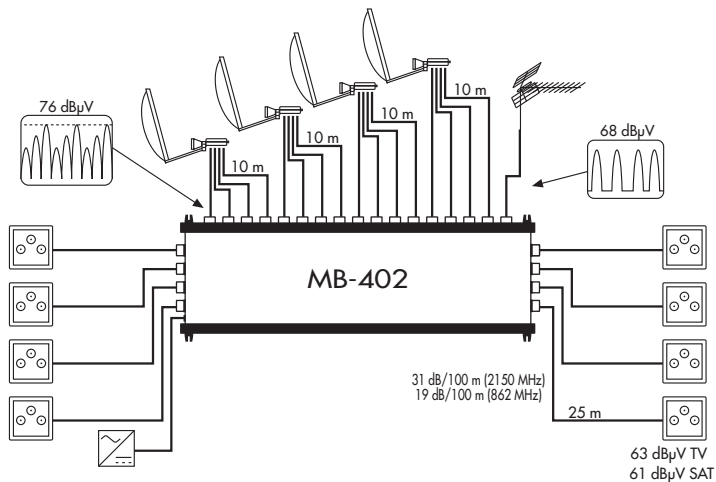


PREAMPLIFICACIÓN DE LA SEÑAL DE ANTENA
PREAMPLIFICATION OF THE ANTENNA SIGNAL
ÖN YÜKSELTİCİ BAĞLANTISI
PRE AMPLIFICATION DU SIGNAL D'ANTENNE

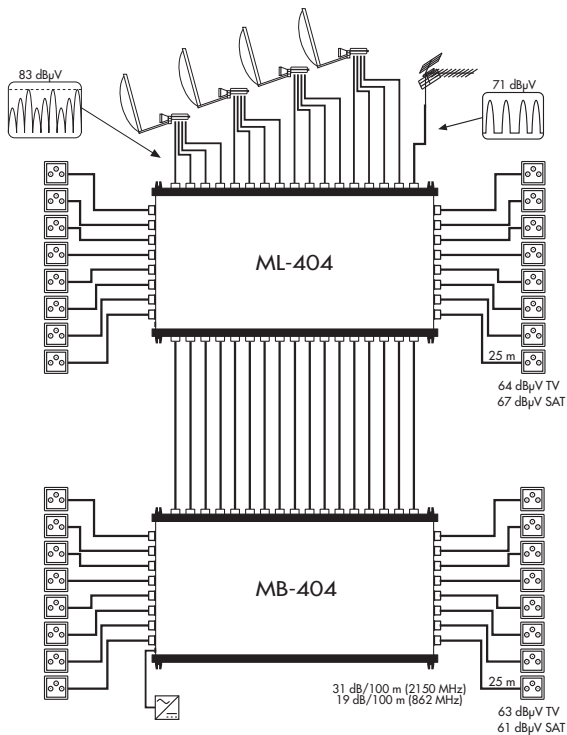


17 x 8

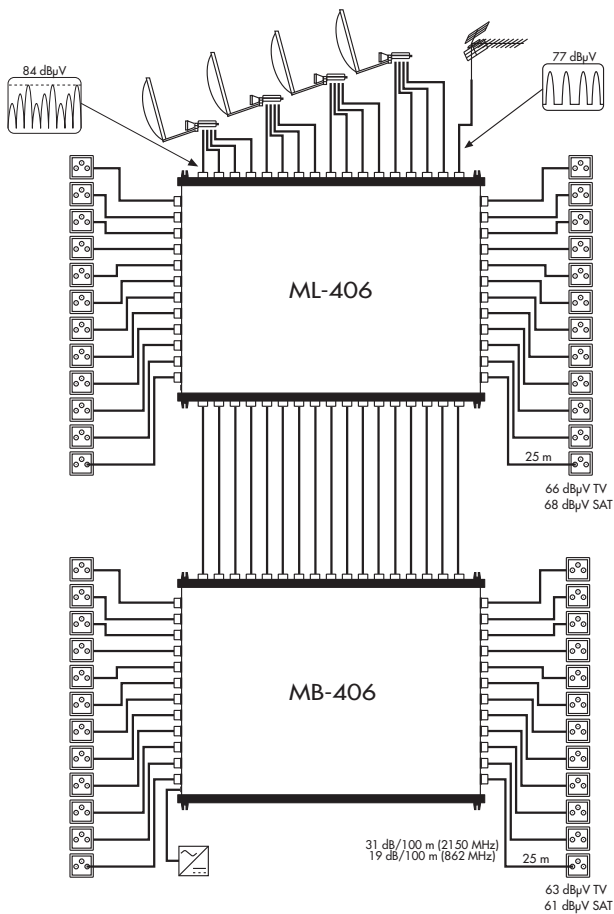
Modo activo / Active mode / Aktif durum / Mode actif



Modo activo / Active mode / Aktif durum / Mode actif



Modo activo / Active mode / Aktif durum / Mode actif



Instrucciones de seguridad

No exponga el alimentador 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 power supply 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'alimentation 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 bloquez 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

Company Name: ALCAD, S.L.
Company Address: Pol. Ind. Arreche-Ugalde, 1
Apdo. 455
20305 IRUN (Guipúzcoa)
SPAIN

declares that the product

Model Number(s): MB-402, MB-403, MB-404, MB-405, MB-406, MB-408 ML-402,
ML-403, ML-404, ML-405, ML-406, ML-408

Product Description: MULTISWITCH SYSTEM

Product Option(s): INCLUDING ALL OPTIONS

Is in conformity with:

Safety: EN 60728-11:2005

EN 60065:2002

EMC: EN 50083-2:2006

Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 2006/95/CE and the EMC Directive 89/336/EEC and their relevant amendments, gathered under the directive 93/68/EEC.

Note: to comply with these directives, do not use the products without covers and operate the system as specified.



Irún, 29 Jun 2012

Antton Galarza
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



ISO 9001