



SISTEMA DE MULTICONMUTADORES
MULTISWITCH SYSTEM
MULTISWITCH SISTEMI
SYSTÈME MULTICOMMUTEUR



SERIE 913 SERIES

MULTICONMUTADORES - MULTISWITCHES- MULTISWITCH'LER - MULTICOMMUTATEURS

CODIGO-CODE-CODE	9130079		9130080		9130081		
MODELO-MODEL-MODELE	MB-302		MB-303		MB-304		
Entradas/salidas/derivaciones Inputs/outputs/taps Giriş/çıkış/yan çıkış Entrées/sorties/dérivations		13/0/8		13/0/12		13/0/16	
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 Consommation 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

CODIGO-CODE-CODE	9130082		9130083		9130172		
MODELO-MODEL-MODELE	MB-305		MB-306		MB-308		
Entradas/salidas/derivaciones Inputs/outputs/taps Giriş/çıkış/yan çıkış Entrées/sorties/dérivations		13/0/20		13/0/24		13/0/32	
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	24 ±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	2 ±2,0	2 ±2,0	2 ±2,0	2 ±2,0	4 ±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
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 Consommation du récepteur	mA				42 ±2,0 (14/18 V±)		

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

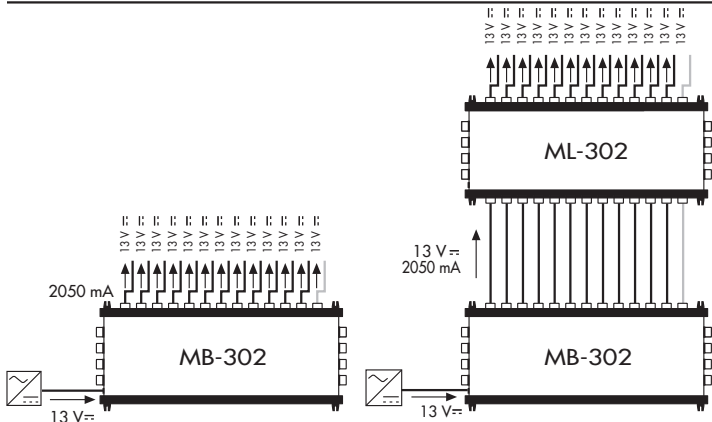
MULTICONMUTADORES - MULTISWITCHES- MULTISWITCH'LER - MULTICOMMUTATEURS

CODIGO-CODE-CODE	9130114		9130115		9130116		
MODELO-MODEL-MODELE	ML-302		ML-303		ML-304		
Entradas/salidas/derivaciones Inputs/outputs/taps Giriş/çıkış/yan çıkış Entrées/sorties/dérivations		13/13/8		13/13/12		13/13/16	
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

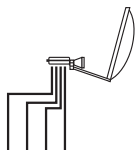
CODIGO-CODE-CODE	9130117		9130118		9130173		
MODELO-MODEL-MODELE	ML-305		ML-306		ML-308		
Entradas/salidas/derivaciones Inputs/outputs/taps Giriş/çıkış/yan çıkış Entrées/sorties/dérivations		13/13/20		13/13/24		13/13/32	
Rango de frecuencia Frequency range Frekans Gamme de fréquences	Band	TV	SAT	TV	SAT	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	26 ±2,0	4 ±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	6 ±2,0	4 ±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							
Ecuilización 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	5,0 ±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
 LNB KULLANIMI
 INSTALLATION DES LNB

QUATRO



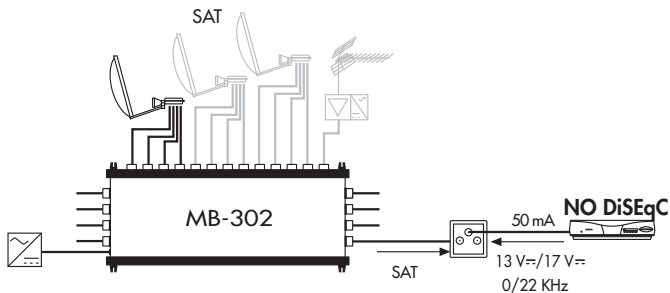
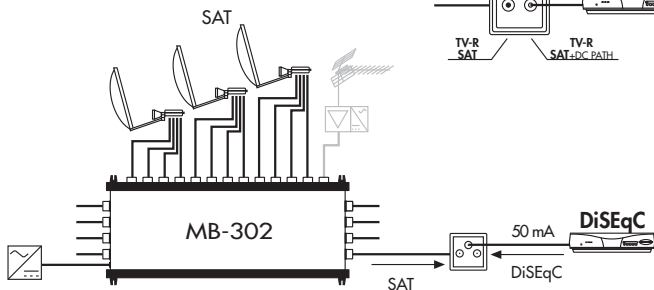
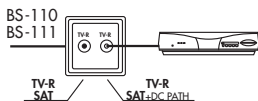
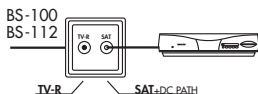
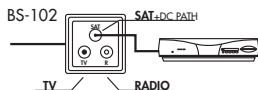
High Horizontal
 High Vertical
 Low Horizontal
 Low Vertical

CONMUTACIÓN DE LAS SALIDAS

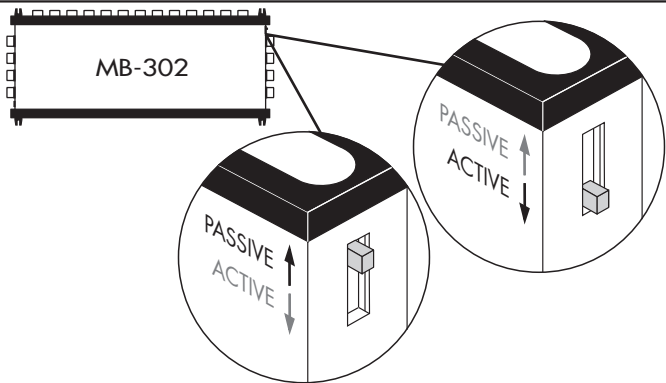
SWITCHING THE OUTPUTS

UYDU SECİMİ

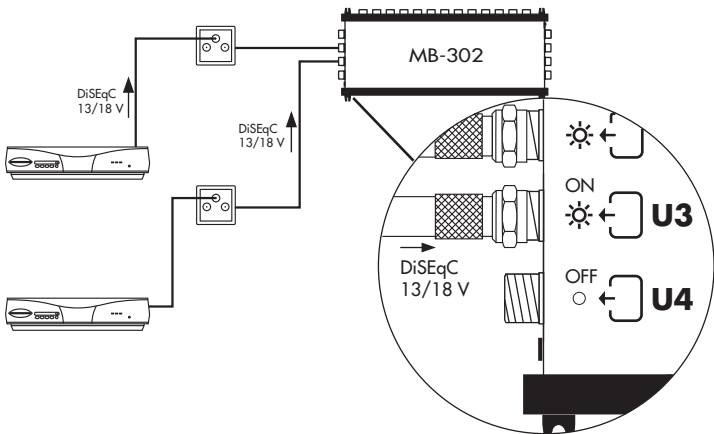
COMMUTATION DES SORTIES



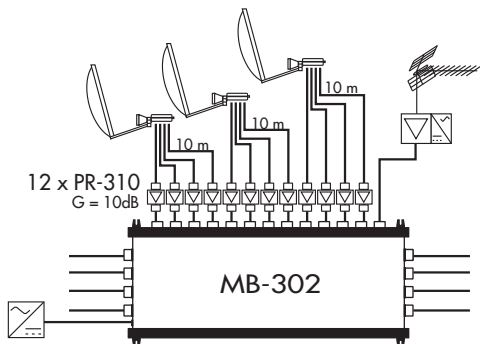
CONMUTADOR ACTIVO/PASIVO
ACTIVE-PASSIVE SWITCH
AKTIF-PASIF ANAHTAR
INTERREPTEUR ACTIF-PASSIF



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

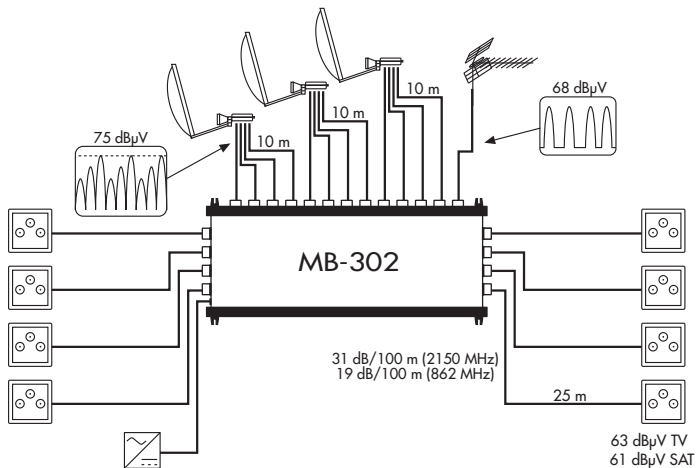


PREAMPLIFICACIÓN DE LA SEÑAL DE ANTENA
 PREAMPLIFICATION OF THE ANTENNA SIGNAL
 ÖN YÜKSELTİCİ BAĞLANTISI
 PRE AMPLIFICATION DU SIGNAL D'ANTENNE

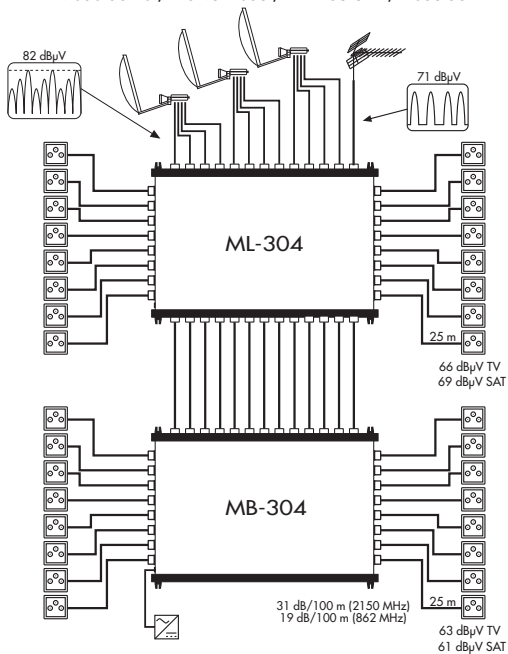


13 x 8

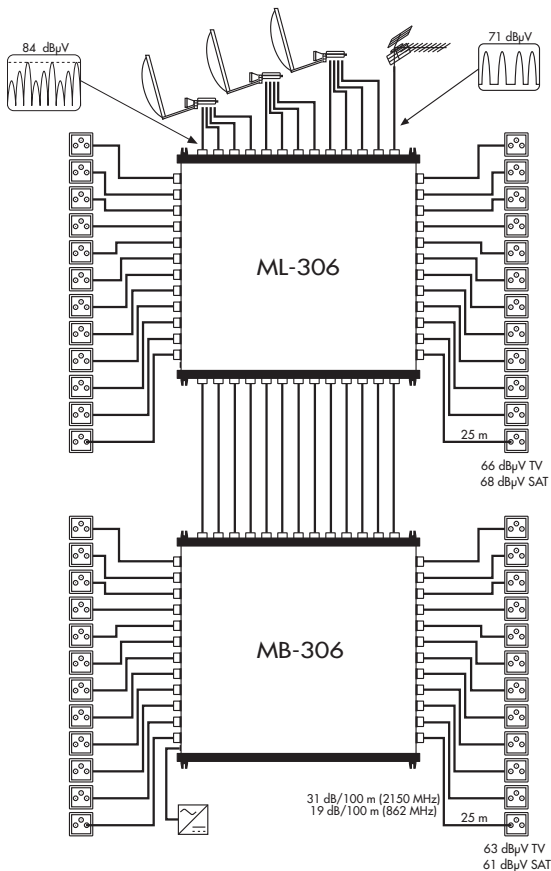
Modo activo / Active mode / Aktif durum / Mode actif



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-302, MB-303, MB-304, MB-305, MB-306, MB-308 ML-302,
ML-303, ML-304, ML-305, ML-306, ML-308

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



IR-0196/1996