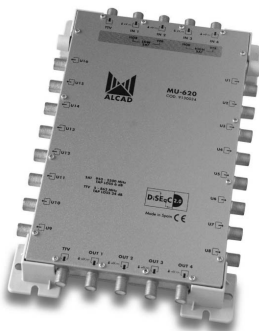




SISTEMA DE MULTICONMUTADORES CASCADABLES
CASCADABLE MULTISWITCH SYSTEM
SYSTÈME MULTICOMMUTATEUR CASCADABLE



SERIE 913 SERIES

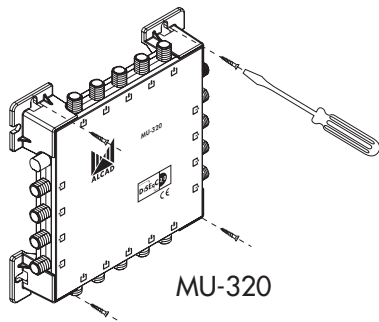
MULTICONMUTADORES - MULTISWITCHES - MULTICOMMUTATEURS

| CÓDIGO-CODE-CODE | 9130033 | | | 9130034 | | | |
|---|------------|-------------|-------------|--|------------|-------------|--|
| MODELO-MODEL-MODELE | MU-320 | | | MU-620 | | | |
| Entradas/salidas/derivaciones Inputs/outputs/taps Entrées/sorties/dérivations | | 5 / 5 / 8 | | | 5 / 5 / 16 | | |
| Rango de frecuencia Frequency range Gamme de fréquences | Band | VR/TV | SAT | | VR/TV | SAT | |
| | MHz | 5-862 | 950-2150 | 2150-2500 | 5-862 | 950-2150 | 2150-2500 |
| Atenuación de derivación Tap loss Atténuation de dérivation | dB ±TOL | 24 ±2,0 | 6 ±2,0 | 6,1 ±2,0 | 24 ±3,0 | 7 ±3,0 | 7,1 ±3,0 |
| Ecuación de derivación Tap equalization Egalisation de dérivation | dB | 9 | 7 | - | 9 | 6 | - |
| Nivel de salida de derivación Tap output level Niveau de sortie de dérivation | dB μ V | - | 100 90 | (IMD ₃ -35 dB) (IMD ₂ -35 dB) | - | 100 90 | (IMD ₃ -35 dB) (IMD ₂ -35 dB) |
| Atenuación de paso Through loss Attenuation de passage | dB ±TOL | 3,1 ±0,2 | 1,7 ±0,2 | 1,9 ±0,2 | 6 ±0,2 | 2,5 ±0,2 | 2,8 ±0,2 |
| Ecuación de paso Through equalization Egalisation de passage | dB | 1,2 | 1,1 | - | 3 | 2 | - |

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

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

COMO FIJAR EL MULTISWITCH
HOW TO FIX THE MULTISWITCH
COMMENT FIXER LE MULTISWITCH



MULTICONMUTADORES - MULTISWITCHES - MULTICOMMUTATEURS

| CÓDIGO-CODE-CODE | 9130020 | | | | | 9130021 | | | |
|---|------------|--|-------------|--|-------------|--|------------|--|-------------|
| MODELO-MODEL-MODELE | MU-321 | | | | | MU-621 | | | |
| Entradas/salidas/derivaciones Inputs/outputs/taps Entrées/sorties/dérivations | | 5 / 5 / 8 | | | | 5 / 5 / 16 | | | |
| Rango de frecuencia Frequency range Gamme de fréquences | Band | VR | TV | SAT | | VR | TV | SAT | |
| | MHz | 5-65 | 86-862 | 950-2150 | 2150-2500 | 5-65 | 86-862 | 950-2150 | 2150-2500 |
| Atenuación de derivación Tap loss Atténuation de dérivation | dB ±TOL | 18 ±1,0 | 11 ±2,0 | - | - | 19 ±1,0 | 11 ±2,0 | - | - |
| Ecualización de derivación Tap equalization Egalisation de dérivation | dB | - | 14 | 11 | - | - | 14 | 13 | - |
| Ganancia de derivación Tap gain Gain de dérivation | dB | - | - | 3 ±2,0 | 3 ±2,0 | - | - | 2 ±3,0 | 2 ±3,0 |
| Nivel de salida de derivación Tap output level Niveau de sortie de dérivation | dB μ V | - | | 100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB) | | - | | 100 (IMD ₃ -35 dB) 90 (IMD ₂ -35 dB) | |
| Ecualización de paso Through equalization Egalisation de passage | dB | 1 | 3 | 4,5 | - | 1 | 3 | 4 | - |
| Ganancia de paso Through gain Gain de passage | dB | 9 ±1,0 | 8,5 ±0,5 | 7,5 ±0,5 | 7,5 ±0,5 | 8 ±1,0 | 6 ±0,5 | 6,5 ±0,5 | 6,5 ±0,5 |
| Nivel de salida de paso Through output level Niveau de sortie de passage | dB μ V | 119 DIN 45004B 116 (IMD ₃ -60 dB) 109 (IMD ₂ -60 dB) | | 114 (IMD ₃ -35 dB) 110 (IMD ₂ -35 dB) | | 116 DIN 45004B 113 (IMD ₃ -60 dB) 106 (IMD ₂ -60 dB) | | 111 (IMD ₃ -35 dB) 107 (IMD ₂ -35 dB) | |

DIN 45004B: 3 unequal carriers, IMD₃ at 60 dB

IMD₃ -60 dB: 2 equal carriers, EN 50083-5

IMD₂ -60 dB: 2 equal carriers, EN 50083-5

IMD₃ -35 dB:

IMD₂ -35 dB:

2 equal carriers, EN 50083-5

2 equal carriers, EN 50083-5

MULTICONMUTADORES - MULTISWITCHES - MULTICOMMUTATEURS

| CÓDIGO-CODE-CODE | 9130033 | 9130034 | 9130020 | 9130021 |
|---|---------|---|---------|---------------------------|
| MODELO-MODEL-MODELE | MU-320 | MU-620 | MU-321 | MU-621 |
| Rechazo entre bandas Rejection between bands Rejection entre bandes | dB | >25 TV/SAT >65 SAT/TV | | |
| Desacople entre usuarios Isolation between users Isolation entre utilisateurs | dB | >40 TV >30 SAT | | |
| Desacople troncal Trunk isolation Découplage entre lignes | dB | >40 SAT/TV >40 SAT/SAT | | >30 SAT/TV >30 SAT/SAT |
| Desacople de conmutación Isolation of switching Isolation de commutation | dB | >30 SAT/SAT | | |
| Conmutación de las salidas Switching the outputs Commutation des sorties | | DiSEqC 2.0 13 V \pm / 17 V \pm 0/22 KHz | | |
| Alimentación Power supply Alimentation | V \pm | - | - | 6 \pm 0,5 |
| | mA | - | - | 590 |
| Consumo desde el receptor Consumption from the receiver Consommation du récepteur | mA | 50 \pm 2,0 (12..20 V \pm) | | |

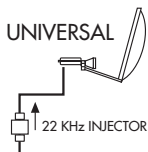
INSTALACIÓN DE LNBS INSTALLING LNB INSTALLATION DES LNB



High Horizontal
High Vertical
Low Horizontal
Low Vertical



Low Horizontal
Low Vertical



High Horizontal
High Vertical

AMPLIFICADOR - AMPLIFIER - AMPLIFICATEUR

| CÓDIGO-CODE-CODE | | 9130041 | |
|---|-------------|--------------------------|--|
| MODELO-MODEL-MODELE | | AU-620 | |
| Entradas/salidas Inputs/outputs Entrées/sorties | | 5 / 5 | |
| Rango de frecuencia Frequency range Gamme de fréquences | Band | VR/TV | SAT |
| | MHz | 5 -862 | 950-2500 |
| Atenuación de paso Through loss Atténuation de passage | dB ±TOL | 1,5 ±0,5 | - |
| Ganancia de paso Through gain Gain de passage | dB | - | 43 ±1,0 |
| Regulación de ganancia Adjustable gain Reglage du gain | dB | - | 20 |
| Márgen de ecualización Adjustable equalization range Plage réglage de pente | dB | - | 8 Switchable |
| Nivel de salida Output level Niveau de sortie | dB μ V | - | 118,5 (IMD ₃ -35 dB) 110,0 (IMD ₂ -35 dB) |
| Desacoplo troncal Trunk isolation Découplage entre lignes | dB | >30 | SAT/TV |
| | | >28 | SAT/SAT |
| Tensión de salida Output voltage Tension de sortie | V $\ddot{}$ | 6,5 | |
| | mA | 3040 | |
| Alimentación Power supply Alimentation | V $\ddot{}$ | 7,5 | |
| | mA | 800 | |
| Alimentación de las LNB Power supply of the LNB Alimentation des LNB | | 2000 mA / 18 V $\ddot{}$ | |

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

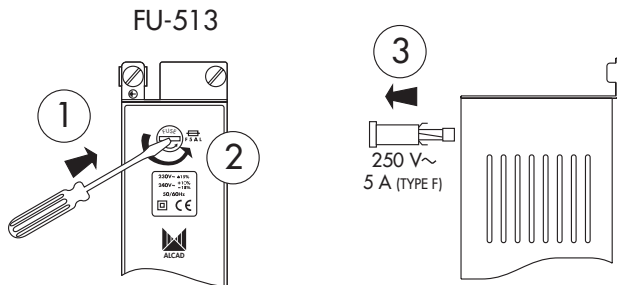
ALIMENTADOR - POWER SUPPLY - ALIMENTATION

| CÓDIGO-CODE-CODE | 9130048 | 9130049 | 9130057 |
|--|--|---|--|
| MODELO-MODEL-MODELE | FU-901 | FU-902 | FU-513 |
| Tensión de salida Output voltage Tension de sortie | V \cdots 18 mA 800 (In continuous operation) | 18 1500 (In continuous operation) | 7,5 3840 (In continuous operation) |
| Tensión de red Mains voltage Tension du secteur | V \sim 230 \pm 15% VA 45 | 240 $^{+10\%}_{-18\%}$ 75 | 50/60 Hz 95 |

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 30 IP 20 (FU-513) |

CÓMO SUSTITUIR EL FUSIBLE REPLACING THE FUSE REPLACER LE FUSIBLE

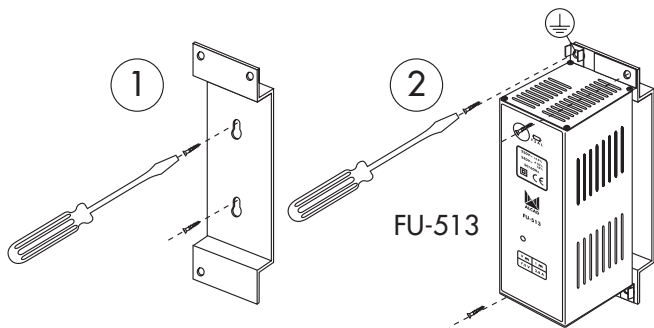
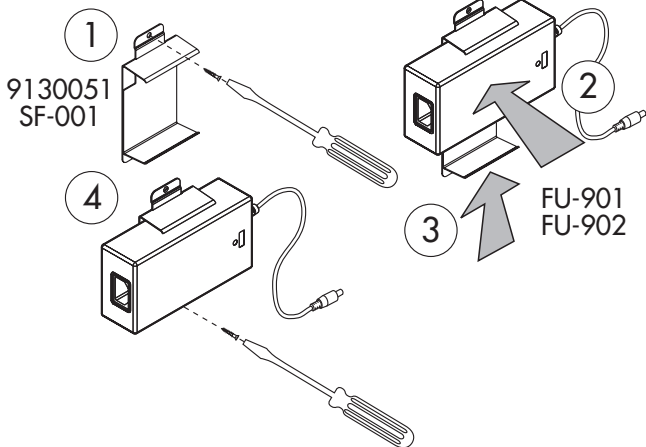


CÓMO FIJAR LOS ALIMENTADORES

HOW TO FIX THE POWER SUPPLIES

COMMENT FIXER LES ALIMENTATIONS

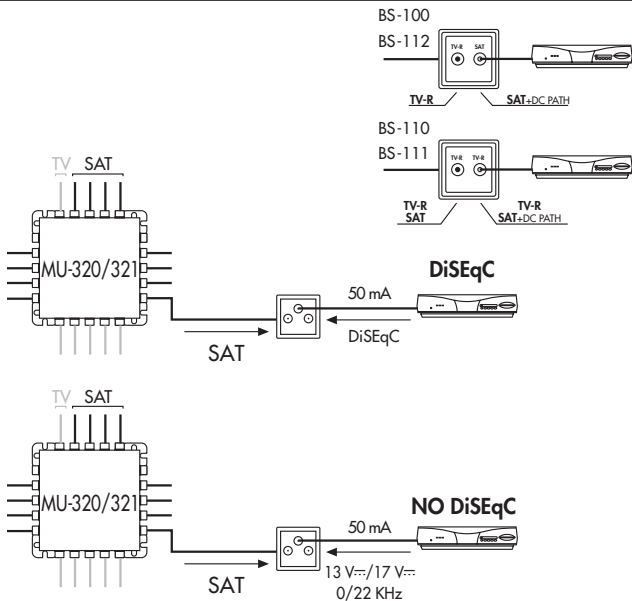
9130051 SF-001. SE VENDE POR SEPARADO
9130051 SF-001. SOLD SEPARATELY
9130051 SF-001. EST VENDUE SÉPARÉMENT



CONMUTACIÓN DE LAS SALIDAS

SWITCHING THE OUTPUTS

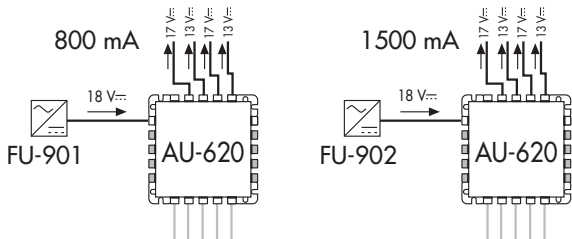
COMMUTATION DES SORTIES



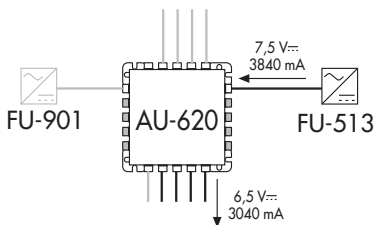
CÓMO ALIMENTAR LAS LNB

HOW TO FEED THE LNB

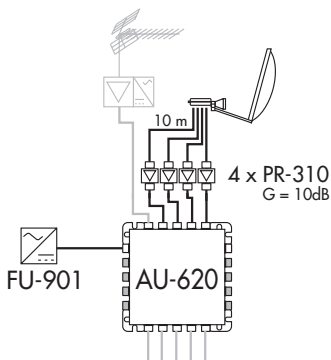
COMMENT ALIMENTER LES LNB

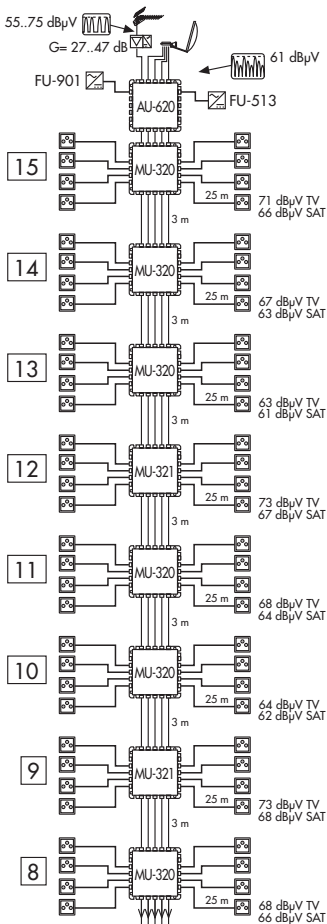


CÓMO ALIMENTAR EL AU-620/MU-321/MU-621
HOW TO FEED THE AU-620/MU-321/MU-621
COMMENT ALIMENTER LE AU-620/MU-321/MU-621

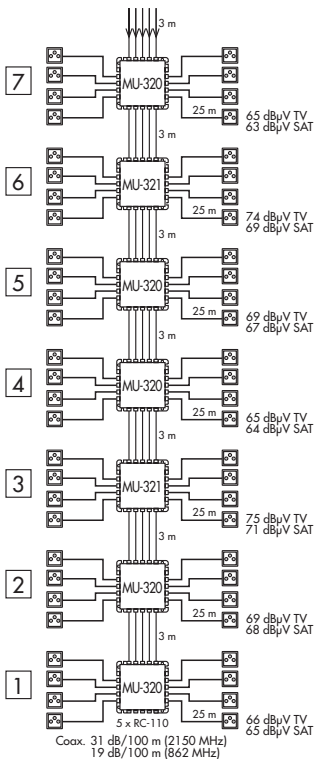


PREAMPLIFICACIÓN DE LA SEÑAL DE ANTENA
PREAMPLIFICATION OF THE ANTENNA SIGNAL
PRE AMPLIFICATION DU SIGNAL D'ANTENNE





Accesorios PR-310
 Accessories
 Accessoires AV-315
 Accesorios
 Zubehör



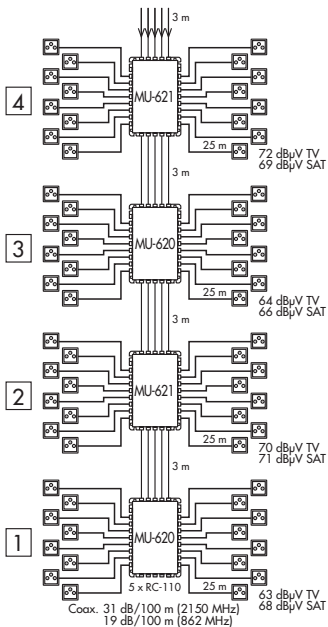
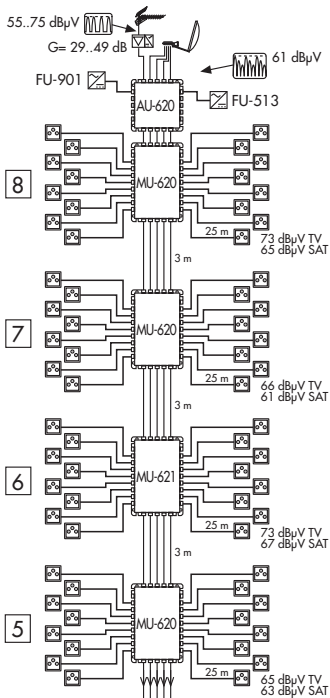
Accesorios
Accessories
Accessoires
Accessorios
Zubehör



PR-310



AV-315





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 IRUN (Guipúzcoa)
SPAIN

declares that the product

Product Name: 913 Series: MULTISWITCH SYSTEM
Model Number(s): MU-320, MU-321, MU-620, MU-621, AU-620
FU-901, FU-902, FU-513
Product Option(s): INCLUDING ALL OPTIONS

is in conformity with:

Safety: EN 50083-1:1993

EMC: EN 50083-2:2001

EN 61000-6-1:2001

EN 61000-4-2:1995 ESD 15KV AD, 8KV CD.

EN 61000-4-4:1995 EFT 4KV-2,5KHz Sig. Lines, 4KV-2,5KHz Power Lines.

EN 61000-4-5:1995 CWG 0,5KV Power Lines.

EN 61000-4-11:1994 Dips and Variation.

Technical Features : EN50083-4:1998
EN50083-5:2001

Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 73/23/ECC 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,

14-07-06

Date

Anton 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

