

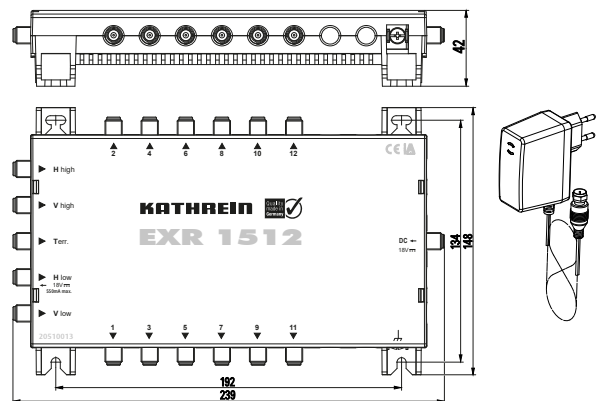
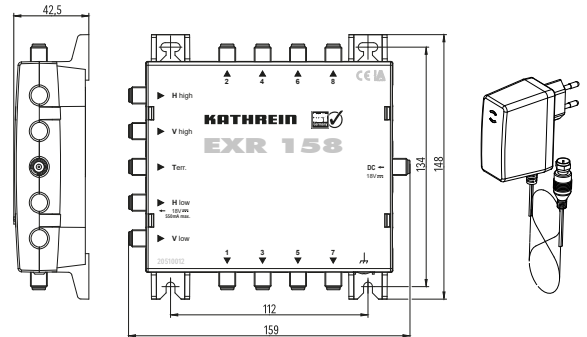
EXR 156	20510011
EXR 158	20510012
EXR 1512	20510013
EXR 1516	20510014



Sat IF Distribution System Multiswitch

Multiswitch

- Multiswitch for distribution of 4 Sat levels and terrestrial signals to 6, 8, 12 or 16 connections
- Only one drop cable per receiver needed (two for twin receivers)
- Independent horizontal/vertical, low/high selection from each receiver
- Switching via coaxial cable at 14/18V and 0/22 kHz signal frequency
- Integrated amplifier for low attenuation in Sat and terrestrial signal range
- Integrated pre-emphasis to equalise cable attenuation
- Terrestrial signals also receivable with Sat receiver switched off
- High decoupling between outputs
- Remote feed via horizontal low input. All other inputs are DC blocked (enabling operation with UAS 485).
- Low power consumption thanks to highly efficient, short-circuit-proof plug-in power supply unit
- For indoor installation



Transport and storage

- Transport the device in its original packaging and store it in a dry place.
- Make sure there is no water condensation build-up.

Scope of Delivery

- EXR 156 | EXR 158 | EXR 1512 | EXR 1516
- Plug-In power supply
- Instructions for Use

Intended Use

The device described is designed solely for the installation of satellite receiver systems and may only be installed by trained specialist personnel.

If it is used in any other way or if the provisions of this document are disregarded, the guarantee and warranty will become void.

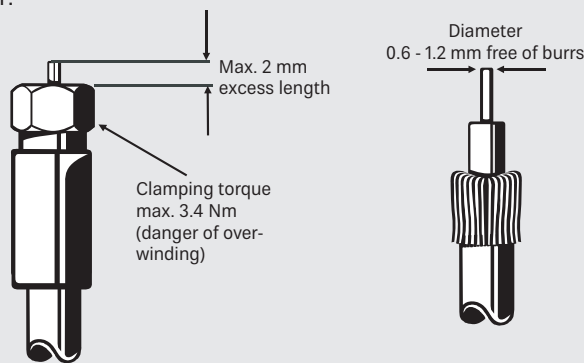
Mounting and safety instructions



- ▶ The equipment described is designed solely for the installation of satellite reception systems and may only be installed by trained specialist personnel.
 - ▶ Any other use, or failure to comply with these instructions, will result in voiding of warranty cover.
 - ▶ The equipment may only be installed in dry indoor areas. Do not install on or against highly combustible materials.
 - ▶ The equipment must be provided with an earthing wire (Cu, at least 4 mm²).
 - ▶ The safety regulations set out in the current EN 60728-11 and EN 62368-1 standards must be complied with.
 - ▶ Fasteners for concrete substrates and masonry: 4 suitable plugs and associated screws with half-round or cylindrical head, outer thread diameter 4.5 - 5 mm, head diameter \geq 9 mm and a screw length \geq 30 mm. For other types of wall, use the appropriate screws or screw-dowel systems, which offer the same or better fastening.
- !
- ▶ Connector: RF plug 75 Ω (series F) to EN 61169-24.
 - ▶ **Unused subscriber ports should be closed off with 75 Ω resistors (e.g. EMK 03).**
 - ▶ Screw the F-connector of the power supply unit for the LNB supply to the „DC“ socket of the multi-switch.

Risk of damage to property!

An inner cable conductor with a diameter greater than 1.2 mm, or the presence of burrs may damage the device inputs/outputs beyond repair.



Power Supply



Warning! Risk of fatal electric shock

- ▶ Do not open or tamper with the unit!
- ▶ When working on the system always unplug the mains plug from the wall socket!
- ▶ Ensure adequate clearance! Clearance all round at least 5 cm!
- ▶ The units must not be mounted on the ceiling.
- ▶ Free circulation of air must be possible to discharge the heat emitted by the unit. Risk of overheating!
- ▶ Permissible ambient temperature -20 to +50 °C

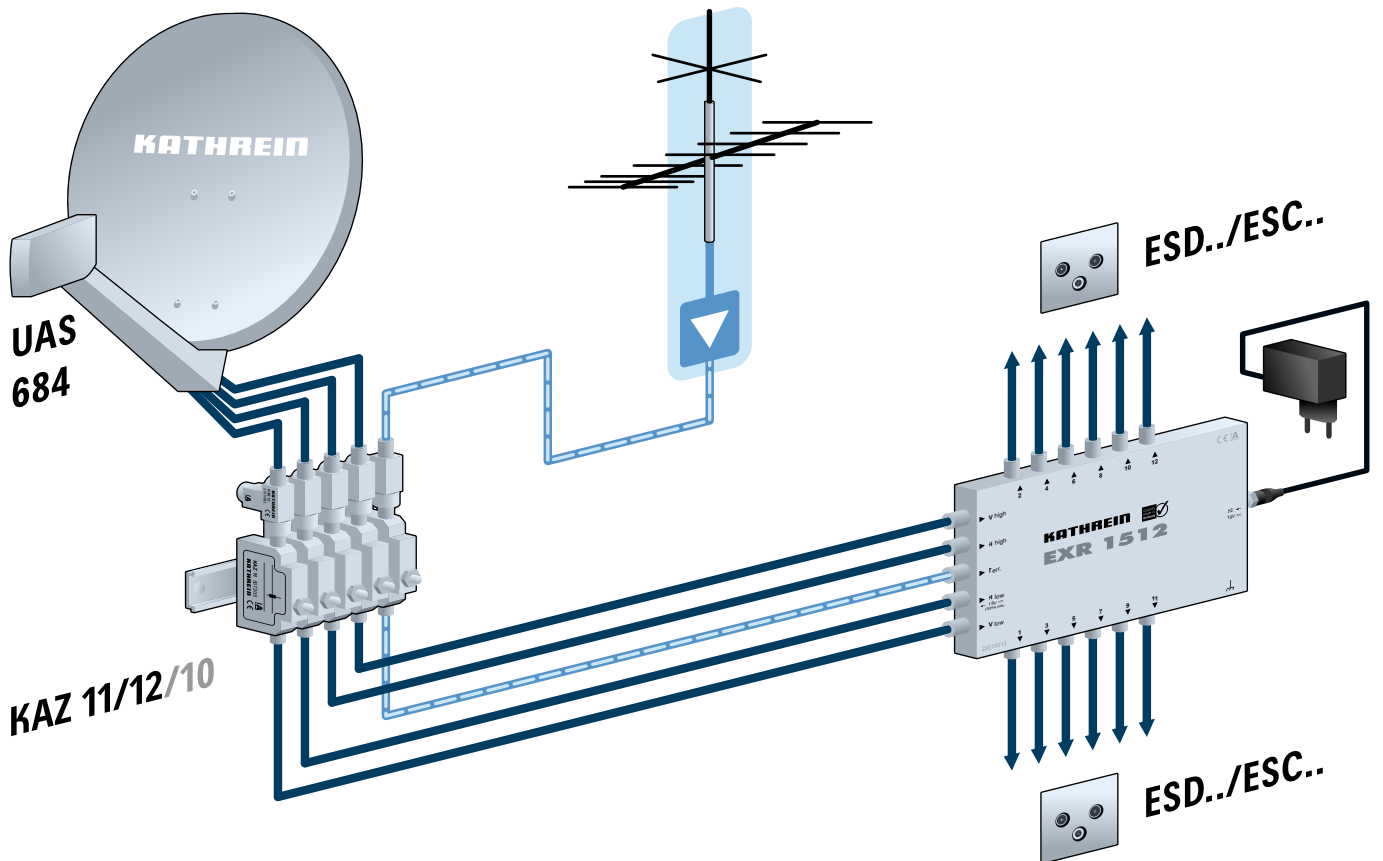
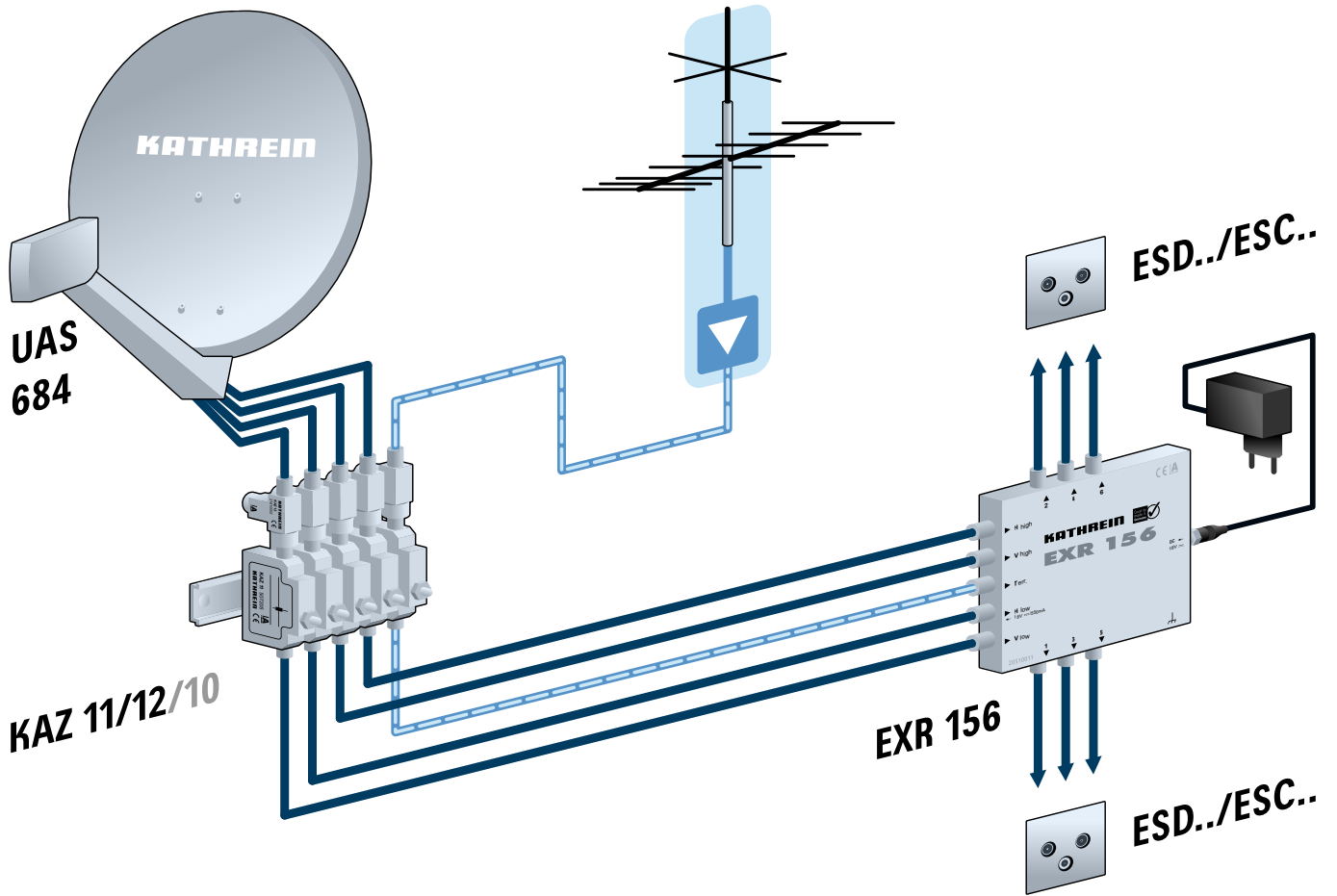
Caution:

- ▶ The power supply unit must not be exposed to dripping or splashing water.
- ▶ The mains plug must be easily accessible and operable.
- ▶ The only reliable method of disconnecting the units from the mains is to unplug them.

SIMPLIFIED EU DECLARATION OF CONFORMITY

Hereby, KATHREIN Digital Systems GmbH declares that the radio equipment types EXR 156, order no.: 20510011/EXR 158, order no.: 20510012/EXR 1512, order no.: 20510013/EXR 1516, order no.: 20510014 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.kathrein-ds.com

Application example (symbolic representation)



Technical data

Type		EXR 156	EXR 158	EXR 1512	EXR 1516
Order no.		20510011	20510012	20510013	20510014
Subscriber connections		6	8	12	16
Inputs		1 x terr. 4 x Sat-ZF	1 x terr. 4 x Sat-ZF	1 x terr. 4 x Sat-ZF	1 x terr. 4 x Sat-ZF
Frequency ranges	MHz	47-862 950-2150	47-862 950-2150	47-862 950-2150	47-862 950-2150
Attenuation ¹⁾	dB	4-0 12-7	4-0 12-7	8-4 12-7	8-4 12-7
Horizontal/vertical isolation	dB	- 25	- 25	- 25	- 25
Output isolation	dB	25 25	25 25	25 25	25 25
Max. output level ²⁾	dBμV	95 105	95 105	89 105	89 105
Screening factor	dB	5-300 MHz > 85, 300-470 MHz > 80, 470-1000 MHz > 75, 1000-2150 MHz > 55			
Vertical/horizontal input control	V	12-14.5 16-19			
Low/High band control	kHz	0 22			
Current consumption per subscriber	mA	< 25			
Nominal input voltage	V	198-253		-	
Nominal input power (max./only with UAS 484)	W	14 4			
Secondary voltage ³⁾	V	18			
Max. total remote feed current ³⁾	mA	550			
Protection class/protection type		II (totally insulated)/IP 30		-	
Permissible ambient temperature	°C	-20 to +50			
Connections		F connectors			
Dimensions, W x H x D	mm	215 x 148 x 43		239 x 148 x 43	
Packing unit/Weight	units/kg	1 (10)/0.65		1 (10)/0.57	1 (10)/0.60
Type		Power Supply			
Nominal input voltage	V	100 - 240			
Output Voltage	V	18			
Output current max.	mA	800			
Permissible ambient temperature	°C	-20 to +50			

¹⁾ Frequency-dependent attenuation (pre-emphasis)

²⁾ Terr. acc. to EN 50083-5, 60-dB-KMA; SAT acc. to EN 50083-3, 35-dB-IMA

³⁾ Via horizontal low input

Service-Support-Contact



All relevant information (address, telephone number, e-mail address, opening hours) for repairs or help with problems with our products can be found at:

<https://www.kathrein-ds.com/en/support/service-points>

Please note that there are different contact persons for **repair** and **support**!

You can find a contact form here: <https://www.kathrein-ds.com/en/contact>



Disposal



Electronic equipment

Electronic equipment is not domestic waste – in accordance with directive 2012/19/EU OF THE EUROPEAN PARLIAMENT AND THE COUNCIL dated 4th July 2012 concerning used electrical and electronic appliances, it must be disposed of properly. At the end of its service life, take this unit for disposal at a designated public collection point.