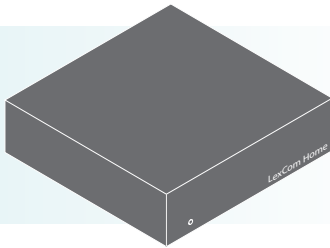


LexCom Home AV Modulator AV112-4 UHF



Includes

AV112-4 includes the following parts:

AV112-4	
1 pcs.	UHF Modulator AV112-4
1 pcs.	Net adapter 230 Volt 50 Hz to 12 Volt AC
4 pcs.	AV cable 3 x phono to 3 x phono, length 1 m
2 pcs.	SCART-phono adapter
1 pcs.	Allen key, 2 mm
4 pcs.	Self-adhesive rubber feet
1 pcs.	UHF Pass Filter (optional)

Description of AV112-4

AV112-4 is for dedicated use with in the LexCom Home system only.

AV112-4 is a modulator unit that enables the connection of devices such as media servers, VCR's, DVD players, satellite receivers, surveillance cameras and PC's (with TV output) to the "AV link" of the LexCom Home network, so that the signals from these can be transmitted to all TV sets connected.

The function implies the installation of a LexCom Home multi-media amplifier with "AV link" input in the LexCom Home network.

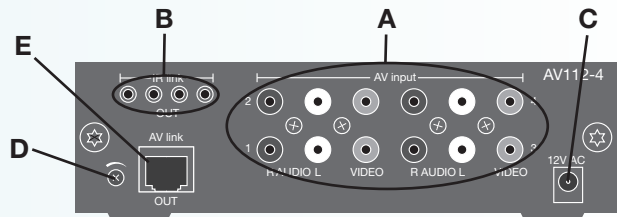


On front, AV112-4 has a blue light diode (LED) indicating normal operation and alarm modes.

AV112-4

On back, AV112-4 is provided with:

- A. 4 sets of inputs for composite video and L+R audio signals
- B. 4 IR link outputs for IR emitters
- C. Power supply input for 12 V AC adapter
- D. Gain adjustment for output level control
- E. AV link output jack (RJ45) to connect the modulator to the LexCom Home network.

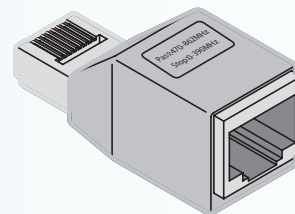


AV112-4 can convert 4 video signals (composite video) to RF TV signals with stereo sound.

AV112-4 has been constructed in such a way that none of the 4 channels can be set to the same TV-channel. Moreover, neighbouring channels to a selected channel cannot be selected. This is to prevent disturbances of the TV-picture due to interference.

Use of external UHF Pass Filter

Insert the filter in the AV112-4 output port to avoid disturbances in the VHF range. If you don't insert the filter you might experience that the quality of some of the incoming channels in the VHF range will be degraded.



Installation of AV112-4

First of all, install the rubber feet underneath the modulator for stable operation.

The video equipment which signals you want to distribute in the LexCom Home "AV link" is connected to the AV input(s) on back of the AV112-4.

When all video sources have been connected (up to 4 sources on AV112-4), the modulator frequencies must be set to channels that are vacant in the UHF program package of your TV supplier (Refer to the following section setting of TV channels).

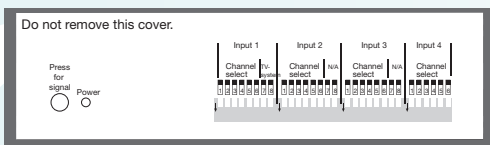
Upon setting of AV112-4, the "AV link" output must be connected by means of a shielded AV cord from the "OUT" RJ45 jack on the front, via the nearest wall outlet to the LexCom Home network. Cord lengths exceeding 3 m must not be used.

In connection with control of the video sources connected to AV112-4, the LexCom Home IR system IR110 must be used. IR emitters are connected to the "IR link" jack on the AV112-4.

- The TV-system used must be set for the country in question (Factory set to : West Europe)

Setting of TV channels and general configuration of AV112-4 are made on switches located behind the front plate. The 2 screws on the sides of AV112-4 are untightened by means of the Allen key delivered, and the front plate is removed with care.

Behind the front plate there is a piece of cardboard which protects the sensitive electronic parts within AV112-4.



Principle example : AV112-4

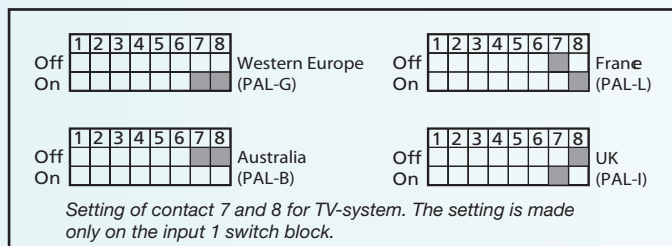
Do not try to remove this cardboard as the result may be destruction of the unit. If removal or attempted removal of this cardboard can be ascertained, the guarantee will be repealed.

The piece of cardboard contains holes for the blue LED and 4 blue switch blocks (Input 1-4) with white contacts. The white contacts, numbered from 1-8, are used for the TV-channel and TV-system setting.

Above the blue switch blocks, the cardboard indicates the AV input which is set with the switch block in question.

Setting of TV-system (PAL-type)

First the TV-system used in the country where AV112-4 is installed is determined. On the switch block for Input 1, contact 7 and 8, the TV system in force for all inputs is selected.



If the wrong system is selected as the country standard, it may result in no colours in the pictures, missing sound or no picture at all.

Setting of TV channels

If possible, an overview of the TV channels connected on the LexCom Home network should be prepared prior to the setting. This implies the establishment of an overview of the TV channels that can be received on the TV sets connected (channels or frequencies).

Then the free TV channels which you want to use for the video signals distributed from the AV112-4 are selected.

The user may freely select the TV channels dedicated to the AV inputs, based on the possible settings shown in the channel table (switch-settings).

Selection will be limited by the number and location of the locally available TV channels in the UHF range. Selecting TV channels that have already been taken in the cable-TV package delivered by an external supplier is NOT possible.

For each input to which a signal source (video composite + LF audio) has been connected, a TV channel must be set.

- TV-channels are set by means of the contacts 1-6 in the pattern corresponding to the TV channel which you have selected for the input in question.
- Setting of the contacts is made in accordance with the channel table for the correct and relevant TV-system.
- Contacts can be set using a small screwdriver or the point of a pencil.

Note:

Pay attention to the fact that no neighbouring channels in AV112-4 can be selected, as the result may be noise problems on the channels. In general, the selection of a TV channel immediately next to another channel is not possible. Consequently, it will not be possible to get a good result if you select channel 10, and there is already a TV station on channel 9.

Turn-off of channel

In AV112-4, if you do not want to use one or several channels, they should be turned off (disabled) by pressing all contacts down. This may prove to be very useful if there are many TV stations in the channel area. By then any channels set for the unused video inputs cannot disturb the existing TV stations.



Start-up:

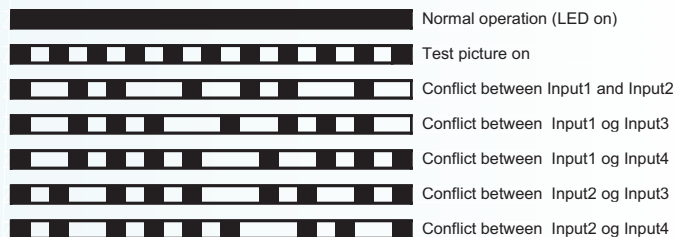
After the 12 V AC net adapter is connected, the blue LED will turn on.

If the blue LED flashes, please note the frequency of the flashing. If for instance there are 2 flashes followed by an interval and then 4 flashes, there is a conflict in the selection of channels between input 2 and 4. Maybe these have been set to the same channel or neighbouring channels.

If this is the case, another TV channel for one of the inputs must be selected. In order to store new settings, the power adapter plug is pulled out, and after 5 seconds it is put back again.

LED indications:

The following scheme shows the possible indications and meaning.



Setting of TV-sets

On front of the piece of cardboard, a cut-out provides access to the push button activating the test signal generator. When this is active, the blue LED will flash constantly with a quick speed. This picture- and sound signal may be used for the search and setting of the TV channels (coming from AV112-4) on the TV-sets.

If you have selected the correct channel on the TV-sets connected, you will see 2 vertical white lines on a black background. At the same time there will be a 1000 Hz tone in the loudspeakers.

The picture and sound generator is turned off by pressing the signal button again, or by turning the power to AV112-4 off and on.

Due to interference between different channels you may see disturbed pictures. If this is the case, you may try another combination of channel settings.

Please bear in mind that change of the channel settings in AV112-4 will enter into force only when the power to AV112-4 has been turned off for 5 seconds and turned on again.

Upon finalisation of setting AV112-4 and with constant light in the blue light diode, the front plate is mounted with care and fastened by means of the screws delivered.

Output level adjustment

The output level of the TV picture from AV112-4 may be adjusted by means of the Gain screw on the rear panel. Adjustment is made until the best picture quality is obtained.

The following applies in general:

- When installing AV112-4 in a location where the distance to the LexCom Home distribution centre is long, the level of the signals must be increased, in order to avoid noise in the TV picture.
- When installing AV112-4 in a location where the distance to the LexCom Home distribution centre is short, the intensity of the signals must be reduced in order to avoid overdriving the TV picture and prevent interference to other TV channels.

Hint

Always start with the gain screw positioned in the middle of the turning field, then adjust the gain screw down to the min. out level until the picture becomes noisy, and then increase (Counter-Clockwise) the out level carefully until the picture becomes clear.

Please note: Due to both the radiation and pick-up of noise, it is important that the front plate is mounted immediately after setting is completed.

Switch settings for Western Europe (PAL-G)

Grid of switch settings for Western Europe (PAL-G) channels CH21 to CH46. Each channel entry includes a 4x7 grid of switches (On/Off) and the channel number and frequency.

Switch settings for France (PAL-L)

Grid of switch settings for France (PAL-L) channels CH21 to CH46. Each channel entry includes a 4x7 grid of switches (On/Off) and the channel number and frequency.

Switch settings for the UK (PAL-I)

Grid of switch settings for the UK (PAL-I) channels CH21 to CH46. Each channel entry includes a 4x7 grid of switches (On/Off) and the channel number and frequency.

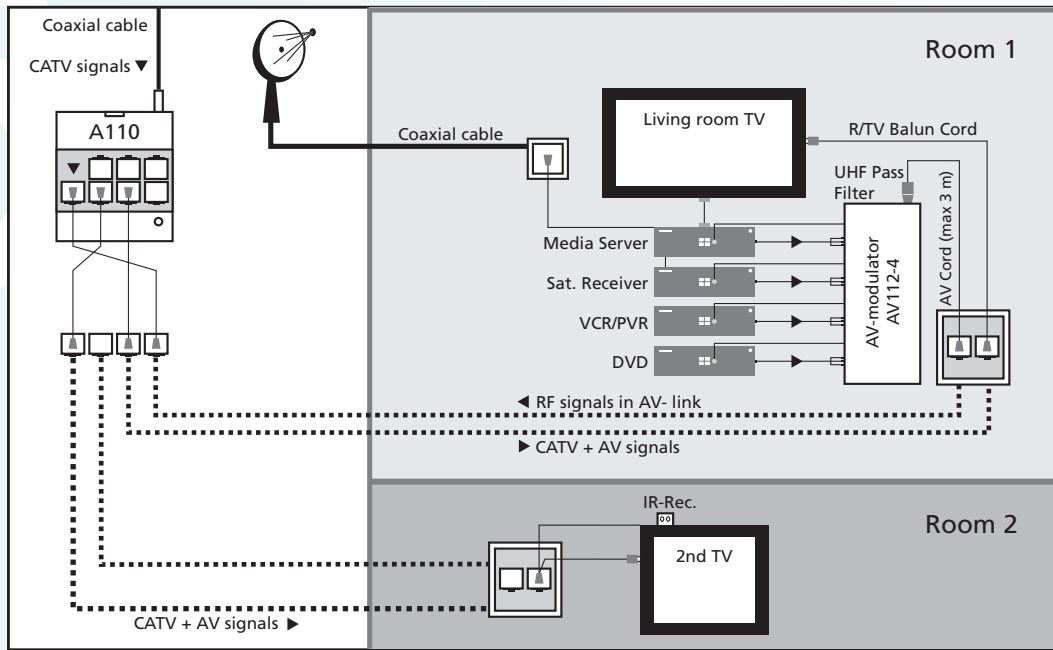
Switch settings for Australia (PAL-B)

Grid of switch settings for Australia (PAL-B) channels CH21 to CH46. Each channel entry includes a 4x7 grid of switches (On/Off) and the channel number and frequency.

Technical data

Power supply	12 V AC
Power consumption	< 8.5 Watt
Frequency band	470 - 862 MHz
Input sensitivity	0,5 Vpp
Video Input Impedance	75 Ohm Nominal, Phono (RCA)
Audio Input Impedance	10 kOhm Nominal, Phono (RCA)
Output level	85 - 100 dBuV @ 470 MHz, 85 - 112 dBuV @ 862 MHz
Output Impedance	100 Ohm, balanced (RJ45)
Modulation	Double sideband
TV System, output	PAL B, G, L and I (selectable)
Sound	Mono
Operating temperature	0-40 °C
B x H x D	170 x 47 x 165
Weight	0,80 kg
Standards	EN 55020, ITU-R BS.707-4, EMC-directive 89/336/EEC

Installation



Trouble shooting

Problem	Reason	Solution
No AV modulator signals at all.	<ol style="list-style-type: none"> 1. Power not connected! 2. Conflicts between selected AV channels cause the AV modulator to shut down! 3. Wrong patching in the distribution centre! 4. Wrong TV system selected! 5. AV modulator not working / faulty! 	<ol style="list-style-type: none"> 1. Connect the power adapter. Check that the power LED indicator lights up permanently. 2. Select a new AV channel for the input indicated by the flashing LED. Refer to relevant chapter in this installation guide. 3. Check the patch cord connections up to the AV link port on the R/TV amplifier. If AV combiner used also check these connections. 4. Select right TV system. Refer to relevant chapter in this installation guide. 5. Replace.
Poor picture on AV signal(s).	<ol style="list-style-type: none"> 1. Output level from the AV modulator is too weak! 2. Wrong TV system selected! 3. AV signals being interfered by other TV channels! 4. Poor or broken patch cable between AV modulator and wall outlet! 5. AV modulator not working properly! 6. R/TV module not working properly! 	<ol style="list-style-type: none"> 1. Increase the gain (output volume) on the AV modulator until a clear picture is obtained. 2. Select the right TV system. Refer to relevant chapter in this installation guide. 3. Select another TV channel to the AV input being interfered. Refer to relevant chapter in this installation guide. 4. Replace with new one. Use only LexCom Home AV Cords, max. 3 m. 5. Replace. 6. Replace R/TV module.
Poor sound on AV signal(s).	<ol style="list-style-type: none"> 1. Audio inputs of AV modulator are being overdriven! 2. Poor or broken audio interconnection cable between AV modulator and source! 	<ol style="list-style-type: none"> 1. Decrease the output volume from the source connected. Refer to the manual of the appliance in question. 2. Check the cables and replace if necessary.
Disturbances on other TV channels when the AV modulator is connected.	<ol style="list-style-type: none"> 1. Output level from the AV modulator is too high! 2. The AV signals are interfering with other TV channels! 	<ol style="list-style-type: none"> 1. Reduce the gain (output volume) on the AV modulator until clear TV channels are obtained. Make sure that the quality of the AV signals is maintained. 2. Select another channel for the AV signal where the interference is gone. Refer to relevant chapter in this installation guide.
Test signal disappears from the TV shortly after being activated.	<ol style="list-style-type: none"> 1. The black and white test picture puts heavy demands on to the TV's ability to support the contrasts of the picture! 	<ol style="list-style-type: none"> 1. Some TV's are simply unable to show such a test picture. Search for a live picture instead.