



EKSELANS BY ITS

# USER MANUAL

## **EK LINK**

280027

Processor / converter of web TV channels  
(HLS, RTMP, MPEG-DASH ...)

to multicast format (up to 20 services SD/  
15 HD)

V05

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## Introduction.

### Description.

Processor / converter of web TV channels (HLS, RTMP, MPEG-DASH ...) to multicast format (up to 20 services SD/ 15 HD)

### Main characteristics.

- WebTV processing to IP Multicast and vice versa.
- GbE port
- Modular expandable concept
- 19" rack mountable through CHR TR (6x HU)
- Wall mountable through CHM TR or CH3 TR.

### Accessories.

#### V1:

1. 1 x EK LINK


#### V2:

1. 1 x EK LINK.
2. Power supply cable.


## Interfaces and connection.

### Interfaces.

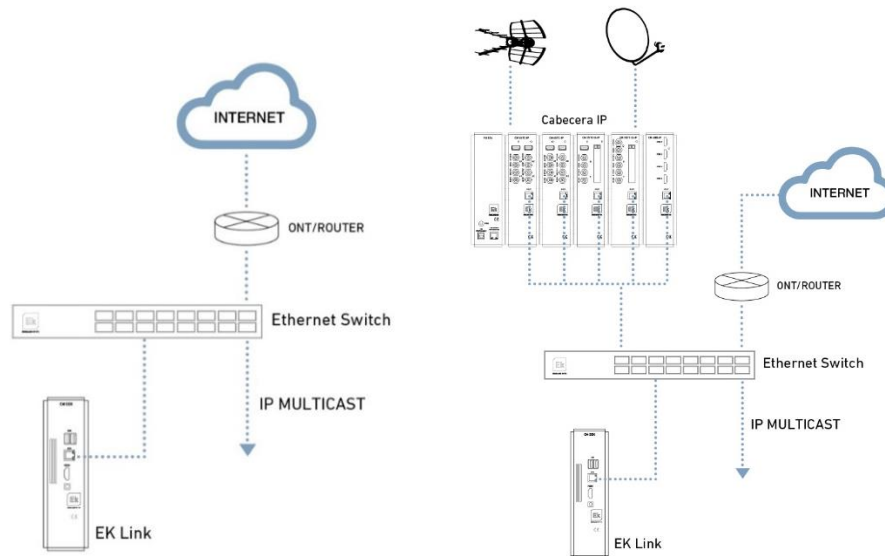
V1:

 <p>The image shows the front panel of the Ek CM SEK H5 device. It features a blue vertical strip on the left side with four numbered callouts: 1 points to the HDMI port, 2 points to the LAN ports, 3 points to the USB port, and 4 points to the power supply area at the bottom.</p>	<ol style="list-style-type: none"> <li>1. HDMI port: No use for the user. Only usable by SAT.</li> <li>2. Puerto WAN/LAN LAN: It has no use for the user. Only usable by SAT. WAN: Port that connects to the client network.</li> <li>3. USB: No use for the user. Only usable by SAT.</li> <li>4. Power supply: The power is located in the back of the equipment.</li> </ol>
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V2:

 <p>The image shows the front panel of the Ek CM SEK device. It features a blue vertical strip on the left side with five numbered callouts: 1 points to the HDMI port, 2 points to the LAN ports, 3 points to the WAN port, 4 points to the USB port, and 5 points to the power supply area at the bottom.</p>	<ol style="list-style-type: none"> <li>1. HDMI port: No use for the user. Only usable by SAT.</li> <li>2. LAN: It has no use for the user. Only usable by SAT.</li> <li>3. WAN: Port that connects to the client network.</li> <li>4. USB: No use for the user. Only usable by SAT.</li> <li>5. Power supply: The power is located in the back of the equipment.</li> </ol>
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Connection.

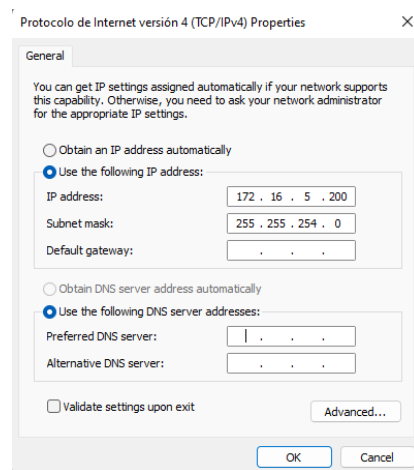


1. Insert the support at the top of the module and mount it into a 19" rack chassis (CHR TR) or a Wall chassis (CHM TR / CH3 TR)
2. Feed the module with the provided power supply adapter.
3. Connect the WAN port to the client network.

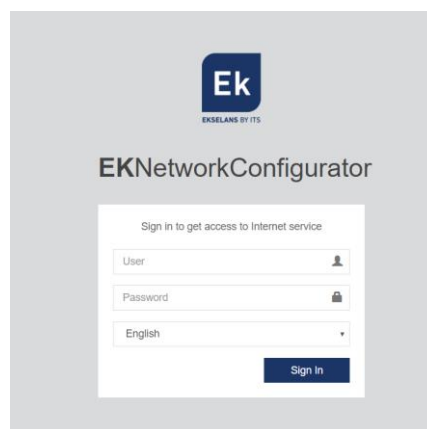
## Installation and configuration.

### Access to the equipment

1. Connect to the **EK LINK** using a network cable to the **WAN** port. Configure the network adapter of the PC with a static IP. The **EK LINK** is supplied with a sticker and its IP, generally, **172.16.5.209**. An IP will be configured keeping the first bold digits intact, for example: **172.16.5**.10. This step can also be carried out by following the above "**Wiring**" connecting the PC to the same SWITCH as the **EK LINK**.



2. Open the browser on the assigned IP and add: **9090**. In our case for example the following URL: [http:// 172.16.5.209:9090](http://172.16.5.209:9090).

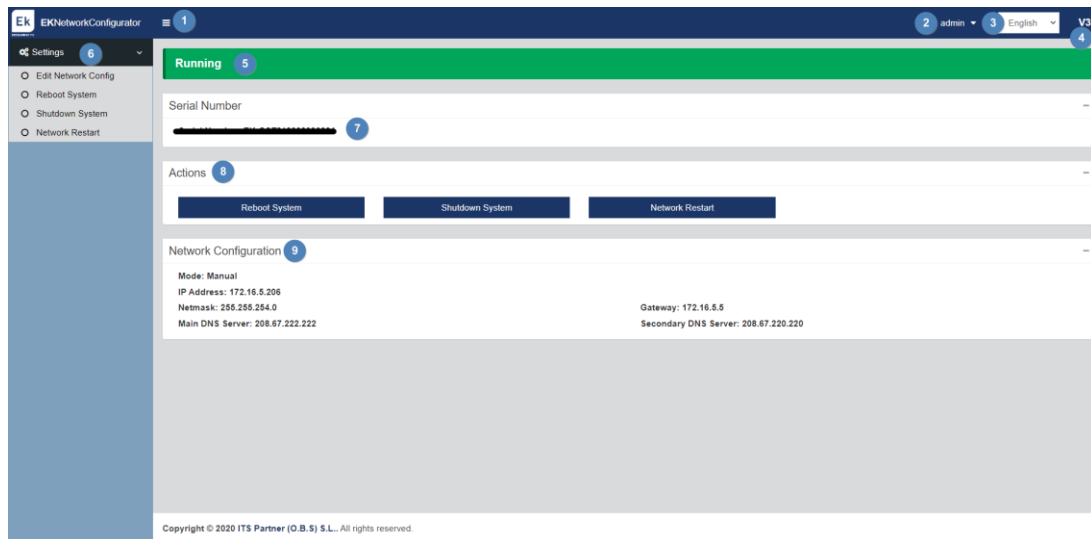


1. Default username and password **admin / password**.

## WAN port configuration.

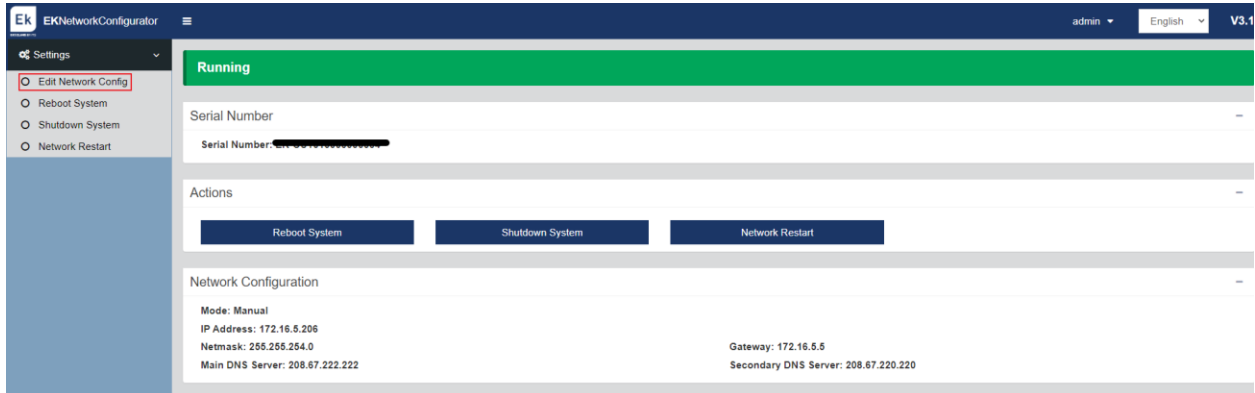
Once the equipment has been accessed, an IP must be configured within our network in its WAN link. This will facilitate our access to the server locally and will enable it to be updated remotely automatically. **It must have an internet connection in order to work correctly.**

Inside the equipment the following screen will appear displaying its different options:



1. **Drop-down:** Adjust the display of the window so that the Settings section on the left is not visible.
2. **User:** User with which we are currently logged in, this enables logging off. **It is important not to change or lose that user if the password has been changed because "admin" you can make that change.**
3. **Language:** Language currently installed.
4. **Version:** Current version of the system.
5. **Status:** Displays whether the system has network and internet access. In order to function, it must be "In operation". If not, **check network and network configuration.**
6. **Settings:**
  - **Edit Network Settings:** Does not permit any modification of the network configuration parameters.
  - **System reset:** Restart the equipment.
  - **System Shutdown:** Reboots the equipment.
  - **Restart Network:** Resets network ports.

7. **Serial number:** Serial or license number assigned to our equipment.
8. **Actions:** Direct access to the options detailed above.
9. **Network configuration:** Displays the status of the current network configuration. To configure the equipment in our network, follow the steps below:
  1. Go to "Edit Network Settings".



2. Then save the configuration. The configuration in the image is a simple example, which is why it must not be used if the same configuration is not shared.

### Network Configuration ✕

**Manual**

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**IP Address**  
 1

**Netmask**  
 2

**Main DNS Server**

**Gateway**  
 3

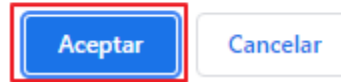
**Secondary DNS Server**



3. Accept request.

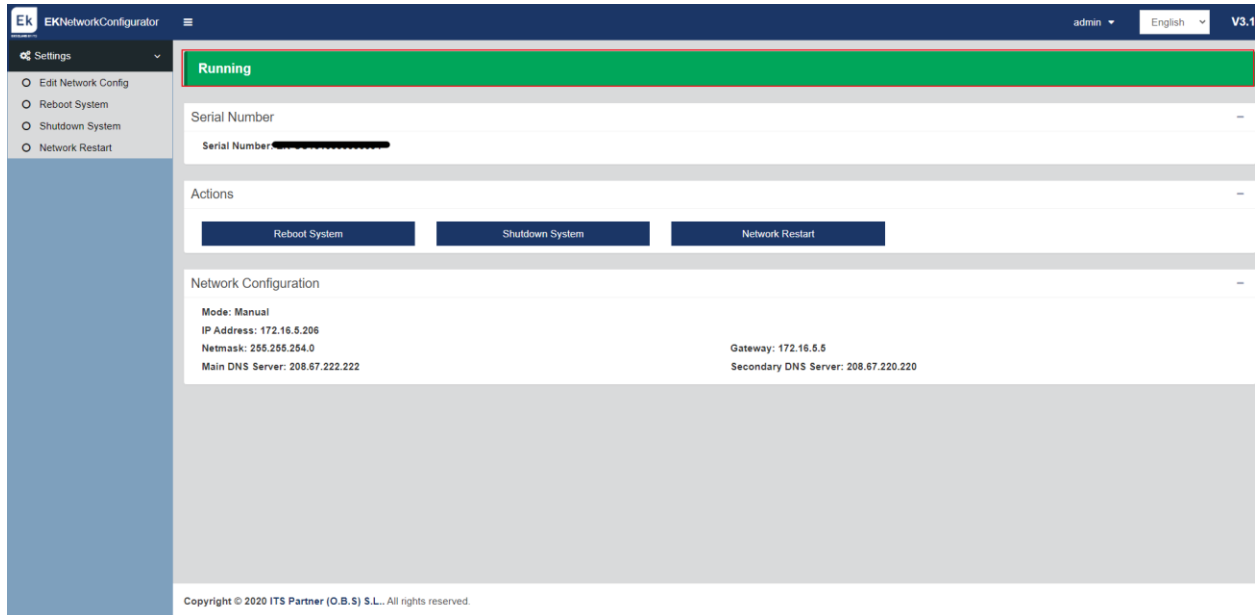
172.16.5.206:9090 dice

A wrong network configuration can cause the system to be unnacesible.  
Do you want to proceed with the changes?



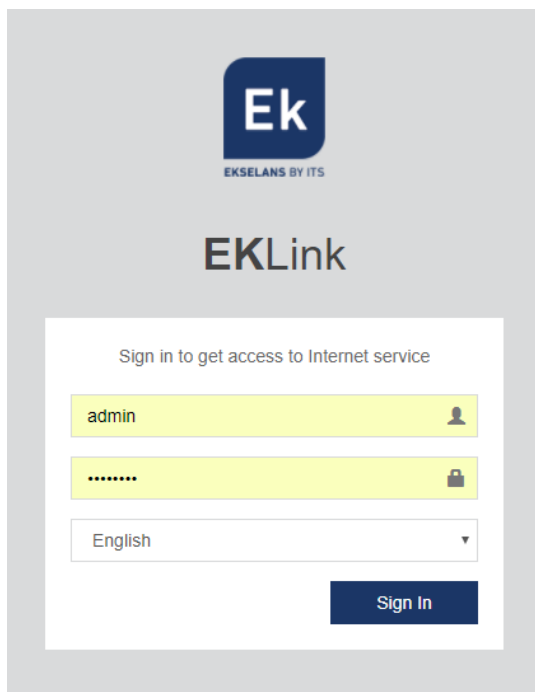
4. Reset the PC back in our network with DHCP or as it was configured, then it is connected using a LAN cable to the NETWORK. Connect the EK LINK with its **WAN** to the network. Now it should be possible able to access the EK LINK internally through our LAN via the IP which was configured in **step 2**.

If the configuration has been properly carried out when accessing the equipment, after a few minutes, on the main screen will appear **"in operation"** in green.



### Access to the configuration interface.

After having the system correctly configured and running, the equipment can be accessed through the IP which is configured, but this time completed in:8088. For example, **172.16.5.209:8088**.



User: **admin** Password:: **Password**.

## Configuration.

Add Service:

- Name: It set the name of the output service
- Profile: Select the option "bypass-bypass" since any trans codification of format is possible
- Input: Select the URL address to receive
- Output
  - Format: Select between RTMP-PUSH or UDP
  - URL: Set the output IP multicast. For example:
  - rtmp://239.0.0.10:2500

Services will be added into the list:

Servicios										
Id	Nombre	Perfil	Escala	Aspecto	Cuadros/seg	Tasa de vídeo	Tasa de audio	Entrada	Salida	
15	Programa 1	bypass - bypass	-	16.9	25	-	-	http://	udp://235.0.0.10.2501	 
16	Programa 2	bypass - bypass	-	16.9	25	-	-	http://	udp://235.0.0.10.2511	 
17	Programa 3	bypass - bypass	-	16.9	25	-	-	http://	udp://235.0.0.10.2521	 
18	Nuevo 1	bypass - bypass	-	16.9	25	-	-	http://	udp://235.0.0.10.2531	 
19	Nuevo 2. Deportes	bypass - bypass	-	16.9	25	-	-	http://	udp://235.0.0.20.2541	 
20	Nuevo 3. Viajar bu...	bypass - bypass	-	16.9	25	-	-	http://	udp://235.0.0.10.2551	 
21	En Pruebas 521	bypass - bypass	-	16.9	25	-	-	http://	udp://235.0.0.10.2561	 

## Other adjustments.

Services											
	Id	Name	Profile	Scale	Aspect	Framerate	Video BR	Audio BR	Input	Output	
1	15	Programa 1	bypass - bypass	-	16:9	25	-	-	http://	udp://235.0.0.10:2501	▶
	16	Programa 2	bypass - bypass	-	16:9	25	-	-	http://	udp://235.0.0.10:2511	▶
	20	Nuevo 3. Viajar bu...	bypass - bypass	-	16:9	25	-	-	http://	udp://235.0.0.10:2551	▶
	21	En Pruebas 521	bypass - bypass	-	16:9	25	-	-	http://	udp://235.0.0.10:2561	▶
	22	CAP-76-TV1 HD	bypass - bypass	-	16:9	25	-	-	http://	udp://239.0.0.1:2550	▶
	25	CAP-8294-A3 Seri...	bypass - bypass	-	16:9	25	-	-	http://	udp://239.0.0.4:2550	▶
	26	CAP-8493-Neox HD	bypass - bypass	-	16:9	25	-	-	http://	udp://239.0.0.5:2550	▶
	27	CAP-173-TV3	bypass - bypass	-	16:9	25	-	-	http://	udp://238.0.0.6:2550	▶
	28	CAP-9457-Exrem...	bypass - bypass	-	16:9	25	-	-	http://	udp://239.0.0.7:2550	▶

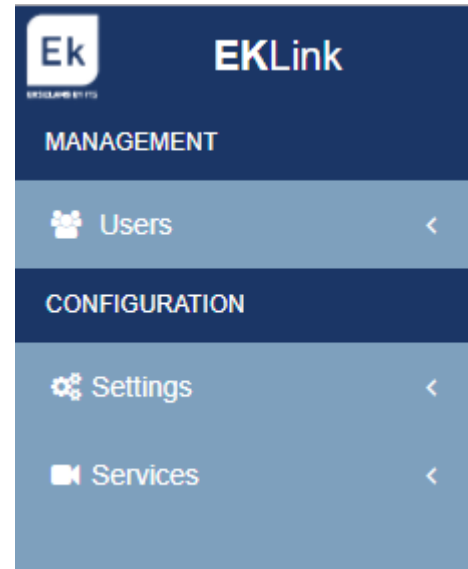
1. Select the services to make actions with them (Export, delete...)
2. Colours:
  - Yellow: There is some trouble in the reception.
  - Green: Services are received correctly.
  - Red: The transmission of the service is stopped.
3. Modify the service.
4. Start / Stop the transmission of the service.

1	Mem: 14.5%	2	Cpu: 3%	3	Red	Env: 4.4 Mbps Recib: 6.8 Mbps	4	admin	5	Español	6	V1.3.4
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1. Server memory usage.
2. Processor usage.
3. Network interface.
4. User logged in.
5. Language selection.
6. SW version.

## Navigation Tree.

- Management:
  - Users:
    - Create user It allows creating new users.
    - Delete user It allows deleting users.
- Configuration.
  - Edit Network Config It allows to edit the network parameters.
  - Reboot System It forces the system to start the machine again.
  - Shutdown System The server is ready for being disconnected from mains.
  - Network Restart It restarts the network adapter.
- Services:
  - Create Service It allows adding new services to the system.
  - Delete Service It allow deleting services from the system.
  - Export Configuration It creates a .XML file to store the current channel settings.
  - Import Configuration It allows uploading the .XML file in order to recover a configuration.



## Interest notes and specifications.

### Interest notes.

Actions

Reboot System

Shutdown System

Network Restart

It is recommendable not to unplug the device from the electrical network without shutting down the system before.







In order to make modifications on a service, (edit), it must be stopped, edited and then, activated again. To do so, just press STOP / PLAY of the service to be modified.










### Specifications.

Reference		EK LINK
Code		28007
Network Interface	Mbps	10/100/1000
Programming and management		Web - HTTP
Supported input protocols		WebTV (HLS / RTMP / MPEG-DASH)) y Multicast
Supported output protocols		WebTV (HLS / RTMP / MPEG-DASH)) y Multicast
Voltage feeding	Vdc	5
Consumption	A	< 3
Working temperature	°C	0-40

## Related products.

	CM IP-TC	IP receiver / modulator. 100Mbps Up to 15 services SPTS/MPTS UDP/RTP to COFDM/QAM. Output level: 95 dBuV. MER >35dB. Intelligent remultiplexing of services. 4 x RF output channels (adjacent). Programming by PC connected to power supply FA 524
	CM IP CI-TC	IP receiver / modulator. 100Mbps with double CI. Up to 15 services SPTS/MPTS UDP/RTP to COFDM/QAM. Output level: 95 dBuV. MER >35dB. Intelligent remultiplexing of services. 4 x RF output channels (adjacent). Programming by PC connected to power supply FA 524
	CM 3STC CI-IP	Universal Triple Transmodulator DVB S/S2/T/T2/C to IP with double Common Interface (CI). 100 Mbps Unicast/Multicast. Up to 16 simultaneous IP streams. UDP/RTP, SAP, QoS protocols output. 13/18V, 22 KHz and DiSEqC. Programming by PC connected to power supply. Remote control on-board via power supply FA 524
	CM 4STC-IP	Universal Quad Transmodulator DVB S/S2/T/T2/C to IP. 100 Mbps Unicast/Multicast. Up to 16 simultaneous IP streams. UDP/RTP, SAP, QoS protocols output. 2 x USB for TS file reproduction. 13/18V, 22 KHz and DiSEqC. Programming by PC connected to power supply. Remote control on-board via power supply
	CM 4AV-IP	Encoder 4 x AV input to IP. 100 Mbps Unicast/Multicast, SPTS/MPTS, UDP/RTP, SAP, QoS output. Remultiplexing of 4 x AV to IP. Programming by PC connected to power supply. Remote control on-board via power supply
	CM 4HD-IP	Encoder 4 x HDMI input to IP. 100 Mbps Unicast/Multicast, SPTS/MPTS, UDP/RTP, SAP, QoS output. Remultiplexing of 4 HDMI to IP. Programming by PC connected to power supply. Remote control on-board via power supply

	FA 524	Modular power supply 5 Vdc - 24 A. Includes management of headend through USB/LAN
	CM PR	External programming unit for CM headend USB programming
	FA 55	Plug-in power supply 5 Vdc - 5 A
	CHM TR	Wall mount support for 7 CM modules (including FA 524 - PSU)
	CHR TR	19" Rack mounting support for CM Modules. Fits 7 modules, including FA 524 -PSU. 6U height
	CH 3 TR	Wall mount support for 3 CM modules (including FA 524 - PSU)
	CM KEY	Remote management key to access a CM headend installation through the FA 524 power supply