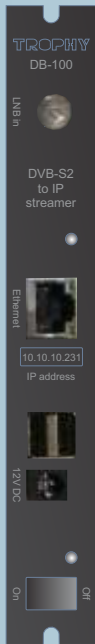


DB-100 RECEIVER



The device receives DVB-S/S2 signal, descrambling CAS services and transmit a Transport Streams (up to five services, not more then 25Mb) to IP output. There are manage and complete information about the state of the STREAMER by WEB - interface of the HEADEND.



Options:	
Input frequency	950...2150 MHz
Input signal level	-65...-25 dBm
S/N	Not less than 8 dB
Input impedance	75 Ohm
Demodulation	QPSK/8PSK
Input symbol rate	1...45 Msymb/sec (QPSK) 1...37 Msymb/sec (8PSK)
FEC	QPSK: 1/2, 2/3, 3/4, 5/6, 7,8 8PSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 7/8, 8/9, 9/10
Operation temp.	0°C...32°C
Supply voltage	+12V/2A
Interfaces	
Input interface	Ethernet 100BaseT
Control interface	Ethernet 100BaseT
Input connector	F-connector
Output connector	RJ45

All changes to the RECEIVER setting are made through FTP client using FAR MANAGER and TOTAL COMMANDER. To do this, go to the DSC-01 server from the network or by connection a monitor and keyboard.

Going to the RECEIVER via FTP:

Login: root
Password: dreambox

Find the desired file and press <F4>.

Don't forget to save <F2> after making changes.



8PSK to IP STREAMER and BISS encryption

Keys file use for this situation.

Keys file is placed in a folder with the setting of the OSCAM: **/etc/tuxbox/config**
Name of the file is **oscam.keys**. We enter into this file the needed keys.

For example, keys for BISS decryption has format:

```
F <SID of channel><Video PID of channel> 00 <key>
```

```
F <SID of channel ><Video PID of channel> 01 <key>
```

Channel SID and Video PID you can see here: <http://www.lyngsat.com>

For example, for TET channel (4.8°E) (<http://www.lyngsat.com/astra4a.html>)

SID-VPID => 6110 and 6111 (in decimal system)

You need to convert these numbers into HEX system: 6110 & 6111 DEC => 17DE & 17DF HEX

Thus, you should write into file:

```
F 17DE17DF 00 xxxxxxxxxxxxxxxxxxxx
```

```
F 17DE17DF 01 xxxxxxxxxxxxxxxxxxxx
```

You should write official BISS key instead.

If you'll write 1FFF instead "Video PID of channel", it will be right.

For example:

```
F 17DE1FFF 01 xxxxxxxxxxxxxxxxxxxx
```

```
F 19781979 00 1A1A1A001A1A1A00 ;1 auto ua (4.8E)
```

```
F 19781979 01 1A1A1A001A1A1A00 ;1 auto ua (4.8E)
```

```
F 00011FFF 00 CBA987FB654321C9 ; TV Canaria tonytr 2008-05-14 02:06:36
```

```
F 00011FFF 01 CBA987FB654321C9 ; TV Canaria tonytr 2008-05-14 02:06:36
```

```
F 17ED1FFF 00 1A2B3C814D5E6F1A ; 1+1 International ricky 2011-06-11 22:30:09
```

```
F 17ED1FFF 01 1A2B3C814D5E6F1A ; 1+1 International ricky 2011-06-11 22:30:09
```

```
F 17e817e9 00 0902190063230600 ;2+2
```

TWIN DB-100 RECEIVER and conditional access cards

You enter into **directory /usr/bin** and you must to edit **streamts.sh** script. You must comment out (# symbol) the lines:

```
#!/bin/sh
if [ ! -e /var/keys ] ; then
    ln -s /etc/keys /var/keys
fi
killall camd3
killall oscam
killall streamts
sleep 3
#/usr/bin/camd3
/usr/bin/oscam -b
sleep 2
/usr/bin/streamts
#/var/bin/fbiss,
#/usr/bin/oscam -b
```

And you must to remove the comment in line:

```
/var/bin/camd3
```

or you must to add the line, if line is not.

Save the file.

It are files into /var/keys directory:

```
    camd3.config
BOXTYPE=4
HTTP_PORT=9080
HTTP_ADMIN=admin
HTTP_PASSWORD=camd3
DESCR_DELAY=500
SLOT=/dev/sci0:2:1:1:1:999:slotunten:password3 # server

    camd3.filter
0500:023700:FFFF:FFFF:1:1

    camd3.ignore
0500:020710:FFFF:FFFF
0500:040600:FFFF:FFFF
0500:030600:FFFF:FFFF

    camd3.servers
#cs357x://dm1:dm1:SERVICES=/var/keys/camd3.filter@10.10.10.100:20248 #client

    camd3.users
dm1:dm1:SERVICES=/var/keys/camd3.filter
```

This is example for camd3 configuration for **local** encryption of the services and for keys distribution on the network. Distribution conducted using filtering of non-23700 idents. Client configuration differs only in the absence of # symbol into the first position of the camd3.servers file. You can see IP address of receiver (10.10.10.100, conditional access card is inserted), where camd3 is launched



How to replaced IP-address of STREAMERS

You can to correct `/etc/network/interfaces` file
 auto lo
 iface lo inet loopback

```
auto eth0
iface eth0 inet static
    address 10.10.10.242
    netmask 255.255.255.0
    gateway 10.10.10.1
```

and replaced 10.10.10.242 by the address that you want to install into DB-100, DB-800 or DB-800-CI, you can replaced gateway address 10.10.10.1, if it necessary.



STREAMERS management via dvbserver configuration files

<code><tuner></code>	Top section
<code>Dreambox 224</code>	name of the DB-800 receiver (used for logging only).
<code>Tuner A</code>	Installation of Input A of DB-100
<code>TunerIP 10.10.10.224</code>	ip address of receiver.
<code>ServerIP 10.10.10.11</code>	ip address of interface to which the receiver will send the data (just ip on eth0). This option can be specified once in the root config file section.

`Freq 12241 27500 3/4`

<code>Freq 12241 27500 3/5 S2-8PSK</code>	S2-8PSK or S2-QPSK demodulation
	FEC (1/2, 2/3, 3/4, 5/6, 7/8) for DVB-S
	FEC (1/2, 2/3, 3/4, 5/6, 7/8, 3/5, 4/5, 8/9, 9/10) for DVB-S2
	Symbol rate
	transponder frequency in MHz

`<service>`

<code>Stream 0x283D ntv</code>	It is NTV channel, which Dreambox 224 processed
<code>Remap 0x310</code>	
<code>Out 1</code>	
<code>Encrypt 1</code>	

`<service>`

Parameters of Input B (for DB-800-CI only) must be installed analogically

<code>Encrypt 1</code>	the presence of an encryption at the output of headend (default is 0- open program, 1 – 3 - closed the program, an encoding algorithm 1, 2 or 3). When using Algorithm 2 subscriber receivers on this channel include parental control.
------------------------	---

`LNBI 10600`

LNBI LO frequency in MHz (default is 10600)

`Out 0`

serial output, as described previously `<Output>` directive

`LNBI 1`

power and meander management at the receiver input

`LNBI 0` - power is off

`LNBI 1` - 13V/0kHz

`LNBI 2` - 18V/0kHz

`LNBI 3` - 13V/22kHz

`LNBI 4` - 18V/22kHz

Stream 0x11 "Dreambox 224"

| Name of the stream (used for logging only)
 SID of programs from the satellite.

Remap 0x300 base PID for program PID remapping.

DubIP 239.1.1.6 eth3 11111

239.1.1.6 This parameter is used for multicast or unicast IP broadcast organization
eth3 multicast group or unicast address
 in the case of multicast, the output interface through which IP traffic is
 sent
11111 destination port

DubTTL 16 TTL applies in the case of multicast broadcasting

</ Tuner> end of section

<Output>

id 0 Number of output
#

OutAddr 192.168.1.200 222

Destination address and port

PacketSize 380

Packet size

</ Output>

<Tuner>

Dreambox224
TunerIP 10.10.10.223
ServerIP 10.10.10.11
Freq 12242 27500 3
LNB 10600
LNBI 1

<service>

stream 0x283D ntv
Remap 0x310
Out 1
encrypt 1

</service>

<service>

stream 0x283E tnt
Remap 0x330
Out 1
encrypt 2

</service>

</Tuner>

Monitoring of the STREAMERS

Go to the Billing server address: 10.10.10.254

Login: **aj**

Password: **aj**

We recommend to replace the name and password to confidential.

Open the "Channels / streams" and MONITOR menu item.

You can see the IP-address table and receivers current state, namely

The screenshot shows a web-based monitoring interface for DVB-BS streams. The interface includes a navigation menu at the top with options like Customers, Payments, Channels/Streams, Prices, Settings, Reports, and Exit. The main content area displays a table of streams and decoders, with columns for Source, Lock, UE, DEM, DET, SEF, SENF, SID, Rate (bps), Name, Out, Remap, F, Encrypt, Level, and SNR. The table is divided into two sections: one for Source 10.10.10.18 and another for Source 10.10.10.19. The table shows various channels like Russia 1, Eurosport HD, and Cartoon Network, along with their respective parameters and status. A status bar at the bottom indicates 'root:root:0:User is not selected' and 'Unfiltered Deleted'.

Source	Lock	UE	DEM	DET	SEF	SENF	SID	Rate (bps)	Name	Out	Remap	F	Encrypt	Level	SNR
10.10.10.18	0	0	0				2840	3533127	Россия 1*	0	0300y		FTA	83	-2
10.10.10.55	0	0	0				2848	0	ds*	0	0310y		FTA	0	0
10.10.10.57	0	0	11				2840	3533127	Россия 1*	0	0320y		FTA	90	-1
10.10.10.59	1	1	13				2840	3535231	Россия 1*	0	0330y		FTA	89	-1
10.10.10.19	0	0	0				10601485								
10.10.10.102	0	0	0	0	0	0	283e	0	dm*	0	0300y		FTA	0	0
10.10.10.100	0	0	6	0	0	0	0514	1633454	Eurosport	0	0310y		FTA	-40	12
10.10.10.113	0	0	3372	0	0	0	003d	6646274	MTVM HD*	0	0320y		FTA	-42	14
10.10.10.98	0	0	5	0	0	0	138d	3780662	TV 3*	0	0330y		FTA	91	0
10.10.10.61	0	0	2	2	0	0	277e	2909164	REN-TV*	0	0340y		FTA	90	-1
10.10.10.103	0	0	0	0	0	0	283e	0	dm*	0	0350y		FTA	0	0
10.10.10.242	0	0	0	0	0	0	001e	0	Eurosport HD*	0	0360y		FTA	0	0
10.10.10.56	0	0	0	0	0	0	1490	0	dm*	0	0370y		FTA	0	0
10.10.10.104	1	1	6	0	0	0	283e	2401247	THT*	0	0380y		FTA	89	-1
10.10.10.101	0	0	(+4) 219	0	0	0	2840	3464569	Россия 1*	0	0390y		FTA	-64	12
10.10.10.60	2	2	(+2) 2011	0	0	0	0002	2688241	DRIVE*	0	0300y		FTA	96	0
10.10.10.52	53	53	16804	0	0	0	508e	1913978	Cartoon Network**	0	0340y		FTA	89	0
10.10.10.54	287	287	(+6) 130161	130156	0	0	5087	2328983	Discovery World*	0	0310y		FTA	90	-1
10.10.10.50	32	32	11529	11524	0	0	508e	1913978	Cartoon Network**	1	0300y		FTA	-35	13
10.10.10.51	1	1	2210	133	0	0	508e	1913978	Cartoon Network**	3	0300y		FTA	91	-1

LOCK	SAT signal LOCK indicate. GREEN is LOCK on, RED is LOCK off, GREY. Receiver is not available for monitoring.
UE	(UNLOCK ERRORS) Amount of signal loss since the last power-up.
DEM	(DISCONTINUOUS ERROR of MULTIPLEXER) Loss of signal at multiplexer input.
DET	(DISCONTINUOUS ERROR of TUNER) Loss of signal at receiver output. Thus, if there is a difference between the DEM and DET values, you need to look for problems in the HEADEND Ethernet network.
SEF	Data sinchronization errors into receiver. If it is not zero receiver is defective.
SID	(SERVICE ID) – Satellite channel SID
RATE	Bit rate of the service. The table also indicates the total service rate of transponder.
NAME	Name of channel (display on subscriber receiver).
OUT	DSC-01 Ethernet output number (0...4).
REMAP	Service PID on the Headend output.
F	Found or not in the satellite signal the SID from configuration file (Y- yes, N- no).
ENCRYPT	Free or not free signal on the Headend output.
LEVEL	Satellite signal level on the receiver input (% or dBm).
SNR	Signal to noise rate at the receiver input.