

TMZ2HD

**Twin HD encoder
DVBT/C modulator
USB record and play**



The TMZ2HD is a twin HD encoder with record and play functionality. It allows the encoding of 2 HDMI sources and modulate them into one singel RF channel in DVBT or DVBC.

An extra USB port allows playing one or several .ts files available on a USB memory stick. The TMZ2HD has an internal clock (with battery). Using the TMHDIface software, it allows you to play or record several files using a timetable or calendar.

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1 - Safety considerations

1.1 CONNECTING TO THE MAINS SUPPLY

This product has to be connected to the mains supply. If there is the slightest doubt concerning the type of connection available on the installation, please contact your supplier of electricity. Before carrying out maintenance operation or modification of the installation, the modulator has to be disconnected. Remark : only use the supplied power adaptor.

1.2 OVERVOLTAGE

An overvoltage on the mains supply,can cause shortcircuits or fire. Never overload the power lines.

1.3 LIQUIDS

This module should be protected from splashes. Please assure yourself that no containers containing liquids are placed on this module. Also be aware of other persons splashing liquids on the module.

1.4 CLEANING

Disconnect the module before cleaning. Use only a humid cloth without solvant.

1.5 VENTILATION

In order to assure an adequate air circulation and to prevent overheating, the ventilation holes should not be obstructed. The module may not be installed in a hermetically sealed environment. Other electronic products or heat producing items may not be placed upon or near the module.

1.6 ACCESSORIES

The use of accessories not manufactured by the manufacturer can cause damage to the module.

1.7 INSTALLATION OF THE MODULE

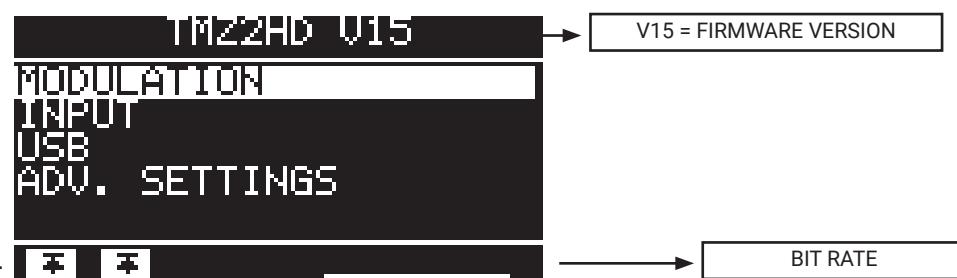
The module must be installed in a place well protected from direct sunlight. All measures have to be taken to avoid installation in humid or sunny place. Do not install near heating elements or other devices producing heat. Assure yourself that the module is placed at least 10 cm from other equipment with is susceptible to electromagnetic radiation. Do not install the module on instable items. A fall can cause physical or material damage.

2 - Description of the different elements

- C1** Power supply input (5V/2A)
- C2** USB input (programming by PC)
- C3** RF input
- C4** RF output
- C5** HDMI input A
- C6** HDMI input B
- C7** USB input record and play



- A1** OLED 128x64 pixels graphic display
- T1** Joystick for setting parameters



3 - Settings

The TMZ2HD has different menus. All parameters that can be changed are grouped into 4 menus.

3.1 The MODULATION menu

The modulation menu has submenus : MODE / SETTINGS / ATTENUATION / COUNTRY / NETWORK NAME / NIT RELEASE AND TS ID

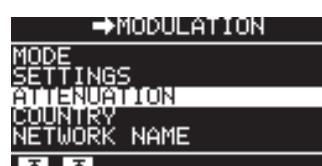
Use the joystick to move between the different options and press the joystick to confirm your selection.



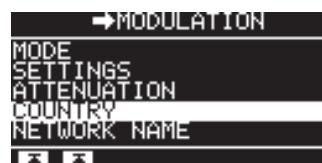
Switch between DVBT and DVBC



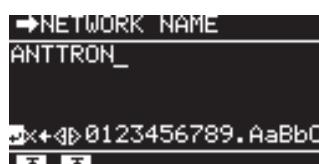
Change the output channel



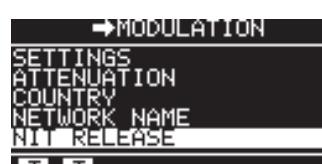
Edit the output attenuator



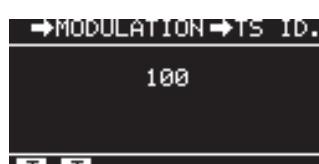
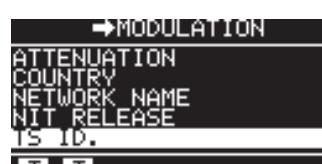
Select the country where you are located to set the correct ONID number



Change the network name



Edit the NIT release number



Change the transport stream ID

3.2. The INPUT menu

The INPUT menu is divided in 2 identical sections for input A and input B. It has the following submenus:

SERVICE NAME, PROGRAM ID, L.C.N., PMT PID, VIDEO PID, AUDIO PID, VIDEO RATE and AUDIO RATE.

Use the joystick to move between the different options and press the joystick to confirm your selection.



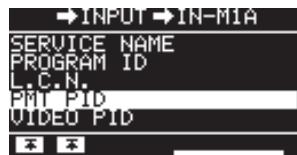
Change the SERVICE NAME



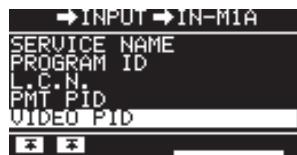
Change the PROGRAM ID



Change LCN number



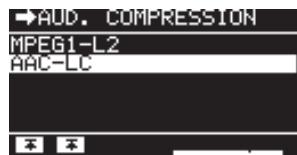
Change the PMT PID



Change the VIDEO PID



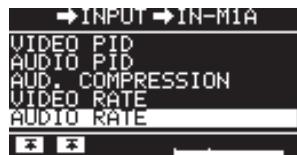
Change the AUDIO PID



Change the AUDIO COMPRESSION



Change the VIDEO RATE



Change the AUDIO RATE

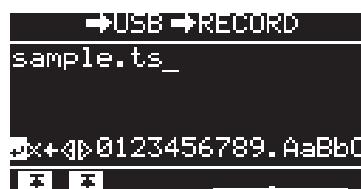
3.3 . The USB menu

A USB 3.0 memory stick connected to the TMZ2HD allows you to play .ts files over the coaxial network. While in play mode the source connected to input A is suppressed and replaced by the .ts file. The USB menu has the following submenus : PLAY, RECORD, STOP A and CLOCK

Use the joystick to move between the different options and press the joystick to confirm your selection.



Select the file you want to play and press enter to start to play



Name the file whereunder you want to record the source connected to input A and press enter to start recording



Select the STOP option to stop playing or recording.



In the CLOCK menu you can set the date and time into the TMZ2HD

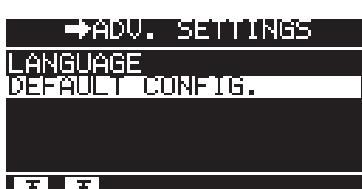
3.3 . The advanced settings menu

In the advanced settings menu you can set the language for the device and return to the factory default settings.

Use the joystick to move between the different options and press the joystick to confirm your selection.



Select the language for the device

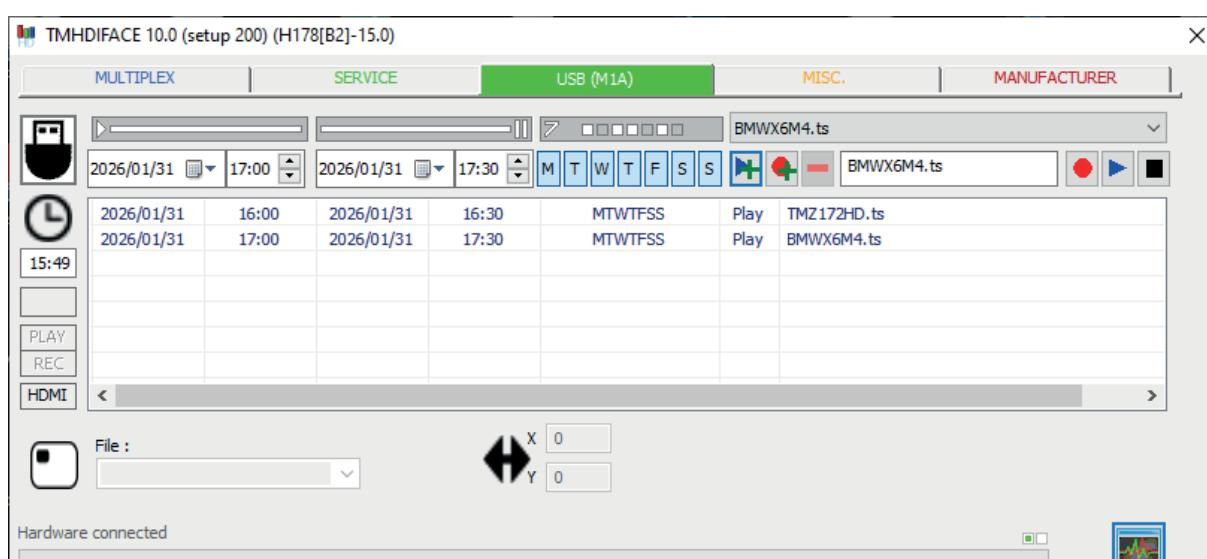
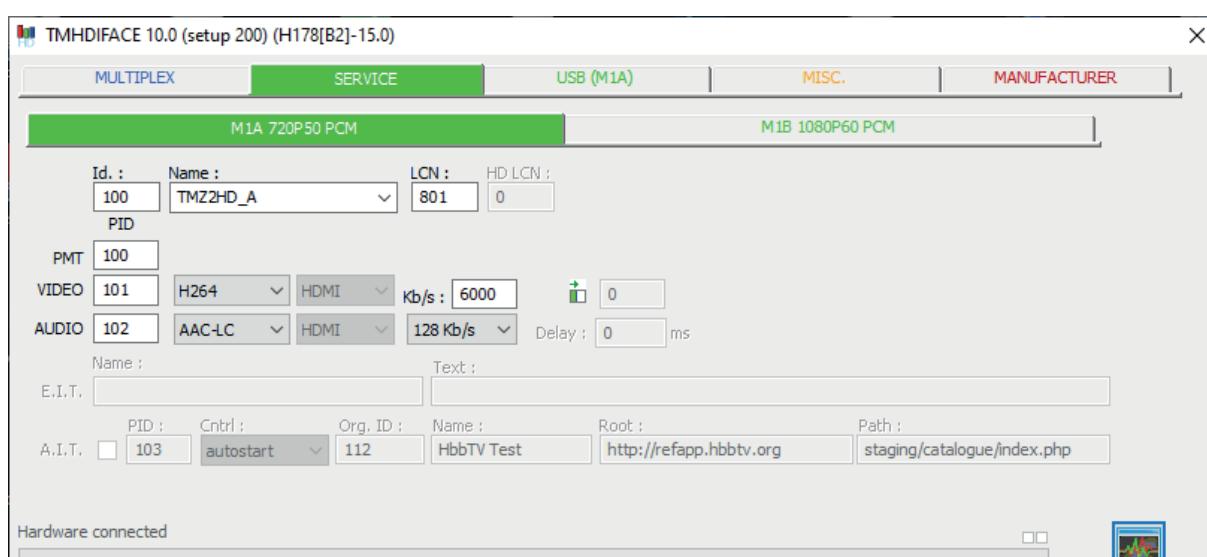
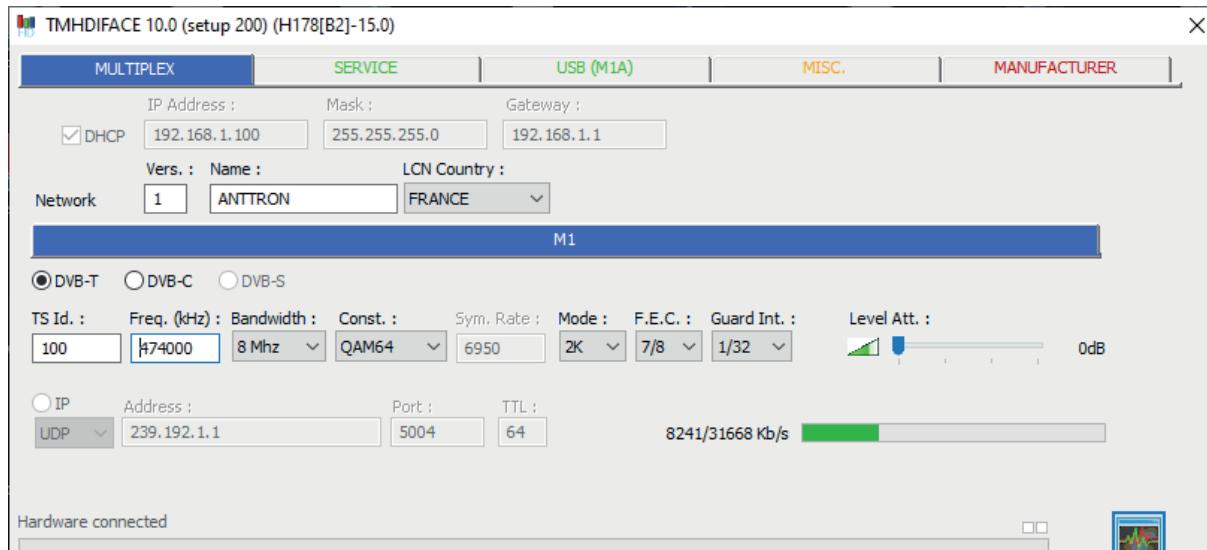


Select DEFAULT CONFIG. to restore the factory settings



4 - TMHDIFace

All parameters discussed in chapter 3 can also be changed using TMHDIFace which can be downloaded from the Anttron website anttron.com



5 - TECHNICAL SPECIFICATIONS

Video input (x2)	Input	HDMI 1.4
	HDMI input resolutions	480p -576p -720p - 1080i - 1080P
	DVBT/C output resolution	480p -576p -720p - 1080i - 1080P
	Compression	H264 - 1 -15 Mbit/s
Audio input (x2)	Input	HDMI
	Sampling rate	HDMI (32kHz / 44.1 kHz / 48 kHz)
	Compression	AAC-LC / MPEG1-L2- bitrate 128-384 Kb/s
DVB treatment	Table insertion	PAT, PMT, SDT, NIT
	Configuration	Channel/network name, SID, LCN, TSID, ONID, NID, versions, audio, video PIDs...
DVBT output	Output frequency level	170-230 MHz + 470-862 MHz / > 86 dB μ V
	Constellation - FEC	QPSK/16QAM/64QAM - 1/2, 2/3, 3/4, 5/6, 7/8
	BW - Guard interval	BW : 6/7/8 MHZ GI 1/4, 1/8, 1/16, 1/32
	MER	2K/8K - 35dB
DVBC output	Frequency	47-862 MHz / > 86 dB μ V
	Constellation - MER	QAM16,32,64,128,256 / MER > 40 dB
	Symbol rate	2000 - 7000
Power	DC connector - 2.1mm	+5V
	Power consumption	6 Watts
Dimensions	LxWxH	170x110x30mm
	Weight	0.5 kg (power supply included)
EAN code	TMZ2HD	5420037690046