

MTH400 User Manual

Wideband Wireless

Professional Handheld

Transmitter



SN: _____

Rev.08 (rif. FW 1.30.0A)

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MTH400 User Manual

INTRODUCTION

MTH400 is a professional radio microphone especially designed for broadcast/high quality applications.

MTH400 is composed by 3 detachable parts:

- MIC Head (available with cardioid/hyper-cardioid polar pattern).
- **MIC Body** (the below part can be open to access "Display & Setup controls" area (fig.1) and on the back the "Batteries holder & Infrared" area (fig. 2).
- MIC Antenna, made with fibreglass reinforced housing and with a "Wireless power switch" (fig. 3). "MIC Antenna" is fastened to body with 2 anvils and a micro-connector.



SAFETY INSTRUCTION

- Read this safety instruction and the manual first
- Follow all instructions and information.
- Do not lose this manual.
- Do not use this apparatus under the rain or near the water.
- Do not install the apparatus near heaters or in hot environments, do not use outside the operating temperature range.
- Do not open the apparatus, only qualified service technician are enabled to operate on it. The
 apparatus needs servicing when it is not properly working or is damaged by liquids, moisture or
 other objects are fallen in the apparatus.
- Use only accessories or replacement parts authorized or specified by the manufacturer.
- Clean the apparatus only with dry cloths, do not use liquids.
- Report the serial number and the purchasing date in front of the manual. It is needed to have proper replacement parts or accessories from the manufacturer.
- When replacement parts are needed, use only replacement parts authorized from the manufacturer. Substitution with not authorized parts could result in electric shock, hazards or fire.
- Keep attention on all the labels with warnings or hazards on the apparatus.

LED INDICATION (POWER SWITCH)

Led indication with bicolor led (red & green) on wireless power switch (fig. 3):

- Wireless transmission status: green when RF transmission power is on (on power on the device, this LED is red and become green when the RF transmission power is on).
- Battery status: green steady, slowly blinking (< 25%), quickly blinking (<12%)
- Modulation peak (if activated): red
- PTT status: red if active

BATTERIES

MTH400 is working with 2 AA alkaline, NiMH or Lithium batteries (select correct type on setup controls). Battery status can be checked on internal OLED display or looking to LED status on power switch (see LED INDICATION section) 3.

Battery substitution:

- Open MIC body: unscrew counter-clockwise the below cover to access batteries holder;
- Take out below battery to release upper battery leverage;
- 2nd battery falls down and can be remove

Attention: always replace both the batteries

POWERING UP

Move the wireless power switch (fig. 3) in upper position (towards MIC body) to activate wireless transmission: the front LED ③ lights up red and then green when the RF transmission power is on (blinking when battery is low!)

Setup control

Open MIC Body to access the "display and controls" area (fig. 1):

- Graphics Display (OLED)
- B. Channel selection buttons (ch)
- MIC gain setup buttons (gain)
- 3 position selector (up / down / click)



Fig. 4

OLED POWER UP (OLED IS IN OFF CONDITION)

Pushing down selector (click), the graphic display oled turns on.

At the beginning a <START UP> menu is displayed, then <STATUS> menu enters automatically. In order to keep the <START UP> menu active, it is necessary to push and hold selector (click) for at least 2 sec.

OLED POWER DOWN (OLED IS IN ON CONDITION)

Display turns off automatically after 15 sec, unless in <AUDIO> menu (with audio level < 5% from nominal).

DISPLAY MENU

Using up/down selector all menus can be accessed in sequence.



* Depending on the Power Profile

Preset parameters

Using <up/down> selector all menus can be accessed in sequence, push <click> to enter edit mode (on the left side of the display appear "EDIT" and the selected parameter starts blinking):



<up/down> to setup field

<click> again to confirm changes and exit.

If no button is pressed, the device exits the EDIT mode and returns the parameter as it was previously set.

<START UP> menu

These menus are displayed during power up for few seconds.

MTH400 130 0A BAND: 566-798 MHz SN: R4528525	This menu gives indication on product:
	- product id (MTH400),
	- the firmware release (ex. 1.30.0A),
	- the band in extended format and
	- the serial number.
	Keep selector pushed to hold this menu!

<STATUS> menu

This is the first menu displayed after power up.

	Major info are displayed:		
BATT CH:03 GR:03 37550 Freq:610.000MHz AF:-03dB HP:60Hz	 Current channel/group (i.e. CH:03 GR:03) or Receiver's name (i.e. RECEIVER) if the microphone has already been synchronized with a receiver Current frequency (i.e. 610 MHz) 		
BATT RECEIVER BF 50 Freq:610.000MHz AF:-03dB HP:60Hz	 Mic gain (i.e03dB) and high pass filter (i.e. 60Hz) If in the top right there is "RF10", "RF 50"or "RF 100", the transmission is active respectively at 10, 50 or 100mW (see <u>RF/BATTERY menu</u>) On left side, the battery bar is displayed 		

<PRESET> menu

This menu can be entered by scrolling selector.



MTP41 can recall configuration presets. "FACTORY" recalls the Wisycom factory configuration. "USER" recalls the user configuration (the transmitter configuration is copied into the USER using the "save to" submenu). All "USER" menus are not locked by default, thus this is quick way to unlock features! When the user changes some parameters from the PRESET configuration (for less than frequency) a star appears on the topright corner until a save command is executed.

The other 8 configuration presets are user programmable thru the infrared and the PC interface (using the programmer UPK 300/UPKMimi or the receiver MRK950/MRK960).



We provide the device with some preset configurations specifically designed for certain types of microphone or applications (it's possible to change these presets in any time using the TX manager). All parameters can be "left unchanged", "changed" or "changed and lock", allowing a very flexible way to pre-program MTH400 configuration.

<TUNING> menu

This menu can be entered by scrolling selector or using *quick channel setup* button (ch).



<AUDIO> menu

This menu can be entered by scrolling selector or using <u>quick gain setup</u> button (gain).

RUDIO AF Gain -12 dB -42 -18 -6dB reak RUDIO AF Level -02 dBu -42 -18 -6dB reak	The sensitivity of the audio input is settable between " AF Gain " (measured in dB) or " AF Level " (measured in dBu). To help proper audio gain setting, an audio bar is supplied (with maximum peak indicator) indicating the headroom to audio peak (0 dB, nominal deviation 40KHz). Set the gain, with the maximum input signal, avoiding the peak on the audio bar. TRY TO SETUP TO HAVE A MAX PEAK HOLD BAR CLOSE TO -6dB .
FW010 +00 dB	Using quick gain setup buttons (< GAIN >), it is possible to enter quickly in the audio gain menu. Note that the menu has a different layout (see the side image)
FUOIO Phase: ذ HP Filt.: 60Hz	The second <audio> menu allows to set: - audio phase (0° or 180°) - High Pass filter (Flat, 60, 80, 120, 170, 250, 400 Hz)</audio>
AUDIO Noise R.: <u>ENR-Wisy</u>	 The third <audio> menu allows to set the noise reduction:</audio> <u>ENR-Wisy</u>: designed for maximum noise reduction <u>ENC-Wisy</u>: designed for maximum audio fidelity (use this in case of special vocal application or to remote instruments)

NOTE: To show the three menu screen it's necessary to scroll down with the selector.

<RF/BATTERY> menu

This menu can be entered by scrolling selector.

	RF power can be setup to 10mW, 20mW, 50 mW or 100mW (depending on the Power profile).
DC (DOTTERU	If it's selected "10mW", in the top right on the STATUS menu
	appear "RF10".
RF Fower: <u>09</u> jmm RF Fower:09 jmm RF Fower:09 jmm	If it's selected "50mW", in the top right on the STATUS menu appear "RF50".
	If it's selected "100mW", in the top right on the STATUS menu appear "RF100".
	Battery type can be setup in Alkaline, NiMH or Lithium.

<LED> menu

This menu can be entered by scrolling selector.

Led Light: 16 Led Mode: ModPeak	Power switch green LED brightness can be setup \rightarrow Led light (from
	0 to 16).
	Led Mode setting define when the LED on the power switch (see
	Fig. 3) have to become RED:
	- None: never,
	- ModPeak: when audio get close to saturation)
	- PTT: when the PTT button is pushed

<MIC> menu

This menu can be entered by scrolling selector.

MIC	4 different PTT mode can be selected: Disable, Normal, Muting,
PTT: <u>Disable</u>	No Data.

<NAME> menu

This menu can be entered by scrolling selector.

	In this menu it's possible to see the frequency set on the device
NAME Free 618.000 MHz	and the name of the transmitter.
Actor_01	It's possible to enter on this menu also pressing at the same time
	the CH/GAIN buttons (B+C)

<INFO> menu

This menu can be entered by scrolling selector.

	In this menu it's possible to see:
	- FW version
INFO FW:130_0A HW: 2	- HW version
SN: T0940359 BW: 1	- Serial number
BL: 101C OPT:	- Bandwidth
	- Bootloader version
	- Option

<IRDA> menu

This menu can be entered by scrolling selector.

	While there is this menu, the device can be connected to IRDA for		
IRDA	setup or firmware upgrades.		
IRDA Enabled	Note: if the IRDA interface is enabled and there's no		
	communication for around 10 seconds, the IRDA interface is		
	automatically turned off.		

On power on the device, the IRDA interface is enabled for 14 seconds.

<LOCK> menu

This menu can be entered by scrolling selector.



Long pressing (2 sec.) selector button (**click**) it locks MTH400 in transmission mode. To unlock, long pressing (2 sec.) selector button again.

<BOOTLOAD> menu

This menu can be entered by turning on the transmitter while pushing **at the same time** the <u>quick</u> <u>channel setup button</u> **<CH>** or connecting the device via IRDA using the IR Programmer for FW update

BOOTLOAD

Device is forced in bootloader mode to allow **FIRMWARE UPDATE**.

The following table sums up which parameters can be set and the related range settings.

MENU	PARAMETER	MEANING	RANGE SETTINGS	
	СН	Channel	0 ÷ 59	
	GR	Group	0 ÷ 39 + SYNC GROUP	
TUNING	Freq	Frequency	It depends on the MTH400 Model: See technical spec. and variants for further details	
	AF Gain AF Level	Gain of the audio signal	-40dB ÷ +40dB step of 1dB -54dBu ÷ +26dBu step of 1dBu	
AUDIO	Phase	Audio signal phase	0° or 180°	
	HP	High Pass filter	Flat/60/80/120/170/250/400 Hz	
	Noise R.	Noise reduction	ENR: Wisycom Extended-NR, noise optimized ENC: Wisycom Extended-NC, voice optimized	
RF/BATTERY RF Power RF Power 10mW o (depend		10mW or 20mW or 50mW or 100mW (depending on the power profile)		
	Battery	Battery type	Alkaline, NiMH or Lithium	
LED	Led Light	Power switch green brightness	0÷16	
	Led Mode	It defines when the power switch led (see Fig. 3) has to become RED	None: never ModPeak: when audio get close to saturation PTT: when the PTT button is pushed	
МІС	PTT Mode	It defines how and what information the transmitter has to send	Disable: when the PTT button is pushed, nothing happen. (the transmitter sends AF+Tone squelch) Normal: when the PTT button is pushed, the transmitter send a different RF signal. According to the receiver configuration the audio can be enabled/disable on LINE (and/or COM). Muting: the transmitter doesn't send the audio. The voice is cut, it doesn't enter to the microphone No Data: the transmitter sends neither tone squelch nor battery data.	

HOW TO USE WISYCOM TX MANAGER (v.1.1.5 OR ABOVE)

Wisycom TX Manager allows to read, modify and update the configuration of Wisycom transmitters. It is necessary to

- connected the programmer UPK300E/UPKMimi or the receiver MRK950/MRK960 to the PC thru <u>USB connection</u>
- run the Wisycom TX Manager
- enable the IRDA communication on the transmitter (see IRDA menu)

NOTE: Wisycom IR Programmer doesn't work whit MRK950/MRK960 if it is connected to the PC using an Ethernet cable.

The Wisycom IR Programmer's window is divided in 4 parts (see the image below):

1 Interface and Device panel contains all the major information of the connected device

Current Settings panel shows the current configuration. Thanks the PRESET panel, a previous saved configuration can be chosen and loaded like current setting.

3 Tuning Frequencies panel allows to handle Groups, Channels and Frequencies

4 Presets panel allows to read, change and save different configurations

SWisycom TX Manager - 1.1.5			
Interface UFK300 UFK300 Interface Connection IR Activity	Current Settings Preset Preset Name PRESET5 Chi: [03] Chi: [0	Tuning Frequencies Lock Hidden	Presets Presets Soloct Preset05 Name PRESETS SAVE Lock Turning Lock OH: 00 ▼ GR: 00
Device	Audio	00 570.000 lock 01 578.000 lock 02 586.000 lock	Freq. 570.000 MHz Audio Ether: 5/Hz Juck:
	Noise Red.: ENR-Wisy Hidden:	03 594.000 lock 04 602.000 lock 05 610.000 lock	Noise Red ENR Wisy Don't Care
MTH400	AFIn Gain ▼ 1-3 S Hidden: Limiter: Min / PTT	06 618.000 lock 07 626.000 lock 08 634.000 lock	[d8] 1 *** Uon't Lare:]
Serial #: R4528525 Channels: 81 Groups: 40	Mic Mode: Lock: Hidden: Phase: 0* Lock: Hidden:	09 642.000 lock 10 650.000 lock 11 658.000 lock	Mic Mode: Lock: Don't Care: Phase: 0° Z Don't Care:
Range: 566-798 PLL Step 25.000 kHz	PTT: muting Lock: Hidden	12 666,000 lock 13 674,000 lock 14 682,000 lock	PTT: disabled Don't Care:
Opt: BoofVer: MTH400 101D	Type: Akane Hidden	15 630.000 lock 16 638.000 lock	Power: 50 mW Look:
TXname: Singer 1 Menu Info Hidden: 🔽 EDIT: LOCKED	LED Switch Led Mode: mod. peak Viden Led Light: 16 Lock: Hidden	SAVE Load Out Freq. (lock->Hidden) LOAD Al groups Save legacy (no lock/hidden)	LED Switch Led Mode mod. peak _ Den't Care. Led Light 8 _ Den't Care.

10 different configurations are available:

- FACTORY configuration is a locked configuration: no parameter can be changed.
- USER configuration is the only configuration that can be saved using the OLED display (see <PRESET> menu). Note: It is not possible to change the name of this configuration.
- Other 8 configurations where the user can change both the name and the values of all parameters.

INTERFACE AND DEVICE PANEL (1)

At the beginning, the program checks which IR devices are detected and they appears on the **Interface** panel.

The user has to select the device and push <connect> button in order to open the communication with the IR device. A picture on the top in the Interface panel help the user in this selection showing the type of devices detected. During this process the "IR activity" led blinks to indicate that the program wait connection's answer from the IR device.

A successful connection is signaled with the "interface connection" green led, while a failed connection is signaled with the "communication error" led.

Once a supported device is found, the software automatically reads all the data related to the remote configuration, as well as the frequencies that are pre-programmed.

Firstly, in order to avoid unwanted operation, no parameters can be changes and the EDIT button, presents on the bottom of **Device** panel, is yellow and set to **LOCKED** state. Pushing the EDIT button, it becomes grey and sets to **UNLOCKED** state to indicate that the configurations can be modified.

In this panel it's possible to assign a name to the TX (not available for FW v.1.22.0F or previous). Under this parameter, there is a flag to hide the info menu on the TX (not available for FW v.1.22.0F or previous)

CURRENT SETTINGS PANEL (2)

In the Current Settings panel the user can

with Preset panel → load one of the 10 available configurations

Preset				
^o reset:	USER	-	SET	Hidden: 🕅
Name:	USER			_

with other panels → modify all the configuration's parameters (the same that are changeable in the OLED display). Each parameter can be locked or hidden clicking the related lock/hidden button, so the set value cannot be changed next or cannot be visible on the OLED display.

ATTENTION: All the modifies applied to the Current Settings panel are instantaneous: they are applied directly to the device and save in its memory <u>but no saved in the preset configuration</u>.

TUNING FREQUENCIES PANEL (3)

With the Tuning Frequencies panel the user can select a frequencies group (0÷39) and for each one execute the following operations:

- modify the Group's Name
- lock and/or hidden the group
- for each channel (0 ÷59) of the selected group: change the frequency value and the related status (locked/hidden) (in the center grid frequency)

Group: 01

Tuning Frequencies

Lock:

The SAVE button, at the top of the panel, save the changes of the group selected (name group, lock/hidden group).

To change a frequency value for a specific channel: double click on the grid frequency panel (row=channel's number), insert the new frequency value and press OK button.

			Name:	GROI	JP01		54	AVE
СН	Frequency	Lock	Hidden	^			СН	Frequenc
00	630.000						00	630.000
01	630.000						01	630.000
02	630.000	1 double c	lick				02	630.000
03	630.000 📝						03	630.000
04	630.000		Froque	ancu	×		04	630.000
05	630.00	e	riequi	cricy			05	630.000
06	630.000	Insert freque	ency value (ra	ange 63	80-750 MHz)		06	720.000
07	630.000	Step 25.000	ikHz 🌈	n (C	sert freq value		07	630.000
08	630.000	Frequency:	720	<u>س</u>	MHz		08	630,000
09	630.000							
10	630.000			OK	cancel	· · ·		
11	630.000		· · · · ·	٨	II			
12	630.000		0					
13	630.000		(3)pre	ss OK				
14	630.000		-					
15	630.000			×				

СН	Frequency	Lock	Hidden	1	To lock/hide a specific channel,
00	630.000				double click on the grid frequency
01	630.000			double click to LOCK the channel	nanol
02	630.000	lock 🗲	hidden		pariei.
03	630.000			double click to HIDE the channel	

NOTE: keeping pressed the CTRL button on the keyboard and clicking the wanted channel/group shown on the frequencies grid, the tuning process is executed. It is equivalent to configure the Tuning in the Current Settings panel but it is easier. The device is re-tuned immediately, so be sure that the RF power is turned off while changing frequencies with other RF systems in use around you!

If the currently tuned channel is on the same group that is listed on the grid, the background color of the related cell (channel) on the grid becomes yellow.

Preset Preset: FACTORY SET Name: FACTORY Tuning	Tuni Grou Nam	ng Frequencies p: 01 💽 e: G OP01	Lock: 🗖 Hidden:	SAVE	
CH: 06 🗲 GR: 01	ы	nieguency	Lock	Hidden	^
Freq: 720.000 MHz	00	630.000			
Audio	01	630.000			
Filter: 65 Hz 🗸 Lock: 🗖	02	630.000			
	03	630.000			
	04	630.000			
	05	630.000			
AF In Ga		720.000			
LE LETT		-	_		-

Using the LOAD/SAVE button, at the bottom of the panel, it is possible to **load/save** the frequencies for the selected group from/to a .wdf file. To save the frequencies of all the groups click to the related button above. The legacy option save the channels without the hidden/lock info.



PRESETS PANEL (4)

The Preset panel allows to manage all the 10s available configurations. For each configuration it is possible to set the name and all the parameters value except for FACTORY and USER configurations (see table below).

PRESETS:	NAME*	LOCK/DON'T CARE	PARAMETERS VALUE
FACTORY			
USER			V
OTHERS	V	V	V

√=change is allowed

* Be careful to write a meaningful name for the preset because the name will appear on the settings list of the device menu! Please, avoid empty names.

If a parameter is "locked", it cannot be modified by device menu (using OLED display), while if "don't care" propriety is active, when the user load the configuration, the parameter's value doesn't changed.

ATTENTION: Changes are applied only after a "save" action.

NOTE: *"a trick"* In case of the user have a locked parameter and he is in great need for modify it, he can save the configuration to USER configuration by OLED (see PRESET menu) and then load the USER configuration (in this way all the parameters have the lock propriety disable and the user can modify all the parameters).

FILE MENU



Using a file menu at the top left of the panel it is possible to **load/save all the configuration** values of the device to/from a .wcf file (Wisycom Configuration File).

Save a .wcf file

With an infrared device correctly connected, select File->Save User Configuration and select the destination file.

Load a .wcf file

To load a user configuration select File->Load User Configuration and select a previously saved data file; a form will be shown, where it's possible to select which data has to be restored and which skipped. This allow the user to load a particular configuration while keeping other data.

TECHNICAL SPECIFICATIONS

Switchable channels	2400 allocated by 40 groups of 60 channels (in specific frequency range), quickly selectable with dedicated buttons						
Switching window	Up to 232 MHz, depending on band (see Variants on the next page)						
Frequencies	Quartz PLL frequency synthesizer circuit (25 kHz step)						
Frequency stability	• ± 2,5 ppm (in the rated temperature range)						
Temperature range	-10 ÷ +55 °C						
	 10mW (ERP) (to respect some local norm) 						
Max RF power	• 20/50/100 mW (ERP) (note: in some countries middle power can be disabled, for loca norm!)						
Spurious emissions	< 2 nW						
Modulation	wideband FM with pre-emphasis						
Nominal deviation	±40 kHz (Peak deviation = ±56 kHz)						
	MTH400 transmits also a digitally modulated sub-carrier, suitable for:						
Telemetry feature	 tone-squelch remote battery optional PTT (push 						
	operating monitoring to talk) operation						
AF input connection	Directly interchangeable microphone-heads						
AF input level 60 dB adjustable range from -54 to +6 dBu at peak deviation (1 kHz), adjustable steps							
Max. input level	+26 dBu						
Max sound pressure	150 dB SPL (0,5% THD), with MCM301/MCM302/MCM303/MCM304/MCM305 condenser-heads						
Noise-Reduction	se-Reduction ENR (Wisycom Extended-NR), with independent Attack- and Recovery-time, noise optimized ENC (Wisycom Extended-NC), with independent Attack- and Recovery-time, voice optimized & with reduced pre-emphasis						
AF bandwidth	45 Hz ÷ 21 KHz (3dB) 55 Hz ÷ 20 KHz (1dB)						
Distortion	< 0.3 % (0.15 % typ.)						
Signal-to-noise ratio typ. 115 dB (A) _{rms} with 40kHz deviation typ. 121 dB (A) _{rms} with 56kHz deviation							
Led	 Led indication with bicolor led (red & green) on wireless power switch: Wireless transmission status: GREEN on/off Modulation peek (if activated): RED Battery lifetime status: GREEN <u>steady</u> (> 25%) - <u>slowly blinking</u> (< 25%) - <u>guickly blinking</u> (<12%) Ptt status: RED if active 						
Display	High contrast OLED (Organic light-emitting diode) display (96 x 36 pixels) 8 step battery lifetime indication: 7 <u>bars</u> (100%-87%-75%-63-50%-38%-25%) and " <u>empty</u> <u>bar</u> " quickly blinking (12% remaining)						
Power supply	2 AA size cell (Alkaline, rechargeable NiMH or Lithium)						
MTH400 Battery life (2AA alkaline)	 approx. 14 hours @ 10mW continuous working approx. 10 hours @ 50mW continuous working approx. 7 hours @ 100mW continuous working 						
Dimensions	\Rightarrow body max. diameter 33 mm (without microphone-head) \Rightarrow total length 183 mm (without microphone-head)						
Weight Approx. 300g, including battery and MCM3xx (condenser) mic-head (appr batteries excluded) batteries excluded)							



Note: unit is mm

<u>POWER PROFILE & COUNTRY</u> FREQUENCY RANGE:

EU max power 50mW (Europe) WV1 / EUX max power 100mW (Europe) US max power 50mW, limited to 698MHz (USA & Canada) USX max power 100mW, limited to 698MHz (USA & Canada) US8 max power 100mW (USA) IP max power 100mW, limited to 714MHz (Japan) N2 max power 100mW, limited to the range 502÷698MHz (New Zealand)

VARIANTS:

COLOR
 body color titanium gray (ceramic coating)
 body color black (powder coating)

FREQUENCY RANGE

- **B5** 470-654 MHz
- B2 566-798 MHz
- **B3** 510-698 MHz
- B8 940-960 MHz

Compliance

Model	In Compliance with	Max Power	Country
MTH400 MTH400-EU	EN 301 489-1/-9 EN 600065 EN 300 422-1/-2	50mW	Europe C €
MTH400-0W1 MTH400-EUX	EN 301 489-1/-9 EN 600065 EN 300 422-1/-2 EN 300 454-1/-2	100mW*	Europe C€
MTH400-US	FC PART 74 FCC-ID: POUMTH400 RSS-123, RSS-102 IC: 11967A-MTH400 Limited to 698MHz	50mW	USA, Canada
MTH400-USX	FC PART 74 FCC-ID: POUMTH400USX RSS-123, RSS-102 IC: 11967A-MTH400USX Limited to 698MHz	100mW	USA, Canada
MTH400-US8	FC-ID: POUMTH400US8 Limited to 941.50-952.00MHz, 952.85-956.25MHz, 956.45-959.85MHz	100mW	USA
MTH400-JP	Eimited to 714 MHz	10mW d in the battery compartment	Japan
MTH400-NZ	EN 300 422-1/-2 EN 300 454-1/-2 Limited to the range 502÷698MHz	100mW	New Zealand

* MTH400-0W1/MTH400-EUX is not an SRD device, it requires specific authorization by your local frequency authority! **Note**: The above technical specifications refer to the MTH 400 "transmitter" section. The acoustic specs are relevant to the microphone-head used. The MTH 400 transmitter complies with ETSI 300 422.



MANUFACTURER DECLARATIONS

In compliance with the following requirements

RoHS Directive (2002/95/EC)



WEEE Directive (2002/96/EC)

Please dispose of the diversity transmitter at the end of its operational lifetime by taking it to your local collection point or recycling center for such equipment

Battery Directive (2006/66/EC) The supplier batteries or rechargeable b

The supplier batteries or rechargeable batteries can be recycled. Please dispose of them as special waste or return them to your specialist dealer. In order to protect the environment, only dispose of exhausted batteries.

FCC Conformity

This device complies with Part 74 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operations.

Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC ID can be found near the battery compartment (unscrew & slide down the cover).

FCC ID: POUMTH400 option US

FCC ID: POUMTH400USX option USX

FCC ID: POUMTH400US8 option US8

Industry Canada Conformity

ΕN

This device complies with Industry Canada RSS-123. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

FR

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio RSS-123. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

ITALY ONLY

Obblighi di informazione agli utilizzatori

ai sensi dell'art. 13 del Decreto Legislativo 25 luglio 2005, n. 151 "Attuazione delle Direttive 2002/95/CE, 2002/96/CE e 2003/108/CE, relative alla riduzione dell'uso di sostanze pericolose nelle apparecchiature elettriche ed elettroniche, nonché allo smaltimento dei rifiuti"

Smaltimento di apparecchiature elettriche ed elettroniche di tipo professionale



Il simbolo del cassonetto barrato riportato sull'apparecchiatura o sulla sua confezione indica che il prodotto alla fine della propria vita utile deve essere raccolto separatamente dagli altri rifiuti.

La raccolta differenziata della presente apparecchiatura giunta a fine vita è organizzata e gestita dal produttore. L'utente che vorrà disfarsi della presente apparecchiatura dovrà quindi contattare il produttore e seguire il sistema che questo ha adottato per consentire

la raccolta separata dell'apparecchiatura giunta a fine vita. L'adeguata raccolta differenziata per l'avvio successivo dell'apparecchiatura dismessa al riciclaggio, al trattamento e allo smaltimento ambientalmente compatibile contribuisce ad evitare possibili effetti negativi sull'ambiente e sulla salute e favorisce il reimpiego e/o riciclo dei materiali di cui è composta l'apparecchiatura.

Lo smaltimento abusivo del prodotto da parte del detentore comporta l'applicazione delle sanzioni amministrative previste dalla normativa vigente.

Smaltimento batterie usate



Questo prodotto può contenere batterie. Questo simbolo apposto sulle batterie significa che non possono essere smaltite insieme a normali rifiuti domestici, bensì devono essere depositate negli appositi punti di raccolta delle batterie.

Iscrizione al Registro A.E.E. n. IT0910000006319

DECLARATION OF CONFORMITY

DICHIARAZIONE DI CONFORMITA' DECLARATION OF CONFORMITY

Il sottoscritto, rappresentante il seguente costruttore The undersigned, representative of the following manufacturer

WISYCOM S.r.I. via Spin, 156 - 36060 Romano d'Ezzelino (VI) - Italy

DICHIARA che l'apparecchiatura descritta in appresso: DECLARES that the product: Descrizione Handheld trasmitter Description Modello Mth400

è conforme alle disposizioni legislative che traspongono le seguenti direttive:

- direttiva 2004/108 CE (Direttiva EMC)
- direttiva 2006/95 CE (Direttiva Bassa Tensione)
- direttiva 99/5 CEE (Direttiva Apparecchiature Radio)

is in accordance with the following Directives:

- 2004/108 EC Directive (EMC Directive)
- 2006/95 EC Directive (Low Voltage Directive)
- 99/5 EEC (Radio Equipment Directive)

e che sono state applicate tutte le norme e/o specifiche tecniche di seguito indicate and that all the following standards have been applied

EN 60065:2002 + A1:2006 + A11:2008 + A2:2010 + A12:2011 EN 301 489-1 V1.9.2 EN 301 489-9 V1.4.1 EN 300 422-2 V1.3.1

Luogo Place	Romano D'Ezzelino
Data Date	25 July 2012
Firma Sign (nome o funziono) (name and title)	Franco Maestrelli WISYCOM s.r.l. Franco Maestrelli Amministretore tanco franco Mae tanco

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MTH400 User Manual		

MTH400 User Manual





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