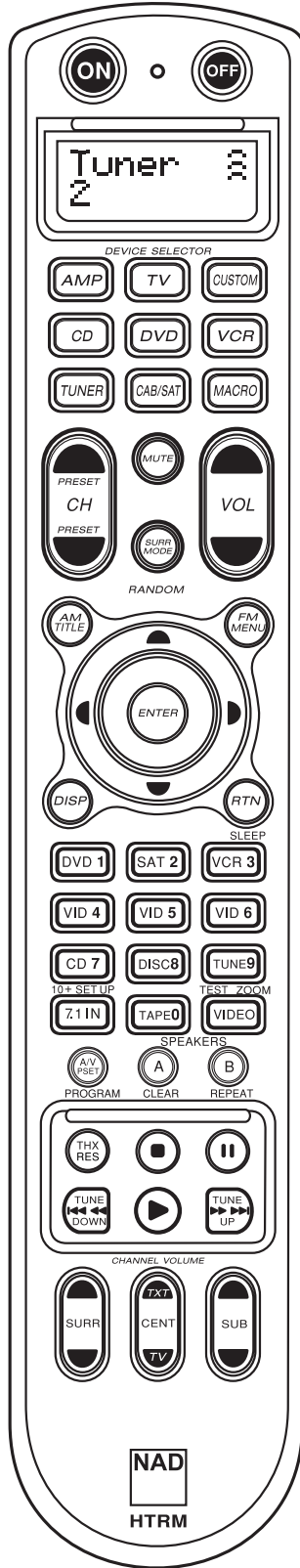


NAD[®] HTRM

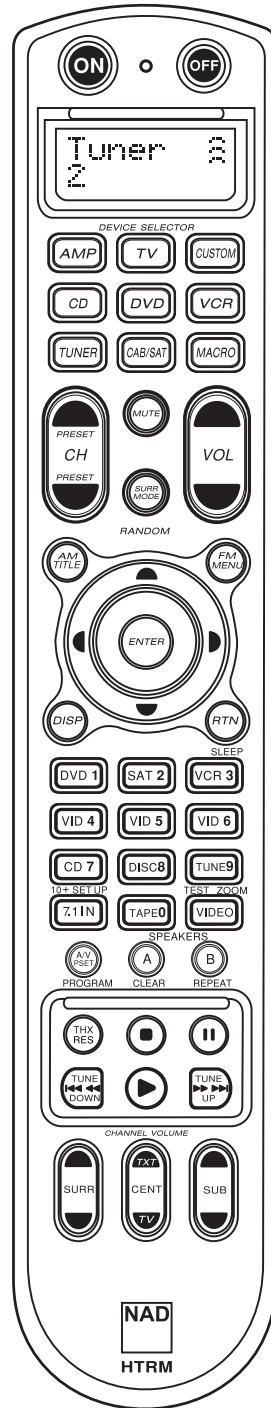
Learning Remote Control

ENGLISH



IDENTIFICATION OF CONTROLS (FIG.1)

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- Top section features **ON/OFF** buttons and back-light LCD display.

- Upper section has eight **DEVICE SELECTOR** keys including one programmable **CUSTOM DEVICE SELECTOR**, one **MACRO** buttons.

- The upper middle section with channel, volume, **MUTE**, surround-mode buttons

- Middle section has DVD, CD and OSD navigation buttons

- Lower middle section has number buttons **0** to **9**, **A/V PSET**, **SPEAKER**, function, DVD **SETUP**, and receiver's Surround Mode **TEST** buttons

- Lower section has DVD/CD/TAPE Transport buttons

- Bottom section with **CHANNEL VOLUME** trimming buttons

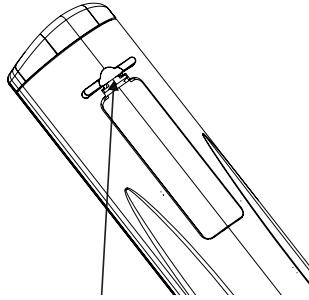
WHAT'S IN THE BOX

Packed with your HTRM you will find:

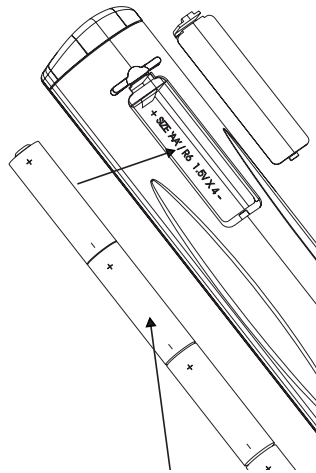
- The HTRM System remote control with batteries.
- USB B male 5-pin cable.
- This Owner's Manual.

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a division of Lenbrook Industries Limited
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a division of Lenbrook Industries Limited

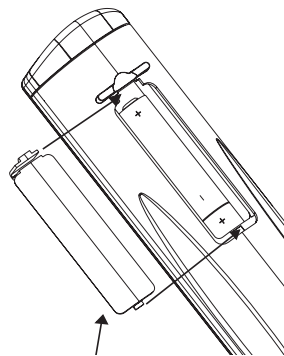
BATTERY INSTALLATION (FIG.2)



PRESS IN AND LIFT TAB TO REMOVE
BATTERY COVER OUT FROM RECESS

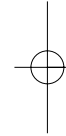
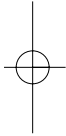


PLACE BATTERIES INTO OPENING. ENSURE
THE CORRECT POLARITY IS OBSERVED



PRESS BATTERY COVER INTO
PLACE UNTIL IT 'CLICKS' CLOSED

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INTRODUCTION

The HTRM is like having eight virtual remote controls in one. The eight **DEVICE SELECTOR** keys can be used to switch between the different virtual remote controls or devices.

When the HTRM is idle, the name of the currently selected device will be shown on the first line of the LCD display. Whenever a function key is pressed, the name of that function will be shown on the second line of the LCD display. The second line will be cleared again shortly after releasing the function key.

THE HTRM HAS A TOTAL OF 53 KEYS:

- Controls up to 8 Devices
- 2-line LCD display indicates selected Device (DVD) and sent Command (PLAY) (for example)
- Preprogrammed with all NAD remote commands including Zone 2
- Learning function - learns up to 360 commands from other remotes
- Macro operations - program up to 52 Macros with as many as 64 commands each to automate commonly used command sequences
- Punch Through Operations permit easy access to commonly used functions without reselecting a device
- Full illumination with light sensor and adjustable time out for easy operation in low light conditions
- Can generate IR signals with a carrier frequency up to 500 kHz (B&O® compatible)
- Mini USB PC Interface allows programming from a Personal Computer

The HTRM is already preprogrammed with a full complement of NAD commands on its **AMP DEVICE SELECTOR** page, and with library commands to operate most NAD DVD, CD, TUNER, or TAPE components on the corresponding **DEVICE SELECTOR** keys. These default commands are permanent: Even if you teach the HTRM new commands to take their place, the underlying library commands remain in place and can easily be recalled should you add an NAD component to your system later.

GETTING FAMILIAR WITH THE HTRM

The HTRM is divided into three main sections. The LCD display section at the top of the handset, the **DEVICE SELECTOR**, and the remaining 44 Control keys. (see Figure 1)

Eight **DEVICE SELECTOR** keys at the top; **AMP**, **TV**, **CUSTOM**, **CD**, **DVD**, **VCR**, **TUNER**, and **CABLE/SAT** determine which component the remaining 44 control keys will operate. A **DEVICE SELECTOR** key determines what component the HTRM will command; with factory defaults, it does not perform any function on the receiver. The **DEVICE SELECTOR** keys are organised into three vertical rows of 3 buttons each; the row on the left are all Audio devices, the row in the center are all Video devices.

Both the **DEVICE SELECTOR** and function keys that can "learn" control codes from virtually any infrared remote controller, allowing you to teach the codes of your equipment, regardless of brand, to the HTRM. All of the function keys on the **AMP DEVICE SELECTOR** are preprogrammed to control NAD amplifiers, preamplifiers, and receivers. (The HTRM can also command many other NAD components, from its **DVD**, **CD**, **TUNER** and **TV** pages.)

Since HTRM Control keys can perform different functions, depending on the selected **DEVICE SELECTOR** key, the HTRM uses colour coding to indicate the function of the function keys when different device keys are chosen. Thus, the colour of the **DEVICE SELECTOR** key-labelling corresponds to the labelling of the function keys (similar to a calculator).

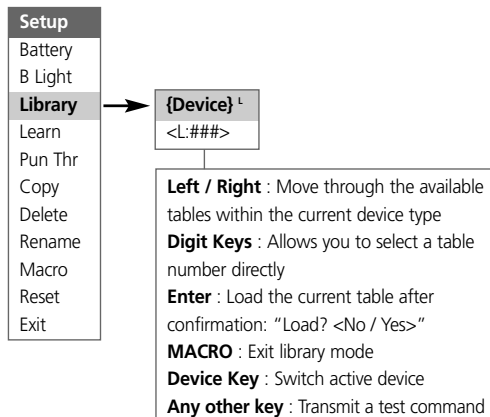
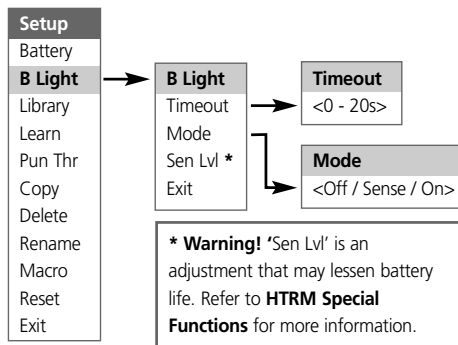
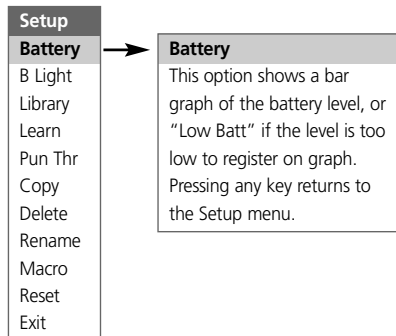
For example, the red-grey **AMP DEVICE SELECTOR** key label corresponds to the grey input-select labelling adjacent to the numeric keys: When the HTRM's **AMP DEVICE SELECTOR** page is active, these keys select the amplifier or receiver inputs. Similarly, the red **DVD DEVICE SELECTOR** key label corresponds to several red labels, the green **TV DEVICE SELECTOR** key to green labels, and so on.

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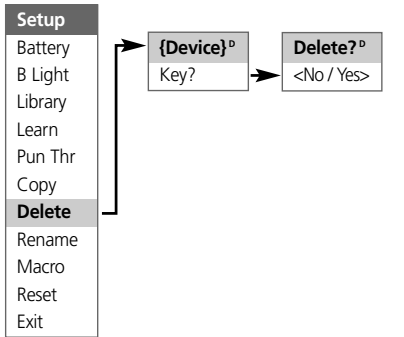
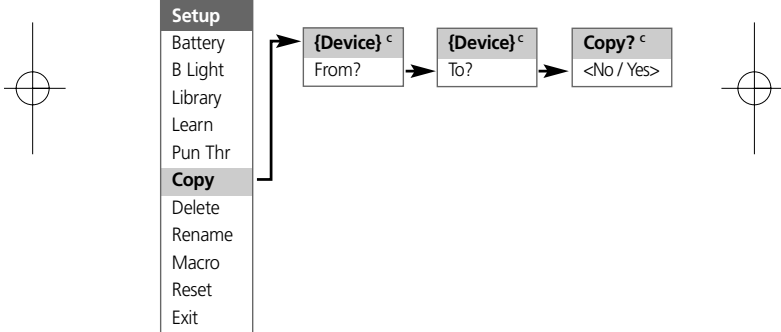
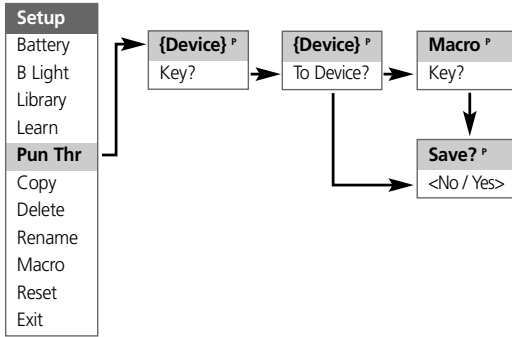
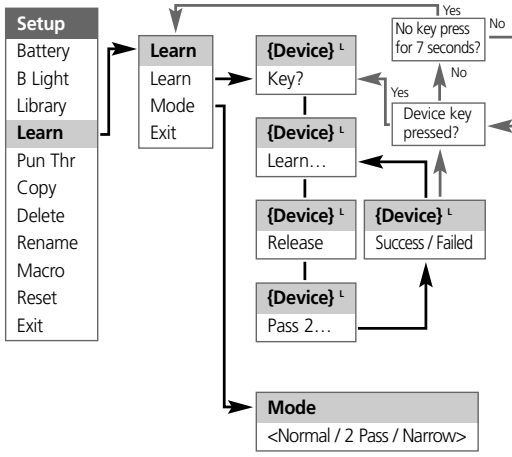
HTRM SETUP MENU

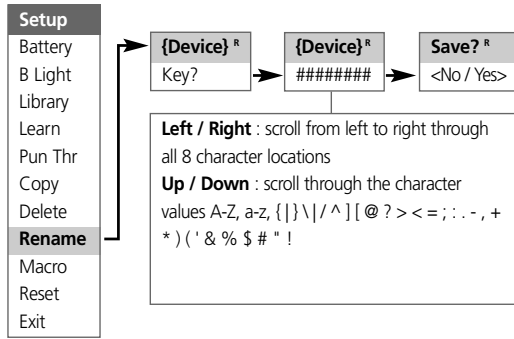
GENERAL MENU OPERATION

- Press and hold SETUP+ ENTER for 5 seconds to enter setup menu.
- The MACRO key is a cancel function in all setup modes unless otherwise noted.
- You can exit menus by selecting Exit or pressing the MACRO key.
- Use Up and Down cursor keys to select different menu items. An Up/Down arrow will be shown on the display when this action is available.
- For options which can be changed, the Right and Left keys are used to cycle through the available options. Left and Right arrows will be shown on the display to indicate when an option can be changed.
- Press ENTER to select a menu option or confirm a value.

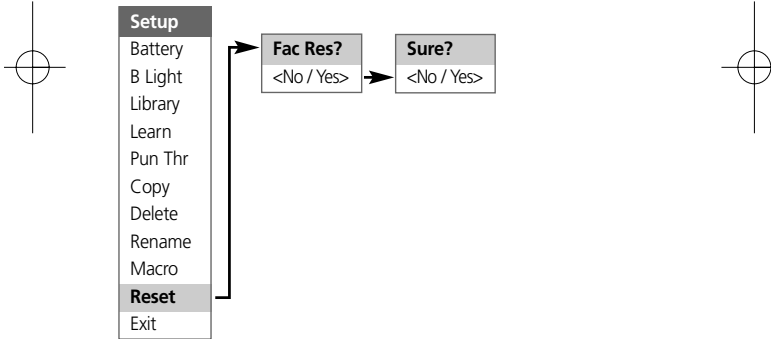
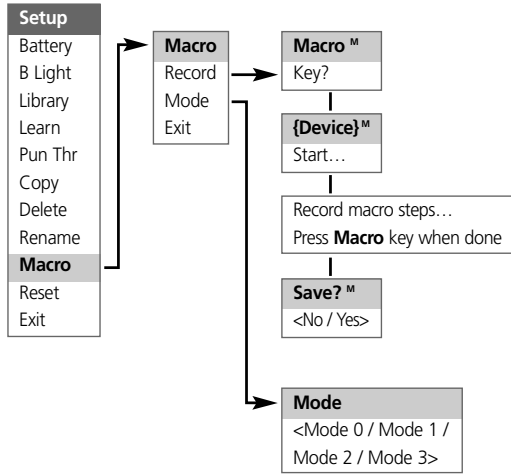


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BACKLIGHT

The HTRM is equipped with a backlight to increase visibility of the HTRM in low light conditions. The HTRM also includes a light sensor. By default, if you press any key on the remote and it senses a low light condition, the back light will turn on. It will then turn off again five seconds after no key has been pressed.

The behaviour and timeout for the backlight can be adjusted. (Refer to the "HTRM Features" for further information.)

LOW BATTERY WARNING

If the HTRM senses the batteries are low, it will show "Low Batt" on the second line of the LCD display whenever the remote is idle. When this occurs the batteries should be replaced with new ones immediately.

DEVICE SELECTOR KEYS

Simply pressing a **DEVICE SELECTOR** key will change the active device on the HTRM. At this time, no IR commands will be transmitted. The name of the selected device will be shown on the first line of the LCD display.

Note: Any IR command can be associated with a DEVICE SELECTOR key during "Copy" and "Learn" modes. Once the associated function is assigned to the DEVICE SELECTOR key pressing and holding the DEVICE SELECTOR key for more than two seconds will send the associated command in addition to the HTRM switching its active device.

NAVIGATION OF THE HTRM CONTROLS**MACRO KEYS**

A macro can be associated with every key on the HTRM except for the MACRO button itself. A total of 52 macros can be stored.

To execute a macro:

- Press the **MACRO** key. The first line of the LCD display will show "MACRO".
- Within five seconds, press the key the macro is associated with.
- While the macro is executing a small "M" will be shown in the top right of the LCD display. (refer to the Setup Menu section for information on how to setup macros)

FUNCTION KEYS

There are 44 dedicated function keys on the HTRM. When you press a function key, the name of the function will be shown on the second line of the LCD display while the command is being transmitted.

A/V PSET KEY

In the default configuration of the HTRM, the **A/V PSET** key acts as a shift function when the AMP device is selected. Pressing the **A/V PSET** key once will cause "Preset" to be displayed on the first line of the LCD display. If within five seconds you then press a digit 0 - 9, the function for the corresponding AV Preset will be transmitted.

Note: The HTRM is an universal-type remote control, some NAD receivers may not have more than 5 AV presets.

SETUP MENU

Press and hold the **SETUP** and **ENTER** keys for five seconds to enter the Setup Menu. You cannot enter the setup menu if the remote is currently displaying "Low Batt". This feature prevents the setup from becoming corrupted under low battery conditions. Please refer to Setup Navigation for the overall structure and basic operation of the Setup Menu.

HTRM FEATURES

BATTERY

Instead of waiting until the "Low Batt" warning is displayed, you can check the current battery level using this option. This option will show a bar graph representing the current battery level. When the batteries are new, the bar graph will show 8 bars, Once the bar graph reaches close to zero, the "Low Batt" warning will start to show.

BACK LIGHT SENSITIVITY (B LIGHT)

The backlight timeout can be set from 0 - 20 seconds. This is the length of time the backlight stays on after releasing the last key.

The following backlight modes are available:

- Off - The backlight will never come on.
- Sense - The backlight will only come on if the light sensor detects low light conditions.
- On - The backlight will come on any time a key is pressed.
- Sense Level - The point where the back light comes on in a darkened room

LIBRARY

This function allows you to set all the function keys for a device to the functions stored in the included library tables.

LEARN

This function allows you to learn IR commands from another remote. To learn a function into a **DEVICE SELECTOR** key press the desired **DEVICE SELECTOR** key momentarily and then press and hold the same key for more than two seconds.

PUNCH THROUGH

There are two types of punch through functions.

The first type allows a function key to punch through to another device. For example, by default, the volume keys for the DVD device punch through to AMP.

The second type allows you to punch through to a stored macro. This provides a way to execute a macro with a single keys press.

If a macro step includes a key which has a punch through to another macro, the punch through is not used. This is to prevent circular macros that would never end. Instead of the punch through, the underlying function of the key will be used when the macro is executed. This allows you set a single key press macro for a key without losing the original functionality of that key. For example; you could record a macro which includes AMP power on, TV power on and DVD power on and then have the AMP power on button activate this macro.

COPY

This function allows you to copy functions from one key to another. If you want to select a **DEVICE SELECTOR** key for either the "From?" or "To?" you must press and hold the key for two seconds. Just pressing the key momentarily will only change the active device.

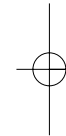
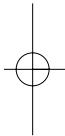
DELETE

Each key can have several functions types stored. However, only the highest priority type will be active. When you delete a function, a lower priority function type may become active. To completely erase the functionality of a key, you may need to execute the Delete function multiple times.

For example; if you delete a learned command, a lower priority command may become active.

The order of priority for each function type are:

- Punch Through
- Learned
- Copied Library Command
- Default Library Command



To delete the function from a DEVICE SELECTOR key you must press and hold the key for two seconds. Just pressing the key momentarily will only change the active device.

RENAME

All keys can be renamed except the **MACRO** key. In the RENAME menu, first press the **DEVICE SELECTOR** key then the function key; the second line of the LCD will be blank ready to accept the alpha-numeric characters. Use the navigation arrows to select the alpha-numeric characters, and then press the **ENTER** key. Select "Save" and then "Yes" to store the new name.

Note: *There are a maximum of eight segments available for the alpha-numeric characters.*

MACRO

While recording macros, the HTRM will function as normal except there will be a small "M" in the top right of the LCD display, and IR commands are transmitted the same as during normal operation.

Macros will be executed with the same timing as they were recorded. The length of time each command is sent will also correspond to the length of time the key was held down for while recording.

By default, when a macro is executed, the currently selected device will be returned to what it was before the macro was executed. However, if the very last button pressed while recording a macro is a **DEVICE SELECTOR** key, the device will be changed at the end of executing the macro.

RESET

Selecting this option and answering "Yes" to both confirmations will reset all HTRM options to the factory default values.

Note: *resetting the HTRM to the factory default settings will erase all user configurations, macros, and custom device programming.*

HTRM SPECIAL FUNCTIONS

SOFTWARE VERSION NUMBER

- Press simultaneously the ON + TEST buttons for five seconds to display version numbers.

LIGHT SENSOR CALIBRATION MODE

- Press simultaneously the ENTER + SETUP buttons for five seconds to enter the setup menu. Then scroll down to "B Light", press ENTER, then scroll down to "Sens Lvl" and press ENTER, you are now in the light sensor calibration mode:
- You will see displayed on the first line of the LCD where #### is the reading (0 - 1023) from the light sensor. The second line shows a bar graph representing the reading.
- Press the ENTER key to exit this mode. A confirmation will be displayed. Select "Yes" or "No" to set the new value.

USB INTERFACE

The HTRM allows one to upload and download the configuration through a Windows PC and NAD's Proprietary HTRM programming software. See Figure 3 on how to connect a USB A male to mini USB B male 5-pin cable to the HTRM.

NOTES: *Please log onto www.nadelectronics.com for the latest HTRM interface control software.*

Use a USB A male to mini USB B male 5-pin cable between your Windows® PC and the HTRM.

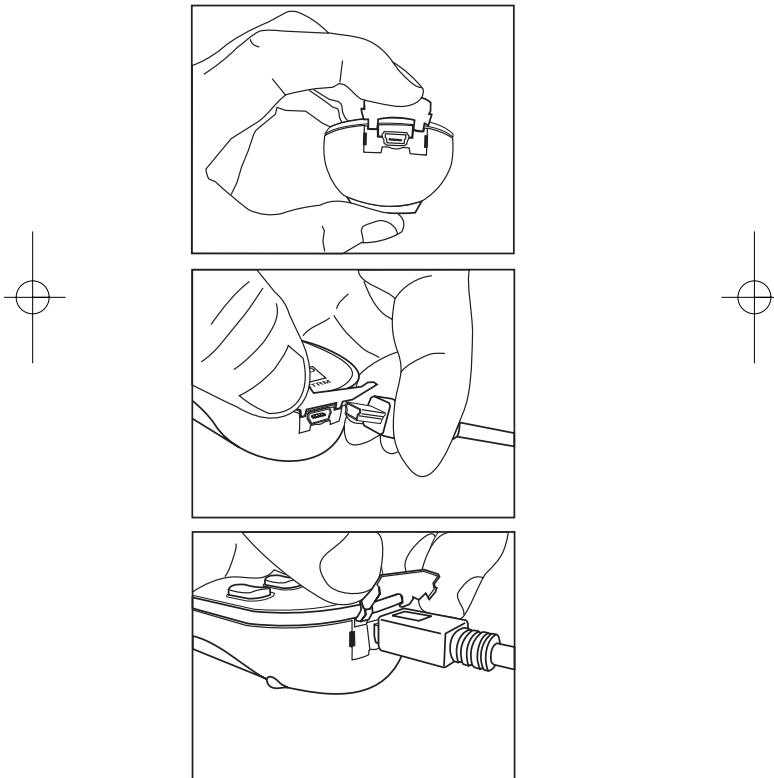
Your custom installer or dealer can assist you in the proper setup and configuration of the mini USB interface and software.

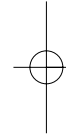
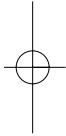
HTRM TABLES

Table	Description
100	Receiver with Discrete On/Off
101	Receiver with Toggle On/Off
102	S170
103	L75
104	2nd Zone
200	CD Player
201	CD Player (old)
300	Tuner
301	L75 Tuner
400	Tape Deck B
401	Tape Deck A
500	TV 270
501	MR13
502	MR20
600	T562
601	T550, L55
602	T531, T571

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USB CONNECTION (FIG.3)





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HTRM Manual 04/06