

M2T

Digital IEM Transmitter

M2T, M2T/E01

M2T, M2T/E01 ND (non Dante)

M2T/E01 - B1C1

M2T/E02

M2T/E06



 Dante®

Dante® is a trademark of Audinate Pty Ltd.



Fill in for your records:

Serial Number:

Purchase Date:

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Introduction

The M2T Digital Half-Rack Transmitter with analog and digital Dante™ network audio inputs presents an excellent sounding IEM system with a unique level of performance in a wireless in-ear monitor system. With ultra-low latency, digital RF modulation and two stereo digital channels, the Duet System provides a truly unique IEM product for demanding, professional applications.

The M2T includes a front-panel USB port for firmware updates and an IR port for fast setup. A large, high resolution, backlit LCD and large membrane switches provide an intuitive interface that is highly visible in daylight or dimly lit conditions.

The half-rack transmitter provides four audio inputs which can be individually configured to be analog or Dante compatible. The input connectors are full size XLR/TRS combo types for balanced line level analog signals. Input preamp circuits use a special balanced amplifier with very high common mode rejection to minimize hum and noise. Analog signals are converted to an internal digital format which is then encoded, organized into packets, and passed to an RF modulator. The modulated RF signal is filtered before and after amplification to suppress out-of-band noise and spurious signals.

Conventional in-ear wireless monitor systems rely on decades-old technology: FM transmission with multiplexed, companded audio. The Duet system employs unique technology to provide ruler-flat frequency response from 20 Hz to 11.5 kHz and maximum channel separation. In addition, the digital audio eliminates a compandor and the associated artifacts. The result is crystal clear sound and extremely low distortion of <0.15%.

In today's world, signal encryption is becoming ever more important. The Duet systems offers both un-encrypted (Duet compat mode) and encrypted (DCHX compat mode) audio encoding. By selecting the DCHX compat mode in your M2Ra, the Duet system offers AES 256 Bit encryption with four different key policies, giving you a wide range of tools for information security.

The M2T is designed and developed with the professional touring, installation, theater and broadcast customers in mind. The transmitter chassis is all-metal. The front panel is an aluminum extrusion with a durable powder coat finish.

What is Dante?

Audinate's patent pending Dante™ technology is a flexible Internet Protocol (IP) and Ethernet based digital AV network technology that eliminates the many bulky cables needed to provide point-to-point wiring for analog AV installations.

With Dante, existing infrastructure can be used for high performance audio as well as for ordinary control, monitoring or business data traffic. Digital networks utilize standard IP over Ethernet offering high bandwidth capable of transporting hundreds of high quality channels over Gigabit Ethernet.

Set-up and configuring the system is made easy as well, saving enormous installation costs and long term cost of ownership on a digital network. The physical connecting point is irrelevant: audio signals can be made available anywhere and everywhere. Patching and routing now become logical functions configured in software, not via physical wired links.

Summary of Dante Benefits

- Plug-and-play technology – automatic discovery and simple signal routing
- Reduced Cost & Complexity- No special skills required to set up audio networking
- Sample accurate playback synchronization
- Add/remove/rearrange components at will
- Deterministic latency throughout the network
- Support mixed bit depths and mixed sample rates over one network
- Scalable, flexible network topology supporting a large number of senders and receivers
- Supports 1Gbps networks
- Supports a single integrated network for audio, video, control, monitoring
- Uses inexpensive, off-the-shelf computer networking equipment

Encryption

The encryption system in Lectrosonics Digital modes D2, DCHX, and HDM may be configured in four different ways, determined by a parameter known as the Key Type. The four key types range from least secure but most convenient, to most secure but least convenient. Below are descriptions of the four Key Types and how they work.

- Universal: This is the default key type, the simplest to use, and the least secure. While encryption is technically being performed and a scanner or simple demodulator would not reveal the signal content, communications are not truly secure. This is because all Lectrosonics products employing the Universal key type use this same "universal" encryption key. With this key type selected, keys do not need to be created or exchanged, and wireless devices can be used without attention to the encryption feature.
- Shared: This is the easiest encryption mode to use while employing a uniquely generated key. This key type offers excellent security and considerable flexibility. Once a key has been created, it can be shared an unlimited number of times with any compatible device which, in turn, can also share the key. This is especially useful when multiple receivers may need to pick up various transmitters.

- **Standard:** The Standard key type offers enhanced security, at the cost of some complexity. Standard keys are “instance controlled”, which allows the hardware to protect against “differential attacks”. A Standard key can only be sent by the device that created it, and only up to 256 times. Unlike with Shared keys, devices receiving a Standard key cannot pass it on.
- **Volatile:** The Volatile key type is the most secure, and also the least convenient to use. Volatile keys behave identically to Standard keys, except that they are never stored. Equipment which is turned off while using a Volatile key will come back on with no key. If a key-generating device is left on, the key can be re-shared with units in the system that have lost their keys. Once all equipment having used a given Volatile key is powered off, that key is effectively destroyed. This may be required in some highly secure installations.

System Setup Procedures

Summary of Steps

- 1) Connect power using supplied DCR15/4AU power supply.
- 2) Power receiver and scan RF spectrum on site.
- 3) Sync Scan to transfer information from receiver to transmitter.
- 4) Tune transmitter to unoccupied channels in scan.
- 5) Sync receiver (refer to receiver manual).
- 6) Turn on transmitter RF.
- 7) Send audio sources to transmitter.

WARNING: Increasing the Pregain can make headphone volume excessively loud. Use caution when setting and using.

M2T, M2T/E01, M2T/E02, M2T/E06 Front Panel



Operating Instructions

IR (infrared) Port

Settings, including frequency, name, limiter, mix mode, etc. can be transferred to and from the M2T, M2T/E01, M2T/E02, M2T/E06 transmitter via this port to an IR enabled receiver to simplify setup.

USB Port

For firmware updates and connection to Wireless Designer Software.

Reset Button

For MCU recovery in the event of an interrupted firmware update.

Headphone Volume Adjustment

Adjust the headphone volume, and select source with A1, A2, B1, B2 buttons.

Antenna Output Jacks

Two standard 50 ohm BNC connectors can be used with whip antennas or coaxial cable connected to remote antennas.

Dante Ports (if Dante module is installed)

Connects to a Dante digital audio network. If the Dante ports on this product are switched ports for daisy chain/loop through configuration. They are not configurable as redundant ports. Do not use on two different networks.

Ethernet Port

Used for setup, monitoring and control with Wireless Designer Software.

Power Inlet

The threaded-locking DC coaxial jack accepts 9-18 VDC and draws 1.2A maximum.

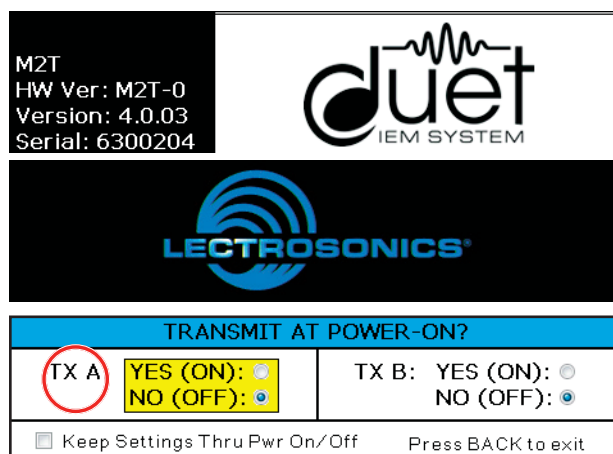
Quick Sync

Sync an M2R or M2Ra rapidly by utilizing the Channel Function Buttons. A long (1 second) press of one of the buttons (A1, A2, B1, or B2) on the front panel initiates Quick Sync. Two options are available, "SYNC ALL" or "SPLIT MONO". The mode is selected prior to sync in System Settings> Front Panel Setup.

NOTE: See Front Panel Setup for more instruction on the Quick Sync function.

Power Screens

When powering on the M2T there are three screens that appear in the following order, Duet (showing firmware versions), the Lectrosonics logo, and RF On/Off:



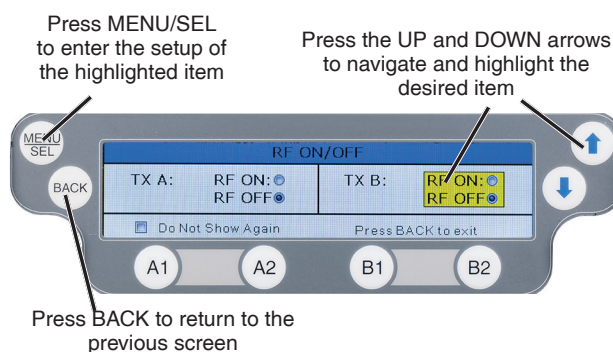
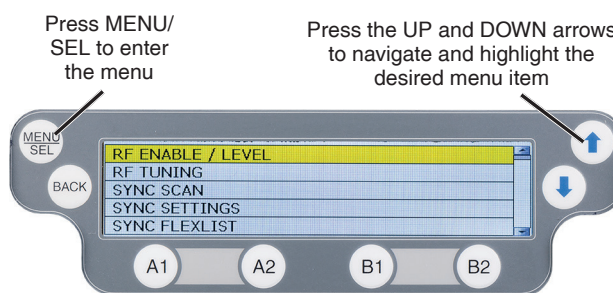
Simultaneous long press of A1/A2 (TX A) or B1/B2 (TX B) will also enable or disable RF.

WARNING: If RF ON is selected and the user chooses to "Do Not Show Again" RF transmissions will be on when the M2T is powered on and may interfere with frequencies already in use. This can be reset in System Settings> FRONT PANEL SETUP.

Navigating the Menus

All Menu setup items are arranged in a vertical list on the LCD. Press MENU/SEL to enter the menu, then navigate with the UP and DOWN arrows to highlight the desired setup item. Refer to the menu map on the following page.

NOTE: To guarantee chosen parameters are saved, exit a setup screen BEFORE powering down the M2T.



Menu Item Descriptions

RF Enable/Level

Allows RF transmission to be turned on and off and set RF levels at 10, 25 or 50 mW (E06 options are 20, 50 or 100 mW EIRP).

RF ENABLE/LEVEL			
RF A:IEM 1		RF B:IEM 2	
ENABLE: <input type="checkbox"/>	RF LEVEL: 10mW	ENABLE: <input type="checkbox"/>	RF LEVEL: 10mW

RF Tuning

Allows manual selection of the operating frequency.

RF TUNING			
RF A:IEM 1		RF B:IEM 2	
FREQUENCY: 480 MHz . 550 kHz		FREQUENCY: 476 MHz . 475 kHz	

Audio Input Gain

Allows adjustment of input sensitivity and trim for each audio input channel for analog sources.

AUDIO LEVEL / TRIM			
A1	Audio Ch A1 A	B1	Audio Ch B1 A
	TYPE: [-10dBV] TRIM: [+5]		TYPE: [-10dBV] TRIM: [+5]
A2	Audio Ch A2 A	B2	Audio Ch B2 A
	TYPE: [-10dBV] TRIM: [+5]		TYPE: [-10dBV] TRIM: [+5]

Audio Input Type

Allows selection of input type by channel, either analog or digital (Dante).

AUDIO INPUT TYPE			
A1	Audio Ch A1 A	B1	Audio Ch B1 A
	ANALOG: <input checked="" type="radio"/> DIGITAL: <input type="radio"/>		ANALOG: <input checked="" type="radio"/> DIGITAL: <input type="radio"/>
A2	Audio Ch A2 A	B2	Audio Ch B2 A
	ANALOG: <input checked="" type="radio"/> DIGITAL: <input type="radio"/>		ANALOG: <input checked="" type="radio"/> DIGITAL: <input type="radio"/>

Audio Polarity

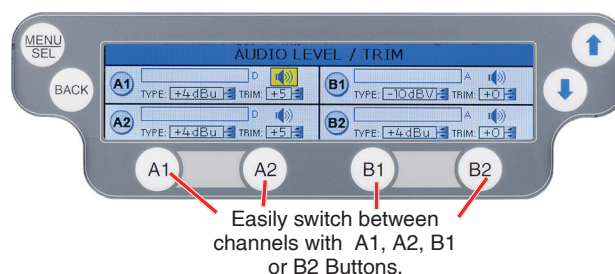
Allows selection of audio polarity by channel.

AUDIO POLARITY			
A1	Audio Ch A1 A	B1	Audio Ch B1 A
	NORMAL: <input checked="" type="radio"/> INVERT: <input type="radio"/>		NORMAL: <input checked="" type="radio"/> INVERT: <input type="radio"/>
A2	Audio Ch A2 A	B2	Audio Ch B2 A
	NORMAL: <input checked="" type="radio"/> INVERT: <input type="radio"/>		NORMAL: <input checked="" type="radio"/> INVERT: <input type="radio"/>

Headphone Monitor

Allows selection of audio channels fed to headphones.

HEADPHONE MONITOR	
HEADPHONE CONFIG: L:B1 R:B1	



Compatibility Modes

Allows selection of encrypted (DCHX) or non-encrypted (Duet) audio encoding.

COMPATIBILITY MODES	
RF A:IEM 1	RF B:IEM 2
MODE: DCHX	MODE: DUET

Sync Settings

Allows sending or retrieving setup data via IR port.

SYNC SETTINGS			
RF A:IEM 1		RF B:IEM 2	
SYNC FREQ	SEND ALL	SYNC FREQ	SEND ALL
GET FREQ	GET ALL	GET FREQ	GET ALL

SYNC RX 1 FREQ	
Hold RX up to IR PORT and press GO	
CANCEL	GO

Sync Scan

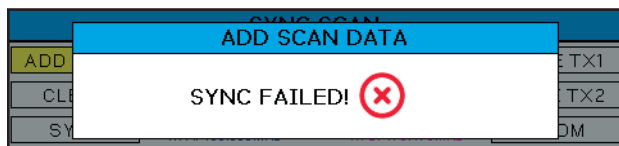
Receive frequency scan via IR port or tune transmitters manually.

SYNC SCAN	
ADD SCAN	TUNE TX1
CLEAR	TUNE TX2
SYNC	ZOOM

ADD SCAN DATA	
Hold RX up to IR PORT and press ADD	
CANCEL	ADD

ADD SCAN DATA	
GETTING SCAN DATA!	

Screen will alert user if scan is unsuccessful.



Sync FlexList Profile

FlexList allows the user to set up a list of profiles, by name, in the receiver. This allows quick and easy access to listen to any of the mixes on site.

After putting the receiver into Sync Flex mode, choose the function and then use the transmitter to send the profile over IR:

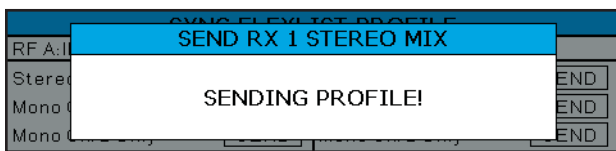
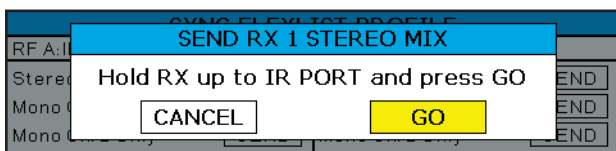
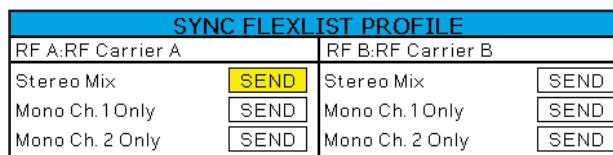
Stereo Mix: The current receiver settings are sent as is, except the mix mode is set to stereo.

Mono Ch. 1 Only: The current receiver settings are sent as is, except the mix mode is set to Mono Ch. 1.

Mono Ch. 2 Only: The current receiver settings are sent as is, except the mix mode is set to Mono Ch. 2.

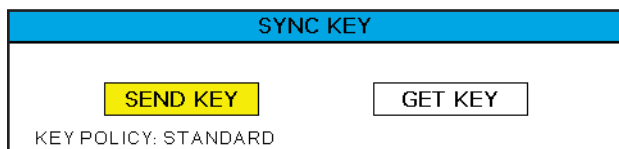
NOTE: See Mix Mode for more information.

Also see Page 20 for details on creating, editing, and storing Flexlists within Wireless Designer



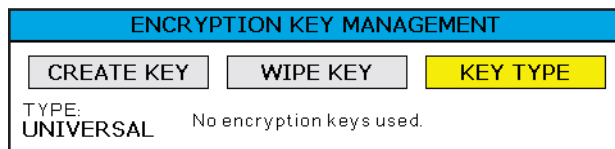
Sync Key

Allows sending of encryption key to other devices, or getting key from another device using IR sync.



Key Type

Allows selection of encryption key policy: universal, shared, standard, or volatile. Allows creation of new key or deletion of the current key.



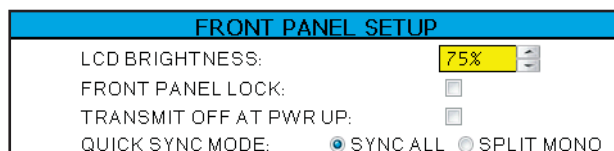
Front Panel Setup

Front panel settings may be customized as follows:

- LCD brightness
- Front panel lock
- Startup RF state
- Quick Sync Mode

Sync All: A long (1 second) press of Button A1 or A2 will send all RX 1 settings, Button B1 or B2 Button will send all RX 2 settings.

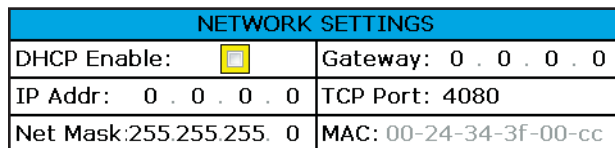
Split Mono: A long press of the A1 or B1 buttons sends all RX1 settings with the mix mode forced to Mono Ch. 1. A long press of the A2 or B2 buttons sends all RX1 settings with the mix mode forced to Mono Ch. 2.



Network Settings

Allows the user to set IP address or other network settings when needed.

NOTE: New network settings require the unit to reboot to take effect. Making a change and pressing the BACK key will prompt the user to Reboot Now, Save and Exit, or Discard and Exit.



Edit Names

Edit names to match talent for easy location in the FlexList or easily identify multiple M2T, M2T/E01, M2T/E02, M2T/E06 transmitters in a rack.

- Use UP and DOWN Arrows to select letters and MENU/SEL to set and move cursor.

Restore Defaults

Returns all settings to the factory defaults.

About

Displays general information about the M2T, M2T/E01, M2T/E02, M2T/E06, including serial number, and the hardware, FPGA and microcontroller firmware versions.

Accessories

DCR15/4AU



Front Mount Antenna Kit FMAKM2T



27080 Dante Port Cover
(included with Non-Dante Model)

Dante 4X4-TM Dante Card Kit
(Included in Dante Model)

RMPM2T-1
Rack kit for mounting one M2T, M2T/E01, M2T/E02, M2T/
E06 into a single rack space



SNA600a Antenna



SNA600a Accessories:

ARG 15

A 15 foot antenna cable of standard RG-58 coax cable with BNC connectors at each end.



ARG 25 Antenna cable of Belden 9913F low-loss coax cable with BNC connectors at each end. 25 foot length.



Hardware Installation

DCR15/4AU DC
power supply



21926
Cable USB



Items Included in the Box:

Unpacking the Unit

Compare the packing list enclosed with the M2T, M2T/E01, M2T/E02, M2T/E06 with the original order. Inspect all items for damage. Immediately call 1-800-821-1121 to report any items that are missing or damaged. The sooner we get notified, the sooner we can get any needed replacement items shipped to your location.

- Instruction manual
 - (DCR15/4AU) Power supply cable
 - (21926) USB cable
 - (35800) Hex L key wrench
 - (25990) Bracket rear tie
 - (25991) Bracket front tie
 - (27076) Rack flange bracket
 - (27082) Rack handle
 - (28885) (4) SCR10 cap screw
 - (35664) (4) Rubber foot large
 - (35959) Hole plug
 - (A500RA19) (2) Antennas
 - (A500RA22) (2) Antennas
 - (A500RA22) (2) Antennas
 - (A500RA25) (2) Antennas
- A1B1 Units
 B1C1 Units

Installing two M2T, M2T/E01, M2T/E02, M2T/E06 Transmitters into a Single Rack Space

The M2T, M2T/E01, M2T/E02, M2T/E06 transmitter occupies a half rack space, and comes with hardware to mount two transmitters into a single rack space.

1. Remove the Trim Cap (Part #P1330) from both sides of the front panel on both transmitters.



2. Remove the breakaway tabs on both sides of the chassis side panels. Use a flat blade screwdriver to pry the tabs outward and snap them off of the chassis.



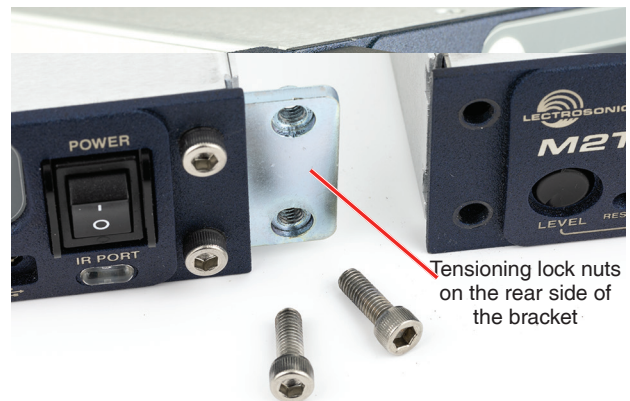
3. Insert the flange bracket (Part #27076) into the open slot in the side of the chassis cover panel.



4. Insert two (2) cap screws (Part #28885) through the rack handle (Part #27082) holes and install the rack handle onto the flange bracket through the holes in the unit's front panel. Firmly tighten the cap screws using the hex key (Allen wrench) as shown.



5. If antennas will NOT be mounted on the front panel of the transmitters, install the hole cap (Part #35959) by aligning the flat on the cap with the flat on the opening.



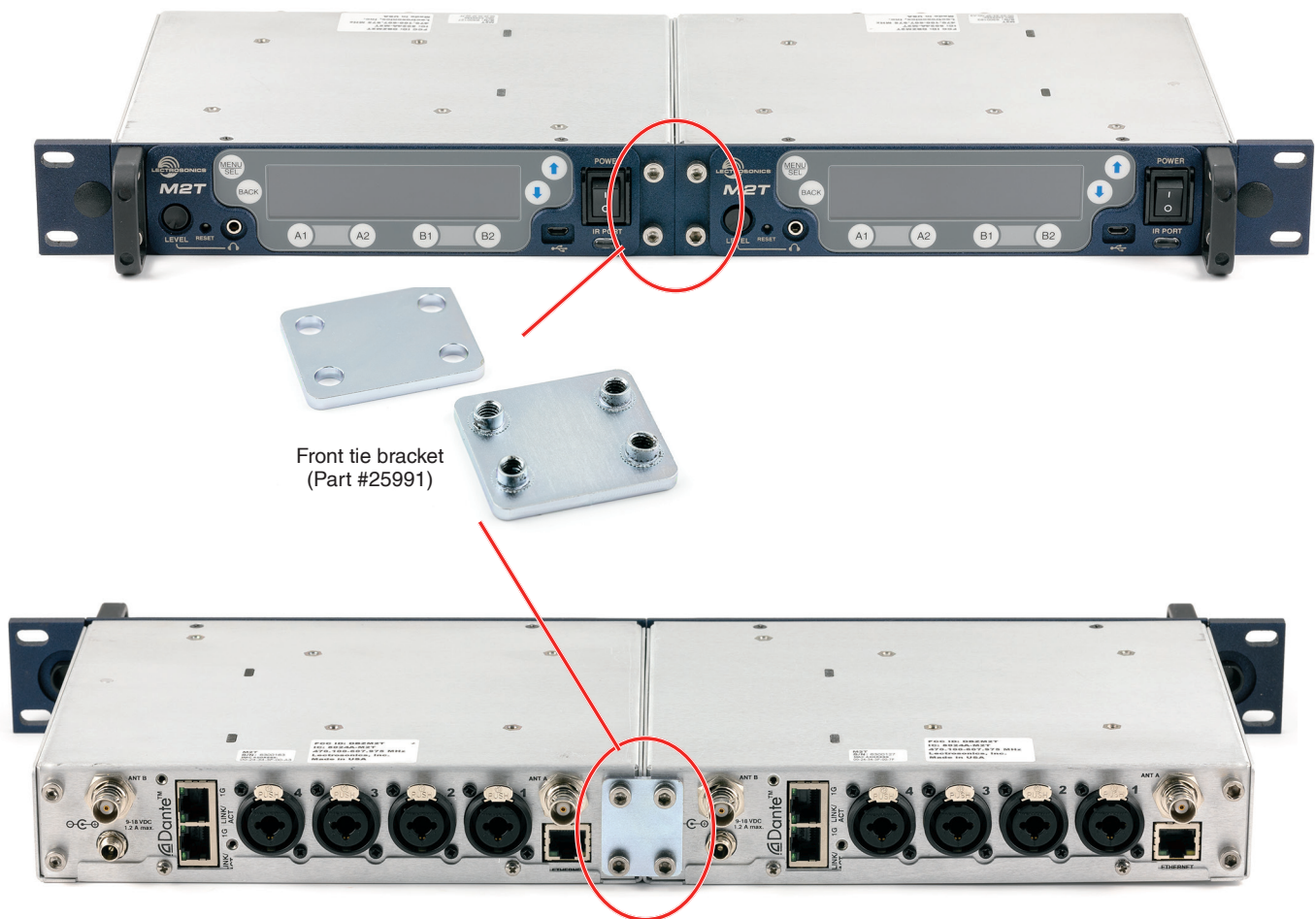
6. Install one side of the front tie bracket (Part #25991) into the side panel opening in one of the transmitters. Insert the screws, but do not tighten them completely at this point.

NOTE: The retaining nuts on the panel and tie brackets are "tensioning lock nut" types designed to prevent the screws from coming loose due to vibration. You will usually feel resistance as you tighten the screws - this is normal.

Slide the other transmitter over the tie bracket and insert the screws, but do not tighten them completely until the rear tie bracket is installed.

7. Remove the four cap screws from the adjacent rear panels, and then use them to attach the rear tie bracket. Do not tighten the screws completely.
8. After front and rear tie brackets are installed, place the transmitters on a flat surface so the that the front panels are even with each other. Hold the transmitters in place and tighten all cap screws on the front and rear brackets.

NOTE: If the supplied rubber feet are installed on under side of M2T, M2T/E01, M2T/E02, M2T/E06, it will not fit in a rack unless there is an empty space below it.



Installing One M2T into a Single Rack

The M2T transmitter occupies a half rack space. This kit provides the hardware needed to mount one M2T or DSQD into a single rack space.

NOTE: Steps 1-6 will require original mounting hardware that came with the units. Part numbers are included in case individual items need to be reordered.

1. Remove the Trim Cap (Part #P1330) from both sides of the front panel of the M2T unit to be rack mounted.



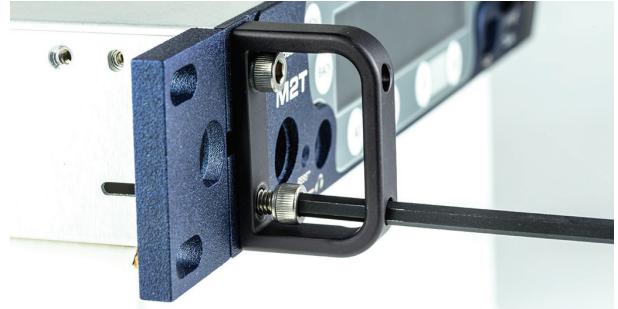
2. Remove the breakaway tabs on both sides of the Chassis Cover Panel. This requires the use of a flat-blade screwdriver inserted into the slots and levering the tabs away on each side of the unit.



3. Insert the Flange Bracket (Part #27076) into the open slot in the left-front side of the Chassis Cover Panel.



4. Insert two (2) Cap Screws (Part #28885) through the Rack Handle (Part #27082) holes and install the Rack Handle onto the Flange Bracket through the holes in the unit's front panel. Firmly tighten the Cap Screws using the long leg of the Hex Wrench as shown.



5. Unless also installing a Front Mounted Antenna, insert the Hole Plug (Part #35959) into the open antenna hole in the Flange Bracket by aligning the flat sides of the plug with those of the bracket hole and pushing into place until flush.



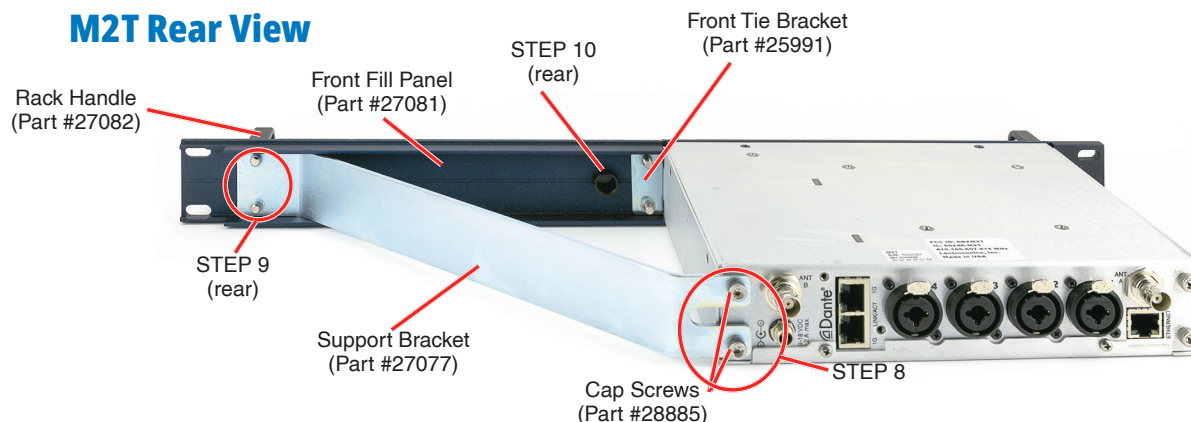
6. Install the Front Tie Bracket (Part #25991) into the open slot in the right side of the M2T Chassis Cover Panel with the protruding nuts facing rearward, affix with two (2) Cap Screws (Part #28885) provided and firmly tighten with the Hex Wrench. See next page.

NOTE: Steps 7-11 require parts from the (RMPM2T-1) M2T Single Rack Mount Kit.

M2T Front View



M2T Rear View



Items Included in RMPM2T-1 Kit:

- Technical Data Sheet
- (27077) Support Bracket
- (27081) Front Fill Panel
- (27082) Rack handle
- (28885) (4) SCR10 cap screw
- (35800) Hex L key wrench
- (35959) Hole plug
- (28950) (2) Long mounting screws*
- (28951) (2) Short spacer tubes*

NOTE: Starred (*) items are needed only when installing a DSQD. They are not needed for M2T installation and may be set aside.



7. Use two (2) Cap Screws (Part #28885) to attach the left side of the Front Fill Panel (Part #27081) to the two remaining nuts on the Front Tie Bracket (Part #25991) and firmly tighten with the Hex Wrench.
8. Use the Hex Wrench to remove the two (2) inboard Cap Screws from the rear of the M2T. Install the Support Bracket (Part #27077) to the rear panel of the M2T, reusing the two (2) Cap Screws previously removed and firmly tighten with the Hex Wrench. (See rear view image above.)
9. Insert two (2) Cap Screws (Part #28885) through Rack Handle (Part #27082) holes and install the Rack Handle onto the right side Front Fill Panel (Part #27081) through the holes in the panel,

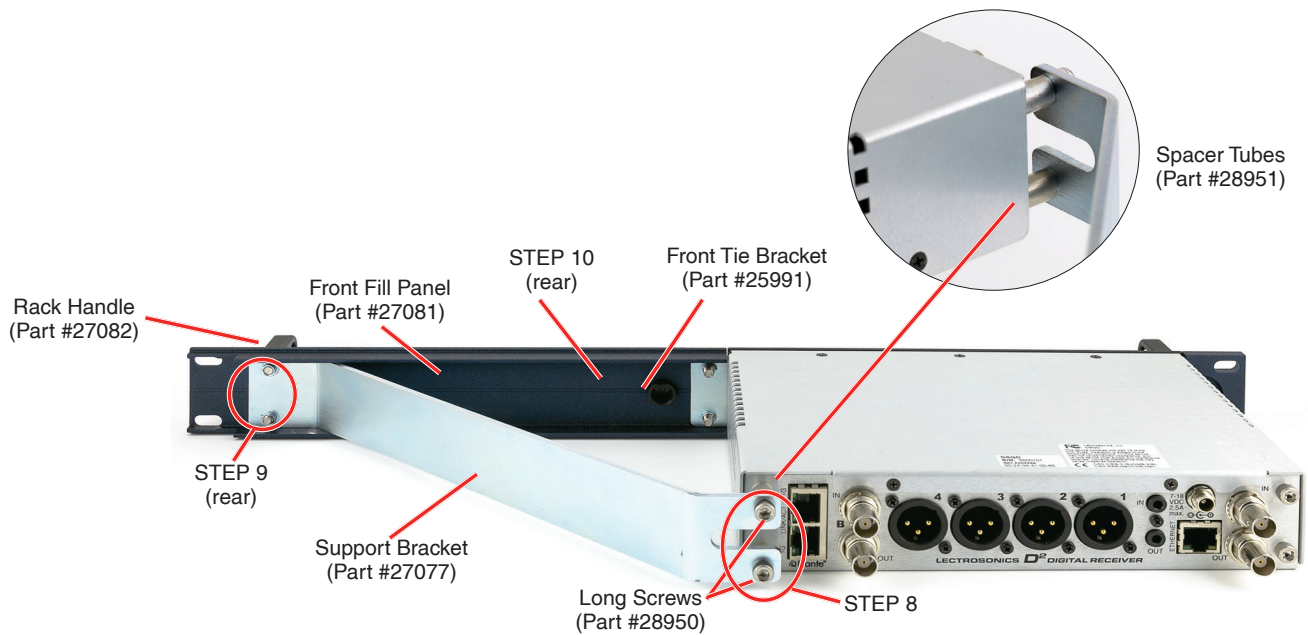
and into the nuts on the Support Bracket (Part #27076). Firmly tighten the Cap Screws using the long leg of the Hex Wrench. (See rear and front view images on front page.)

10. Unless also installing a Front Mounted Antenna, insert the Hole Plug (Part #35959) into the open antenna hole in the Front Fill Panel (Part #27081) by aligning the flat sides of the plug with those of the bracket hole and pushing into place until flush.

The M2T with Front Fill Panel is now ready for installation into a rack.

NOTE: If supplied rubber foot/feet are installed on under side of the M2T, it will not fit in a single rack space.

DSQD Rear View



Installing One DSQD into a Single Rack

The process to install the DSQD is the same as for the M2T transmitter through Step 7. The DSQD looks similar to the M2T in the frontal view. Follow the steps for the M2T, then resume at Step 8:

8. Use the Hex Wrench to remove the two (2) inboard Cap Screws from the rear of the DSQD. Put them aside and save for later use or spares; you will not need them for this installation. Install the Support Bracket (Part #27077) to the rear panel of the DSQD, using the two (2) long mounting screws, threaded with Spacer Tubes, and firmly tighten with the Hex Wrench. See rear view image and call-out photo above. The kit is designed to handle the M2T and the DSQD with a shorter chassis, so the spacers are included.
9. Insert two (2) Cap Screws (Part #28885) through the Rack Handle (Part #27082) holes and install the Rack Handle onto the right side Front Fill Panel (Part #27081) through the holes in the panel, and into the nuts on the Support Bracket (Part #27076). Firmly tighten the Cap Screws using the long leg of the Hex Wrench.
10. Unless also installing a Front Mounted Antenna, insert the Hole Plug (Part #35959) into the open antenna hole in the Front Fill Panel (Part #27081) by aligning the flat sides of the plug with those of the bracket hole and pushing into place until flush.

The DSQD with Front Fill Panel is now ready for installation into a rack.

NOTE: As with the M2T, if the supplied rubber foot/feet are installed on under side of the DSQD, it will not fit in a single rack space.

Mounting M2T To DSQD

When mounting two M2Ts or two DSQDs together, the units lie flush together as shown. This is not the case with an M2T and a DSQD, as the DSQD housing is shorter and the spacer tubes are needed.



Two M2T units



Two DSQD units

When attaching an M2T to a DSQD unit, the preferred configuration (when viewing from the back side) is to have the DSQD to the left and the M2T to the right. If the units are mounted the opposite way, the mounting plate will partially block the Dante® ports on the DSQD, making it difficult to remove the cables. Having the DSQD on the left as shown below eliminates this inconvenience.



Recommended DSQD-M2T mounting

Wireless Designer Software

Download the Wireless Designer software installer from the web sites under the SUPPORT tab at:

<http://www.lectrosonics.com>

Once the software is installed, updates are available by simply clicking on “Check for updates” in the Help Menu.

Create, Edit, Store Flexlists in Wireless Designer

Starting with Wireless Designer v2.1.0 for Mac or PC, users now have the ability to create, load, save and send Flexlists to receivers via an M2T-type device. Flexlists now include an optional compatibility mode setting, allowing Flexlist entries for receivers operating in different compatibility modes.

NOTE: These functional enhancements are available with M2T firmware update M2T v4.0.03 (SUPER)/v6.00 (FPGA, H/W v0 & v1)/v7.00 (FPGA, H/W v2 & v3) and later.

Firmware Update Instructions

Firmware updates are made with a file downloaded from the web site and the M2T connected via USB.

The USB port on the transmitter requires a micro-B male plug on the connecting cable. The other end of the cable would normally be a USB A-type or C-type male connector to fit the most common type of USB jack used on computers.

Refer to **Help** in Wireless Designer software for the procedure.

Specifications

- RF Power Output:**
- Two carriers; two audio channels each
 - M2T, M2T/E01, M2T/E01: Power adjustable on each carrier to 10, 25 or 50 mW
 - M2T/E06: Power adjustable on each carrier to 20, 50 or 100 mW EIRP

Antenna Output: 2 x BNC sockets

Operating Frequencies:

M2T (A1B1)	470.100 – 607.975 MHz
M2T/E01 (A1B1)	470.100 - 614.375 MHz
M2T/E01-B1C1	537.600 - 691.175 MHz
M2T/E02	470.150 - 614.375 MHz
M2T/E06	520.000 - 614.375 MHz

NOTE: It's the user's responsibility to select the approved frequencies for the region where the transmitter is operating

Operating Temperature

Range: Celsius: -20° - 40°
Fahrenheit: -5° - 104°

Frequency Selection

Steps: 25 kHz

Frequency Stability: ± 0.002%

Modulation: 8 PSK

Emission

Designator: 200KG7E

Spurious Radiation: Compliant with ETSI EN 300 422-1

Encryption: AES 256 bit CTR mode, when loaded with v3.X firmware

Equivalent input

Noise: -128 dBV

Latency: (overall system)

Digital Source: 1.0 ms plus Dante network (on Dante unit)

Analog Source: <1.8 ms

Audio Frequency

Response: 10 Hz – 11.5 kHz, -1 dB

Audio Input: -10 dBV or +4 dBu settings w/ ±5 dB trim

Audio Input Jack: 4 x combo XLR/TRS connectors

Input impedance: Line: 2k Ohm

Dante Connection: 2 x RJ45, 4 audio RX channels, internally routable

Ethernet Connection: RJ45

USB Connection: Micro USB on front panel for firmware updates

IRDA: IR transceiver for sync of receivers

Headphone jack 3.5 mm stereo jack

Power

Requirements: 9-18 VDC

Power Consumption: 11 Watts

Weight: 2.2 lbs (997.903 grams)

Dimensions: Height: 1.750 in. / 44.45 mm

Width: 8.375 in. / 212.7 mm

Depth: 7.750 in. / 196.8 mm

Origin: Designed and manufactured in the USA

Specifications subject to change without notice.

Service and Repair

If your system malfunctions, you should attempt to correct or isolate the trouble before concluding that the equipment needs repair. Make sure you have followed the setup procedure and operating instructions. Check the interconnecting cables and refer to Self-Help Section below for non-urgent concerns.

We strongly recommend that you do not try to repair the equipment yourself and do not have the local repair shop attempt anything other than the simplest repair. If the repair is more complicated than a broken wire or loose connection, send the unit to the factory for repair and service. Don't attempt to adjust any controls inside the units. Once set at the factory, the various controls and trimmers do not drift with age or vibration and never require readjustment. There are no adjustments inside that will make a malfunctioning unit start working.

LECTROSONICS' Service Department is equipped and staffed to quickly repair your equipment. In warranty repairs are made at no charge in accordance with the terms of the warranty. Out-of-warranty repairs are charged at a modest flat rate plus parts and shipping. Since it takes almost as much time and effort to determine what is wrong as it does to make the repair, there is a charge for an exact quotation. We will be happy to quote approximate charges by phone for out-of-warranty repairs.

Returning Units for Repair

For timely service, please follow the steps below:

- A. DO NOT return equipment to the factory for repair without first contacting us by email or by phone. We need to know the nature of the problem, the model number and the serial number of the equipment. We also need a phone number where you can be reached 8 A.M. to 4 P.M. (U.S. Mountain Standard Time).
- B. After receiving your request, we will issue you a return authorization number (R.A.). This number will help speed your repair through our receiving and repair departments. The return authorization number must be clearly shown on the outside of the shipping container.
- C. Pack the equipment carefully and ship to us, shipping costs prepaid. If necessary, we can provide you with the proper packing materials. UPS is usually the best way to ship the units. Heavy units should be "double-boxed" for safe transport.
- D. We also strongly recommend that you insure the equipment, since we cannot be responsible for loss of or damage to equipment that you ship. Of course, we insure the equipment when we ship it back to you.

Lectrosonics USA:

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(416) 596-6648 Fax

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Self-Help Options for Non-Urgent Concerns

Our Facebook groups and weblists are a wealth of knowledge for user questions and information. Refer to:

Lectrosonics General Facebook Group: <https://www.facebook.com/groups/69511015699>

D Squared, Venue 2 and Wireless Designer Group: <https://www.facebook.com/groups/104052953321109>

The Wire Lists: <https://lectrosonics.com/wire-lists/>



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EU Declaration of Conformity

LECTROSONICS, INC.
 581 Laser Road
 Rio Rancho, NM 87124 USA

Declares under our sole responsibility that the following product:

Model: M2T/E01

Wireless microphone transmitter

is in conformity with the provisions of the following EC directive(s) (including applicable amendments) and are designed and manufactured in accordance with the harmonized standards:

Document	Description	Date/Version
RL 2014/53/EU	Radio Equipment Directive 2014/53/EU (RED)	2014-04
EN 300 422-1	Wireless Microphones; Audio PMSE up to 3 GHz; Part 1: Class A Receivers	V2.1.2 (2017-01)
	Electromagnetic Compatibility	
EN 301 489-1	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Common Technical Requirements	V2.2.0 (2017-03)
EN 301 489-9	Specific Conditions for wireless microphones, similar Radio Frequency (RF) audio link equipment, cordless audio and in-ear monitoring devices	V2.1.1 (2017-03)
	Safety and Health	
EN 60065-1	Audio, video and similar electronic apparatus – Safety Requirements	2014
EN 62311	Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz – 300 GHz)	2008
RL 2011/65/EU	RoHS Directive 2011/65/EU: Restriction of the use of certain hazardous substances (RoHS Recast)	2011

The EU type examination was performed by notified body Bay Area Compliance Laboratories.

Software version of M2T/E01: v1.04

Rio Rancho, NM USA, 07 July 2017

Robert Cummings
 V.P. Engineering
 Lectrosonics, Inc.

ISED Notices:

Per RSS-210

This device operates on a no-protection no-interference basis. Should the user seek to obtain protection from other radio services operating in the same TV bands, a radio licence is required. Please consult Industry Canada's document CPC-2-1-28, Optional Licensing for Low-Power Radio Apparatus in the TV Bands, for details.

Ce dispositif fonctionne selon un régime de non-brouillage et de non-protection. Si l'utilisateur devait chercher à obtenir une certaine protection contre d'autres services radio fonctionnant dans les mêmes bandes de télévision, une licence radio serait requise. Pour en savoir plus, veuillez consulter le document CPC-2-1-28 d'Industrie Canada intitulé, Délivrance de licences sur une base volontaire pour les appareils radio de faible puissance exempts de licence et exploités dans les bandes de télévision.

Per RSS-Gen

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

- 1) This device may not cause interference
- 2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1) l'appareil ne doit pas produire de brouillage;
- 2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

LIMITED WARRANTY

The equipment is warranted for one year (two years in EU) from date of purchase against defects in materials or workmanship provided it was purchased from an authorized dealer. This warranty does not cover equipment which has been abused or damaged by careless handling or shipping. This warranty does not apply to used or demonstrator equipment.

Should any defect develop, Lectrosonics, Inc. will, at our option, repair or replace any defective parts without charge for either parts or labor. If Lectrosonics, Inc. cannot correct the defect in your equipment, it will be replaced at no charge with a similar new item. Lectrosonics, Inc. will pay for the cost of returning your equipment to you.

This warranty applies only to items returned to Lectrosonics, Inc. or an authorized dealer, shipping costs prepaid, within one year from the date of purchase.

This Limited Warranty is governed by the laws of the State of New Mexico. It states the entire liability of Lectrosonics Inc. and the entire remedy of the purchaser for any breach of warranty as outlined above. NEITHER LECTROSONICS, INC. NOR ANYONE INVOLVED IN THE PRODUCTION OR DELIVERY OF THE EQUIPMENT SHALL BE LIABLE FOR ANY INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL, OR INCIDENTAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THIS EQUIPMENT EVEN IF LECTROSONICS, INC. HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL THE LIABILITY OF LECTROSONICS, INC. EXCEED THE PURCHASE PRICE OF ANY DEFECTIVE EQUIPMENT.

This warranty gives you specific legal rights. You may have additional legal rights which vary from state to state.

