

# Quick Start Guide



## DPR

Digital Plug-On Transmitter

DPR, DPR/E01



Fill in for your records:

Serial Number:

Purchase Date:

This guide is intended to assist with initial setup and operation of your Lectrosonics product.

For a detailed user manual, download the most current version at:

[www.lectrosonics.com/manuals](http://www.lectrosonics.com/manuals)

4 May 2020

# Controls and Functions



## LCD Screen

The LCD is a numeric-type Liquid Crystal Display with several screens that allow settings to be made with the **MENU/SEL** and **BACK** buttons, and the **UP** and **DOWN** arrow buttons to configure the transmitter. The transmitter can be turned on in a “standby” mode with the carrier turned off to make adjustments without the risk of interfering with other wireless systems nearby.

## Power LED

The PWR LED glows green when the batteries are charged. The color changes to red when there is about 20 minutes of life left. When the LED begins to blink red, there are only a few minutes of life.

A weak battery will sometimes cause the PWR LED to glow green immediately after being put into the unit, but will soon discharge to the point where the LED will go red or shut off completely.

## Key LED

The blue Key LED will blink if an encryption key is not set and “no key” will blink on LCD. The Key LED will remain on if the encryption is set correctly and will turn off in Standby mode.

## Modulation LEDs

The Modulation LEDs provide a visual indication of the input audio signal level from the microphone. These two bicolor LEDs can glow either red or green to indicate modulation levels. Full modulation (0 dB) occurs when the -20 LED first turns red.

Signal Level	-20 LED	-10 LED
Less than -20 dB	● Off	● Off
-20 dB to -10 dB	● Green	● Off
-10 dB to +0 dB	● Green	● Green
+0 dB to +10 dB	● Red	● Green
Greater than +10 dB	● Red	● Red

## MENU/SEL Button

The **MENU/SEL** button is used to display the transmitter menu items. Press once to open the menu, then use the **UP** and **DOWN** arrows to scroll menu items. Press **MENU/SEL** again to choose an option from the menu.

## BACK Button

Once a selection is made in a menu, press the **BACK** Button to save your selection and go back to the previous menu.

## UP/DOWN Arrow Buttons

The **UP** and **DOWN** arrow buttons are used to scroll through menu options.

From the Main Screen, use the **UP** Arrow to turn the LEDs on and the **DOWN** Arrow to turn the LEDs off.

## Menu Shortcuts

From the main/home screen, the following menu shortcuts are available:

Simultaneous press of **BACK** button + **UP** arrow button: Begin record

Simultaneous press of **BACK** button + **DOWN** arrow button: Stop record

Press **MENU/SEL**: Shortcut to adjust input gain menu

Press the **UP** arrow button to turn the control panel LEDs on; press the **DOWN** arrow button to turn them off

## Audio Input Jack

The 3 pin female XLR to AES standard balanced input jack on the transmitter accommodates hand-held, shotgun and measurement microphones. Phantom power can be set at various levels for use with a wide variety of electret microphones.

## Antenna

An antenna is formed between the housing and the attached microphone, operating much like a dipole. At UHF frequencies the length of the housing is similar to 1/4 wavelength of the operating frequency, so the antenna is surprisingly efficient, which helps extend the operating range and suppress noise and interference.

## IR (infrared) Port

The IR port is available on the side of the transmitter for quick setup using a receiver with this function available. IR Sync will transfer the settings for frequency from the receiver to the transmitter.



# Battery Installation and Powering On

The battery compartment door is made of machined aluminum and is hinged to the housing to prevent it being damaged or lost.

The transmitter is powered by two AA batteries.

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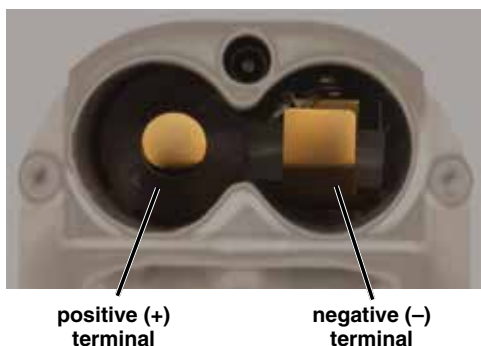
**Note:** Standard zinc-carbon batteries marked “heavy-duty” or “long-lasting” are not adequate.



*Batteries operate in series, with a connecting plate built into the battery door.*

To install new batteries:

1. Slide open the Battery Cover and remove any old batteries.
2. Insert the new batteries into the housing. One battery goes in positive (+) end first, the other negative (-) end first. Look into the battery compartment to determine which end goes in which side. The side with the circular insulator is the side which accepts the positive end of the battery.



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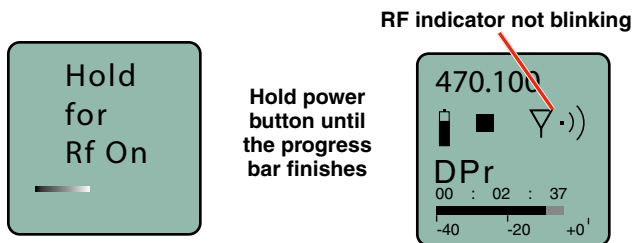
**Note:** It is possible to install the batteries backward and close the battery door, but the batteries will not make contact and the unit will not power up.

3. Slide the Battery Cover until it snaps securely shut.

## Powering On in Operating Mode

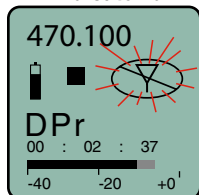
Press and hold the **POWER** Button briefly until the progress bar on the LCD finishes.

When you release the button, the unit will be operational with the RF output turned on and the Main Window displayed.



## Powering On in Standby Mode

**RF indicator blinks**



A brief press of the **POWER** button and releasing it before the progress bar finishes, will turn the unit on with the RF output turned off. In this Standby Mode the menus can be browsed to make settings and adjustments without the risk of interfering with other wireless systems nearby.

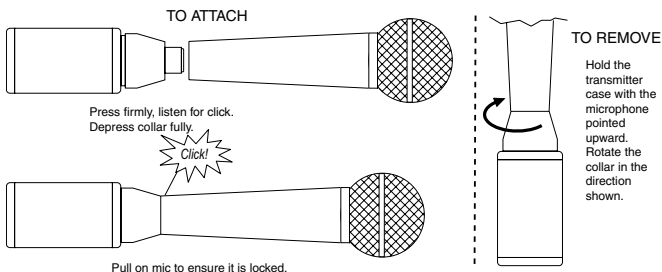
## Attaching/Removing a Microphone

The spring loaded coupler under the XLR jack maintains a secure fit to the microphone jack with continuous pressure applied by an internal spring.

To attach the microphone, simply align the XLR pins and press the microphone onto the transmitter until the coupler retracts and latches. A click sound will be heard as the connector latches.

To remove the microphone, hold the transmitter body in one hand with the microphone pointing upward. Use your other hand to rotate the coupler until the latch releases and the coupler rises slightly.

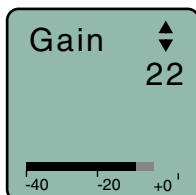
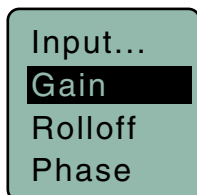
Do not pull on the microphone while releasing the locking collar.



**NOTE:** Do not hold or apply any pressure to the microphone body while trying to remove it, as this may prevent the latch from releasing.

# Transmitter Operating Instructions

- 1) Install battery(s)
- 2) Turn power on in the Standby mode (see previous section)
- 3) Connect microphone and place it in the position where it will be used.
- 4) Have the user talk or sing at the same level that will be used in the production, and adjust the input gain (Input Menu, Gain). so that the -20 LED blinks red on louder peaks.

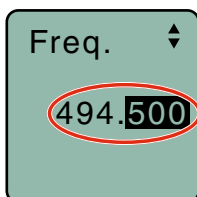
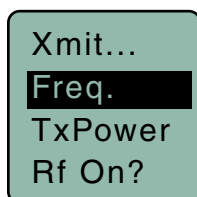


Use the UP and DOWN arrow buttons to adjust the gain until the -20 LED blinks red on louder peaks

Signal Level	-20 LED	-10 LED
Less than -20 dB	● Off	● Off
-20 dB to -10 dB	● Green	● Off
-10 dB to +0 dB	● Green	● Green
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Greater than +10 dB	● Red	● Red

## 5) Set the frequency to match the receiver.

The setup screen for frequency selection (**Xmit Menu, Freq**) offers two ways to browse the available frequencies.



Press the **MENU/SEL** button to select each field. Use the **UP** and **DOWN** arrow buttons to adjust the frequency. Each field will step through the available frequencies in a different increment.

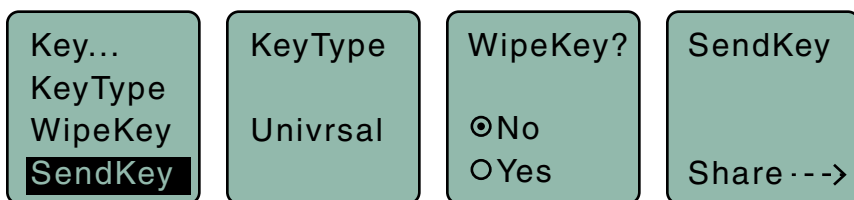
## 6) Set encryption key type and sync with receiver.

### KeyType

The DPR receives an encryption key via the IR port from a key generating receiver (such as the Lectrosonics DCHR and DSQD receivers). Begin by selecting a key type in the receiver and generating a new key. Set the matching KEY TYPE in the DPR and transfer the key from the receiver (SYNC KEY) to the DPR via the IR ports. A confirmation message will display on the receiver display if the transfer is successful.

The DPR has three options for encryption keys:

- **Universal:** This is the most convenient encryption option available. All encryption-capable Lectrosonics transmitters and receivers contain the Universal Key. The key does not have to be generated by a receiver. Simply set the DPR and a Lectrosonics receiver to Universal, and the encryption is in place. This allows for convenient encryption amongst multiple transmitters and receivers, but not as secure as creating a unique key.
- **Shared:** There are an unlimited number of shared keys available. Once generated by a receiver and transferred to the DPR, the encryption key is available to be shared (synced) by the DPR with other transmitters/receivers via the IR port. When a transmitter is set to this key type, a menu item named **SEND KEY** is available to transfer the key to another device.
- **Standard:** This is the highest level of security. The encryption keys are unique to the receiver and there are only 256 keys available to be transferred to a transmitter. The receiver tracks the number of keys generated and the number of times each key is transferred.



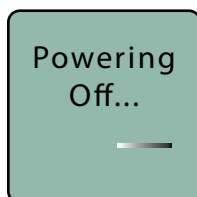
### WipeKey

This menu item is only available if Key Type is set to Standard or Shared. Select **Yes** to wipe the current key and enable the DPR to receive a new key.

### SendKey

This menu item is only available if **Key Type** is set to **Shared**. Press **MENU/SEL** to sync the Encryption key to another transmitter or receiver via the IR port.

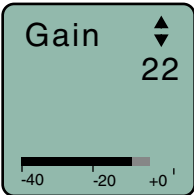
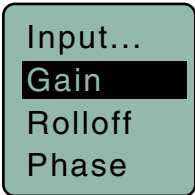
- 7) **Turn the power off and then back on while holding the POWER button in until the progress bar finishes.**



To turn the unit off, hold the **POWER** Button in briefly and wait for the progress bar to finish. If the **POWER** button is released before the progress bar finishes, the unit will remain turned on and the LCD will return to the same screen or menu that was displayed previously.

# Recorder Operating Instructions

- 1) Install battery(s)
- 2) Insert microSDHC memory card
- 3) Turn power on
- 4) Format memory card (See pages 10 and 11)
- 5) Connect microphone and place it in the position where it will be used.
- 6) Have the user talk or sing at the same level that will be used in the production, and adjust the input gain so that the *-20 LED blinks red on louder peaks.*

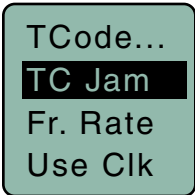


Use the UP and DOWN arrow buttons to adjust the gain until the -20 LED blinks red on louder peaks

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Less than -20 dB	● Off	● Off
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-10 dB to +0 dB	● Green	● Green
+0 dB to +10 dB	● Red	● Green
Greater than +10 dB	● Red	● Red

## 9) Jam timecode

TC Jam (jam timecode)



When TC Jam is selected, **JAM NOW** will blink on the LCD and the unit is ready to be synced with the timecode source. Connect the timecode source and the sync will take place automatically. When the sync is successful, a message will be displayed to confirm the operation.

Timecode defaults to 00:00:00 at power up if no timecode source is used to jam the unit. A timing reference is logged into the BWF metadata.





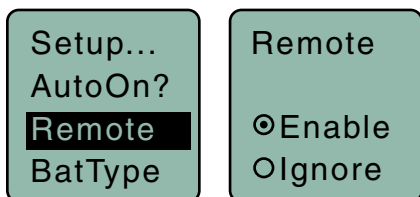
7) Press MENU/SEL, choose SDCard and Record from the menu



8) To stop recording, press MENU/SEL, choose SDCard and Stop; the word SAVED appears on the screen



## Enabling Remote Function (Setup Menu)



The DPR can be configured to respond to “dweedle tone” signals from the LectroRM smart phone app or to ignore them. Use the arrow buttons to toggle between “yes” (remote control on) and “no” (remote control off). In order to respond to remote control audio tones, the DPR must meet certain requirements:

- Must not be turned off; it can however be in sleep mode.
- Microphone must be within range.
- Must be configured to enable remote control activation.

*Please be aware this app is not a Lectrosonics product. It is privately owned and operated by New Endian LLC, [www.newendian.com](http://www.newendian.com).*

# Formatting SD Card

New microSDHC memory cards come pre-formatted with a FAT32 file system which is optimized for good performance. The DPR relies on this performance and will never disturb the underlying low level formatting of the SD card. When the DPR “formats” a card, it performs a function similar to the Windows “Quick Format” which deletes all files and prepares the card for recording. The card can be read by any standard computer but if any write, edit or deletions are made to the card by the computer, the card must be re-formatted with the DPR to prepare it again for recording. The DPR never low level formats a card and we strongly advise against doing so with the computer.

To format the card with the DPR, select Format Card in the menu and press **MENU/SEL** on the keypad.

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**NOTE:** An error message will appear if samples are lost due to a poor performing “slow” card.

**WARNING:** Do not perform a low level format (complete format) with a computer. Doing so may render the memory card unusable with the DPR recorder.

With a windows based computer, be sure to check the quick format box before formatting the card.

With a Mac, choose MS-DOS (FAT).

## IMPORTANT

The formatting of the SD card sets up contiguous sectors for maximum efficiency in the recording process. The file format utilizes the BEXT (Broadcast Extension) wave format which has sufficient data space in the header for the file information and the time code imprint.

The SD card, as formatted by the DPR recorder, can be corrupted by any attempt to directly edit, change, format or view the files on a computer.

The simplest way to prevent data corruption is to copy the .wav files from the card to a computer or other Windows or OS formatted media **FIRST. Repeat – COPY THE FILES FIRST!**

**Do not** rename files directly on the SD card.

**Do not** attempt to edit the files directly on the SD card.

**Do not** save **ANYTHING** to the SD card with a computer (such as the take log, note files etc) - it is formatted for DPR recorder use only.

**Do not** open the files on the SD card with any third party program such as Wave Agent or Audacity and permit a save. In Wave Agent, do not IMPORT - you can OPEN and play it but do not save or Import - Wave Agent will corrupt the file.

In short - there should be NO manipulation of the data on the card or addition of data to the card with anything other than an DPR recorder. Copy the files to a computer, thumb drive, hard drive, etc. that has been formatted as a regular OS device FIRST - then you can edit freely.

## iXML HEADER SUPPORT

Recordings contain industry standard iXML chunks in the file headers, with the most commonly used fields filled in.

## Compatibility with microSDHC memory cards

Please note that the DPR is designed for use with **microSDHC memory cards**. There are several types of SD card standards (as of this writing) based on capacity (storage in GB).

**SDSC:** standard capacity, up to and including 2 GB – **DO NOT USE!**

**SDHC:** high capacity, more than 2 GB and up to and including 32 GB – **USE THIS TYPE.**

**SDXC:** extended capacity, more than 32 GB and up to and including 2 TB – **DO NOT USE!**

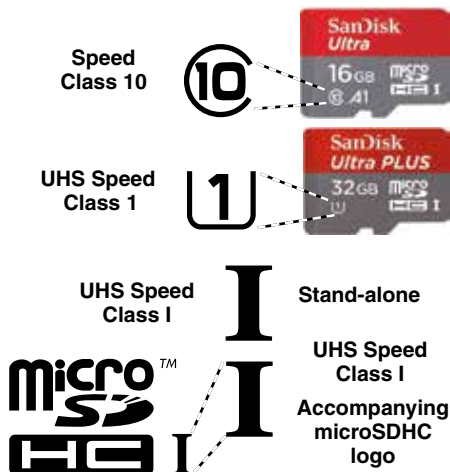
**SDUC:** extended capacity, more than 2TB and up to and including 128 TB – **DO NOT USE!**

The larger XC and UC cards use a different formatting method and bus structure and are NOT compatible with the recorder. These are typically used with later generation video systems and cameras for image applications (video and high resolution, high speed photography).

ONLY microSDHC memory cards should be used. They are available in capacities from 4GB to 32GB. Look for the Speed Class 10 cards (as indicated by a C wrapped around the number 10), or the UHS Speed Class I cards (as indicated by the numeral 1 inside a U symbol). Also note the **microSDHC** Logo.

If you are switching to a new brand or source of card, we always suggest testing first before using the card on a critical application.

The following markings will appear on compatible memory cards. One or all of the markings will appear on the card housing and the packaging.



## LIMITED ONE YEAR WARRANTY

The equipment is warranted for one year 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.



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