UX SERIES

WIRELESS SYSTEM

INTRODUCTION

Congratulations on your purchase of the UX Series UHF Professional Modular Wireless System. The following models are included in this user manual:

UX1200R	UX600B
UX600MC	UX-GT
UX-LP1	

» GETTING STARTED QUICKLY

»If you're like most new owners, you're probably in a hurry to use your wireless system. To start, you must have the receiver (Carvin UX1200R), a transmitter (Carvin UX600M handheld mic, or the Carvin UX600B with a compatible mic Performer1 Series, UX-LP1 or UX-GT cable plugged into an instrument), an XLR or 1/4" cable, and a sound system or instrument amplifier to hear the signal through.

»1. TRANSMITTER CONNECTIONS: Insert 2 fresh AA alkaline batteries into the transmitter. For the UX600B belt pack, connect the headset mic, lavalier mic, or cable and instrument to the belt-pack.

»2. RECEIVER CONNECTIONS (UX1200R): Attach the 2 included antennas to the connectors on the rear of the unit. Connect the included AC adapter to the UX1200R, then plug it into the proper AC power. Using an XLR cable or shielded 1/4" cable, connect one of the UX1200R outputs to your sound system or instrument amplifier.

»3. RECEIVER POWER ON: Turn down the VOLUME of the UX1200R and the system it is connected to. On the front right of the UX1200R, press the POWER button.

»4. TRANSMITTER POWER ON: Press the power button on the end of the UX600M mic or on the top of the UX600B belt-pack transmitter. The LCD display should turn on. (when ON: a quick press of the power button will turn MUTE on/off, HOLD to turn OFF.)

»5. CHANNEL VERIFY: Check that both the transmitter and receiver display the same Group-Channel setting. To change Group and Channel on UX1200R or UX600M/ UX600B: Hold in the SET button until the display shows SETTING for one second, then the first digit (Group) will be blinking. Use the UP/DOWN buttons to match the Group on the transmitter and receiver. Press SET to have the second digit (Channel) blinking, then use the UP/ DOWN buttons to match the channel. Press SET to save and exit. If using multiple systems, each transmitter/ receiver pair must be set to a different group/channel setting.

»6. SOUND CHECK: Use the mic or play the instrument as intended. Set the VOLUME on the front of the UX1200R to a low level (about 9 o'clock). Gradually raise the output levels on the sound system or amp to a comfortable volume. If distortion occurs and the UX1200R front panel "AF" audio level meter is showing Orange or Red LEDs then lower the transmitter levels: UX600M(dB setting), UX600B (SENSIT and ATT settings). If distortion is still heard, try lowering the preamp level on your sound system or amp. You can also lower the UX1200R output by -20dB with the "Att ON" output attenuation setting.

UX1200R Specifications

» Operating RF Frequency: 506-542 MHz

» RF Frequency Bandwidth: 36 MHz

» Total Frequency Settings : 1441 (25MHz increment)

» Simultaneous Operation: Up to 14 Channels

» S/N ratio : 105dB

» Image frequency rejection : >60dB

» Audio Output : XLR and 1/4-Inch

» Output Impedance : 600 Ohms

» Power Requirement : 12VDC, 500mA (AC adapter included

» Net Weight : Base 2.4 lbs Receiver

» Dimensions : 8.35"W x 5.66"D x 1.51"H

UX600B

» Input Connector Mini 4-Pin XLR (TA4F)

» Audio Freq. Response 40-18kHz

» RF Power Output 10mW or 50mW Setting

» Frequency Deviation ± 48kHz

» Spurious Emissions < -50 dBC

» Battery AA 1.5V Alkaline Qty 2

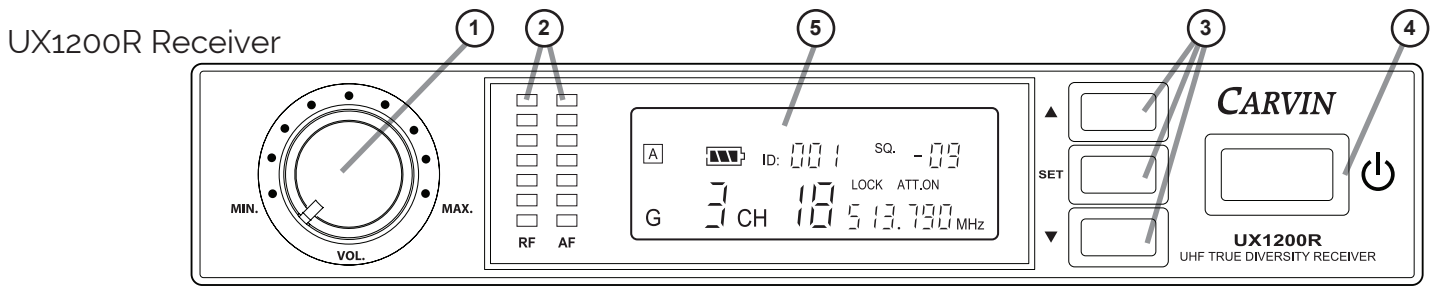» Dimensions 2.45" x 3.875"x 0.94" (w/o clip or ant.)

» Net Wt (no battery) 2.5 oz

UX600M

» Polar Pattern Unidirectional

» Audio Freq. Response 50-16kHz

» RF Power Output 10mW or 50mW setting

» Battery AA 1.5V Alkaline Qty 2

» Current Consumption 30 mA typical

» Battery Life Approx. 25 Hours

» Dimensions 10.3"L x 1.97" dia.
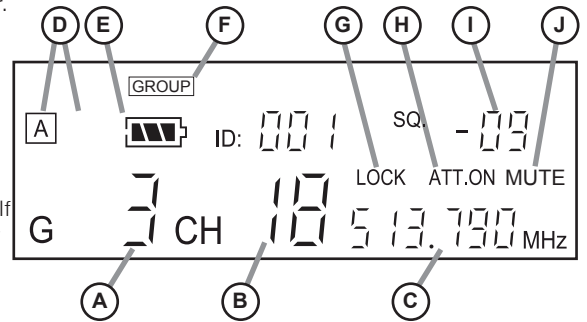
» Net Wt (no battery) 12.5 oz

WARRANTY

UX1200R Receiver

UX1200R Specifications

» 1. VOLUME (VOL.) Sets the output level for the XLR and 1/4" output jacks. The output level for the XLR is also affected by the "Att" (-20dB attenuator) setting. For use with a typical electric guitar and amp, set VOL. to about "4 o'clock", on the UX600B set sensitivity (SEnSiT) to "-9dB" and set attenuator (ATT) to "ON".

» 2. RF and AF LEVEL - LED METERS Indicate the strength of the Radio Frequency (wireless) and Audio Frequency (audio) signal levels If the RF meter is low or off, the transmitter's carrier signal is not being picked up by the receiver. Be sure the transmitter and receiver frequencies match. If the RF level is still low or fades in and out you may need to change frequency, or set the transmitter's RF Power to "HI". Also check antenna connections. The AF meter registers level of the voice or instrument. If it does not register with a voice at the mic or instrument playing, there is a problem with the audio signal being received by the transmitter. Check that the UX600B transmitter's microphone wire or instrument cable is properly connected. On the UX600M mic try increasing the level (dB) setting, or with the UX600B belt pack increase the level (SEnSiT) setting or set the UX600B attenuator (ATT) function to OFF. If the AF meter lights the top two orange and red LEDs the audio signal to the transmitter is too high and may be distorted. On the UX600M mic reduce the level (dB) setting. On the UX600B belt pack lower the level (SEnSiT) setting, in addition you may set the attenuator (ATT) to ON for more headroom.
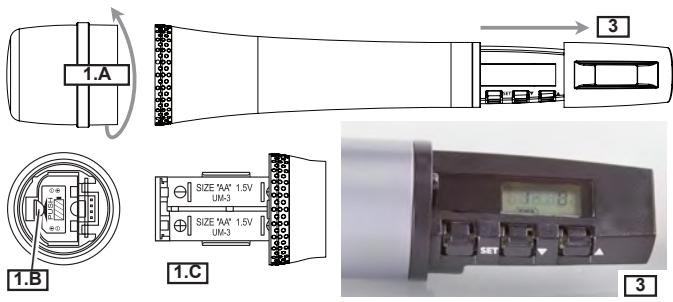

» 3. DOWN, UP AND SET BUTTONS: Press and hold the SET button to access the different settings, and change settings with the UP/DOWN.

» 4. POWER BUTTON: Press once to turn ON. Hold for 2 seconds to turn OFF.

» 5. DISPLAY - BACKLIT LCD: A. GROUP and B. CHANNEL Displays the Group and Channel setting if one is selected. C. FREQUENCY Displays the receiving Frequency, set by the Group-Channel or Frequency setting. If you select a Group and Channel setting, the related Frequency will be automatically selected. D. "A" or "B" Reception indicator. Due to the nature of True Diversity reception, the logic circuits continually select between the A or B antennas for the best signal reception. E. BATTERY LEVEL Displays the battery level of the remote transmitter. F. GROUP MODE ICON Indicates when the Group-Channel feature is being used to select the frequency. The "FREQ" icon indicates a manual frequency selection. G. LOCK ON Screen lockout is engaged. No settings can be changed until the lock is turned off. H. ATTENUATOR ON Shows the -20dB attenuator for the XLR output signal is engaged. I. SQUELCH SETTING Displays the SQUELCH level setting. J. MUTE INDICATION Displays when the transmitter MUTE function is used, or when output is automatically muted due to lack of RF signal or Squelch gating.

» CHANGING SETTINGS: Press and hold the SET button until "SETUP" is displayed. An icon for the chosen setting will be flashing on the top row of the screen and the setting to be edited will display. To select a different setting to edit, press the SET button again. Adjust the setting with the UP/DOWN buttons. Press the SET button again to save and exit. GROUP, CHANNEL: (example: G 3 CH18; group 3, channel 18). Set the UX1200R receiver first and then set the transmitter to the same settings. This automatically sets the FREQUENCY. *NOTE: The GROUP-CHANNEL method is recommended especially when using multiple systems (instead of using the manual Frequency setting). Set each transmitter-receiver pair to a different Channel, but use the same Group setting for all. If too many Channels have outside interference, change all units to a different Group. The GROUP-CHANNEL assignments are pre-calculated and designed to avoid crosstalk or other types of interference between wireless channels within the same group; even frequencies which are far apart can cause unwanted effects due to harmonics or additions and subtractions in carrier signal waves. If the Group-Channel settings on transmitter and receiver are matched but there is no sound; check the levels on your sound system or amp and check all connections. On the UX1200R check the RF and AF signal meters for response, antenna connections and SQUELCH setting. On the UX600M or UX600B check batteries and UX600B input connection. FREQUENCY: (example: 530.950 MHz). The first 3 digits change in 1 MHz steps, the second 3 digits change in 0.025 MHz steps. If you select a GROUP and CHANNEL setting, the FREQUENCY is automatically set and should not be changed. If you need to choose a specific frequency you can change it here. SCAN: (SC OFF, SC ON) The SCAN feature detects the next available open RF channel. If RF activity is sensed on or close to a channel, that channel will be skipped. To use the SCAN feature, first check that the UX1200R receiver's SCAN setting is ON. Turn OFF the transmitter for THIS receiver, but turn ON any OTHER transmitters you will be using in this area. NOTE: Set all UX600/UX1200 units to the same Group. Access the Channel setting, and press the UP or DOWN button. The display will read "SCAN__" for a few seconds. When the next open Channel is displayed, press the SET button to store it. Match the UX600M or UX600B transmitter to this Group and Channel after the UX1200R receiver has been set. If "NoFREE" appears on screen, select a different group. SQUELCH: (example: -9) range of -5 to +10. The SQUELCH setting is used to reduce interference by rejecting background RF signals that fall below the SQUELCH level. Increasing the SQUELCH setting will increase the level of RF signal required to pass an audio signal through the receiver. Setting the SQUELCH too high may cause intermittent sound from your transmitter. In this case lower the SQUELCH, or if you are still experiencing interference you can set the UX600M or UX600B transmitter's RF POWER setting to "rF Hi". ATTENUATION: (At OFF, At ON): Decreases the output level at the XLR output by -20dB. If your mixer preamp is being overdriven with VOL. turned low, use the "At ON" setting. SCREEN LOCK: (LO OFF, LO ON): Set to "LO ON" to prevent accidental changes or tampering. If set to "LO ON", only the Lock screen setting will be accessible.

UX600M

»1. Battery Installation (1.A, 1.B, 1.C)

»While holding the lower part of the transmitter body, unscrew the windscreen capsule (1.A) on top of the mic. Press the release clip (1.B) to eject the battery dock (1.C) and remove it from the body. Install fresh AA alkaline batteries, observing correct polarity as marked inside the battery compartment. Replace the battery dock and make sure the clip snaps into the locked position so the battery dock will not slide out. Match the rectangular stub on the windscreen capsule to the 4 pins in the mic body and turn clockwise until tight.

»2. POWER / MUTE Button

»To turn the mic ON, press and release the button on the bottom end of the mic. The display and backlight will turn on. The channel/frequency digits and battery status symbol will be displayed. To MUTE the mic, quickly press and release the button. "RF OFF" will appear on the display for 1 second. The backlight will flash while muted. To UN MUTE, quickly press and release the button again. "RF ON" will be displayed for 1 second. To turn the mic OFF, press and hold the button for about two seconds, the screen will display "OFF" then turn off.
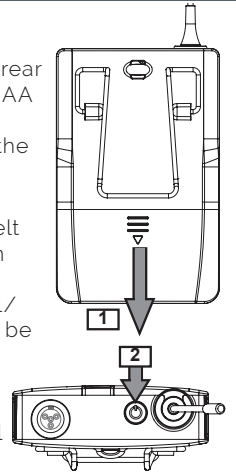
»3. SETTINGS Buttons

»To access the settings buttons, slide the black plastic cover off the end of the mic. CHANGING SETTINGS: Press and hold the SET button until "SETUP" is displayed. The setting to be edited will be blinking. Press the SET button again to select a different setting to edit. Adjust the setting with the UP/DOWN buttons. Press the SET button again to save and exit. GROUP and CHANNEL: (example: 1- 8; group 1, channel 8) Set both numbers to match the UX1200R receiver. FREQUENCY: (example: 530.950) and the "MHz" symbol appears in the lower right. Allows manual selection of frequency, however the GROUP-CHANNEL setting is recommended. (see UX1200R - FREQUENCY) The first 3 digits change in 1 MHz steps, the second 3 digits change in 0.025 MHz steps. LEVEL: (example: 0 dB) range of +12dB to -18dB, in 3 dB steps. Sets the level of the internal mic pre to the transmitter. You may want to increase this setting for soft speaking, or set it lower to prevent overloading the mic from powerful vocals. RF POWER: (rF Hi, rF Lo) Changes the transmitter's RF power output. Use the "rF Hi" setting if you experience dropouts which cannot be remedied by changing the channel/frequency, or if the transmitter will be used far from the receiver. Set this to "rF Lo" if the system is causing interference with another system, if used very close to the receiver, or if you are hearing unexplainable distortion at high audio levels. SCREEN LOCK: (Loc OFF, Loc ON): Set to "Loc ON" to prevent accidental changes or tampering. If set to Loc ON, only the Lock screen setting will be accessible.

»1. Battery Installation UX600B

»To access the battery compartment, slide the rear cover panel off toward the bottom. Insert fresh AA alkaline batteries, observing correct polarity as marked inside the battery compartment. Slide the cover back on until it locks.

»2. POWER / MUTE Button:
To turn the belt pack ON, press and release the white button on the top of the unit. The power button LED and front display backlight will turn on. The channel/frequency digits and battery status symbol will be displayed. To MUTE the output, quickly press and release the button. "RF OFF" will appear on the display for 1 second. The backlight will blink while muted, and the "no speaker" symbol will show on the display. To UN MUTE, quickly press and release the button again. "RF ON" will be displayed for 1 second. To turn the unit OFF, press and hold the button for about two seconds, the screen will display "OFF" for 1 second, then the UX600B will turn off.

»3. SETTINGS Buttons:
Press and hold the SET button until "SETUP" is displayed. The first digit will be blinking to show the setting can be changed. Select the setting to be changed with short presses of the SET button. Adjust the setting with the UP/DOWN buttons. Press the SET button again to save and exit. GROUP and CHANNEL: (example: 1- 8; group 1, channel 8) Set both numbers to match the UX1200R receiver. FREQUENCY: (example: 530.950) and the "MHz" symbol appears in the lower right. Allows manual selection of the frequency, however the GROUP-CHANNEL setting is recommended. (see UX1200R - FREQUENCY) The first 3 digits change in 1 MHz steps, the second 3 digits change in 0.025 MHz steps. SENSITIVITY: "SEnSiT" will display for 1 second, then the setting value (example: 0 dB). Settings from +12dB to -18dB, in 3 dB steps. Sets the level of the internal preamp to the transmitter. You may want to increase this setting for soft speaking when used with microphones, or set it lower to prevent overloading from powerful vocals, or when connected to an instrument. The recommended setting for electric guitar is "-9dB", with the attenuator (ATT) set to ON (see next paragraph). ATTENUATOR: (ATT OFF, ATT ON) Adds an attenuation circuit when used. Recommended when connecting instruments with the UX-GT cable, or with strong vocals through the PERFORMER Series or UX-LP1 mics. If the SENSITIVITY setting has been turned all the way down and the transmitter is still being overdriven, setting ATT ON will add a buffer to the internal preamp to allow more headroom. RF POWER: (rFP Hi, rFP Lo). Changes the transmitter's RF power output. Use the "rFP Hi" setting if you experience dropouts which cannot be remedied by changing the channel/frequency, or if the transmitter will be used far from the receiver. Set this to "rFP Lo" if the sytem is causing interference with another system, if used very close to the receiver, or if you are hearing unexplainable distortion at high audio levels. SCREEN LOCK: (Loc OFF, Loc ON): Set to "Loc ON" to prevent accidental changes or tampering. If set to Loc ON, only the Lock screen will display when settings are accessed. Change the setting to Loc OFF to allow adjustments.

»4. INPUT CONNECTION:
Connect one of the following to the mini XLR input jack on the UX600B transmitter: **Performer Series**- Connect the mic cable to the mini XLR input jack. Place the mic on the vocalist's head. Keep the mic a minimum of 2 inches from the mouth to minimize air hitting the mic. **UX-LP1 Lavaliere Mic**- Connect the lavaliere mic cable to the mini XLR input jack. Clip the mic to clothing near the top center of the chest. For optimum sound, position the mic as close to the mouth with the top of the mic facing up. Test out various positions along the center of the chest to determine the ideal mic placement. This may vary from person to person as each voice projects uniquely. **UX-GT Instrument Cable**- Connect the cable to the mini XLR input jack. Plug the 1/4" connector into a guitar, bass or other instrument. Turn the volume down on the receiving mixer or amplifier before turning the transmitter power ON.

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