



electro-harmonix VOICE BOX Harmony Machine and Vocoder User Manual

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Congratulations on your purchase of the Electro-Harmonix Voice Box!

The Voice Box is a comprehensive and easy to use vocal harmony machine and vocoder. Singers can produce 1 to 4 part harmonies from their solo vocals. The harmonies are determined by the chords played on your instrument and the notes you sing. The Voice Box has a superb and easy to use vocoder, allowing you to easily create classic vocoder sounds. Additionally the Voice Box has an Octave mode, Whistle effect and a Unison effect.

Special Features of the Voice Box:

- 3 different dual harmony modes including: Low, High, Low + High.
- 3 different multi harmony modes.
- Vocoder mode turns the Voice Box into a professional sounding vocoder.

- Octave mode produces an octave above and below your vocal.
- Whistle mode synthesizes a whistle tone 2 octaves above the note you sing.
- Unison mode allows for a formant shaping effect without pitch shifting.
- Save and load up to 9 presets: 1 preset for each mode.
- Scroll through the presets using the MODE knob or PRESET Footswitch.
- Built-In balanced Mic Pre-Amp with switchable Phantom Power and Gain adjustment.
- Effect output on balanced XLR line output for interfacing with mixers and stage breakout boxes.
- Clean and transparent analog instrument through circuitry.

WARNING: Use only the AC Adapter that the Voice Box comes supplied with. Do not use any other AC Adapters. Using other AC adapters, even those made by Electro-Harmonix, could cause harm to the unit, the adapter or you. The Voice Box does not use batteries.

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BASIC CONNECTION SETUP

1. Connect your microphone to the MIC input on the right side of the Voice Box using a balanced XLR cable.

2. Connect a balanced XLR cable to the EFFECT output jack on the left side of the Voice Box. Connect the other end of the XLR cable to the line input of a mixer.
3. Using an unbalanced instrument cable, plug your instrument into the INST Input Jack on the right side of the Voice Box.
4. Connect your instrument's amp or chain of effects into the INST output jack on the left side of the Voice Box.
5. Plug the AC Adapter into a wall outlet.
6. Plug the barrel connector of the AC Adapter into the 9V power jack at the top of the Voice Box. Polarity is center negative.
7. If using a condenser microphone, flip the Phantom Power switch up to the top position, otherwise leave it off. The Phantom Power Switch is located on the right side of the Voice Box, next to the XLR MIC input.
8. Push the MIC BYPASS Footswitch until its associated LED is off. Sing into the microphone, you will hear your dry vocal at this point. Adjust mixer settings as well as the MIC GAIN switch on the Voice Box to obtain optimal mic levels.

USING THE HARMONIES

1. Rotate the white MODE knob clockwise until LOW HARMONY mode is selected.
2. Rotate the GENDER BENDER, DRY and HARMONY REVERB knobs fully counter-clockwise.
3. Rotate the BLEND and VOICE MIX knobs so that they are set to 12 o'clock or 50% position.
4. Play your instrument to make sure you can hear it well. Now tune your instrument, the harmonies in the Voice Box work best when your instrument is properly tuned with itself. The instrument does not have to be tuned to A440 or any other standard.
5. Play some chords and sing, you will hear the Voice Box produce mostly 3rds and 5ths below your original vocal and in tune with your instrument.
6. Rotate the MODE knob to load the other harmony modes.

VOICE MIX Knob Adjustments

1. When the Voice Box is set to one of the 6 harmony modes, the VOICE MIX knob adjusts the mix between lower and higher harmonies. For example, when the Voice Box is set to LOW HARMONY mode, the VOICE MIX knob will mix between the 3rd below your original note and the 5th below your original note.
2. Adjust the VOICE MIX knob to hear the mix of lower 3rd and lower 5th harmonies you like best.

GENDER BENDER Knob Adjustments

1. In the 6 harmony modes, the GENDER BENDER knob controls the timbre of the harmony voices. As you turn the GENDER BENDER knob clockwise, the formant of the harmony voices shifts upward or downward. The direction of the formant shift depends on the harmony mode selected.
2. As an example, if the Voice Box is set to LOW HARMONY mode, as you turn the GENDER BENDER knob clockwise, the formant shifts downward, emulating the lengthening of the vocal tract. Male singers tend to have longer vocal tracts than female singers, so by turning the GENDER BENDER knob clockwise in LOW HARMONY mode, you are making the harmony voices sound more male.
3. Turning the GENDER BENDER knob counter-clockwise reduces the formant shift, going all the way down to zero when set fully counter-clockwise.

Adding Reverb

1. The Voice Box includes separate control for DRY or HARMONY reverb.
2. Turn up the HARMONY knob under REVERB and you will hear the harmony voices going through the reverb effect.
3. Turn up the DRY knob under REVERB and you will hear your dry vocals going through the reverb effect.
4. You can apply separate amounts of reverb to your effected vocals or dry vocals.

USING THE VOCODER

1. Turn the MODE knob counter-clockwise until VOCODER mode is selected.
2. Rotate DRY REVERB, HARMONY REVERB and VOICE MIX knobs fully counter-clockwise.
3. Rotate the GENDER BENDER knob to 12 o'clock or 50%.
4. Rotate the BLEND fully clockwise so all you hear is effect.
5. You may even want to mute the output of the instrument signal, for example turn off your guitar amp if using an amp.
6. Play a chord on your instrument then sing something. You should hear your voice modulating the instrument. You are now vocoding.
7. Try turning the VOICE MIX knob up to 50%. In VOCODER mode, the VOICE MIX knob gives a treble boost up to 12 o'clock. Past 12 o'clock, it will add more harmonics to your instrument, emphasizing the most sibilant frequency ranges of the voice.
This makes it easier to obtain vocoded sounds out of dry guitar.
8. In VOCODER mode, the GENDER BENDER knob again shifts the formant. Above 12 o'clock, the formant will shift upward (more female). Below 12 o'clock, the formant shifts downward (more male). At 12 o'clock there is no formant shift.
9. The BLEND knob can be used to mix in some of your dry vocal to create interesting doubled vocal effects.
10. You can add some reverb to the vocoded signal by turning up the HARMONY REVERB knob.

USING OCTAVES MODE

1. OCTAVES mode does not require an instrument to be played in order for it to produce the octaves above and below your original vocals.
2. Turn the MODE knob until OCTAVES mode is selected.
3. The VOICE MIX knob mixes between the lower and upper octaves. Full counter-clockwise produces the lower octave and full clockwise produces the upper octave. 12 o'clock on the VOICE MIX knob will produce an equal mix of both octaves.
4. Turning GENDER BENDER clockwise in OCTAVES mode increases the amount of formant shift for both the upper and lower octave. GENDER BENDER shifts the formant upward for the upper octave and shifts it downward for the lower octave. Turning the GENDER BENDER knob counter-clockwise will reduce the formant shift to zero at the minimum position.

USING UNISON + WHISTLE MODE

1. UNISON + WHISTLE mode is another mode that does not require an instrument to be played for it to work.

properly. UNISON is vocal formant shift effect with no pitch shifting and WHISTLE synthesizes a whistle tone two octaves above the note you sing.

- Turn the MODE knob until UNISON + WHISTLE mode is selected.
- The VOICE MIX knob mixes between the UNISON effect (fully counter-clockwise) and the WHISTLE effect (fully clockwise).
- The GENDER BENDER knob sets the amount of formant shifting for UNISON mode. Above 12 o'clock, the formant will shift upward (more female). Below 12 o'clock, the formant shifts downward (more male). At 12 o'clock there is no formant shift.

DESCRIPTION OF MODES

The Voice Box has 9 modes to choose from. Each mode gives the musician a different sonic palette to work with. In addition, each mode may change the functionality of some of the Voice Box's knobs. In this section we will describe each mode and the functionality of the knobs that change with the mode.

Use the MODE knob to cycle through the modes. Turning the MODE knob clockwise goes up the LED ladder. Turning the MODE knob counter-clockwise goes down the LED ladder.

Below is a table displaying the function of each knob as it relates to the selected mode. Arrows indicate the function that occurs as the knob is turned to or towards the extreme knob position in that direction. You will notice some knobs, such as BLEND, do not change with the mode while others, such as GENDER BENDER, are the same basic control but the direction or amount of the function changes for nearly every mode.

REVERB

VOICE MIX

BLEND

DRY

HARMONY

GENDER BENDER

LOW

HIGH

MODE

◀ Dry...Wet ▶	Dry Reverb ◀ Less...More ▶	Effects Reverb ◀ Less...More ▶	Formant Shift ◀ Zero...Down ▶	Voice Mix ◀ -3rd...+5th ▶	LOW HARMONY
◀ Dry...Wet ▶	Dry Reverb ◀ Less...More ▶	Effects Reverb ◀ Less...More ▶	Formant Shift ◀ Zero...Upward ▶	Voice Mix ◀ +3rd...+5th ▶	HIGH HARMONY
◀ Dry...Wet ▶	Dry Reverb ◀ Less...More ▶	Effects Reverb ◀ Less...More ▶	Formant Shift ◀ Zero...Down ▶ ◀ Zero...Upward ▶	Voice Mix ◀ -5th...+3rd ▶	LOW + HIGH HARMONY
◀ Dry...Wet ▶	Dry Reverb ◀ Less...More ▶	Effects Reverb ◀ Less...More ▶	Formant Shift ◀ Zero...Down ▶ ◀ Zero...Upward ▶	Voice Mix ◀ -5th...+3rd ▶	MULTI HARMONY 1
◀ Dry...Wet ▶	Dry Reverb ◀ Less...More ▶	Effects Reverb ◀ Less...More ▶	Formant Shift ◀ Zero...Down ▶ ◀ Zero...Upward ▶	Voice Mix ◀ -5th...+Oct. ▶	MULTI HARMONY 2
◀ Dry...Wet ▶	Dry Reverb ◀ Less...More ▶	Effects Reverb ◀ Less...More ▶	Formant Shift ◀ Zero...Down ▶ ◀ Zero...Upward ▶	Voice Mix ◀ -Oct...+5th ▶	MULTI HARMONY 3
◀ Dry...Wet ▶	Dry Reverb ◀ Less...More ▶	Effects Reverb ◀ Less...More ▶	Formant Shift ◀ Zero...Down ▶ ◀ Zero...Upward ▶	Voice Mix ◀ -Oct...+Oct. ▶	OCTAVES
◀ Dry...Wet ▶	Dry Reverb ◀ Less...More ▶	Effects Reverb ◀ Less...More ▶	Formant Shift ◀ Downward...Off...Upward ▶	Voice Mix ◀ Unison...Whistle ▶	UNISON + WHISTLE
◀ Dry...Wet ▶	Dry Reverb ◀ Less...More ▶	Effects Reverb ◀ Less...More ▶	Formant Shift ◀ Downward...Off...Upward ▶	Treble/Harmonic Enhancement ◀ Less...More ▶	VOCODER

HARMONY Modes

The six HARMONY Modes will pitch shift your voice to create 2 to 4 part harmonies along with your dry vocal. The pitch and number of harmonies depends on the selected mode. In addition the exact function of the VOICE MIX and GENDER BENDER knobs changes slightly with each mode.

Please Note: All six harmony modes require an instrument to be played along with your vocal to provide the key information for the pitch shifter. If no instrument is plugged in and playing, the six harmony modes will not work correctly. The Voice Box works best with full chords; for example a chord with at least the root, 3rd and 5th.

LOW HARMONY

The Voice Box creates two harmony voices below the note you sing. The low voice is usually the lower 3rd below your note but will sometimes be the lower 4th depending on the most appropriate harmony for the chord your instrument plays and the note you sing. The high voice is usually the lower 5th below the note you sing but will sometimes be the lower 6th again depending on which harmony is the most appropriate.

VOICE MIX knob: Mixes between the lower 3rd harmony (in knob's LOW position) and the lower 5th harmony (in knob's HIGH position). When set to 12 o'clock, there will be an equal mix of both harmonies.

GENDER BENDER knob: As turned clockwise, GENDER BENDER shifts the formant downward, making the harmonies sound more male. When turned fully counter-clockwise, there is no formant shift.

HIGH HARMONY

The Voice Box creates two harmony voices above the note you sing. The low voice is usually the 3rd above your note but will sometimes be the 4th depending on the most appropriate harmony for the chord your instrument plays and the note you sing. The high voice is usually the 5th above the note you sing but will sometimes be the 6th again depending on the most appropriate harmony.

VOICE MIX knob: Mixes between the 3rd harmony (in knob's LOW position) and the 5th harmony (in knob's HIGH position). When set to 12 o'clock, there will be an equal mix of both harmonies.

GENDER BENDER knob: As turned clockwise, GENDER BENDER shifts the formant upward, making the harmony sound more female. When turned fully counter-clockwise, there is no formant shift.

LOW + HIGH HARMONY

The Voice Box creates two harmony voices one above the note you sing and one below. The low voice is usually the lower 5th below the note you sing. The high voice is usually the upper 3rd above the note you sing.

VOICE MIX knob: Mixes between the lower 5th harmony (in knob's LOW position) and the upper 3rd harmony (in knob's HIGH position). When set to 12 o'clock, there will be an equal mix of both harmonies.

GENDER BENDER knob: For the lower harmony, GENDER BENDER shifts the formant downward, making the harmony sound more male. For the upper harmony, the formant shifts upward, making the harmony sound more female. When turned fully counter-clockwise, there is no formant shift.

MULTI HARMONY 1: Lower 3rd, Lower 5th and Upper 3rd The Voice Box creates three harmonies: two lower harmonies and one upper harmony. The harmonies consist of the lower 3rd harmony, the lower 5th harmony and the upper 3rd harmony.

VOICE MIX knob: Mixes between the lower 3rd harmony (in knob's LOW position) and the upper 3rd harmony (in knob's HIGH position). The volume of the lower 5th harmony does not change with the VOICE MIX knob. When set to 12 o'clock, there is an equal mix of all harmonies.

GENDER BENDER knob: For the lower harmonies, GENDER BENDER shifts the formant downward, making the harmonies sound more male. For the upper harmony the formant shifts upward, making the harmony sound more female. When turned fully counter-clockwise, there is no formant shift.

MULTI HARMONY 2: Lower 3rd, Lower 5th, Upper 3rd and Upper Octave

The Voice Box creates the same three harmonies as in Multi Harmony 1 and adds the upper octave. The harmonies consist of the lower 3rd harmony, the lower 5th harmony and the upper 3rd harmony. Added to the mix is the upper octave.

VOICE MIX knob: Mixes between the lower 3rd harmony (in knob's LOW position) and the upper octave (in knob's HIGH position). The levels of the lower 5th harmony and upper 3rd harmony do not change with the VOICE MIX knob. When set to 12 o'clock, there will be an equal mix of all harmonies and upper octave.

GENDER BENDER knob: For the lower harmonies, GENDER BENDER shifts the formant downward, making the harmonies sound more male. For the upper harmony and octave, the formant shifts upward, making the harmonies sound more female. When turned fully counter-clockwise, there is no formant shift.

MULTI HARMONY 3: Lower Octave, Lower 5th, Upper 3rd and Upper 5th The Voice Box creates three harmonies (one below, two above) plus an octave down. The harmonies consist of the lower 5th harmony, the upper 3rd harmony and the upper 5th harmony. Added to the mix is the lower octave.

VOICE MIX knob: Mixes between the lower octave (in knob's LOW position) and the upper 5th harmony (in knob's HIGH position). The levels of the lower 5th harmony and upper 3rd harmony do not change with the VOICE MIX knob. When set to 12 o'clock, there will be an equal mix of all harmonies and lower octave.

GENDER BENDER knob: For the lower harmony and octave, GENDER BENDER shifts the formant downward, making the harmonies sound more male. For the upper harmonies, the formant shifts upward, making the harmonies sound more female. When turned fully counter-clockwise, there is no formant shift.

OCTAVES Mode

OCTAVES mode pitch shifts your vocal up and down exactly one octave. Since the amount of pitch shift is preset to an octave, this mode does not require an instrument to be played along with your vocal.

VOICE MIX knob: Mixes between the lower octave (in knob's LOW position) and the upper octave (in knob's HIGH position). When set to 12 o'clock, there will be an equal mix of the two octaves.

GENDER BENDER knob: For the lower octave, turning GENDER BENDER clockwise shifts the formant downward, making the lower octave sound more male. For the upper octave, turning GENDER BENDER clockwise shifts the formant upward, making the upper octave sound more female. When turned fully counter-clockwise, there is no formant shift.

UNISON + WHISTLE Mode:

UNISON + WHISTLE mode is really like having two modes in one. Each function is separate from the other. UNISON mode allows for formant shift without changing the pitch of your vocal. For example, you want to sound more womanly but without changing your pitch. WHISTLE mode synthesizes a whistle tone exactly two octaves above the note you sing.

VOICE MIX knob: Mixes between the UNISON effect (in knob's LOW position) and the WHISTLE effect (in knob's HIGH position). When set to 12 o'clock, there will be an equal mix of UNISON and WHISTLE.

GENDER BENDER knob: Adjusts formant shift for the UNISON effect only. When GENDER BENDER is set to 12 o'clock, there is no formant shift. As you turn the knob clockwise from 12 o'clock, the formant shifts upward for a more female sounding vocal. As you turn the knob counterclockwise from 12 o'clock, the formant shifts downward for a more male sounding vocal.

VOCODER Mode

VOCODER mode turns the Voice Box into a 256 Band vocoder. Vocoding is an effect that allows a voice to modulate an instrument or sound source. The controls have been optimized so that the vocoder is very much plug, play and sing; the musician does not need to do much work to create fantastic sounding vocoder effects. As with most vocoders, both a vocal signal and an instrument signal are required to obtain the proper effect.

VOICE MIX knob: In Vocoder mode, the VOICE MIX knob increases treble response and articulation. As you turn the knob up from fully counter-clockwise to 12 o'clock, the treble will be increasingly boosted. Turning the VOICE MIX knob further past 12 o'clock no longer increases the treble but puts the instrument signal through octave harmonic enhancement. The increased harmonic content gives the vocoder more frequencies to work with in the vocals fricative and sibilant range. This is especially useful with a clean guitar signal.

GENDER BENDER knob: When GENDER BENDER is set to 12 o'clock, there is no formant shift. As you turn the knob clockwise from 12 o'clock, the formant shifts upward for a more female sounding vocoder effect. As you turn the knob counter-clockwise from 12 o'clock, the formant shifts downward for a more male sounding vocoder effect.

– PRESETS –

The Voice Box can save one preset for each of the 9 modes. Each preset will pertain directly to the mode you have saved it in. Once a preset is saved, the Voice Box will remember the preset after power has been disconnected.

Saving a preset will save the setting of all 5 of the black knobs. It will not save the state of the MIC BYPASS Footswitch, the MIC GAIN Toggle switch or the PHANTOM POWER Toggle switch.

PRESET SAVE PROCEDURE

1. To Save the knob positions that are currently set up, press and hold down the MODE knob.
2. Hold down MODE for 3 seconds. Nothing will occur for 2 seconds, then all the mode LEDs will blink for 1 second.
3. After the LEDs stop blinking, let go of the MODE knob. The PRESET LED will light up solid. The PRESET LED is located to the left of the PRESET FOOTSWITCH.
4. Your preset has been saved in the mode that is currently lit.

PRESET LOAD PROCEDURE

USING MODE KNOB

1. To Load a preset you previously saved: turn the MODE knob to the mode where the preset was saved.
2. Press and release the MODE knob. The PRESET LED will light up to indicate that the Preset has loaded.

Please Note: The current knob positions are no longer valid.

USING PRESET FOOTSWITCH

To Load a preset you previously saved using the PRESET Footswitch: press and release the PRESET Footswitch. The PRESET LED will light up to indicate that the Preset has loaded for the currently selected mode.

Please Note: The current knob positions are no longer valid.

If you press and release the PRESET Footswitch while a preset is already loaded into the current mode, the Voice Box will jump down to the next mode and load its preset. For example, if you have a preset loaded into HIGH HARMONY mode, then press the PRESET Footswitch, the Voice Box will then select LOW + HIGH as its current

mode, then load its preset.

After loading a preset, if you move a knob, the knob's new location will supersede the preset's stored value for that knob. At this point, the PRESET LED will blink rapidly to indicate that a knob has been moved. If you then turn the knob back to its position, as saved in the preset, the PRESET LED will stop blinking.

If the PRESET LED is blinking rapidly, when you press the PRESET Footswitch, it will re-load the preset for whichever mode you are currently in.

PRESET UNLOAD PROCEDURE:

A preset can be unloaded to restore the current knob positions so they represent what you hear. There are two ways to unload a preset, press and release the MODE knob or turn the MODE knob to another mode.

CONTROLS, INDICATORS & I/O

The following descriptions detail all of the knobs, switches, LEDs (lights) and I/O jacks on the Voice Box:

MODE KNOB

This is the white knob located in the upper right corner of your Voice Box. The MODE knob is a rotary encoder enabling the user to scroll through the 9 Modes of the Voice Box. Turn the knob clockwise to progress up through the modes: from VOCODER to LOW HARMONY mode. Turn the knob counter-clockwise to progress down through the modes: from LOW HARMONY to VOCODER mode.

The MODE knob also has a push switch to save and load presets. To load a preset: turn the MODE knob to select the desired mode and then give the MODE knob a quick tap. To save a preset: push down and hold the MODE knob for 3 seconds. You will then see all mode LEDs blink rapidly. Continue to hold down the MODE knob until the LEDs stop blinking. At this point the preset is saved and you can let go of the knob. Only one preset is saved per mode and the preset you save is based on the selected mode.

Please note: The six harmony modes require an instrument to play chords along with the vocals so that the Voice Box can determine the key of your song. VOCODER mode also requires an instrument or sound source. Neither OCTAVES or UNISON + WHISTLE modes require an instrument or sound source.

GENDER BENDER KNOB

Formant shift corresponds roughly to the length of the vocal tract. Bass and baritone singers have longer vocal tracts than sopranos and tenors.

In all modes, the GENDER BENDER knob adjusts the amount of formant shift that is applied to the harmony, octave or effected voices. For voices that are pitch shifted up, the formant will shift upward, which is equivalent to shortening the vocal tract, to sound more female. For voices that are pitch shifted down, the formant will shift downward, which is equivalent to lengthening the vocal tract, to sound more male.

In all modes except UNISON and VOCODER, turning the GENDER BENDER knob clockwise will increase the amount of formant shift from zero to 100%. In UNISON and VOCODER mode, zero formant shift is at the center of the knob's range, or 12 o'clock. Turning GENDER BENDER clockwise from 12 o'clock will shift the formant upward, or shorten the vocal tract. Turning GENDER BENDER counter-clockwise from 12 o'clock will shift the formant downward, or lengthen the vocal tract.

VOICE MIX KNOB

In all modes, the VOICE MIX knob mixes between two different voices.

In most cases it mixes between a low harmony voice (counter-clockwise position) and a high harmony voice (clockwise position). The following table lists the VOICE MIX's range for each mode:

MODE	VOICE MIX RANGE LOW to HIGH knob position
LOW HARMONY	Lower 3rd to Lower 5th
HIGH HARMONY	Upper 3rd to Upper 5th
LOW + HIGH	Lower 5th to Upper 3rd
MULTI HARMONY 1	Lower 5th to Upper 3rd
MULTI HARMONY 2	Lower 5th to Upper Octave
MULTI HARMONY 3	Lower Octave to Upper 5th
OCTAVES	Lower Octave to Upper Octave
UNISON + WHISTLE	Unison to Whistle
VOCODER	Bass to Treble to Enhanced Harmonics

REVERB KNOBS

DRY REVERB Knob: This is a volume control for the reverb that is applied to the Dry vocals.

HARMONY REVERB Knob: This is a volume control for the reverb that is applied to the effected vocals. You can add reverb to all of the effects, not just harmony voices. For example, while using the WHISTLE effect, turning up the HARMONY REVERB knob will apply reverb to the WHISTLE effect.

BLEND KNOB

The BLEND knob is a wet/dry control for the effect output jack. Turning the BLEND knob to its minimum counter-clockwise position will yield

100% dry and no wet signal. Turning the BLEND knob to its maximum clockwise position will give you 100% wet and no dry signal. To obtain an equal balance of both wet and dry signals, set the BLEND control to 50%.

PRESET Footswitch / LED

Press and release the PRESET Footswitch to load a preset into the presently selected mode. If a preset is already loaded into the presently selected preset, pressing the PRESET Footswitch will select the next mode and load its

preset.

The PRESET LED will light solid when a preset is loaded. While a preset is loaded, if a black knob is turned, the PRESET LED will blink rapidly telling you that though a preset is loaded, one or more knobs have been turned. Pressing the PRESET Footswitch while the PRESET LED is blinking will re-load the preset for the current mode.

MIC BYPASS Footswitch / STATUS LED

The Bypass footswitch toggles the Voice Box between effect mode and bypass mode. If the STATUS LED is lit, then the Voice Box is in effect mode. If the STATUS LED is off, then the Voice Box is in bypass mode.

In bypass mode: the dry vocal is output through the EFFECT Output XLR jack and the effect is muted. In effect mode: the output of the BLEND control determines how much effect vs. dry signal is output through the EFFECT Output XLR jack.

In both effect and bypass modes, the instrument's signal goes through a high quality buffer stage between the INSTRUMENT INPUT and OUTPUT jacks.

MIC GAIN Toggle Switch

Use this switch to change the sensitivity of the mic pre-amp in the Voice Box. HI gain mode should be used in most situations. LO mode is useful if HI mode is clipping, if you want to connect the output from another mic pre-amp to the input of the Voice Box or if you have a loud singer with an especially sensitive microphone.

PHANTOM POWER Toggle Switch

On the side of the Voice Box, next to the MIC INPUT XLR jack, is the PHANTOM POWER toggle switch. Pushing the toggle switch up will supply +45V to the microphone. The PHANTOM POWER switch should only be set to ON when using a condenser microphone.

MIC INPUT XLR Jack

The MIC INPUT XLR jack is a fully balanced microphone input. Connect your microphone directly to this input jack. The input impedance at the MIC INPUT XLR jack is 10 k.

INSTRUMENT INPUT ¼" Jack

In all modes but two (OCTAVES and UNISON + WHISTLE), the Voice Box requires an instrument to be played along with your vocals. For the six harmony modes, the Voice Box needs an instrument to provide chords so that the Voice Box can determine the key of your instrument.

The best types of chords for the Voice Box should include the root, 3rd and 5th of the chord. VOCODER mode only requires a sound source; the VOCODER effects the instrument you play with your voice.

Plug the output of your instrument into the INSTRUMENT INPUT jack. The input impedance presented at the INSTRUMENT INPUT XLR jack is 2.2 M.

EFFECT OUTPUT XLR Jack

The Voice Box's vocal effect is output through the EFFECT OUTPUT XLR jack on the side of the unit. The vocal harmonies, vocoder and other effects as well as the dry and bypassed vocals are output from this jack.

The EFFECT OUTPUT XLR jack is a fully balanced line output jack. It can be connected directly to the line input of a mixer, on stage breakout boxes or the input of an A/D converter. The output impedance is 700 .

INSTRUMENT OUTPUT ¼" Jack

Connect this output to your amp, effects or other device. The output impedance is 700 .

9V Power Jack

Plug the output of the Voice Box's supplied AC Adapter into the 9V power jack located at the top of the Voice Box. The Voice Box requires 9 – 9.6VDC at 200mA with a center negative plug. The Voice Box accepts Boss style AC Adapters.

TECHNICAL SPECIFICATIONS

Mic Pre-Amp Gain:

- LO Mode = 15db; HI Mode = 25dB (XLR out into High Z load)
- LO Mode = 4.5dB; HI Mode = 15dB (XLR out into 600 load)
- A/D and D/A Conversion Sample Rate = 36 kHz
- A/D and D/A Conversion Bit Resolution = 24 bits

WARRANTY INFORMATION

Please register online at <http://www.ehx.com/product-registration> or complete and return the enclosed warranty card within 10 days of purchase. ElectroHarmonix will repair or replace, at its discretion, a product that fails to operate due to defects in materials or workmanship for a period of one year from date of purchase. This applies only to original purchasers who have bought their product from an authorized Electro-Harmonix retailer. Repaired or replaced units will then be warranted for the unexpired portion of the original warranty term.

If you should need to return your unit for service within the warranty period, please contact the appropriate office listed below. Customers outside the regions listed below, please contact EHX Customer Service for information on warranty repairs at info@ehx.com or +1-718-937-8300. USA and Canadian customers: please obtain a Return Authorization Number (RA#) from EHX Customer Service before returning your product. Include with your returned unit: a written description of the problem as well as your name, address, telephone number, email address, and RA#; and a copy of your receipt clearly showing the purchase date.

United States & Canada EHX CUSTOMER SERVICE

ELECTRO-HARMONIX
c/o NEW SENSOR CORP.
47-50 33RD STREET
LONG ISLAND CITY, NY 11101
Tel: 718-937-8300
Email: info@ehx.com

Europe
JOHN WILLIAMS
ELECTRO-HARMONIX UK
13 CWMDONKIN TERRACE
SWANSEA SA2 0RQ
UNITED KINGDOM
Tel: +44 179 247 3258
Email: electroharmonixuk@virginmedia.com

This warranty gives a purchaser specific legal rights. A purchaser may have even greater rights depending upon the laws of the jurisdiction within which the product was purchased.

To hear demos on all EHX pedals visit us on the web at www.ehx.com Email us at info@ehx.com

FCC COMPLIANCE

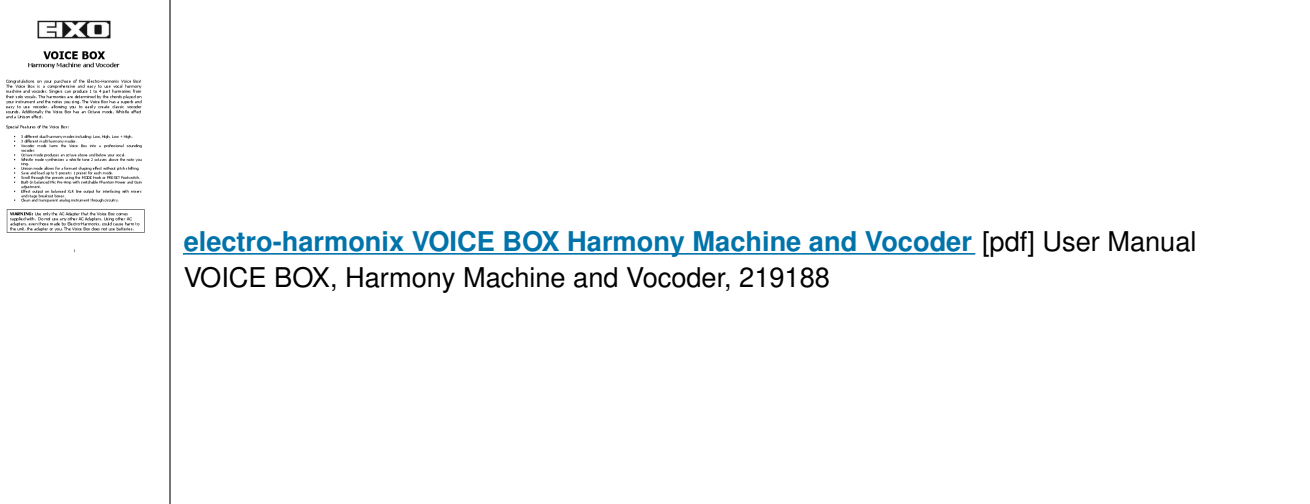
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

Documents / Resources



References

- **Electro-Harmonix**