ZOOM 505 GUITAR Operation Manual

Thank you for selecting the ***ZOOM 505*** (hereafter simply called the "**505**").

Please take the time to read this manual carefully so as to get the most out of your 505 and to ensure optimum performance and reliability. Retain this manual for future reference.

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ZOOM®
CATCH US IF YOU CAN

1 Major Features

- 24 individual built-in effects provide maximum flexibility.
  Up to 9 effects can be used simultaneously in any combination.
- Memory capacity for up to 24 user-programmable patches.
- Integrated auto-chromatic guitar tuner for simple and precise tuning anywhere.
- Optional foot controller FP01 can be used for pedal wah or pedal pitch, and volume control is also possible.
- Optional foot switch FS01 can be used for bank switching, resulting in enhanced playability.
- Dual power supply principle allows the unit to be powered from an alkaline battery or an AC adapter.
- New DSP (digital signal processor) ZFx-2 developed by Zoom produces high-quality effects from an amazingly compact package.

2 Safety Precautions

USAGE AND SAFETY PRECAUTIONS

In this manual, symbols are used to highlight warnings and cautions for you to read so that accidents can be prevented. The meanings of these symbols are as follows:

⚠ **Warning** — This symbol indicates explanations about extremely dangerous matters. If users ignore this symbol and handle the device the wrong way, serious injury or death could result.

⚠ **Caution** — This symbol indicates explanations about dangerous matters. If users ignore this symbol and handle the device the wrong way, bodily injury and damage to the equipment could result.

Please observe the following safety tips and precautions to ensure hazard-free use of the 505.

⚠ **Warning-** About power

Since power consumption of this unit is fairly high, we recommend the use of an AC adapter whenever possible. When powering the unit from a battery, use only an alkaline type.

AC adapter operation

- Be sure to use only an AC adapter which supplies 9 V DC, 300 mA and is equipped with a "center minus" plug (Zoom AD-0006). The use of an adapter other than the specified type may damage the unit and pose a safety hazard.
- Connect the AC adapter only to an AC outlet that supplies the rated voltage required by the adapter.
- When disconnecting the AC adapter from the AC outlet, always grasp the adapter itself and do not pull at the cable.
- If the unit is not to be used for a long time, disconnect the AC adapter from the outlet.

Battery operation

- Use only a 9 V (alkaline) battery (6LR61).
- The 505 cannot be used for recharging.
  Pay close attention to the labelling of the battery to make sure you choose the correct type.
- If the 505 is not to be used for an extended period of time, remove the battery from the unit.
- If battery leakage has occurred, wipe the battery compartment and the battery terminals carefully to remove all remnants of battery fluid.
- While using the unit, the battery compartment cover should be closed.

⚠ **Caution** — Environment

Avoid using your 505 in environments where it will be exposed to:

- Extreme temperature
- High humidity or moisture
- Excessive dust or sand
- Excessive vibration or shock

⚠ **Caution** — Handling

- The 505 is a precision instrument. Except for the foot switches, do not push other parts with your feet or subject them to strong force.
- Take care that no foreign objects (coins or pins etc.) or liquids can enter the unit.
- Be sure to turn the power to all equipment off before making connections.
- Before moving the unit, turn the power off, and disconnect all cables and the AC adapter.

⚠ **Caution** — Alterations

Never open the case of the 505 or attempt to modify the product in any way since this can result in damage to the unit.

Usage precautions

Electrical interference

For safety considerations, the 505 has been designed to provide maximum protection against the emission of electromagnetic radiation from inside the device, and from external interference.However, equipment that is very susceptible to interference or that emits powerful electromagnetic waves should not be placed near the 505, as the possibility of interference cannot be ruled out entirely.

Whatever the type of digital control device, the 505 included, electromagnetic damage can cause malfunctioning, and can corrupt or destroy data. Since this is an ever-present danger, thorough care should be taken to minimize the risk of damage.

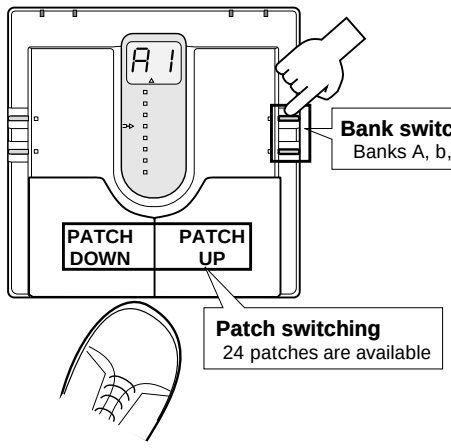
Cleaning

Use a soft, dry cloth to clean the 505. If necessary, slightly moisten the cloth. Do not use abrasive cleanser, wax, or solvents (such as paint thinner or cleaning alcohol), since these may dull the finish or damage the surface.

Connecting cables and input and output jacks

You should always turn off the power to the 505 and all other equipment before connecting or disconnecting any cables. Also make sure to disconnect all cables and the AC adapter before moving the 505.

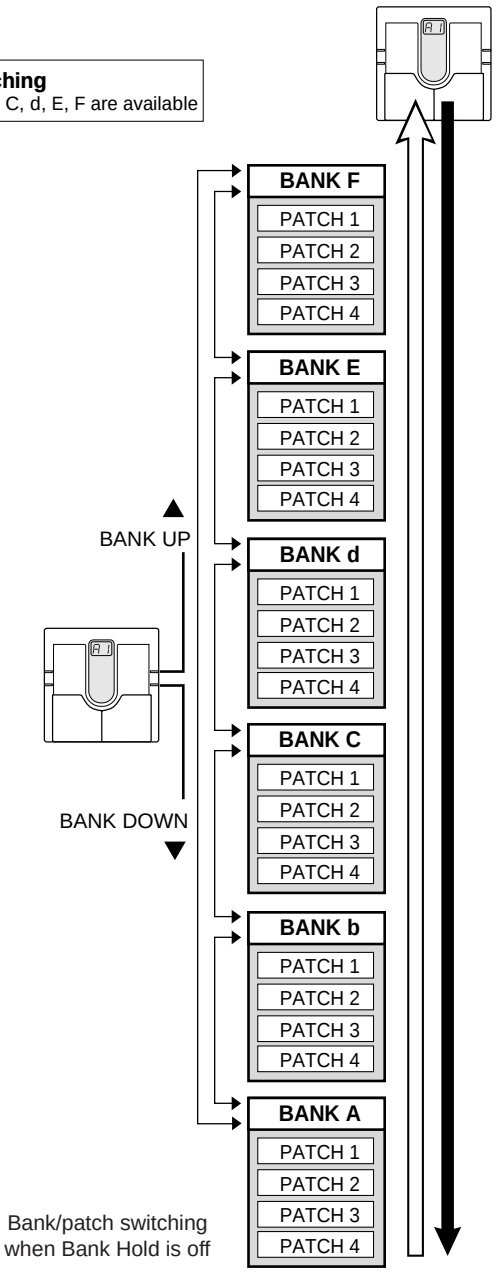
7 Selecting Patches



The 24 patches can be selected easily by pressing the patch pedals. The right patch pedal switches to the next patch and the left patch pedal switches to the previous patch.
In the initial condition, the 505 is set up so that the patch pedals select patches continuously, but you can also set up the unit so that patches are switched only within a certain bank [see the section "Patch Switching (Application: Bank Hold")].
Bank switching is performed with the VALUE + / - keys.

If for example the currently selected patch is patch 2 of bank A, and you want to switch to patch 3 of bank C, you would need to press the UP pedal nine times. Instead, you can press the VALUE + key twice and then the UP pedal once.

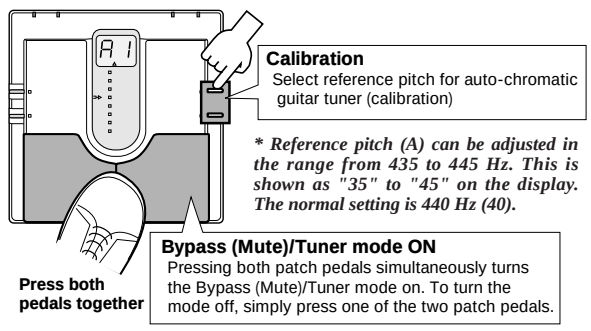
If the optional FS01 is connected to the CONTROL IN jack on the rear panel, the foot switch can be used as a bank UP pedal. This allows full foot control, which is highly convenient during a performance.



Bank/patch switching when Bank Hold is off

8 Using the Bypass (Mute)/Tuner Mode

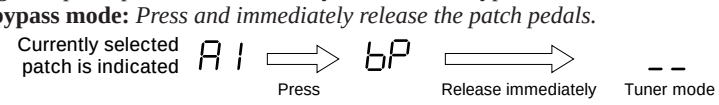
In the Bypass mode, the effects of the 505 are temporarily turned off, so that the original sound of the instrument only is heard. In this mode, the auto-chromatic tuning function is also active. It is also possible to activate muting, to prevent the tuning sound from being sent to the output.



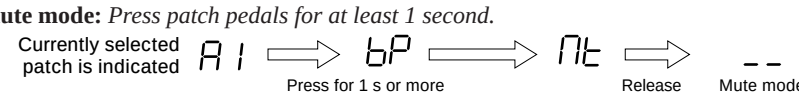
Bypass and mute condition

Pressing both patch pedals simultaneously activates the Bypass or Mute mode.

- **For bypass mode:** *Press and immediately release the patch pedals.*



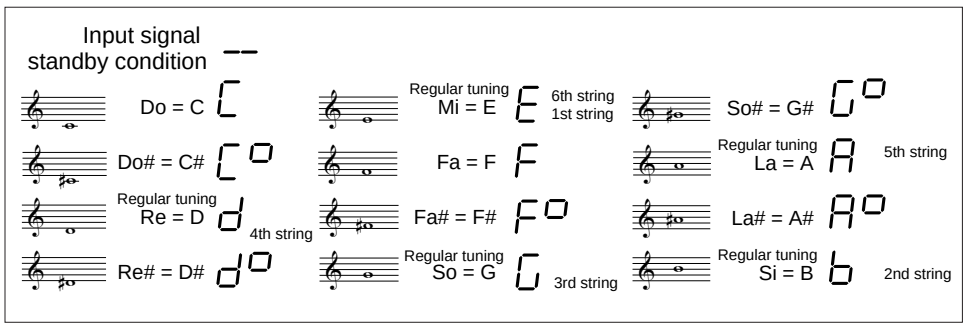
- **For mute mode:** *Press patch pedals for at least 1 second.*



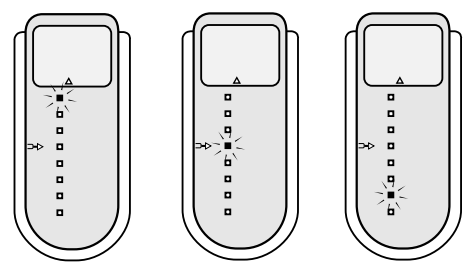
To cancel the bypass or mute condition, simply press one of the patch pedals. The unit then reverts to the previously selected patch.

Tuning function

When the 505 is in the Bypass or Mute mode, the tuning function is activated automatically. Pick an open string to be tuned. The closest note is shown on the display.



When the tuning function is active, the parameter cursor LEDs serve as tuning meter, designed to enhance tuning precision when making fine adjustments.



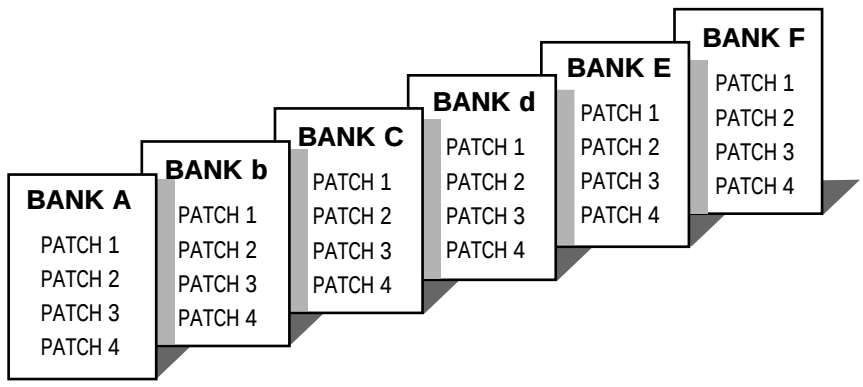
3 What Are Banks and Patches?

• PATCH

A combination of several effects, each with individual parameter settings is called a "patch". The 505 comes with 24 preset patches which can be changed (edited) by the user.

• BANK

The 505 calls up patches in sets of four, called a "bank".



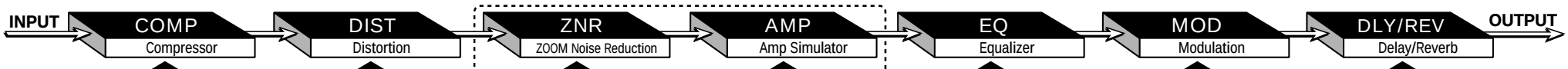
4 PATCH LIST

The 505 has memory capacity for 24 patches. At the factory, these are programmed with recommended settings. The user can freely change the contents of any patch, and it is also possible to restore the factory settings.

BANK	PATCH	PATCH NAME	COMMENT
A	1	Super Dist Solo	Tight and smooth distortion
	2	Clean Delay	Clean sound with chorus and feedback delay
	3	Psycho Harmony	Distortion sound for avant-garde harmony solos
	4	Metal	High-gain metal sound allows 2-octave bend-down with pedal
b	1	Mellow Drive	Straight overdrive sound
	2	Wah Dist	Distortion sound with auto wah and chorus
	3	Multi Phaser	Multi Phaser
	4	Steel China	Synthesizer-like SFX sound
C	1	Rock Drive	Straight rock sound
	2	Bright Chorus	Chorus sound with a distinct edge
	3	Power Distortion	Distortion with doubling as hidden flavor
	4	Choir Wave	Clean sound with transparent chorus and flanger
d	1	Jet Drive	Wild jet sound with flanger
	2	Funky Phase	Clean sound with wah and effect shift for rhythm play
	3	Head Long	Zoom's famous step-type effect
	4	City Night	Clean chorus sound
E	1	PWM Synth Lead	Synthesizer sound with full effect palette
	2	JAZZY	Warm jazz sound with octave overlays
	3	Octave Pitch	Wild and heavy lead sound with up/down octave unison
	4	Step Mode	SF type sound combining step effect with chorus
F	1	Wah Fuzz	Noisy wah/fuzz sound
	2	Blues Lead	Lead sound for fusion and blues
	3	Blues Rhythm	Cutting sound with distortion as hidden flavor
	4	Acoustic	Electric acoustic guitar simulation sound

5 Effect Connections

As shown in the illustration below, the 505 can be thought to contain seven "effect modules" which are internally connected. In most effect modules, only one effect may be active at any given time, but the COMP and MOD modules can use two effects simultaneously. Therefore the 505 can act like a total of nine single effect devices.



Compressor:
Keeps the input within a given level range.
Limiter:
Restricts the input level.
Auto Wah:
Shifts the emphasis frequency automatically, according to the input signal dynamics. Can also be used as ***Compressor+Auto Wah.***
Pedal Wah:
Shifts the emphasis frequency manually, according to the FP01 control signal from CONTROL IN. Can also be used as ***Compressor+Pedal Wah.***

Acoustic:
Produces a sound similar to an electric acoustic guitar.
Rhythm:
Gives slight distortion when strings are picked strongly.
OD:
Extended overdrive distortion similar to driving a tube amp.
DIST:
Hard distortion comparable to driving a three-stack amp.
Blues:
Overdrive sound with a firm core.
Fuzz:
Choppy sound with fat bass.
Lead:
Bright and smooth distortion.
Metal:
Shredding type sound.

ZNR:
Noise reduction with natural sounding cutoff.

AMP:
Makes the output sound as if coming from a guitar amplifier.

ZNR/AMP BLOCK

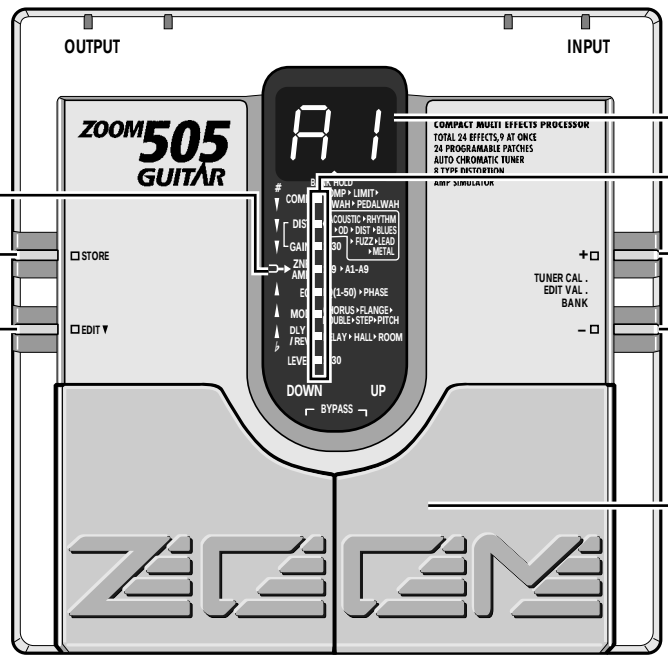
4band EQ:
Allows boost and cut in four ranges: presence, high, midrange, and low.
Phase Shift:
Applies a phase-shifted component to the direct sound. The amount of shift varies periodically, resulting in a breathing effect.

Chorus:
Simple 2-phase chorus suitable for achieving a clean sound.
Flanger:
Adds a very short delay to the direct sound and varies the delay time periodically, resulting in a peculiar sound character. Can also be used as ***Flanger+Chorus.***
Doubling:
Overlays the direct sound with a short delay component, creating the impression of several players and making the sound more full-bodied. Can also be used as ***Doubling+Chorus***.
Step:
Randomly changing filter creates an auto-arpeggio effect. Can also be used as ***Step+Chorus.***
Pitch Shift:
Can be used as dual-voice pitch shifter or ***Pitch+Chorus.***

Delay:
Conventional digital delay with a delay time of up to 370ms.
Hall Reverb:
Simulates the acoustics of a hall.
Room Reverb:
Simulates the acoustics of a room.

6 Controls and Functions

Top Panel



TUNER indicator
In the Bypass (Mute)/Tuner mode, this indicator shows that the tuner is active, and it serves as a gauge for fine tuning your instrument.
- **Battery empty warning**
  When the unit is powered from the battery, this indicator begins to flash when the battery is exhausted.

STORE key
Serves to initiate and execute the store function for patches.
- **Direct Load function**
  When the key is held down for at least 1 second in the Play mode, the Direct Load function is turned on or off.

EDIT key
This key serves to toggle between the Play mode (where effects are used for playing the instrument) and Edit mode (where the user can freely change patch settings). The Edit mode is also used to select effect parameters.
When the key is pressed while a Delay/Reverb effect parameter is selected, the unit switches back to Play mode.
- **Bank Hold function**
  When the key is held down for at least 1 second in Play mode, the Bank Hold function is turned on or off.

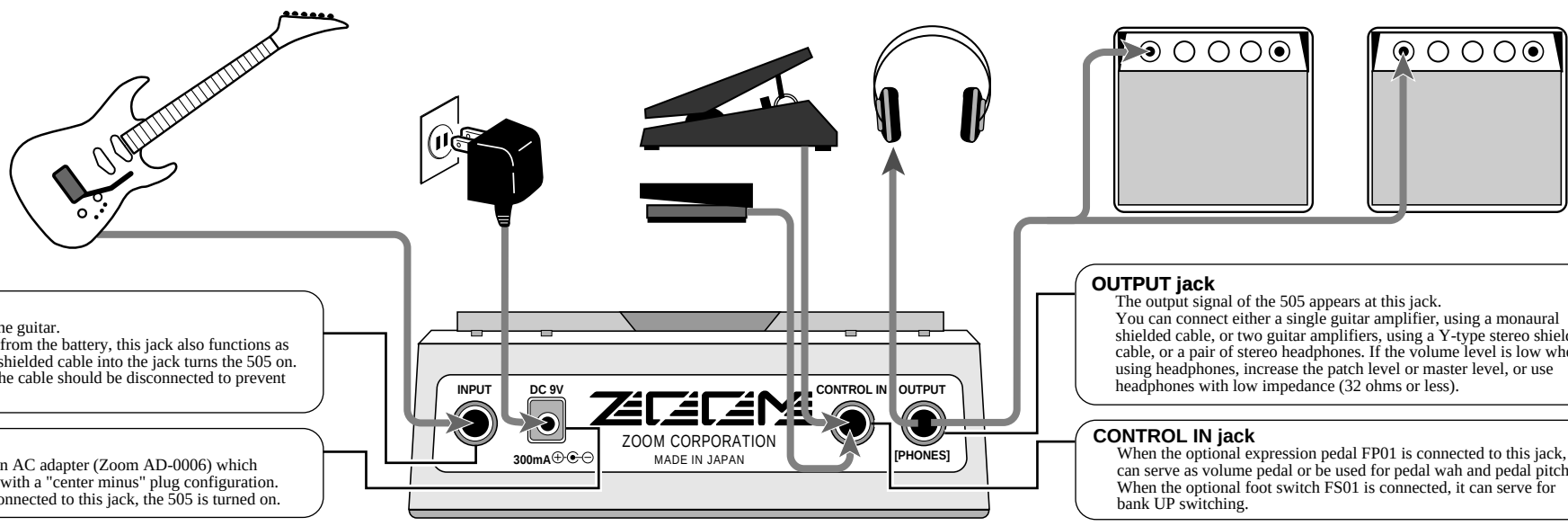
Display
Shows information required to operate the 505.
- **Play mode:**
  Shows the currently selected bank and patch.
- **Edit mode:**
  Shows the value of the parameter currently being edited.
- **Bypass (Mute)/Tuner mode:**
  Shows the pitch of the input signal.

Parameter cursor LEDs
- **Play mode:**
  The currently used effect module lights up.
- **Edit mode:**
  The currently used effect module lights up. When selected for editing, the indicator for the effect module flashes.
- **Bypass (Mute)/Tuner mode:**
  Indicators function as tuning meter.

VALUE + / - keys
- **Play mode:**
  The keys serve for bank switching.
- **Edit mode:**
  The keys serve for changing the effect parameter.
- **Bypass (Mute)/Tuner mode:**
  The keys serve for setting the tuner reference pitch (calibration).

Patch UP / DOWN pedals
- **Play mode:**
  The pedals serve for patch switching. Pressing both pedals simultaneously activates the Bypass (Mute)/Tuner mode.
- **Edit mode:**
  The pedals serve for selecting effect parameters. Pressing both pedals simultaneously turns the currently selected effect module on or off.
- **Bypass (Mute)/Tuner mode:**
  Pressing a pedal cancels the Bypass (Mute)/Tuner mode.

Rear Panel



INPUT jack
Serves for connection of the guitar.
When the unit is powered from the battery, this jack also functions as on/off switch. Plugging a shielded cable into the jack turns the 505 on. When not using the unit, the cable should be disconnected to prevent battery drain.

DC IN jack
Serves for connection of an AC adapter (Zoom AD-0006) which delivers 9 V DC, 300 mA with a "center minus" plug configuration.
When the AC adapter is connected to this jack, the 505 is turned on.

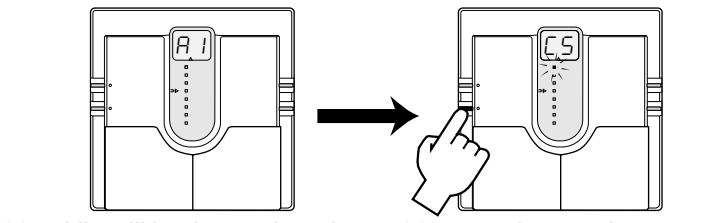
OUTPUT jack
The output signal of the 505 appears at this jack.
You can connect either a single guitar amplifier, using a monaural shielded cable, or two guitar amplifiers, using a Y-type stereo shielded cable, or a pair of stereo headphones. If the volume level is low when using headphones, increase the patch level or master level, or use headphones with low impedance (32 ohms or less).

CONTROL IN jack
When the optional expression pedal FP01 is connected to this jack, it can serve as volume pedal or be used for pedal wah and pedal pitch. When the optional foot switch FS01 is connected, it can serve for bank UP switching.

11 Editing Patches

The 505 comes with 24 predefined patches that have been programmed at the factory. However, the 505 offers many more possibilities for combining effects in innovative ways. To discover these possibilities, we recommend that you try out the editing function, which lets you create your own patches. The mode in which patches can be edited is called the Edit mode.

To switch from normal Play mode to Edit mode, briefly press the EDIT key. Do not keep the EDIT key depressed, because if the key is held for 1 second, the Bank Hold mode will be activated.



(1) While still in Play mode, select the patch you wish to edit.

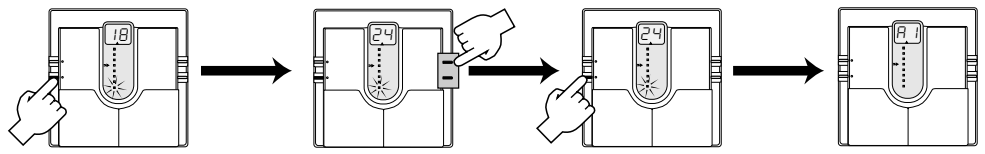
(2) Press the EDIT key to activate the Edit mode.

Immediately after switching from the Play mode to the Edit mode, the parameter cursor flashes at the highest position (COMP module), regardless of which patch was selected. The COMP module setting of the current patch is shown on the display.

While Edit mode is active, each push of the EDIT key causes the parameter cursor to move one position down.
The flashing position shows which module is selected for editing. The relation between parameter cursor LEDs and modules is as shown below.

1st parameter cursor LED: COMP module setting
2nd parameter cursor LED: DIST module distortion type setting
3rd parameter cursor LED: DIST module distortion gain setting
4th parameter cursor LED: ZNR and AMP block settings
5th parameter cursor LEDs: EQ module setting
6th parameter cursor LED: MOD module setting
7th parameter cursor LED: DLY/REV module setting
8th parameter cursor LED: PATCH level setting

Use VALUE + / - keys to change parameters.
For an explanation of the various parameters, please refer to the section "Effect Parameters".
When the EDIT key is pressed while the 8th parameter cursor LED flashes, the Edit mode is canceled and the unit returns to the Play mode.



(1) Use the EDIT key to select the parameter you wish to change.

(2) Use the VALUE + / - keys to adjust the parameter.

(3) When the 8th parameter cursor LED is flashing, press the EDIT key to return to the Play mode.

12 Effect Parameters

COMP module

Compressor
The input signal from the guitar is compressed to achieve a uniform volume level.

Setting range: C1⇔C9 (C1 – C9)

Higher values result in stronger compression.

Limiter
Limits the input signal with faster response than the compressor effect. Serves to prevent overload of other modules.

Setting range: L1⇔L9 (L1 – L9)

Higher values result in more effective limiting.

Auto Wah
With this effect, emphasized frequencies are shifted automatically depending on the dynamics of the input signal.

Setting range: A1⇔A4 (A1 – A4)

Higher values result in a more pronounced auto wah effect.

A5⇔A9 (A5 – A9)

Compressor and auto wah are used together. Higher values result in a more pronounced auto wah effect. Compressor intensity is fixed.

Pedal Wah
With this effect, emphasized frequencies are shifted using an optional expression pedal FP01 connected to the CONTROL IN jack.

Setting range: P1⇔P4 (P1 – P4)

Higher values result in a higher pedal wah center frequency.

P5⇔P9 (P5 – P9)

Compressor and pedal wah are used together. Higher values result in a higher pedal wah center frequency. Compressor intensity is fixed.

DIST module

Distortion Type
A total of eight effect types are available, including seven different distortion types and one effect which produces a sound similar to an electric acoustic guitar.

Ac (Acoustic)

Gives a sound similar to an electric acoustic guitar.

rY (Rhythm)

Gives slight distortion when strings are picked strongly.

Od (Overdrive)

Extended overdrive distortion similar to driving a tube amp.

dt (Distortion)

Hard distortion similar to driving a three-stack amp.

bL (Blues)

Overdrive sound with a firm core.

Fu (Fuzz)

Choppy sound with fat bass.

Ld (Lead)

Bright and smooth distortion.

Mt (Metal)

Shredding type sound.

Distortion Gain
Sets the distortion intensity and the depth of the Acoustic effect.

Setting range: 1⇔30 (1 – 30)

Higher values result in stronger distortion or greater depth.

ZNR/AMP block

ZNR module
Determines the settings for Zoom Noise Reduction.

AMP module
Simulates the sonic characteristics of a guitar amplifier.

Both modules together form the ZNR/AMP block.

Setting range: 1⇔9 (1 – 9)

Higher values result in more effective noise reduction in the no-signal condition. Choose the highest setting that will remove noise without making the instrument sound unnatural at the trailing edge (when the sound decays into silence).

A1⇔A9 (A1 – A9)

A1: Amp simulator only is active.
A2 - A9: ZNR is also used. Higher values result in more effective noise reduction.

EQ module

4band EQ
Allows boost and cut in the presence, high, midrange, and low range, with 50 available settings.

Setting range: 1⇔10 (1 – 10)

Lower values result in a stronger high-range cut and low-range boost.

11⇔20 (11 – 20)

Lower values result in a lower boosted frequency.

21⇔24 (21 – 24)

Lower values result in a stronger presence-range boost.

25 (25)

Yields flat frequency response.

26⇔30 (26 – 30)

Higher values result in a stronger high-range boost.

31⇔40 (31 – 40)

Higher values result in a higher boosted frequency.

41⇔50 (41 – 50)

Higher values result in a stronger presence-range and low-range boost, giving a firm, solid sound.

Phase Shift
Applies a phase-shifted component to the direct sound. The amount of shift varies periodically, giving a breathing effect.

Setting range: P1⇔P9 (P1 – P9)

Higher values result in a stronger effect.

MOD module

Chorus
Simple 2-phase chorus which adds a component with periodically changing pitch to the direct sound. Suitable for enhancing body while maintaining a clean sound.

Setting range: C1⇔C9 (C1 – C9)

Higher values result in a stronger effect.

Flanger
Adds a very short delay to the direct sound and varies the delay time periodically, resulting in a peculiar sound character.
Can also be used together with the chorus effect.

Setting range: F1⇔F6 (F1 – F6)

Higher values result in faster flanger modulation.

F7⇔F9 (F7 – F9)

Flanger and chorus are used together. Higher values result in faster flanger modulation. Chorus is fixed.

Doubling
Overlays the direct sound with a short delay component, creating the impression of several players and making the sound more full-bodied.
Can also be used together with the chorus effect.

Setting range: d1⇔d6 (d1 – d6)

Higher values result in longer delay time.

d7⇔d9 (d7 – d9)

Doubling and chorus are used together. Higher values result in longer doubling delay time. Chorus is fixed.

Step
Randomly changing filter creates an auto-arpeggio effect. Can also be used together with the chorus effect.

Setting range: S1⇔S6 (S1 – S6)

Higher values result in faster speed.

S7⇔S9 (S7 – S9)

Step and chorus are used together. Higher values result in faster step speed. Chorus is fixed.

Pitch Shift
Can be used as dual-voice pitch shifter or as a pitch shift + chorus effect.

P1 1-octave down pitch shift sound is mixed in.
P2 5-step down harmony is mixed in.
P3 5-step down harmony and chorus are mixed in.
P4 4-step up harmony is mixed in.
P5 4-step up harmony and chorus are mixed in.
P6 1-octave up pitch shift sound is mixed in.
P7 Slight up/down shift sound is mixed in, for low-fluctuation chorus effect
P8 4-step up/down harmony is mixed in, for dual-voice pitch shift
P9 1-octave up/down pitch shift sound is mixed in, for dual-voice pitch shift.
Pd Using FP01 connected to CONTROL IN jack, pitch can be controlled to two octaves down.
Pu Using FP01 connected to CONTROL IN jack, harmony can be controlled to one octave up.

DLY/REV module

Delay
Conventional digital delay with a delay time of up to 370 ms. By monitoring this effect in stereo, you can achieve a ping-pong delay.

Setting range: d1⇔d9 (d1 – d9)

Higher values result in longer delay time.
Mix and feedback are also optimized.

Hall Reverb
Simulates the acoustics of a hall.

Setting range: H1⇔H9 (H1 – H9)

Higher values result in longer reverb time.
Mix setting is also optimized.

Room Reverb
Simulates the acoustics of a room.

Setting range: r1⇔r9 (r1 – r9)

Higher values result in longer reverb time.
Mix setting is also optimized.

PATCH Level

Patch Level
Allows setting the level of individual patches.
This setting is stored for each patch like the effect parameters.

Setting range: 1⇔30 (1 – 30)

Higher values result in higher level.

HINT

1 *Selecting parameters to change*

As described in "Editing Patches", parameters to be edited are selected by repeatedly pressing the EDIT key, but you can also use the patch pedals for this purpose.
Pressing the patch UP pedal (right pedal) moves the parameter cursor (the selected parameter) up.
Pressing the patch DOWN pedal (left pedal) moves the parameter cursor (the selected parameter) down.

HINT

2 *Effect module on/off switching*

Each effect module in the 505 can be considered as a single compact effect device. Adjusting parameters then is equivalent to selecting the type of effect device or turning the knobs on an effect device. What is called a patch corresponds to a collection of effect devices connected in various ways and set to ON or OFF.

As you will know if you have used several individual effect devices in a performance before, not all devices will be switched on all the time. Depending on the mood of the song and other factors, devices will be switched on and off in different combinations. The same applies to the 505. The on/off timing and combination of effect modules are important aspects in creating a certain sound.

Except for the distortion gain (3rd parameter cursor position) and patch level setting (lowest parameter cursor setting), the flashing parameter cursor indicates that the corresponding effect module can be turned on or off.
The ZNR and AMP modules are turned on and off together. When wishing to disable them individually, you must do this by setting the parameters accordingly.

Effect modules can be switched on and off in three ways.

1. Using the VALUE + / - keys
When using the VALUE + key to increase the parameter value, the setting following the maximum value is the "effect off" setting. Similarly, when using the VALUE - key to decrease the parameter value, the setting before the minimum value is the "effect off" setting. When the VALUE + key is pressed once in the "effect off" condition, the effect is turned on and the minimum value is set. When the VALUE - key is pressed once in the "effect off" condition, the effect is turned on and the maximum value is set.

2. Using a shortcut
Pressing both VALUE + / - keys together for an effect module functions as a shortcut. Repeating the shortcut procedure several times turns the effect off. Performing the shortcut when the effect is off turns it on and sets the minimum parameter value.

3. Using the patch pedals
Pressing both patch pedals together for an effect module turns the effect off. Pressing both patch pedals together when the effect is off turns it on and restores the previously selected parameter value.

Effect off indication

EFFECT OFF= oF

HINT

3 *Parameter setting shortcut*

Normally, parameter values are set by tapping the VALUE + or VALUE - key once for each increment. To allow quick operation in effect modules which contain more than one effect, you can use the shortcut function which is activated by pressing both VALUE keys simultaneously. For example, if you are currently at the "Delay" parameter of the DLY/REV module and the current setting is "d5", you would need to press the VALUE + key 18 times to set the "Room" effect to "r5". However, you can achieve the same effect by activating the shortcut twice and then pressing the VALUE + key 4 times.

HINT

4 *Volume control with FP01*

When the optional expression pedal FP01 is connected to the CONTROL IN jack, it can also be used for adjusting the output volume of the 505. However, if the COMP module parameter is set to a range which activates pedal wah or if the MOD module pitch shift parameter is set to pedal pitch (Pu or Pd), this setting has priority and the pedal controls the effect.
In other cases, the pedal controls the volume between the EQ module and the MOD module. As opposed to a volume pedal connected after the 505, the level can be adjusted without affecting the sonic impression of reverb and delay effects.

HINT

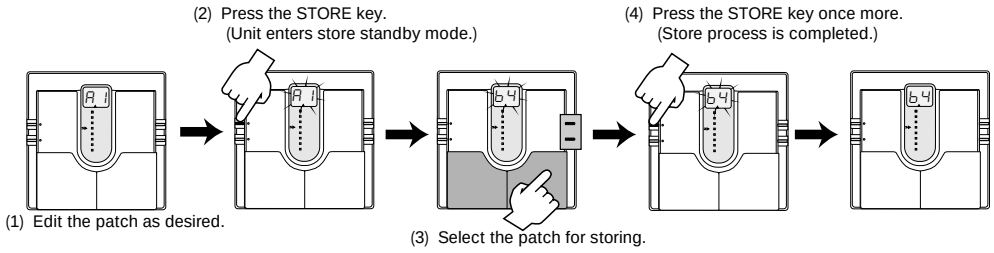
5 *Master level adjustment*

The 505 also lets you set the overall output level, separately from individual patch levels.
The master level can be adjusted in Play mode, as follows. Keep both VALUE keys depressed for at least 1 second. The current master level is then shown on the display for 1 second. While the level is displayed, you can use the VALUE + / - keys to change it. The setting range is 0 - 50. At "40", the level is identical to the individual patch level.
The master level setting is not stored by the unit. After the power has been turned off, the master level must be set again.

13 Storing Patches

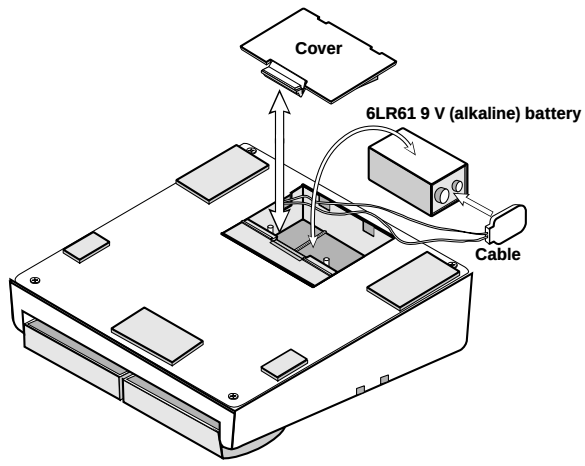
If you have edited (altered) a patch and turn the 505 off without storing the patch, the patch will revert to its old setting. To store an edited patch, use the following simple procedure.

Storing can be carried out in Play mode and Edit mode. After you have edited the patch, press the STORE key. If the unit is currently in Play mode, release the key before 1 second has elapsed, otherwise the Direct Load function will be activated.
The display starts to flash. This condition is called the store standby condition. If you wish, you can abandon the store procedure at this point by pressing the EDIT key. If you press the STORE key once more, the contents of the patch are updated.
You can also change the patch number before storing, so that the edited patch will be stored in a different number.
In this case, the original patch that was used as a starting point for editing will not be changed.



14 Replacing the Battery

If the tuning indicator flashes while the unit is being powered from the battery, the battery is exhausted and should be replaced as described below.
Since the 505 has fairly high rated power consumption, use only a 6LR61 9 V (alkaline) battery. Using another kind of battery will result in shorter operation.



1. **Turn the 505 upside down and open the cover of the battery compartment. (Push the catch to unlock the cover, then lift it up.)**
2. **Remove the battery from the compartment and disconnect the battery cable. (Grasp the terminal strip and do not pull at the cable.)**
3. **Connect the battery cable to the new battery, taking care to observe correct polarity (+/-). Then insert the battery into the battery compartment.**
4. **Close the battery compartment cover, taking care not to pinch the cable. (Make sure that the cover is properly locked.)**

15 Returning Patches to Factory Settings

The 505 comes with 24 predefined patches that have been programmed at the factory. Also after you have edited and stored your own patches, you can return to the factory default settings at any time. This process is called "recalling". Returning all 24 patches to the original contents and resetting the Bank Hold and Direct Load functions is called "all initialize".

The recall mode is separate from the Play mode and Edit mode. You cannot switch directly to recall mode from these modes. The recall mode can only be activated by turning the unit on in a special way, as described below.

1. **Turn the unit off by disconnecting the AC adapter or the guitar input cable.**
2. **Keep the STORE key depressed and turn the unit on.**
3. **The indication "AL" flashes on the display.**
4. **To perform "all initialize", press the STORE key once more in this condition. The flashing rate increases and the initialization procedure is carried out. When it is completed, the unit automatically enters the Play mode.**
5. **When wishing to recall only a particular patch, select the patch number in step 3, using the same procedure as for normal patch selection.**
6. **When the desired patch has been selected, press the STORE key. The flashing rate increases and the contents of the selected patch are recalled.**
7. **Recalling of individual patches can be carried out continuously. When you wish to terminate the process, press the EDIT key. The unit then returns to the Play mode. Turning the unit off also terminates the recall condition.**

16 Specifications

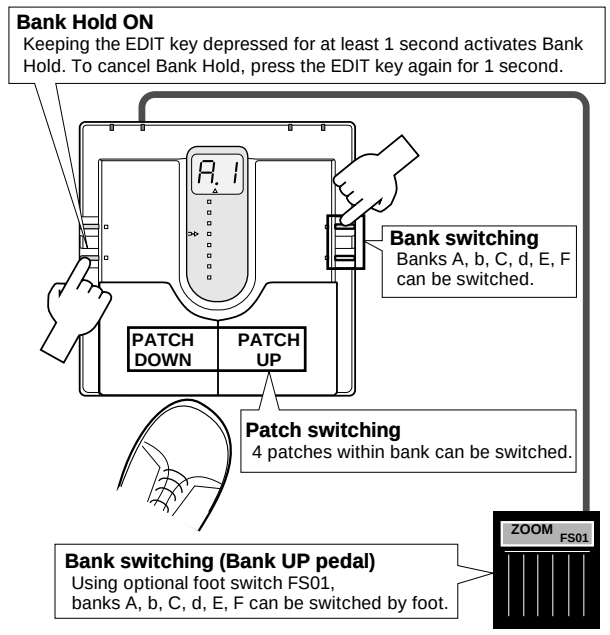
Effects	Maximum number of simultaneous effects: 9 24 effect types: Compressor, Limiter, Auto Wah, Pedal Wah, Acoustic, Rhythm, Overdrive, Distortion, Blues, Fuzz, Lead, Metal, 4Band Equalizer, Phase, Chorus, Flanger, Doubling, Step, Pitch Shift, Delay, Hall, Room , Amp Simulator, ZNR
Effect modules	Maximum number of simultaneous modules: 7 (5 modules + 1 block)
Banks and patches	6 banks x 4 patches = 24 patches (edit + store possible)
Analog/digital conversion	18 bit, 128 times oversampling
Digital/analog conversion	16 bit, linear
Sampling frequency	31.25 kHz
Input	Guitar input (standard monaural phone jack) Rated input level: -20 dBm Input impedance: 470 kilohms
Output	Combined line/headphone output (standard stereo phone jack) Max. output level: +6 dBm Output load impedance: 10 kilohms or more
Control input	For optional FP01 or FS01
Display indicator	2-digit, 7-segment LED tuning indicator, parameter cursor indicator
Power requirements	Optional AC adapter: 9 V DC, 300 mA (Zoom AD-0006) Battery: 6LR61 9 V (alkaline) battery x 1 Battery life: approx. 4 h continuous operation
Dimensions	147 (W) x 157 (H) x 48 (D) mm
Weight	480 g

* ***0 dBm = 0.775 Vrms***
* ***Design and specifications subject to change without notice.***

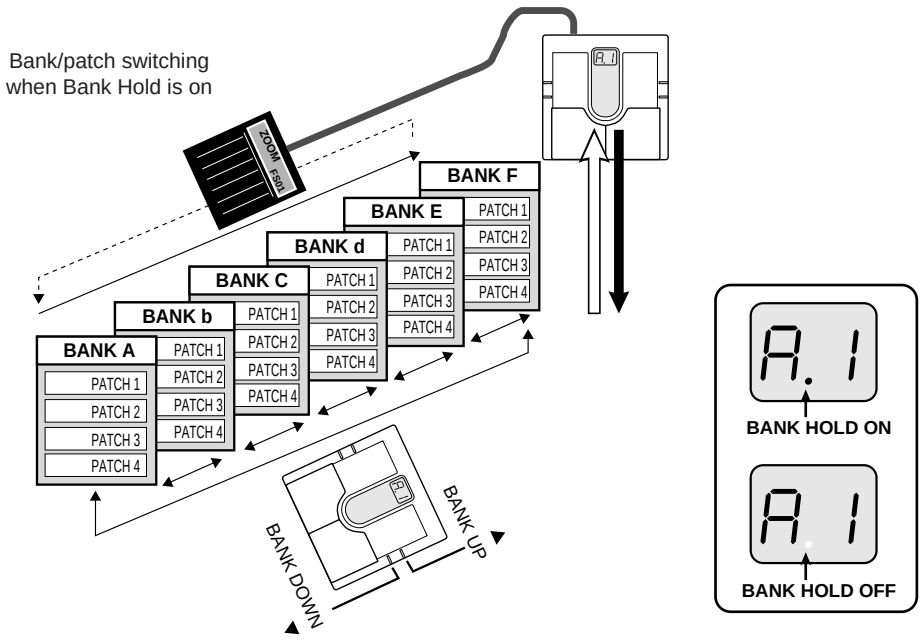
9 Patch Switching (Application: Bank Hold ON)

In the factory default condition, the patch pedal switches all patches, regardless of the bank divisions. This kind of patch switching is called the Bank Hold off condition.

The Bank Hold function limits switching to the four patches within a bank. When the function is activated, the patch pedals switch only between the patches in the current bank. To activate the function, keep the EDIT key depressed for at least 1 second in the Play mode. The BANK HOLD indicator on the display lights up. To turn the function off again, perform the same step (press the EDIT key for at least 1 second). The BANK HOLD indicator on the display goes out.



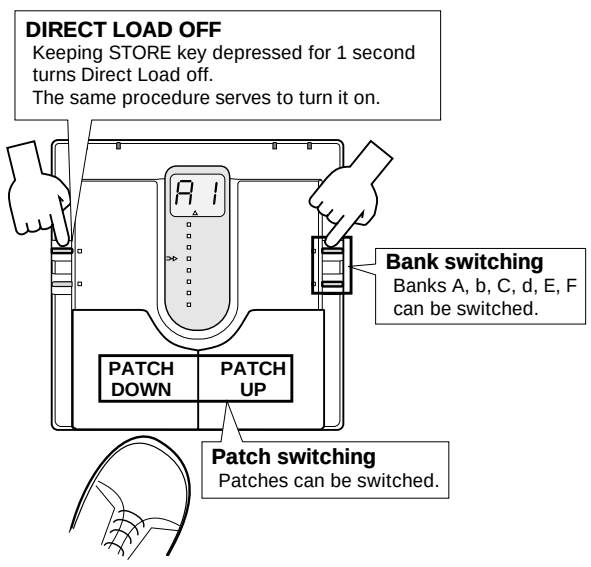
Bank switching can be performed using the VALUE + / - keys or the optional foot switch FS01 connected to the CONTROL IN jack on the rear panel.



10 Patch Switching (Application: Direct Load OFF)

In the default condition, the 505 is set up in such a way that pressing a patch pedal immediately switches the patch and alters the output sound. This is called Direct Load ON. This switching principle is most convenient when the desired patches are adjacent or close to each other. However, when wanting to switch to a patch that is further away, it may be desirable not to activate the sound of the other patches in between.

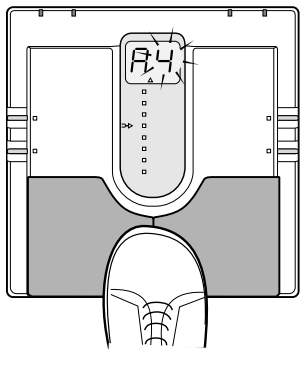
When this is desired, turn the Direct Load function off as follows. When Direct Load has been turned off, switching banks and patches has no effect until the user confirms the selection.



For example, when going from patch 1 to patch 4 with Direct Load active, patches 2 and 3 will briefly be heard when the patch UP pedal is pressed three times. When Direct Load is off, pressing the patch UP pedal will change the number on the display (the number flashes), but until the user confirms the choice, the sound remains that of patch 1.

To turn Direct Load on or off, keep the STORE key depressed for at least 1 second.
To confirm a choice after selecting a patch with Direct Load off, press both patch pedals simultaneously.

Confirming a patch
When display indication flashes, pressing both patch pedals together confirms the patch and switches the output sound.



Example: switching from patch 1 to patch 4