507 Operation Manual

Thank you for selecting the **ZOOM 507** (hereafter simply called the "507").

Please take the time to read this manual carefully so you can get the most out of your 507 and ensure optimum performance and reliability.

Retain this manual for future reference.

ZOOM CORPORATION

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Major Features

- High-grade reverb of top class devices despite compact size; delay with 990 ms maximum delay time; and outstanding spatial effects that produce a beautiful chorus sound at an affordable price.
- On-board "Zfx-2" DSP (Digital Signal Processor) developed by Zoom, and an innovative design used solely for its powerful spatial effects. Demonstrates its power in home recording as well as in live performances.
- You can switch between 24 patches to store diverse settings based on your preference.
- Integrated auto-chromatic tuner for guitar. You can tune your instrument easily anywhere, any time. You can also leave the tuning function disabled all the time.
- The optional FP01 expression pedal enables foot control of the mix level for the effect sound. The optional FS01 foot switch enables operation of the chorus ON/OFF switch.
- Dual power supply design allows the unit to be powered from an alkaline battery (6LR61) or an AC adapter.

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:



This symbol indicates explanations about extremely dangerous issues. If users ignore this symbol and handle the device incorrectly, serious injury or death could



This symbol indicates explanations about dangerous issues. 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 507.



/!\ 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

- AC adapter operation
 Be sure to use only an AC adapter which supplies 9 V DC, 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, have the characteristic for the content of the content of the content of the AC outlet, have the characteristic for the characteristic for the characteristic for the AC outlet.

- always grasp the adapter itself and do not pull the cable it 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 507 cannot be used for recharging Pay close attention to the labelling of the battery to make sure
- you choose the correct type.

 If the 507 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



Environment

- Avoid using your 507 in environments where it will be exposed to

- Excessive vibration or shock



Handling

- The 507 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
- · 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.



Alterations

Never open the case of the 507 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 507 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 507, as the possibility of interference cannot be ruled out entirely.

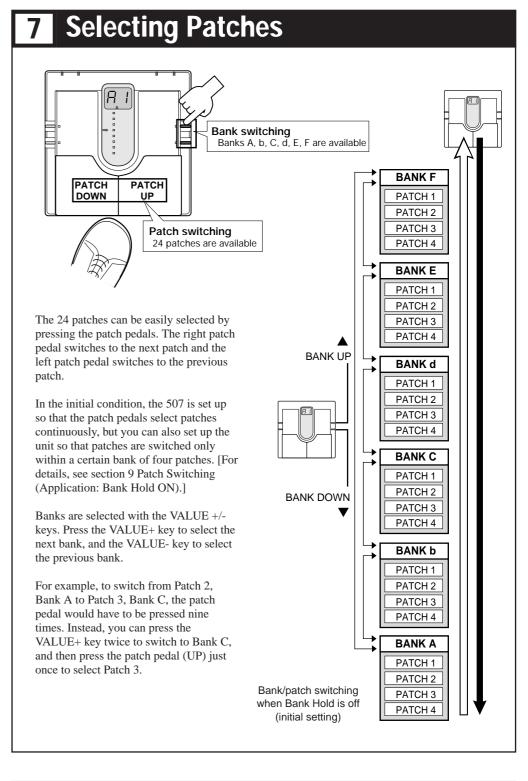
Whatever the type of digital control device, the 507 included, electromagnetic damage can cause malfunctioning and corrupt or destroy data. Since this is an ever-present danger, thorough care should be taken to minimize the risk of damage.

Cleaning

Use a soft, dry cloth to clean the 507. 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 507 and all other equipment before connecting or disconnecting any cables. Also make sure to disconnect all cables and the AC adapter before moving the 507.



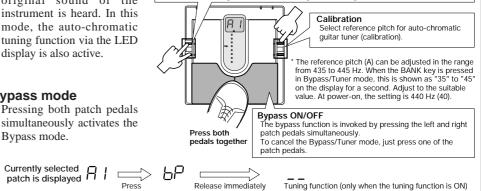
Using the Bypass/Tuner Mode

The effects of the 507 can be turned off (bypassed) temporarily, so that only the original sound of the instrument is heard. In this mode, the auto-chromatic tuning function via the LED display is also active.

Bypass mode

Pressing both patch pedals simultaneously activates the Bypass mode.

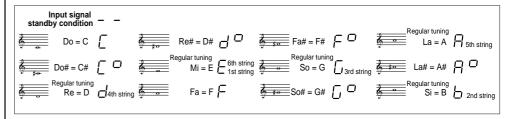
Tuner ON/OFF
Pressing the EDIT key and the STORE key simultaneously for more than one second in Play mode will allow you to select whether or not to activate the tuning function in Bypass mode. When you change the setting, the display will show "tunEr oFF" (tuning function off) or "tunEr on" (tuning function on) according to the setting. Calibration



Tuning function (only when the tuning function is ON) To cancel the Bypass mode, simply press one of the patch pedals. The unit then reverts to the previously selected patch.

Tuner mode

The 507 is initially set so that the auto-chromatic tuning function for the guitar activates automatically when the Bypass mode is invoked. In Bypass mode, pick an open string to be tuned. The closest note will be shown on the display.



When the tuning function is active, the parameter cursor LEDs serve as tuning meter, designed to enhance tuning

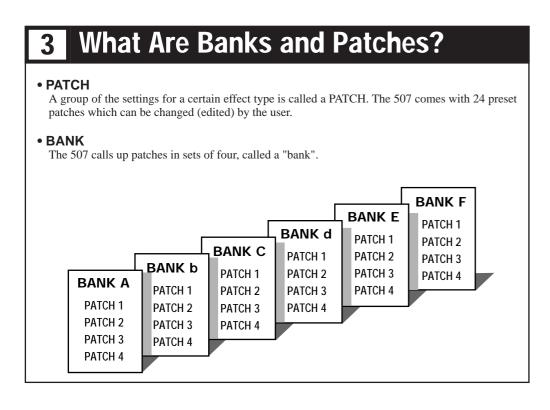
precision during fine adjustments.

Turning tuning function off If you do not want to activate the tuning function in Bypass mode, press the STORE and EDIT keys simultaneously for

more than one second in Play mode. The tuning function will be turned off, and this setting will be stored even when the power is turned off. When you turn the function off, the display will show "tunEr oFF" (tuning function off).

To turn the tuning function on, press the same keys simultaneously again. The display will show "tunEr on" (tuning function on).

NOTE: Please note that the tuning function may not operate properly if other effect modules between the guitar and the 507 are on.



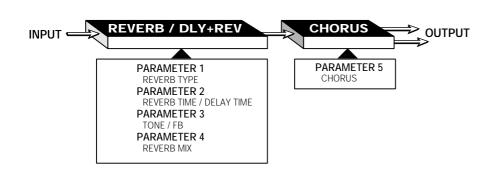
4 PATCH LIST

The 507 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.

PATCH#	PATCH CONCEPT Basic hall reverberation	EFFECT TYPE		for ELECTRIC GUITAR	for ACOUSTIC GUITAR	for MTR & DTM
A1		HALL 1				
A2	Reverberation for arpeggio with chorus	HALL 1	with CHORUS			
А3	Delay + reverberation, suits playing melody	DLY+REV 1				
A4	Basic room reverberation	ROOM 4				
b1	Plate reverberation for guitar	PLATE 3				
b2	Prominent short reverberation in ensemble	ROOM 3	with CHORUS			
b3	Chorus + delay + reverberation	DLY+REV 1	with CHORUS			
b4	SFX making everything sound like ethnic instruments	DLY+REV 2	with FLANGE			
C1	Basic plate reverberation	PLATE 2				
C2	Catchy short delay, for cutting	DLY+REV 4	with CHORUS			
C3	Delay sound matching guitar sound	DLY+REV 3				
C4	Reverberation + stereo flanger	HALL 2	with FLANGE			
d1	Reverberation with crashing surf sound	HALL 4				
d2	High-quality doubling sound	DLY+REV 4				
d3	Showy plate reverberation	PLATE 1				
d4	Chorus + reverberation for acoustic guitar	HALL 3	with CHORUS			
E1	Metallic echo like inside hollow pipe	ROOM 1				
E2	Gate reverberation with chorus	PLATE 4	with CHORUS			
E3	Hard walled jazz club ambience	ROOM 2				
E4	Plate for rock vocals	PLATE 2	with CHORUS			
F1	[for Track down] Pops vocal echo	PLATE 1				
F2	[for Track down] Echo for traditional song	DLY+REV 2				
F3	[for Track down] Chorus part reverberation	ROOM 3	with CHORUS			
F4	[for Track down] General guitar solo	DLY+REV 1	with CHORUS			

5 Configuration of Effects

The 507's patches are composed of two effect modules (virtual boxes for making effect settings easy to understand). These modules contain effect parameters, elements that decide the tones of the effects. Patches are the parameters set according to taste in the effect modules.



• REVERB/DLY+REV module

This is the module that can be used either as various types of REVERB or DLY+REV, depending on the parameter setting.

• CHORUS module

This is an effect module that gives the notes a round, expansive feeling. This can be connected before or after the REVERB/DLY+REV module by setting the parameter accordingly. When connected after the REVERB/DLY+REV module, the chorus sound is emphasized and a flanger effect can also be obtained.

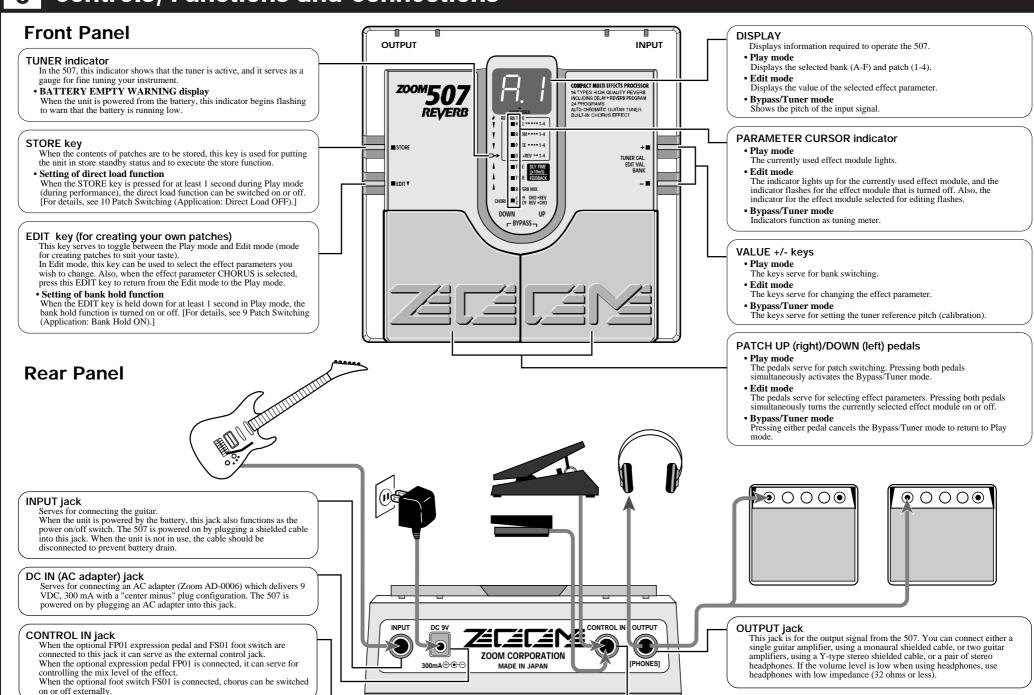


When CHORUS module is connected before REVERB/DLY+REV module.



When CHORUS module is connected after REVERB/DLY+REV module.



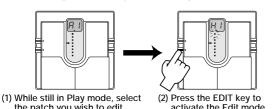


Editing Patches

The 507 comes with 24 predefined patches. However, the 507 offers many more possibilities for combining effects in innovative ways. To discover these possibilities, we recommend that you try changing the parameters (elements that make up patches) to create your own patches. This operation is called editing, and is done in the Edit mode.

To switch from normal Play mode to Edit mode, press the EDIT key briefly (for less than 1

* Note that if the EDIT key is held down for 1 second or longer, the Bank Hold mode will be activated.



Immediately after switching from Play mode to Edit mode, the parameter indicator of the currently selected Reverb type (HALL, ROOM, PLATE, DLY+REV) flashes, and the setting for that parameter is displayed. This means that the Reverb type parameter has been selected for editing.

In Edit mode, the EDIT key is used for selecting the parameter for editing. Each time the EDIT key is pressed the parameter cursor moves one position down. The flashing position shows which parameter is selected for editing.

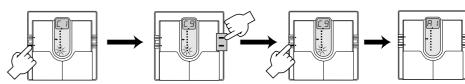
The correlations between parameter cursor LEDs and parameters are shown below. The asterisked parameters are effective only when the DLY+REV reverb type has been selected as the parameter at the highest (first) position.

- 1st parameter cursor LED: Reverb type selection
- 2nd parameter cursor LED: Reverb time/delay time (*) setting
- 3rd parameter cursor LED: Reverb tone/delay feedback (*) setting
- 4th parameter cursor LED: Reverb/delay + reverb (*) mix setting
- 5th parameter cursor LED: Chorus module setting

Use the VALUE +/- keys to change parameters.

For an explanation of the various parameters, see 12 Effect Parameters.

When the EDIT key is pressed while the fifth parameter cursor LED flashes, Edit mode is canceled and the unit returns to Play mode.



(1) Use the EDIT key or patch pedal to select the parameter you wish to change

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

(3) While the eighth parameter cursor LED is flashing, press the EDIT key to return to Play mode.

Effect Parameters

PARAMETER 1

Selects the reverb type for the REVERB/DLY+REV module. Four types can be selected for each of HALL, ROOM PLATE and DELAY+REVERB, for a total of 16 types.

Range of setting

By pressing either the + or - key, the preceding or following reverb type can be selected. By pressing both + and - keys simultaneously, selection moves to the first effect type of the next group. The features of the types are as follows:

Reverb type

HALL 1-4 HYHI

Reverb simulating the acoustics of a hall

ROOM 1-4



Reverb simulating the acoustics of a room.

PLATE 1-4



Reverb simulating the acoustics of a metal plate.

DELAY+REVERB effect types

When a DELAY+REVERB reverb type has been selected

d /

Effect types combining delay (echo effect) and reverb (reverberation effect).

* When this effect type is selected, the contents of parameters 2-4 change.

PARAMETER 2

Reverb time/delay time

When a HALL, ROOM, or PLATE reverb type has been selected

Sets the reverb time (length of reverb).

Range of setting

30

The larger the value, the longer the reverb time. The value changes in increments or decrements of 1 each time the + or - key is pressed. When the +/- keys are pressed simultaneously, the value changes in tens--10, 20, 30, etc.

Sets the delay time in 10 ms steps (gap between the original sound and delay sound, and between delay sounds).



The larger the value, the longer the gap between the original sound and the delay sound, and between the delay sounds. The value changes in increments or decrements of 1 each time the + or - key is pressed. When the +/- keys are pressed simultaneously, the

value changes in tens--10, 20...90.

PARAMETER 3

TONE/FB

(Tone/feedback)

When a HALL, ROOM, or PLATE reverb type has been selected

Adjusts the reverb tone

Range of setting

Larger values result in a more pronounced high-range reverb, for a bright tone. The value changes in increments or decrements of 1 each time the + or - key is pressed. When the +/- keys are pressed simultaneously, the value changes in tens--10, 20...50.

When a DELAY+REVERB reverb type has been selected

Adjusts the feedback of the delay sound.

Range of setting

Larger values result in more frequent repetitions. The value changes in increments or decrements of 1 each time the + or - key is pressed. When the +/- keys are pressed simultaneously, the value changes in tens--10, 20...50

PARAMETER 4

When a HALL, ROOM, or PLATE reverb type has been selected

Adjusts the mix of the reverb sound

REVERB MIX

Larger values result in a greater volume of reverb sound. The value changes in increments or decrements of 1 each time the + or - key is pressed. When the +/- keys are pressed simultaneously, the value changes in tens--10, 20...50

When a DELAY+REVERB reverb type has been selected

Adjusts the mix of the delay sound and reverb sound.

Range of setting

Larger values result in a greater volume of delay sound and reverb sound. The value changes in increments or decrements of 1 each time the + or key is pressed. When the +/- keys are pressed simultaneously, the value changes in tens--10, 20...50.

PARAMETER 5

CHORUS

Sets the depth effect of the CHORUS module and the position for connecting the CHORUS module.

Range of setting c /





In the range from c1 to c9, the CHORUS module is connected before the REVERB/DLY+REV module. Higher values result in a deeper effect.

In the range from C1 to C6, the CHORUS module is connected after the REVERB/DLY+REV module. Higher values result in a deeper effect. The C7 - C9 setting results in a flanger effect. The value changes in increments or decrements of 1 each time the + or - key is pressed

When you press the + and - keys simultaneously, the value

will skip from c1 to C1, and so forth. If you press both left and right patch pedals simultaneously while the CHORUS parameter is selected, you can turn the chorus effect on and off. When you turn the chorus effect off, the display will show "oF".

HINT

change

 $the\ parameter\ cursor\ from\ the\ bottom\ up.$

Selection of parameters to

As described in 11. 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. Press the PATCH UP pedal (right patch pedal) to move

Press the PATCH DOWN pedal (left patch pedal) to move the parameter cursor from the top down



Switching effect modules on and off

The two effect modules of the 507, REVERB/DLY+REV and CHORUS, can be thought of as two compact effectors $connected\ in\ a\ row\ (or\ three\ compact\ effectors\ when$ DLY+REV is selected as the reverb type). These two modules can be switched on and off independently just as with compact effectors, and their statuses can be stored as

• Switching REVERB/DLY+REV module on and off With parameters 1-4 selected, switch the

REVERB/DLY+REV module off by pressing the left and right patch pedals simultaneously. In that status, switch the REVERB/DLY+REV module on by pressing the left and right patch pedals simultaneously. The parameter settings will return to

their original values (parameter values immediately

Switching CHORUS module on and off

prior to being switched off).

With parameter 5 selected, switch the CHORUS module off by pressing the left and right patch pedals simultaneously.

 $EFFECT\ OFF =$



In the off status, switch the CHORUS module on by pressing the left and right patch pedals simultaneously. The parameter setting will return to its original value.



3 Parameter setting shortcut

Normally, parameter values are set by tapping the VALUE+ or VALUE - key once for each increment or decrement. For quick operation, you can use the shortcut function. This is activated in the Edit mode by pressing both VALUE keys simultaneously.

In normal operation, for example, if the reverb type of the REVERB/DLY+REV module is set to h1 (HALL1) and you wish to switch this to d3 (DLY+REV3), you would have to press the VALUE+ key 14 times. Instead, you can achieve the same effect by the shortcut operation, in which you twice press the VALUE +/- keys simultaneously to instantly bring up d1 (DLY+REV1), and then press the VALUE+ key twice to arrive at the target reverb type.





4 Master level adjustment

With the 507 you are also able to set the master effect level that governs the overall effect output level.

The master effect level is adjusted in Play mode. Hold the VALUE +/- keys down simultaneously for at least 1 second. The current master level will be displayed for 1 second.

While the level is being displayed, use the VALUE \pm keys to change it. The setting range is 0-50. (Default value = 40)

The unit does not store the setting for the master effect level. Each time the power is turned on it has to be set again.

Storing Patches

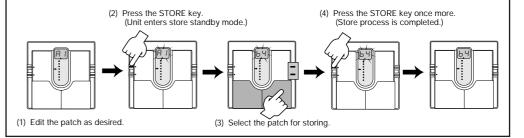
If you have edited (altered) a patch and turn the 507 off without storing the patch, the patch will revert to its old setting. To store an edited patch, use the following simple procedure.

Storing can be carried out in both 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.

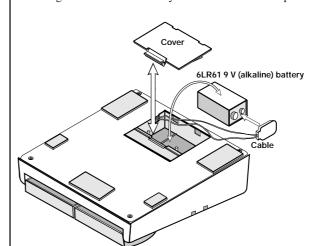
In this case, the original patch that was used as a starting point for editing will not be changed.



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 507 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 507 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.)

Returning Patches to Factory Settings

The 507 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.

Specifications

Effects: Maximum simultaneous effects -- 3 effects

17 types

Hall Reverb 1-4, Room Reverb 1-4, Plate Reverb 1-4, Delay+Reverb 1-4, Chorus

Maximum simultaneous modules -- 2 modules **Effect Modules:**

6 banks x 4 patches = 24 patches (edit + store possible) **Banks and Patches:**

18 bit, 128 times oversampling **Analog/Digital Conversion:**

Digital/Analog Conversion: 16 bit, linear Sampling Frequency:

31.25 kHz

Guitar input (standard monaural phone jack) Input:

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

For optional FP01 or FS01

2-digit, 7-segment LED, tuning indicator, parameter cursor indicator Optional AC adapter 9 VDC, 300 mA (Zoom AD-0006) Display: Power Requirements:

Battery: 6LR61 9 V (alkaline) battery x 1

Battery life: Approx. 4 h continuous operation 147 (W) x 157 (D) x 48 (H) mm

Dimensions: Weight: 480 g (without batteries)

* 0 dBm = 0.775 Vrms

Control Input:

* Design and specifications subject to change without notice.

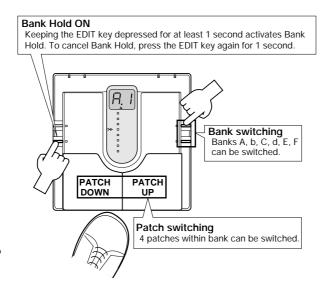
9 Patch Switching (Application: Bank Hold ON)

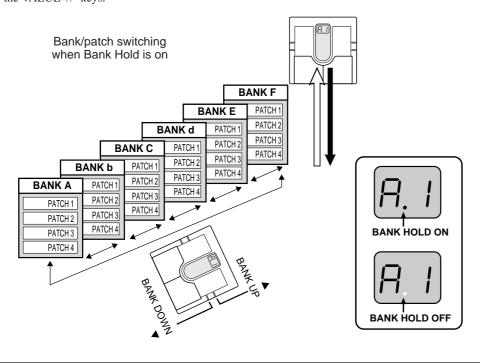
In the initial setting, the patch pedal switches all patches in order, regardless of the bank divisions.

The bank hold function limits switching to the four patches within a bank. When this function is activated, the patch pedals switch in order between the patches in the current bank only.

To activate this function, hold the EDIT key down for at least 1 second in Play mode. The BANK HOLD indicator will light. To turn the function off, again hold the EDIT key down for at least 1 second. The BANK HOLD indicator will go off.

Banks can be switched using the VALUE +/- keys.





10 Patch Switching (Application: Direct Load OFF)

In the default condition, the 507 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.

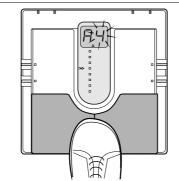
For example, when going from patch 1 to patch 4 with Direct Load active, patches 2 and 3 will briefly be heard when the patch UP pedal is pressed three times. When Direct Load is off, pressing the patch UP pedal will change the number on the display (the number flashes), but until the user confirms the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

DIRECT LOAD OFF Keeping STORE key depressed for 1 second turns Direct Load off. The same procedure serves to turn it on. Bank switching Banks A, b, C, d, E, F can be switched. Patch switching Patches can be switched.

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



Press both pedals together

Example: Switching from patch 1 to patch 4

