The 509 has memory capacity for 24 patches. At the factory, these are programmed with recommended settings. The user can Edit and Store any patch, and also restore the factory settings.

| Patch No. | Patch Name | Effect Types | | | Description |
|---|---|---|---|---|---|
| A1 | Super Chorus | CHORUS 1 | – | DOUBLING 2 | Useful chorus effect |
| A2 | Jet Flange | FLANGER 1 | – | DOUBLING 1 | Flanging sound to match distortion effects |
| A3 | C Maj HPS | 2–VOICE HPS | | | Harmony in C major |
| A4 | Deep Rotor• • • • | ROTARY | – | DOUBLING 1 | Expansive rotary sound• • • • |
| b1 | Natural Chorus | CHORUS 2 | – | EQUALIZER 2 | Traditional-type chorus |
| b2 | PHASE–1000 | EQUALIZER 1 | – | PHASE 2 | Funky phase sound |
| b3 | Trendy | CHORUS 2 | – | TREMOLO | Modern-style tremolo |
| b4 | Blue Note• • | DOUBLING 2 | – | EQUALIZER 1 | Bluesy doubling sound• • |
| C1 | Doublin' CHOR | CHORUS 1 | / | DOUBLING 2 | Blend of doubling and chorus |
| C2 | FLANGE–PAN | FLANGER 1 | – | AUTOPAN | Flanger alternates between left and right |
| C3 | Twin Pitch | 2–VOICE PITCH | | | 3-part harmony |
| C4 | Water Voice• • | STEP 2 | – | PHASE 1 | Wow-type step sound• • |
| d1 | Cutting Chorus | CHORUS 2 | – | EQUALIZER 2 | Funky chorus for cutting play |
| d2 | Twin Flange | FLANGER 1 | – | FLANGER 2 | Flanger with strong presence |
| d3 | Fast Arpeggio | PHASE 2 | / | STEP 1 | Great for fast-paced arpeggio play |
| d4 | MOLO-molo• • | TREMOLO | – | TREMOLO | Tremolo with triple expression• • |
| E1 | 4th Pitch | PITCH | / | DOUBLING 1 | Oriental-type pitch sound |
| E2 | Funny–Pedal | PEDAL PITCH | / | PEDAL PITCH | Experience all-new pedal action |
| E3 | OCT–BASS | PITCH | – | DOUBLING 1 | Bass line and octave solo |
| E4 | 12 Strings• • | PITCH | / | CHORUS 2 | Simulated 12-string sound• • |
| F1 | CHO–TARY | CHORUS 1 | / | ROTARY | Blend of chorus and rotary effects |
| F2 | Detune Chorus | 2–VOICE PITCH | | | Steady detuning sound |
| F3 | Modulated Clean | CHORUS 3 | / | FLANGER 1 | Pleasantly modulated clean sound |
| F4 | Sharp Shape | EQUALIZER 1 | – | CHORUS 2 | Sharp and distinct chorus |

**In the "Effect Types" column, "-" indicates serial connection and "/" parallel connection.*