

# NBKING100

NUNO BETTENCOURT Signature Series

# QUICK START GUIDE



# START UP

After you have plugged in and connected the AC power cord securely from the wall to the amplifier, connect only a high quality speaker cable from the Speaker output jack to the input jack of your extension cabinet. Make sure that you plug into the correct Speaker output jack which matches the impedence of your cabinet. For example: If you have a 16 ohm cabinet then make sure you are plugged into the jack labeled 16 ohms. Now that the amplifier has been hooked up correctly, simply plug your guitar into the front panel Input jack using a high quality instrument cable and flip the Power switch to ON. Once the amplifier is powered up it will default to the the Clean channel. Set all

the Drive, Level & EQ controls to straight up except for the large Master control which should be set all the way down. Turn the amp from Standby to On then bring up the Master control slowing until you reach the desired volume level.

This

channel is perfect for all clean tones, but really shines for Funk style as well as vintage blues tones.

# FRONT PANEL FEATURES



#### INPUT

Designed to accept a standard 1/4" mono phone plug. For best results use a high quality shielded cable to connect your guitar to the amplifier.

#### CHANNEL SELECT SWITCH

This momentary push button switch is used to scroll thru and select between the 3 channels on the amplifier. Simply push and release to change channelsand select the desired channel. This switch is also the store function for the included MIDI footswitch or any MIDI compatible footcontroller. To store a channel to a particular button on the footswitch, simply press the desired footswitch button then using the front panel Channel select button scroll thru to the desired channel. Press, hold & release the Channel Select button for 3 seconds to store the preset. See the MIDI implemention guide later in this manual.

## CLEAN

This channel was designed for a wide-range of dynamic clean tones, but really shines for all funk to vintage style blues tones.

BASS - This passive tone control adjusts the amount of low frequencies in the Clean channel. Set the knob straight up then adjust for more or less bass as needed.

MIDDLE - This passive tone control adjusts a wide-range of the mid-range frequencies in the Clean channel. When adjusting the MIDDLE control keep in mind that you will also be cutting and boosting upper bass frequencies and lower Treble frequencies. Set the knob straight up then adjust as needed.

TREBLE - Another passive tone control that adjusts all upper mid-range and high frequencies. Set the knob straight up to start then adjust in more or less highs as needed.

LEVEL - Controls the volume level of only the Clean channel. Set this knob to achieve the desired output level of the clean channel.

# FRONT PANEL FEATURES-CONT



## SOLO

Voiced like the Overdrive mode, the Solo mode provides an addition option for more or less Drive & Level in the Overdrive channel. Most players will use the Solo mode for a lead or volume boost to the normal Overdrive channel.

LEVEL - Controls the output level of the Solo Overdrive channel. Use this knob to achieve addti desired volume level for the Overdrive channel.

DRIVE - Controls the distortion level in the Overdrive channel. This amp was designed to achieve a wide-range of gain levels, so set the control lower for more mid-gain classic rock and funk tones or turned it up for full on modern rock and metal distortion.

## **VU METER**

The VU meter measures the overall output of the amp. You will notice the VU Meter is slighter higher when using the Clean channel, because the signal level is much cleaner and stronger in this channel. Don't be concerned if the VU meter hits the red area occasionally, this just means you're

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#### POWER

The main power switch to the amplifier. Once the amplifier is plugged in flip the Power switch to the ON position. The VU Meter and Clean channel will light up indicating the amplifier is powered up and ready for action. IMPORTANT: Always make sure the Standby is set to the Standby or OFF position anytime you turn ON or turn OFF the amplifier.

#### **STANDBY**

Once the amplifier has been powered up for a minimum of 30 seconds, you can flip the Standby to ON and start playing. When turning the amplifier OFF, turn the Standby to the OFF position first and let the power tubes cool down for a minimum 30 seconds before turning Power switch OFF.

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#### MASTER

This large knob controls the overall volume level of the amplifier. Set the level control on each channel first then bring up the Master volume to the desired level. This knob increases the volume gradually, so don't be shy about turning the Master knob up as high as you like. The amplifier will continue to get louder without distorting to quickly.

# **REAR PANEL FEATURES**



#### FOOTSWITCH

The amplifier includes a 3-button MIDI footswitch for switching between the 3 channels. The amplifier was designed with MIDI channel switching circuit that is compatible with other MIDI compatible units like rackmount Effects processor. With the amplifier OFF, simply connect th 7-pin cable to MIDI IN jack on the rear panel of the amplifier. Use the MIDI THRU to connect to other MIDI compatible devices.

#### MIDI CHANNEL SWITCHING/STORING

Pressing and holding the channel select button for 2 seconds on the front panel will store settings. To Store a preset or reprogram the footswitch simply press button 1 on the foot switch then if needed select the Clean (Ch 1) using the Channel select button. Press and hold the channel select button for 2 seconds and button 1 on the footswitch is now programmed to select the Clean (Ch 1) on the amplifier. Repeat the same process above to program button 2 on the footswitch to the Overdrive (Ch 2) and button 3 on the footswitch to Solo (Ch 3)

#### MIDI CHANNEL SELECTION:

|       |      | 64.0 |      |      |
|-------|------|------|------|------|
| CHAN. | S1-4 | S1-3 | S1-2 | S1-1 |
| 1     | on   | on   | on   | on   |
| 2     | on   | on   | on   | off  |
| 3     | on   | on   | off  | on   |
| 4     | on   | on   | off  | off  |
| . 5   | on   | off  | on   | on   |
| 6     | on   | off  | on   | off  |
| 7     | on   | off  | off  | on   |
| 8     | on   | off  | off  | off  |
| 9     | off  | on   | on   | on   |
| 10    | off  | on   | on   | off  |
| 11    | off  | on   | off  | on   |
| 12    | off  | on   | off  | off  |
| 13    | off  | off  | on   | on   |
| 14    | off  | off  | on   | off  |
| 15    | off  | off  | off  | on   |
| 16    | off  | off  | off  | off  |

The MIDI Channel (1 16) is selected via an internal four position DIP switch (S1). MIDI Channel must  $\bar{b}e$  selected with the power off.

#### MIDI IMPLEMENTATION

The EMB board recognizes Program Changes or Control Changes (Not Both) on a preselected MIDI channel. See the above for MIDI Channel Selection. Program changes 1 to 128 select EMB presets 1 to 128 which are saved in EEPROM memory.

# REAR PANEL FEATURES



#### **MIDI IMPLEMENTATION - cont**

Control Change #56 (w/control Value 127) allows for Instant Access selection of Channel 1. Control Change #57 (w/control Value 127) allows for Instant Access selection of Channel 2. Control Change #58 (w/control Value 127) allows for Instant Access selection of Channel 3.

The first valid MIDI message (Program Change or Control Change) that the EMB board receives will determine how it repsonds to subsequent MIDI messages. For example; (A) if the first MIDI message the EMB board receives is the Program Change, then it will ONLY respond to Program Changes and all Control Change messages will be ignored. (B) if the first MIDI message the EMB board receives is a Control Change, then it will ONLY respond to Control Changes and all Program Change messages will be ignored.

#### POWER TUBE BIAS SECTION

You will need a decent quality digital voltmeter capable of measuring in the 100mVDC range. This is a basic type of meter available at any electronic supply company or Radio Shack. Typical cost will be \$15-\$30 or about the cost of one bias adjustment from your local amp technician. You will also need a small flat blade screwdriver to turn the adjustment control.

To check and/or adjust the bias, turn both the Power and Standby to the ON position and all knobs all the way down. Turn the meter on and set for reading DC millivolts. Insert the Black (Negative) meter lead into the panel hole label "COM" or Common. Insert the Red (Positive) meter lead into either panel hole marked TEST POINT. With your screwdriver turn the BIAS ADJUST control to obtain a recommended reading of 80mVDC. Now place the red meter lead into the other BIAS ADJUST and also set to 80mVDC. On this amplifier you are adjusting a pair of tubes at one time, so 80 millivolts DC is the standard factory setting for each pair, but adjust the bias range from 70 - 90mVDC if desired for a certain sound. A lower bias setting will increase the life of your tubes, but produce a softer more bottom heavy feel. A higher bias setting will decrease the life of your tubes, but produce a more compressed harder tone and feel. If replacement tubes are needed you will need to purchase the tubes in matched pairs. This amplifier will accept any EL34 or 6L6 type of power tube and the bias setting for either type will be the same.

#### EFFECTS LOOP