

amp is used in conjunction with another amp in a dual amp setup. If the speaker in the two amps are set "out of phase" with each other your tone could be weakened considerably. So when you're running the amp simultaneously with another amp, be sure to check this switch to see if one position or the other is giving you a better result.

Speaker Impedance

On a combo this rotary selector knob comes set at 8 ohms for a single 12 or 4 ohms for a 2x12. The selector knob can select between 4, 8 and 16 ohms. Check Ohm's Law if using an additional extension cabinet to select the right ohm setting. Example: 8 ohms + 8 ohms = 4 ohm setting. On a head, please be sure to select the proper ohms to match your cabinet.

TROUBLESHOOTING

Your new Bad Cat amplifier is designed for many years of professional trouble free operation. Common sense will tell you that if you notice any severe abnormalities in operation like burning smell, smoke, etc.; you need to shut down the amp immediately. Always consult your Bad Cat dealer if you are unsure of the problems that you are dealing with; i.e., take your amp to where you purchased it.

No Power

Check the power source from the wall first. Make sure the power cord is properly seated at both ends. If there is still no power, check the fuse and replace if necessary with the correct rating only.

Weak Output Level

Verify the signal output from your instrument first. Check guitar's controls and that the cables are working properly. Also, check any effects pedals that may be connected in between the guitar and the amplifier.

Adverse Sounds-Hum, Whistle, Loss of Dynamics, Feedback, Howling

Check loudspeaker cones, frayed guitar cables, controls on your instrument, the guitar's pickups and any other devices that many be connected to your amplifier such as effects pedals or rack processors. Some of these devices are "amplifiers" in their own right with gain and boosted volume levels and they may cause hissing and unwanted feedback if set too high in front of the amp. Shut down the amp and check the tubes. Wait for the amp to cool down. Remove the back panel of the amplifier. Avoid handling hot tubes as they can cause severe burns. Check the larger output power tubes first by carefully removing the tube shields or loosening the clamps, and then unseat the tubes from their sockets but note from which sockets you removed the tubes. Inspect the integrity of the filaments in the tubes. If one or more of these tubes are bad, you will need to replace the entire set of the power tubes. If all the tubes are OK, you can eliminate the adverse sounds by swapping the location of these tubes. If this fails to fix the problem, you may need to replace the entire set of power tubes with a new matched set. Use of inferior quality (unrated) tubes may cause damage to your amplifier. You should also check the preamp tubes, especially the first input stage tube (far right if you're looking at the amp from the back). Microphonics (feedback noise that cannot be controlled by turning down the volume pot on you guitar) indicates a bad preamp tube(s). You may want to swap the position of preamp tubes to see if this will fix the microphonics problem. Preamp tubes can go bad without warning but can also last many years without any problem whatsoever. As you can see when handling tubes, they are sensitive, fragile and somewhat prone to inconsistencies. Please handle your amp with care when transporting it. Although your Bad Cat amp is sturdily built and

designed to take years of rugged use, the tubes are not. It's always a good idea to keep extra tubes (both preamp and output power tubes) handy, especially for performance situations. An overwhelming majority of minor problems on tube amps are tube-related and it's just a matter of swapping one or more out to have your amp performing like brand new again.



IMPORTANT!
FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:
WATER AND MOISTURE: Appliance should not be used near water (near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.). Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
POWER SOURCES: The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the unit.
GROUNDING OR POLARIZATION: Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.
POWER CORD PROTECTION: Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
SERVICING: The user should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.
FUSING: If your unit is equipped with a fuse receptacle, replace only with the same type fuse. Refer to replacement text on the unit for correct fuse type.

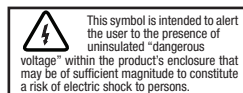
LIMITED LIFETIME WARRANTY

Bad Cat Amplifiers warrants our amps and cabs against workmanship or defect for life. The warranty does not cover tubes or cosmetic damage, or wear and tear or abuse. This warranty is transferable. Lifetime transferable warranty is only for North American sales. Please see your local dealer and distributor for warranty information. Modifying or altering the amp in any way voids the warranty. Shipping to and from the warranty repair center is the responsibility of the customer.

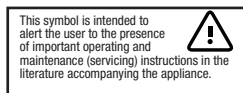
We have a new Lifetime Warranty on all new amps leaving the factory. We are extending the Lifetime Warranty to all of our pre acquisition amps for \$249. Simply send the unit back to us and we will have one of our technicians go through it from the ground up. And to top it all off, we will pay for the shipping back to you. For more information please contact us at sales@badcatamps.com or directly at 800-730-0966. When RETURNING merchandise to the factory, you must call for a return authorization number.

HELP SECTION

- 1) AMP WILL NOT TURN ON**
Check the power to the amp. Check for tripped circuit breakers, unplugged extension cords or power-strip switches that may be turned off. Check the fuse. If a dark brownish color or no wire can be seen within the glass tube, then replace. The amp may be perfectly fine but occasionally a fuse may blow because of high AC voltage surges. After the fuse has been replaced with the proper Slow Blow value and if the fuse fails again, the amp will require servicing.
- 2) NO OUTPUT with POWER light ON**
Tubes damaged in shipping will be the primary reason for your amp to not function properly. Please give us a call to help guide you through this simple repair.
- 3) KEEP YOUR AMP LOOKING NEW**
Use a damp cloth to wipe the controls on the front & rear chassis panels. Wipe the black vinyl covering with a damp cloth.



REFER SERVICING TO QUALIFIED SERVICE PERSONNEL!
THIS UNIT CONTAINS HIGH VOLTAGE INSIDE!



Bad Cat
TUBE AMPLIFIERS USA

PHONE 800.730.0966
FAX 714.630.0106
INFO@BADCATAMPS.COM
WWW.BADCATAMPS.COM
140 Technology Drive Suite 500, Irvine CA 92618
BAD CAT HOLDINGS LLC. USA

Bad Cat
TUBE AMPLIFIERS USA

Operating Manual

WILD CAT 40R

Congratulations and thank you for purchasing a professional tube amplifier from Bad Cat. As with all Bad Cat products, your amplifier is designed from the ground up to provide the very best tones possible in a rugged, reliable package. Each one of our pro quality models is constructed with Bad Cat's commitment to making the highest quality, hand-built, American-made amplifiers.

CAUTION

With a little care and caution, your Bad Cat amplifier should provide you with years of trouble-free operation and enjoyment. Please avoid damp areas and moisture during operation of the amp and in storage. This includes placement of beverages near or on the amp that could spill into the amp's chassis. Liquids can easily damage tubes, switches and other parts. Immediately disconnect the amp from power source should a spill occur and dry the amp thoroughly prior to switching on the amp again. Drying may require the complete removal of the chassis from the cabinet and the removal of the tubes for cleaning. Avoid tipping the amp, using it in unbalanced positions, or lifting it unassisted to awkward heights. A little common sense will go a long way in making sure the amp does what it's supposed to do: provide you with dependable operation and great tone on a consistent basis.

GROUNDING

Please check thoroughly that the ground tip on the power cord plug is connected to true ground prior to operation of your Bad Cat amp. Using unfamiliar junction boxes can cause potentially dangerous floating grounds. Please do not cut or defeat the ground tip.



DUAL CHANNEL, 40 WATT, DUAL EL34

Two EL34's, Class A power section. Bold, aggressive with plenty of grunt and punch. Glassy highs riding over the top of the complex mids and tight lows. The Wild Cat shares a lineage with the Black Cat preamp section but that's where the similarities end. Two foot switchable channels. Channel one is 12AX7 based with a standard bass and treble tone stack. This channel is warm with punchy tight mids and lows. Channel one produces thick and richly complex tones with just the right amount of high-end glass sitting on top. Great for mid heavy chunky rhythms or 70's style crunch tones. Engage the master volume, which can be switched in or out of the channel circuit, to get stage friendly drive. Each channel has its own master that can be switched in or out.

Channel two is where this amp steps into its own. EF86 preamp pushed into either a five-way tone selector or a bass and treble tone stack, giving this amp a great flexibility in tone shaping. The five-way selector is a five-tone capacitor bank, that is switchable in five different values. Five different levels of low and mid control, gives you the ability to bypass the tone stack and essentially plug into the output power section. There is a three dimensional hi-fi feel to the sound. The mids are moved slightly forward and the highs become more transparent and clear. The amp sits in your hands more like an instrument.

Switch over to the bass and treble tone stack and get a sweeter more scooped type of tone. Beautiful cleans are to be had here, clear with lots of shimmer. Engage the master volume for channel two and push this is aggressive rock territory. Single note lines drip in harmonics, notes bloom and sing and allow you to play the amp like you would your guitar. Dual reverb controls and half power switch round out the features.

ELECTRONICS

Power: 40/20-Watt Class A
Channels: 2
Channel 1: Volume, Bass, Treble, Reverb, Cut, Master
Channel 2: Volume, Tone, Bass, Treble, Reverb, Cut, Master

HARDWARE

Available Configuration: Head, 1x12 Combo or 2x12 Combo
Cabinet Material: Head - Italian Poplar, Combos - 13 Ply Baltic Birch
Speaker Description: 12" Proprietary Bad Cat Celestion Speaker
Impedance: Selectable 4, 8, 16 ohms
Power Tubes: 2 - EL34s
Pre-Amp Tubes Channel 1: 2 - 12AX7's
Pre-Amp Tubes Channel 2: 1 - EF86, 1 - 12AX7
w/Reverb: 2 - 12AX7's
Rectifier Tube: 1 - GZ34

FOR YOUR RECORDS, YOU MAY WISH TO RECORD THE FOLLOWING INFORMATION.

SERIAL NO. _____ INVOICE DATE _____

Last updated: July 30, 2013

Front & Rear Panel Controls

WILD CAT 40R

OPERATION

If this is your first all-tube amplifier, please become familiar with a few issues that differentiate your amp from solid-state or hybrid amp products. Only a few precautions are required but they will insure that you will get the most of your new all-tube amplifier. Vacuum tubes are “old world” thermal devices that require more attention than transistors, but that’s the reason they sound so much sweeter and more musical than integrated circuits and other solid-state components. A little heads-up on the following points will ensure maximum performance from your Bad Cat amp.

1. Place the amp at least 6 inches away from any wall or obstacle to provide adequate ventilation around the amp. Good airflow around the amp will go a long way in preventing the amp from overheating, especially the tubes. Do not place covers, clothing, or any other materials on or in the amp that can obstruct the free venting of the chassis to the outside air. Trapped heat in the chassis may cause a condition known as thermal runaway. To put it simply, to warm or cook the tubes is good, to heat-cycle or fry the tubes is extremely dangerous and will also shorten the life of the tubes considerably.

2. Vacuum tubes will last longer and sound more musical when they are allowed to warm up prior to introducing an input signal from your guitar. A full flow of electrons from the cathode can only be achieved when the tube is heated. This requires some time. Please allow at least one minute of warm-up time before playing through the amp.

3. Avoid long idle periods with no input signal. The vacuum tubes prefer to see a signal present. When taking a break between practice sessions or in between sets of a performance, use the standby switch or turn off the amp.

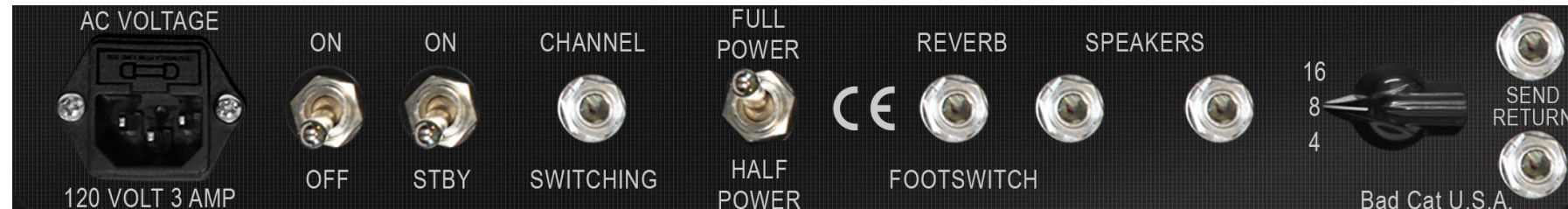
4. Avoid unverified impedance loads. In other words, do not clip on or otherwise attach additional speakers unless you know the system impedance. Tube amplifiers are very sensitive to speaker impedance matching. This is due to the relationship between the internal resistances of the output transformer, the output power tubes and the load that is required to drive them. Unbalanced loads can cause destructive arcing; the transformer and the tubes may actually burn themselves out. This is not covered by our warranty.

With proper impedance matching, multiple speaker configurations will work fine. If you are not familiar with “Ohm’s Law”, please consult with a dealer or a qualified amplifier technician. Do not attempt to operate the amp if you cannot verify system impedance after connecting the speakers. Never operate your Bad Cat amp at 2 ohms or less.

5. Avoid unapproved “Power Soak” devices or attenuators that are not recommended by Bad Cat as they can shorten the life of your power tubes considerably. Attenuators burn out tubes prematurely because they require the power tubes to overwork continuously. Also, please note that power tubes are best replaced as a matched full set whenever any of them fail.



Front Panel Controls



Rear Panel Controls

MAINTENANCE

Your Bad Cat amp is a professional instrument that does not require much in maintenance. Use a clean dry cloth to wipe cabinet as required but avoid solvents of any type as they may tarnish or discolor the vinyl. If you’re going to store the amp with a cover, please allow the tubes to cool before covering the amp. A cover cloth or vinyl amp cover will prevent dust buildup in the amp. Weak or dull tones from your amp may indicate that the tubes are old or tired and need replacement. The tubes in your amp are like tires on your car. They do wear out. If you notice change in tone and tactile response from the amp, it’s most likely that the power tubes need to be replaced. As advised earlier in this manual, replacement should only be done in complete matched sets. Preamp tubes will last much longer than power tubes, but these should also be checked occasionally. Preamp tubes tend to go micro-phonic and also produce undesired results when old or not working properly.

BLACK CAT/ WILD CAT The Black Cat is a 30 watt Class A and the Wild Cat is a 40 watt Class A amplifier. Class A amps have their power tubes running at full power at all times unlike Class A/B. Class A/B amps are push-pull amps which essentially means that the power tubes alternate turns handling current. Many classic Marshall and Fender amps are Class A/B. Class A or Class A/B is neither better than the other but they do offer differences in tonal character.

FRONT PANEL

Channel 1: Volume

This volume pot controls the output level specific to Channel 1. With the Master Volume switched “out” this is solely responsible for the loudness of this channel. With the Master Volume switched “in” this pot works in tandem with the Master. In that case, the higher settings of this pot will give more gain and the Master will be used for overall volume.

Bass

The Bass EQ knob has been carefully tailored to cover the critical low-end frequencies in the electric guitar’s sonic range. Whether you need depth in your sound or low-end punch, this control will allow you to dial in just the right amount of bass frequencies.

Treble

The Treble EQ knob allows you to control the amount of high-end frequencies that determine the cutting character of your sound. For more sparkle and

high-end definition turn this knob past noon. For a warmer and rounder sound, turn this knob below noon in conjunction with turning up the Bass knob.

Channel 2: Volume

This volume knob controls the output level specific to Channel 2. With the Master Volume switched “out” this is solely responsible for the loudness of this channel. With the Master Volume switched “in” this pot works tandem with the Master. In that case, the higher settings of this pot will give more gain and the Master will be used for overall volume.

Tone

This is a 5-position knob used for instant access to your favorite sounds. Turn it clockwise for increasingly darker, thicker tones. Turning the knob counterclockwise gives you more treble and bite. The 5-position switch gives you a distinct advantage in being able to recreate the tone you want time after time.

Tone Switch

This switch gives you the option of using the 5-position tone knob above or using the bass and treble knobs that follow. Switch in the left position gives you the 5-position knob. Switch in the right position gives you the bass and treble knob. The amp uses either the 5-position or the bass and treble knobs for tone; they are not used in conjunction with one another.

Bass

The Bass EQ knob has been carefully tailored to cover the critical low-end frequencies in the electric guitar’s sonic range. Whether you need depth in your sound or low-end punch, this control will allow you to dial in just the right amount of bass frequencies.

Treble

The Treble EQ knob allows you to control the amount of high-end frequencies that determine the cutting character of your sound. For more sparkle and high-end definition turn this knob past noon. For a warmer and rounder sound, turn this knob below noon in conjunction with turning up the Bass knob.

Cut

The Cut knob is universal to Channel 1 and Channel 2, meaning it is always in the circuit an always affecting the tone. The knob is appropriately named because turning it up gives your tone more cut; turning it down gives a darker, mellower tone. This is similar to a presence knob on some other amps.

Reverb

The reverb circuit is a completely new Bad Cat design that adds spatial dimension to the tone produced by the amp. Incorporating the very best 3-spring reverb tank with newly designed reverb tone circuit, the reverb can go from subtle classic spring reverb effects to rollicking surf reverb to cavernous hall-like setting with a simple twist of this knob. This reverb circuit was carefully designed to be useful across the entire sweep of the reverb range. It adds a wide range of spatial effects that you just can’t duplicate with pedals and digital effects processors.

Master “In” and “Out” Switch and Master Volume

This switch activates and deactivates the master volume for Channel 1 & 2. When the switch is “In” the Master knob now controls the overall output level of Channel 1. When the switch is “Out” the Master knob is now out of the circuit and does not affect the amp.

Channel 2 Master only works when Bass & Treble is selected.

BACK PANEL

A/C Plug

Plug your amp’s power cord in here first, then to the wall.

On/Off Switch

This switch turns the amp on or off. Please make sure that the Standby Switch is in the Standby mode before turning on or off. This will help increase the life to the power tubes.

Standby Switch

Leave this switch off when turning on the amp and let the amp warm up for a full minute before turning this switch on. It’s best to let tubes warm up before playing. Also, turn the Standby switch to Standby when you will not be playing for a while (for example, breaks in between sets of your performances, etc.).

Channel Switching Jack

Plug in your amp’s footswitch here to allow you to switch between channel 1 and 2.

Full/Half Power Switch

In the up position this switch allows the use of full power of your amp. For more headroom, full power mode is a must. Full power mode also provides a bigger, bolder tone. The down position of this switch is Half power mode. Half power is very useful for getting the amp to break into desirable distortion at lower volumes for home use or use in smaller rooms. The tone character is slightly different between the modes and a little experimentation is worthwhile.

Reverb Footswitch Jack

This is the footswitch jack to turn the reverb on or off. You can use any conventional shielded cable latching on/off footswitch with this jack.

Speaker Jack

On a combo amp, this jack is for adding an extension speaker cabinet to be used with the internal speaker of the amp. The internal speaker runs at 8 ohms for a single 12 or 4 ohms for 2x12 and is parallel with the extension speaker jack. On a head, this jack is for connection to your speaker cabinet. Please be sure to select the proper ohms to match your cab.

Send and Return Jacks

Connect the output of the send jack to the input of your effects device. Connect the output of your effect and to the Return jack of the loop. The Send can also serve as a Line Out to drive external processors in a wet/dry/wet rig.