Texas Tone® 30 Owner's Manual

Congratulations!

You are now the proud owner of the Texas Tone® 30 tube guitar amplifier. This amp packs a dynamic vintage tube sound with two channels into a single combo cabinet – giving you an amp that's easy to operate, easy to transport, and produces those sweet tube amp sounds that we all crave!

Like all Texas Tone Amps Texas Tone® products, your Texas Tone 30 amplifier is designed by musicians and built using the finest components available. Extensive testing confirms that this amplifier is the absolute best it can be. In order to get the most out of your new amplifier, we strongly urge you to read the information contained in this manual before you begin playing.

Thank you for choosing Texas Tone®!

READ, FOLLOW, HEED, AND KEEP ALL INSTRUCTIONS AND WARNINGS.

CAUTION: RISK OF ELECTRIC SHOCK, DO NOT OPEN OR REMOVE CHASSIS!

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE. DO NOT REMOVE REAR COVER. NO USER-SERVICEABLE PARTS INSIDE.

- **WARNING**: THIS UNIT REQUIRES A SAFETY GROUNDED 120VAC 60Hz OUTLET WIRED TO CURRENT ELECTRIC CODES. ONLY CONNECT POWER CORD TO A POLARIZED, SAFETY GROUNDED OUTLET WIRED TO CURRENT ELECTRICAL CODES AND COMPATIBLE WITH VOLTAGE, POWER, AND FREQUENCY REQUIREMENTS STATED ON THE REAR PANEL OF THE AMPLIFIER.
- **WARNING**: THIS AMPLIFIER PRODUCES HIGH DC VOLTAGE (400+ VDC). DO NOT REMOVE THE REAR PANEL OR OPERATE WITH THE REAR PANEL REMOVED.
- SERVICE TO BE PERFORMED BY QUALIFED PERSONNEL ONLY.
- DO NOT OPERATE NEAR ANY HEAT SOURCE AND DO NOT BLOCK ANY VENTILATION OPENINGS ON THIS AMPLIFIER. FOR PROPER OPERATION, THIS UNIT REQUIRES 3" (75mm) OF WELL-VENTILATED SPACE AROUND HEATSINKS AND OTHER AIR FLOW PROVISIONS IN THE CABINET.
- **WARNING**: TO REDUCE THE RISK OF ELECTRIC SHOCK OR FIRE, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. DO NOT USE THIS AMPLIFIER NEAR SPLASHING, FALLING, SPRAYING, OR STANDING LIQUIDS.
- CLEAN ONLY WITH LINT-FREE DAMP CLOTH AND DO NOT USE CLEANING AGENTS.
- PROTECT THE POWER CORD FROM DAMAGE DUE TO BEING WALKED ON, PINCHED, OR STRAINED.
- UNPLUG THE AMPLIFIER DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.
- ONLY USE ATTACHMENTS, ACCESSORIES, STANDS, OR BRACKETS SPECIFIED BY THE MANUFACTURER FOR SAFE OPERATION AND TO AVOID INJURY.
- OUR AMPLIFIERS ARE CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS. CONTINUED EXPOSURE TO HIGH SOUND PRESSURE LEVELS CAN CAUSE PERMANENT HEARING IMPAIRMENT OR LOSS. USER CAUTION IS ADVISED AND EAR PROTECTION IS RECOMMENDED IF UNIT IS OPERATED AT HIGH VOLUME.

Contents

The Texas Tone 30

The Texas Tone 30 is inspired by the dynamic performance of two famous vintage amps of the 1950s and ‘60s, the famous 5F6-A Fender® Bassman and the Marshall® JTM45, while adding some unique touches and modern safety and construction methods.

Vintage tube guitar amplifiers suffer from outdated electrical grounding methods. Texas Tone® guitar amps feature modern grounding techniques and three-prong electrical plugs for safe, low-noise operation. Many amps from the 1950s also have very little clean headroom. Special features allow the Texas Tone 30 extra headroom when needed, or total tube amp distortion. This allows the guitarist to get that sweet and creamy tube crunch, or to tame those vintage sounds, depending upon the control panel settings.

The Texas Tone 30 features two interdependent inputs and volume controls. The traditional Normal channel is augmented by shielded inputs and a shock-mounted preamp tube. The traditional “Bright” channel has been re-voiced to a more modern and tight high gain “Lead” channel. The only difference between the traditional "Normal" and "Bright" channels is a treble by-pass capacitor on the Bright volume control to bypass high frequencies at low volume levels. As you approach maximum volume, the difference is less and less, until there is no difference between the Normal and Bright channels at higher volumes.

This re-voicing of the Lead Channel tightens up the overdrive tone and the bottom end and makes the Texas Tone 30 more pedal friendly. Gain is increases, and some of the guitar's low frequencies are removed at the first stage preamp, yielding more clean headroom and maximum volume. Low frequencies use a lot of the amp's power, so removing these very low frequencies allows more amplification of the remaining audio frequencies. During overdrive, the large coupling caps in the later gain stages will allow low frequency intermodulation distortion harmonics to be passed through the amp for a subtle but thick low end. This will not happen in a traditional amp or clone.

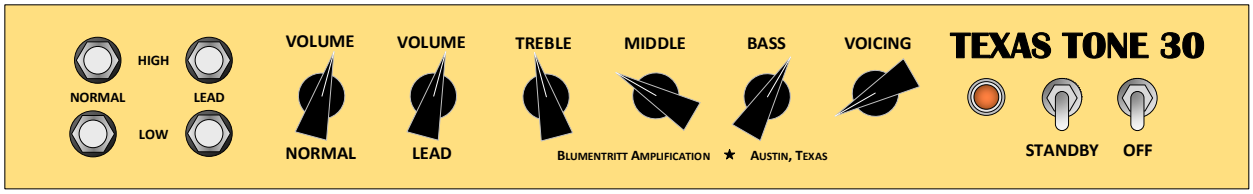
Prepare to be blown away, especially when using a boost pedal to increase the gain and distortion!

From clean to dirty, this amp allows you to remain in control of your sound; you’ll be surprised at the variety of tones you can achieve with this amp.

Specific Features of the Texas Tone 30:

- MIL-Spec wire
- Low-noise and/or MIL-spec resistors
- Shielded input signal cables
- High quality Sozo, F&T, Sprague, JJ and Mallory Capacitors
- Hand-wired turret board
- Rugged 14 gauge (0.060” / 1.52mm) brushed aluminum chassis.
- Interactive volume controls for the Normal and Lead channels that allow tones from the mid-1950s tweed era to the mid-1960s rock era to the modern era.
    - Channel Jumper switch available as an option.
- Variable negative feedback (NFB); a re-voicing of the famous Presence control.
- Combo amps only:
    - Shock-mounted first stage preamp tube.
    - Celestion G12M-65 Creamback 12” speaker – warm and vocal mid-range, crunchy upper- mids and sweet, refined highs.

The Front Panel:



1. **INPUTS**: Texas Tone 30 has two channels, "NORMAL" and "LEAD." The Treble, Middle, Bass, and Voicing controls work for both.
    a. **HIGH Input**: This is the normal, high gain, high impedance (1MegΩ) input. Connect your guitar here by means of a shielded signal cable.
    b. **LOW Input**: The "Low" input features a -6dB attenuation compared to the "High" Input. Use the low input for lower gain and quieter performance, or when using very high-gain pickups to gain more headroom before the onset of distortion. When both inputs are used at the same time, they offer the same gain characteristics.
2. **VOLUME:** The two channels are somewhat interactive. Even when you're only plugged into one channel, you can still expect some minor interaction from the volume knob of the other channel.
    a. **NORMAL channel:** The knob on the left controls the "NORMAL" volume. The Normal channel is a traditional 12AX7 preamp channel.
    b. **LEAD channel:** The knob on the right controls the "LEAD" volume. The high gain Lead channel is specifically voice for overdrive, being very pedal friendly, with reduced bass response in the first gain stage. The result is more headroom and maximum volume without muddiness. Using a boost pedal with the Lead channel results is beautiful tube amp overdrive. The Lead channel is a higher gain, less bass 12AX7 preamp channel.

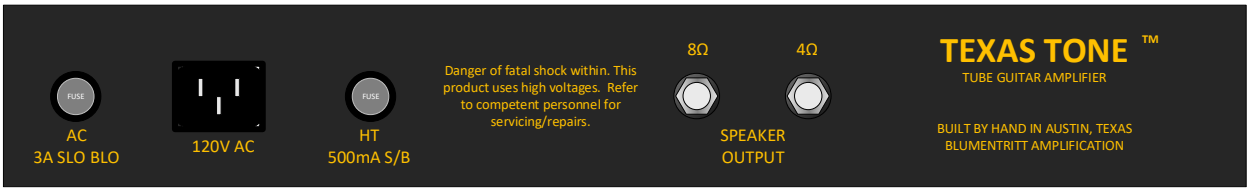
Note: Many users find it beneficial to jumper the two channels with a patch cable for a "linked" tone. Plug your guitar into the Normal High input and connect a patch cable between the Normal Low and Lead Hi inputs. With both volume controls turned down, turn the Normal volume control to the desired volume level. Then turn up the Lead volume. As the Lead volume matches and then exceeds the setting of the Normal channel, more and more distortion is added, giving a sweet blues tone. A channel jumper switch is optional.

3. **TREBLE**: Turning the Treble control clockwise from the mid-point (straight up) produces a brighter tone. Counter-clockwise reduces the high frequency response.
4. **MIDDLE**: The middle control affects the mid-range frequencies. Turning down the Middle control allows a more 'blackface' tone, especially with the Treble and Bass turned up. Cranking up the Middle control provides a thicker, louder, and more distorted tone.
5. **BASS**: The Bass knob controls the response of the lower frequencies. Clockwise for more bass, counterclockwise for less.
6. **VOICING**: In a manner similar to the Presence control, the Voicing controls the amount of negative feedback on the high frequencies. Turning it clockwise increases the amount of negative feedback and the apparent brightness of the amp. The Texas Tone 30 has more NFB than a 5F6a. The extra feedback makes cleans sound cleaner, tightens the boundary between clean, and overdrive. This

can make it easier to control overdrive via the guitarist's picking style and makes the amp's overdrive tone cleaner and tighter.

7. **Indicator lamp**: The lamp will illuminate whenever the amplifier is plugged in to a 120V power source and the Power switch is turned on.
8. **Standby switch**: The Standby switch controls the high voltage to the tubes of the Texas Tone 30. The Standby switch may also be used to quiet the amplifier for short periods.
9. **Power switch**: To turn on the amplifier, make sure that the Standby switch is in the "STANDBY" position, and then turn on the power switch. After sufficient time for the tubes to warm up, about 15 seconds, turn on the Standby switch. To turn off the amplifier, place the Standby switch back to the STANDBY position, and switch off the Power switch.

The Rear Panel:



1. **120 VAC Fuse Holder**: Use only a **Slow Blow 3 Amp** rated fuse. In the event that the fuse blows or the amplifier will not power on, consult a qualified tube amp technician.
2. **Line Cord**: The grounded power cord should only be plugged into a grounded power outlet that meets all applicable electrical codes and is compatible with 120 Volts AC, 60 Hz power. Do not attempt to defeat the safety ground connection
3. **High Voltage Fuse Holder:** Use only a **Slow Blow 500mA** (1/2 Amp) rated fuse for the high voltage (~440V DC). In the event that the fuse blows, or the amplifier will not power on, consult a qualified tube amp technician.
4. **Tube sockets** (from left to right – not shown):
    a. **V6**: Tube rectifier. Use only a high quality GZ34/5AR4 type rectifier tube.
    b. **V4 & V5**: Power output tubes. Use only a matched pair of high quality 6L6GC tubes. A Premium Matched pair of JJ Electronic 6L6GC tubes by Eurotubes is standard. The power tubes use fixed bias (adjustable). Always check the bias adjustment when changing power tubes for long tube life and great tone.
        i. The Texas Tone 30 is factory biased at 60% dissipation, e.g. 41mA at 440VDC B+ and 120VAC input, yielding 36 Watts clean output at 1kHz at 1V RMS.
    c. **V3**: Phase splitter. The phase splitter circuit in the Texas Tone 30 is specially designed to use a 12AX7 type tube. Use only a high quality 12AX7/ECC83/7025 type vacuum tube. A 12AT7 or 12AY7 may be substituted.
        i. The 12AX7 provides less preamp headroom and more preamp distortion.
        ii. A 12AT7 tube may be used, resulting in more headroom, more output swing & power amp overdrive.
        iii. A 12AY7 provides for more headroom, and less bias and output power.
    d. **V2**: Preamplifier and tone stack driver. Use only a high quality 12AX7/ECC83/7025 type vacuum tube. JJ Electronic ECC83S (12AX7) by Eurotubes is standard for its outstanding low noise characteristics.
    e. **V1**: First stage preamplifier tube. Use only a high quality 12AX7/ECC83/7025 type vacuum tube. JJ Electronic ECC83S (12AX7) by Eurotubes is standard for its outstanding low noise characteristics.
5. **Speaker connector**:
    a. The Texas Tone 30 Combo ships with a 1/4” cable connected from the 8Ω chassis speaker jack to the internal 8Ω speaker. There is an additional 4Ω speaker output for an extension cabinet.
    b. The Texas Tone 30 head will have both an 8Ω and a 4Ω output (only use one at a time) or a speaker impedance switch.

NOTE: Do not power on or operate the amplifier without a speaker plugged in! Damage will result.

Important Information about Guitar Amp Vacuum Tubes (Valves):

The sound produced by a tube-powered amplifier is significantly different from that produced by a solid-state amplifier with similar design specifications. When pushed past their limits, solid-state devices tend to go immediately into distortion.

Tubes, on the other hand, are non-linear devices that transition more smoothly into distortion, and produce a more musical set of harmonics, the intensity of which can be controlled by the player. This characteristic adds warmth and definition to the sound, which has become the hallmark of tube amplifiers. When tubes are driven into clipping, the harmonic overtones can be both sweet and pleasing, or intense and penetrating, depending on the musician's musical taste and playing technique.

Modern application engineers have designed a number of outstanding solid-state amplifiers that sound quite good. Some use modeling circuitry that enables them to simulate the distortion characteristics of a tube amplifier. Since the response of tubes is both dynamic and non-linear, the true range of characteristics of tube amplifiers can only be approximated. Modern tube amplifiers such as Texas Tone® amps, offer that classic, dynamic vintage sound in today's contemporary market.

Tube Types and Usage:

Preamp tube circuits amplify the signal from your instrument and shape the sound, and they can sometimes become microphonic (mechanically pick up and transmit external noises). Since these tubes are used in the critical first stages of a tube amplifier's circuitry, it is very important to use high quality, low noise/low microphonic tubes for this application. Although tubes of this quality may typically cost more than standard tubes, the improvement in performance is worth the investment, and in some cases, critical. Texas Tone Amps performs extensive testing and works with tube suppliers to determine the best tube for each position in the amplifier.

Preamplifier tubes are also used to drive the power tubes. The power tubes convert the low-level, conditioned signal from the preamplifier into a level that is sufficient to drive the speakers. There are several types of power tubes available, each of which offers a different performance/sound characteristic. The 6L6GC tubes used in the Texas Tone 30 produce a full range, rich and creamy sound with nice distortion. Some tubes are available in matched sets. These tubes are extensively tested for optimum performance and longevity. Matched sets of power tubes are highly recommended. A Premium Matched pair of JJ Electronic 6L6GC tubes by Eurotubes is standard on the Texas Tone 30.

Tubes: Why (And When) To Replace Them:

Tubes are made of a number of fragile mechanical components that are vacuum sealed in a glass envelope. The longevity of a tube depends upon a number of factors, including how hard and often the amplifier is played, vibration from the speakers, road travel, repeated set up and tear down, etc. Any time you notice a change in your amplifier's performance, check the tubes first.

If it has been a while since the tubes were replaced and the sound from your amplifier lacks punch, fades in and out, loses highs or lows or produces unusual sounds, the power tubes may need replacing. If your amplifier squeals, makes noise, loses gain, starts to hum, lacks dynamic sensitivity, or feels as if it is working against you, the preamplifier tubes may need replacing.

The power tubes are subjected to considerably more stress than the preamplifier tubes. Consequently, they usually fail/degrade first. If deteriorating power tubes are not replaced, they will ultimately fail. Depending on the failure mode, they may even cause severe damage to the audio output transformer and/or other components in the amplifier. Replacing the tubes before they fail completely has the potential to save you time, money and unwanted trouble. Since power tubes work together in an amplifier, it is crucial that they are replaced by a matched set. If you are on the road a lot, we recommend that you carry a spare matched set of replacement power tubes and their associated driver tubes.

After turning off the power and disconnecting the amplifier from the power source, carefully check the tubes (in bright light) for cracks or white spots inside the glass or any other apparent damage. Then, with the power on, view the tubes in a dark room. Look for preamplifier tubes that do not glow at all or power tubes that glow excessively red.

Whenever you replace the power tubes:

The output tubes of the Texas Tone 30 are biased with an adjustable fixed bias. When changing the output tubes, it is important to validate and possibly adjust the negative bias voltage. The output section of the Texas Tone 30 is designed for long tube life. When the output tubes are replaced, we recommend that you replace the phase inverter tube as well. The phase inverter tube determines the shape and amplitude of the signal applied to the power tubes and has to work almost as hard as the power tubes. The phase inverter on the Texas Tone 30 is a special design that yields wide bandwidth and gain characteristics when used with a 12AX7 tube (for tube substitutions, see Rear Panel section 4.c. on page 7).

You can check your preamplifier tubes for microphonics by turning the amplifier on, turning up the gain and tapping lightly on each tube with a chopstick or other light wooden dowel. You will be able to hear the tapping through your speakers, which is normal. It is not normal for a tube to ring like a bell after it is tapped. If it does ring, then it is microphonic and should be replaced. The first stage preamp tube in shock-mounted to reduce noise and microphonics. Remember to use only high quality, low microphonic tubes in the preamplifier section. Even though power tubes are rarely microphonic, you should check them anyway. The power tubes can be checked for microphonics just like pre-amp tubes.

Survival Tips for Tube Amplifiers:

To prolong tube life, observe these tips and recommendations:

- Make sure the speaker(s) are properly connected prior to turning on the amplifier. DO NOT OPERATE THE AMPLIFIER WITHOUT A SPEAKER OR PROPER DUMMY LOAD ATTACHED. TO DO SO WILL DAMAGE THE AMPLIFIER.
- Allow the amplifier to warm up to room temperature before turning it on. The heat generated by the tube elements can crack the cold glass housing.
- After playing the amplifier, allow sufficient time for it to properly cool down prior to moving it. A properly cooled amplifier prolongs tube life due to the internal components being less susceptible to the damage caused by vibration.
- Match the impedance of your speaker cabinet(s) to your amplifier. Improper impedance matching will contribute to early tube degradation and may cause premature tube failure.
- Replace the output tube(s) before the performance degrades or the tubes fail completely. Check the tube(s) when you notice degraded performance.
- If the locating notch on the base of a power tube breaks off, replace the tube. This significantly reduces the risk of damaging your amplifier by incorrectly inserting the tube.
- Protect the amplifier from dust and moisture. If liquid gets into the amplifier proper, or if the amplifier is dropped or otherwise mechanically abused, have it checked out at an authorized service technician before using it.
- Proper maintenance and cleaning in combination with routine checkups by an authorized technician will insure the best performance and longest life from your amplifier.

CAUTION: Tube replacement should be performed only by qualified service personnel who are familiar with the dangers of hazardous voltages that are typically present in tube circuitry.

Texas Tone 30 TECHNICAL SPECIFICATIONS:

Output Power Rating	36W RMS (Push-Pull Class AB) 8 Ohm load
Gain:	65Db Typical
Tone Controls	Treble +/- 12 dB @ 10k Hz Middle +/- 20 dB @ 500 Hz Bass +/- 6 dB @ 80 Hz
Internal Speaker (combo amp only)	12”, 65W Celestion G12M-65 Creamback, 8Ω, 1.75” copper voice coil, 35 oz. ferrite magnet, 97 dB sensitivity, 75 Hz resonant freq.
Preamp Tubes	3 x ECC83s JJ Electronic
Power Tubes	2 x 6L6GC Matched Pair, JJ Electronic
Rectifier Tube	1 x GZ34/5AR4, JJ Electronic
Power Requirements	120VAC, 60Hz
Size and Weight (Combo)	(H) 21" x (W) 24" x (D) 9.5", 46 lbs.

The Texas Tone 30 is covered with a durable Tolex material: wipe it clean with a lint-free cloth. Never spray cleaning agents onto the cabinet. Avoid abrasive cleansers, which would damage the finish.

Specifications and information in this manual are subject to change without notice.