

84-40 TUBE AMPLIFIER OWNER'S MANUAL



CAUTION

To prevent electrical shock, do not operate this unit in wet or moist areas. There are no user serviceable parts inside. (See, "Maintenance" and "Tube Chart" sections for user maintenance procedures.)

84-40 TUBE

Congratulations on your purchase of the Seymour Duncan Research 84-40 *Tube* guitar amplifier. The 84-40 *Tube* is the product of art intense research and development effort. Our object was to provide guitarists with an affordable, all-tube amplifier, which sounded great.

The 84-40 *Tube* is based on classic principles of tube guitar amplifier design. An all-tube preamp drives a quartet of EL-84 power tubes, which provide the sweetest, most musical tone possible. The rectangular cabinet shape enhances the spacious "breathing" quality of the sound. Features such as on-board reverb and a buffered effects loop make the 84-40 *Tube* a simple, functional rig, which can adapt to any musical situation.

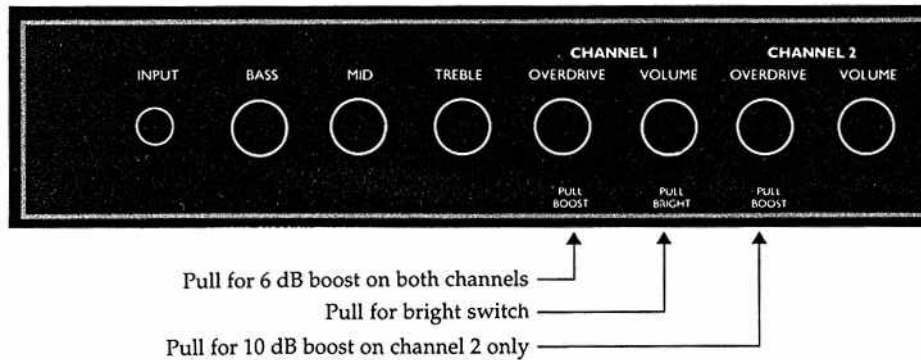
Read this manual carefully to familiarize you with the features and operation of the 84-40 *Tube*. Your new amp will provide years of trouble free performance, great tone and musical fun.



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84-40 TUBE AMP FRONT PANEL



PERFORMANCE APPLICATIONS AND GUIDELINES

The name of the 84-40 *Tube* amp reflects its design - the amp uses a quartet of EL-84 type tubes to produce 40 watts of power.

The EL-84 tube was chosen specifically for its rich, sweet tone qualities, especially when pushed to distortion. This tube was widely used in many early amplifiers, but it is most famous for its use in the Vox AC-30. This was the amp used on the early Stones, Beatles and Yardbirds records.

The EL-84 has a wonderful musical character - it sings, it growls, and it has great dynamic response. The harder you play, the more it distorts and sustains. Back off on your attack and it "idles", cleaning up the sound. In short, EL-84's are a ton of fun!

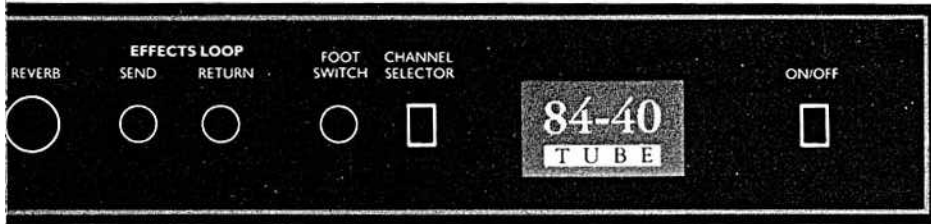
The first thing you'll probably notice about your amp is that it's very loud for its size. We wanted to make an amp for the working guitarist- something that could cut it in most club and casual gig situations. The 84-40 *Tube* has more than enough kick to keep up with a loud drummer and bass player. In fact, when we were testing prototypes in clubs around town, the 84-40 *Tube* had no trouble holding its own on a stage full of 50 and 100-watt amps.

Using the 84-40 *Tube* live is simple. Just use your ears to dial in the EQ settings you need, depending on the type of pickups in your guitar, the demands of the job, etc. Switch channels to find a balance between clean and overdrive settings. A typical lead/rhythm sound setting might be:



EQ/TONE CONTROLS

Even though both channels share the same tone controls, the 84-40 *Tube* amp has been carefully voiced for a smooth natural transition between channels. By switching back and forth a few times and adjusting the gain controls of each channel, it will be easy to get the proper tone and volume balance between clean and distortion sounds.



GAIN BOOSTS

The 84-40 *Tube* has two gain boosts, which are activated, by push/pull pots on the overdrive control of each channel. Pulling out the overdrive control of Channel One activates a subtle 6 dB boost on both channels. Pulling out the OD control on Channel Two activates a stronger, 10 dB boosts on Channel Two only. In general, these boosts are designed to get more bottom end, punch and sustain when using the amplifier at low volumes. As the volume increases, the need for added low frequency response decreases. Using the boosts at high volume levels may produce unwanted "mushiness" in the sound.

BRIGHT SWITCH

The bright switch is activated by pulling out the master volume pot of Channel One. This adds 6-12 dB of boost at 6 kHz for more "crispness" and shimmer to the high end of Channel One only.

STONE TIP

Your 84-40 Tube will get the richest, most dynamic tone when the power amp section is working hard; i.e. when the master volume control is up around 4 or 5. With the preamp volume around 6-7 and the master at 4-5, the 84-40 Tube will produce a punchy "clean" distortion - plenty of sustain and harmonics, but without too much "fuzz" cluttering up the sound. For maximum overdrive and distortion, run the preamp volume at 10.

REVERB

Reverb adds a spacious quality to your tone. The reverb control affects both channels. Set for the amount of reverb you need. BE CAREFUL! Too much reverb may cause feedback. EFFECTS LOOP

EFFECTS LOOP

The effects loop allows you to place your effects into the signal path after the preamp, for smoother, quieter operation. To use the effects loop, run a cable from the "send" jack to the input of your effect device. Then come out of the effect to the "return" of the effect loop. To switch channels, use the front panel channel selector switch or use a remote footswitch. If you use a footswitch, you'll need a single pole/single throw on/off type switch. Do not use an FET momentary type.

84-40 TUBE AMP REAR PANEL



Primary fuse

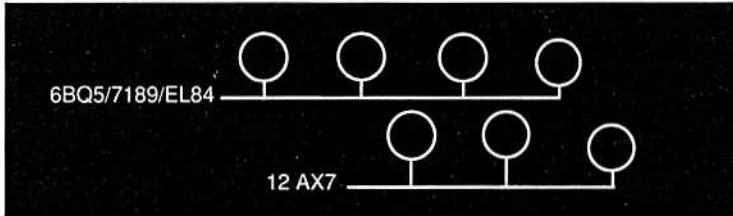
For 110V & 120V operation, use a **2A/250V** slo-blo
For 220V & 240V operation, use a **1A/250V** slo-blo

AC cord

4-ohm speaker output
8-ohm speaker output.

TUBE CHART

TUBE PLACEMENT - CAUTION: CHASSIS SURFACE IS HOT.



The 84-40 *Tube* uses:
3 12AX7 (also known as ECC 83 or 7025) preamp tubes, and
4 EL-84 (also known as 6BQ5 or 7189) power tubes.

MAINTENANCE

Most maintenance procedures for your amp will involve the tubes. Refer any other necessary work or adjustments to a qualified technician. THERE ARE NO USER SERVICEABLE PARTS INSIDE. If your amp requires service, contact the Seymour Duncan factory for the name of your nearest Authorized Service Center. PLEASE NOTE: WE CANNOT ACCEPT UNITS SHIPPED TO THE FACTORY WITHOUT A RETURN AUTHORIZATION NUMBER.

The **12AX7** preamp tubes should last up to 2-3 years, depending on the amount of use.

Symptoms, which indicate failing pre-amp tubes, include:

- Any intermittent noise (sputtering, ringing, etc.) that seems to come and go as the amp warms up.
- Excessive white noise or hiss.
- Inability to get a clean sound, even a low volume levels.

The EL-84 tubes in the power section of the amp could last up to 2 years, depending on volume levels and hours of use. High volume playing 3-4 hours a day, 5-6 days a week could wear out a set of output tubes in a little as 6 months.

Symptoms, which indicate worn power tubes, include:

- Loss of power, punch; amp sounds "mushy" when pushed.
- Excessive hum.

If the outer plates of a tube begin to glow brightly, this tube has shorted. Turn off the amp and replace the tubes, preferably with a matched set. It's OK in an emergency to replace only one output tube, but all four output tubes should be replaced ASAP with a matched set. These are tubes, which have been tested and matched according to their power and performance characteristics (ex. RAM labs tubes, Groove Tubes, etc.). A matched set of power tubes will significantly lower audible hum and increase power output (possibly as much as 10-20 watts). This will offer more clarity on the clean channel and a tighter low-end response for a punchier overdrive sound. Also, when replacing the output tubes on your amp, it is good to have the amp's bias control adjusted to achieve the optimum performance from a set of tubes. ALWAYS REFER THE AMP TO A QUALIFIED TECHNICIAN FOR BIAS ADJUSTMENT.

Always store your amp in a dry area. Storage in damp areas will cause corrosion of internal electrical contacts (switches, pots, jacks, etc.) and will in time degrade the performance of the amp. Amps used in damp environments should be periodically cleaned by a qualified technician.

Symptoms, which may indicate corrosion, include:

- Potentiometer rotational noise (volume or tone controls sound "scratchy" when turning). Use of a commercially available tuner spray will work in most cases.
- Intermittent or noisy jacks.
- Intermittent tube noise that is affected by slightly wiggling the tube in its socket.

To maintain the tolex covering on your amp, use "armor-all" type cleaner.

PERSONAL SETTINGS

Note your favorite 84-40 Tube Tones:



SEYMOUR DUNCAN LIMITED WARRANTY

Please read carefully: Seymour Duncan amplifiers (hereinafter referred to is the Product) are warranted against defects in workmanship and materials, excluding tubes covered separately, for a period of one year from date of purchase to the original purchaser. Tubes are warranted for 90 days from date of purchase. This warranty is not transferable.

Defective parts will be repaired or replaced without charge if the product is returned to the Seymour Duncan factory, at the address below or to a Seymour Duncan Authorized Service Center. In the event a product is to be returned to the Seymour Duncan Factory for repairs, **A RETURN AUTHORIZATION MUST BE OBTAINED PRIOR TO SHIPPING BY CALLING OR WRITING THE COMPANY FOR THE RA NUMBER.**

When returning make certain to include copy of bill of sale. Any product shipped must be returned in the **ORIGINAL SHIPPING CONTAINER WITH ORIGINAL PACKING MATERIAL** and freight prepaid. Transportation charges involved in warranty service are the sole responsibility of the purchaser.

This warranty does not apply to damage caused by misuse, mishandling, negligence in use or maintenance or storage, and is voided if repairs or adjustments are made after purchase by anyone other than the Seymour Duncan factory or a Seymour Duncan Authorized Service Center. Seymour Duncan reserves the right to be the sole judge as to the misuse or abuse of the product.

The company assumes no liability for incidental or consequential damages which may result from the failure of this product. Any warranties implied by law are limited to the duration of this express limited warranty.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation on incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

For this warranty to be valid, the original owner must return the completed warranty registration cards to Seymour Duncan within 10 days.

SEYMOUR DUNCAN WARRANTY CARD THE SEYMOUR DUNCAN WARRANTY IS ONLY VALID FOR PRODUCTS BOUGHT NEW THROUGH A SEYMOUR DUNCAN AUTHORIZED DEALER. IN ADDITION, IN ORDER FOR THE WARRANTY TO BE IN EFFECT, THIS WARRANTY REGISTRATION CARD MUST BE SIGNED BY BOTH THE BUYER AND THE DEALER AND RETURNED TO SEYMOUR DUNCAN AT THE ADDRESS ABOVE WITHIN TEN DAYS OF THE PURCHASE.

BUYER'S NAME (Please Print)

BUYER'S ADDRESS

CITY

STATE

MODEL

SERIAL#

PURCHASE DATE

STORE NAME

CITY

BUYER'S SIGNATURE

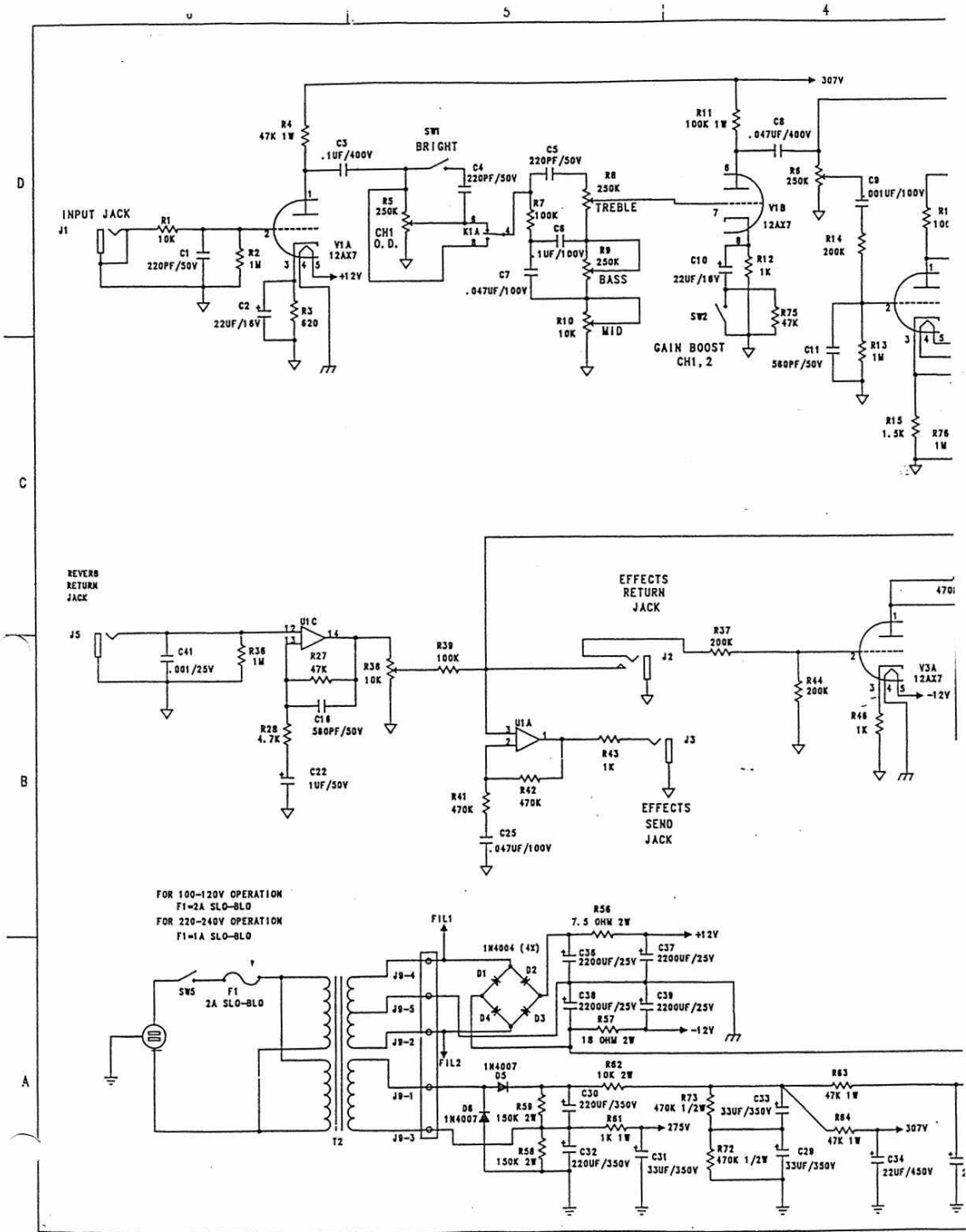
DEALER'S SIGNATURE

TROUBLESHOOTING

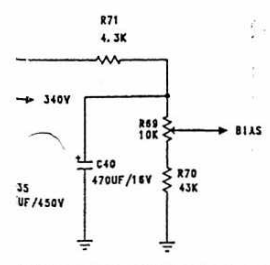
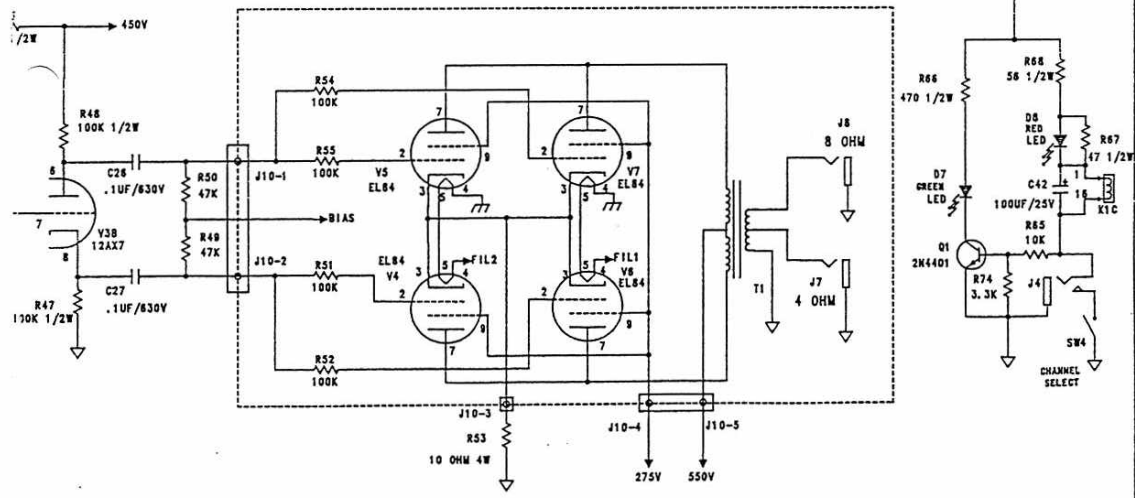
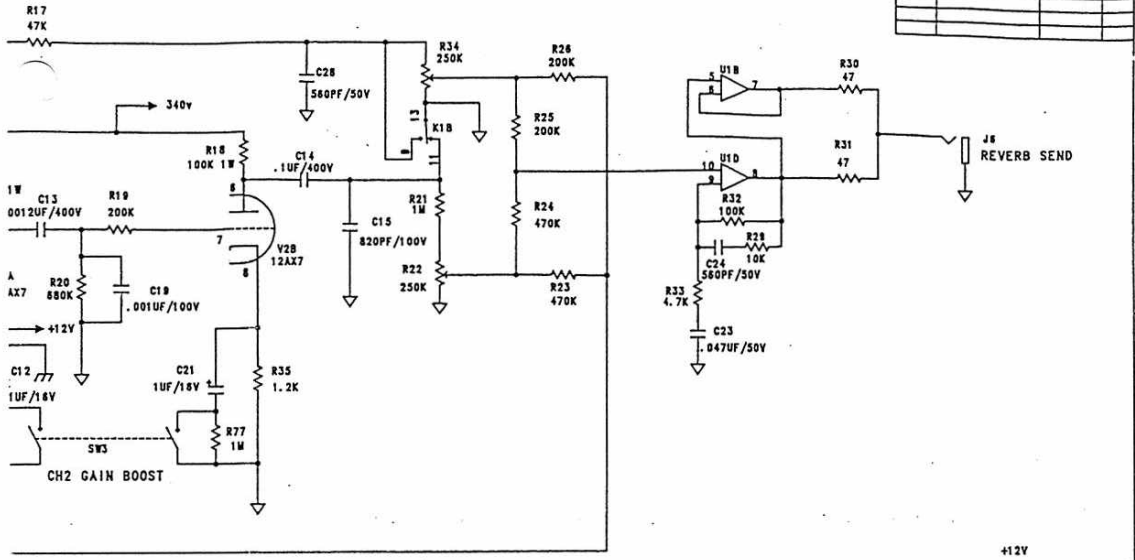
The following chart should help isolate some common problems you may encounter with your amplifier. Some are obvious problems you can remedy you, but remember, **THERE ARE NO USER SERVICEABLE PARTS INSIDE THE AMP.** If you cannot identify the cause of the problem using the chart, or if it indicates your amplifier to be defective and in need of repair, return the unit to an authorized Seymour Duncan Service Center, or call (805) 964-9610 for a Return Authorization number. No units will be accepted by Seymour Duncan without an RA number.

Symptom	Cause	Remedy
Amplifier does not come on when power switch is "on"	1. Power not connected	1. Ensure power cord is plugged in
	2. Blown amp fuse	2. Check amp fuse; replace with appropriate value fuse 1A/250 V for 220V & 240V operation 2A/250V for 100V & 120V operation
	3. No source voltage	3. Verify power source with something you know works
	4. Defective on/off power switch	4. Return unit to authorized service center
No sound coming from speakers; no audible hum from amplifier, but LED's are on	1. Master volume and/or overdrive control set too low	1. Increase control settings
	2. Speaker output jack not connected	2. Connect speaker to 4 ohm or 8 ohm output
	3. Defective speaker or cable	3. Verify if speakers operate properly by using another amp
	4. Volume controls on instrument down	4. Increase instrument settings
Distorted sound from one or both channels at low volumes	1. Overdrive control set too high	1. Reduce control level
	2. Worn tubes	2. See maintenance and tube chart section
No reverb	1. Reverb control set too low	1. Increase control level
	2. Reverb output wires not connected to send/return inputs or connected backwards	2. Ensure reverb output wires properly connected
	3. Defective spring	3. Refer to authorized service center
	4. Defective send/return circuits	4. Refer to authorized service center
Amp does not switch channels	1. Defective footswitch	1. Replace footswitch
	2. Defective manual channel switching switch	2. Refer to authorized service center
	3. Defective internal channel switching circuit	3. Refer to authorized service center

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REVISION RECORD			
LR	ECO NO.	APPR.	DATE



- NOTES... UNLESS OTHERWISE SPECIFIED:
1. ALL RESISTORS 1/4W 5X
 2. SW1-PULL R34
 3. SW2-PULL R5
 4. SW3-PULL R6

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