



**Seymour
Duncan®**

For Tone That Sets You Apart™

Twin Tube Mayhem™

*Congratulations on your purchase of the **Seymour Duncan Twin Tube Mayhem™**. You can start using your Twin Tube Mayhem right away after reading the safety precautions below, and you'll immediately enjoy the monstrous tone and unmatched feel of pure high gain all tube distortion. However, you might want to read through these instructions in their entirety first, to gain valuable information, which will enhance your enjoyment of your Twin Tube Mayhem.*

Safety Precautions



Hazardous voltages are present. For your protection, and to reduce the risk of electric shock and danger to personal health, please observe the following safety precautions when setting up and using your Twin Tube Mayhem. Most of this is common sense, but please read it anyway.

Your Twin Tube Mayhem is designed to work with typical power systems utilizing a three-prong outlet. To reduce the risk of electric shock, do not plug your Twin Tube Mayhem into any other type of power system. Contact your facilities manager or a qualified electrician if you are not sure what type of power is supplied to your building or performance stage. Do not use your Twin Tube Mayhem with amplifiers or other gear that have two prong AC plugs. Do not overload wall outlets, extension cords, or multiple power strips as this can result in a risk of fire or electric shock.

Never open the chassis. Do not attempt to tamper with or service your Twin Tube Mayhem yourself. You're just asking for trouble. Opening or removing the cover may expose you to dangerous voltage or other hazards, which could result in serious injury or death – not to mention damage to the Twin Tube Mayhem. Wouldn't that suck? Refer all servicing to qualified service personnel.

Do not block or cover the side vents on your Twin Tube Mayhem. Never push objects of any kind through openings in the equipment. No drummer jokes, please. Dangerous voltages may be present. Conductive foreign objects could produce a short circuit that could cause fire, electric shock, or damage to your Twin Tube Mayhem.

Never place a Twin Tube Mayhem near a radiator or heat register. Failure to follow these guidelines can cause overheating and affect the reliability of your Twin Tube Mayhem.

Unplug your Twin Tube Mayhem from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

Do not use your Twin Tube Mayhem near water - for example, near a bathtub, washbowl, kitchen sink, or laundry tub; in a wet basement; near a swimming pool; on stage with water effects or precipitation; and the like. Do not expose the Twin Tube Mayhem to dripping or splashing liquids and do not place objects filled with liquid on or near your Twin Tube Mayhem (yes, unfortunately, this includes bottled malt beverage liquids). And for heaven sakes, don't use it while you're sitting on the can... OK, enough of that.

General Information

The Twin Tube Mayhem is designed for years of solid performance. One of the secrets is the duo of type 6205 tubes. These sub-miniature pentodes represent the pinnacle of tube technology advancement. The 6205s were designed and manufactured to meet the MIL-E-1 spec for reliability under conditions of severe shock, vibration and temperature. They provide extremely long service life with virtually no tendency towards microphonics (see *USA Department of Defense Standards, Test Methods for Electron Tubes*). Also, unlike some “tube” stomp boxes that only use a tube as a clipping diode; the Twin Tube Mayhem employs a vacuum tube signal path with a high voltage power supply, coupled with a high voltage, low noise, discrete Class A input stage. This allows the tubes to operate at their fullest potential, and provides the greatest amount of tube gain and tone. The result is the authentic tube sound and feel, aggressive distortion, and low order harmonics you expect from the best tube amps.

Two levels of Boost mean versatility. When coupled with (true) bypass, this effectively provides three-channels: Rhythm, Lead Boost, and bypass. The Boost level selector allows you to preset the amount of boost ready when you hit the switch. The meticulous internal layout minimizes cross coupling and unwanted circuit interactions that can be a major problem in high gain-high impedance vacuum tube circuits.

Tube Life

The 6205 tubes will typically last many times longer than even the best 12AX7s. For most Twin Tube Mayhem owners, this means you’ll never have to change your tubes. However, nothing lasts forever. Should you find your Twin Tube Mayhem in need of new tubes (e.g., exhibiting erratically fluctuating signal levels, spurious increases in noise, sputtering, low level whistling, extreme loss in frequency response), contact Seymour Duncan or your favorite authorized Seymour Duncan dealer for your options. ***Do not try changing the tubes yourself.*** Changing tubes on the Twin Tube Mayhem is more complicated than plugging pins into a socket and could be dangerous. Make sure a professional does the work.

Explanation of Controls



Top Panel

- 1. Gain** – Inter-stage gain control for the Twin Tube Mayhem. Provides varying degrees of overdrive and saturation with enough on tap to fully saturate whether you're using the quietest single coil or the loudest active humbuckers.
- 2. Treble control** - Center frequency - 3 KHz, Q - 1.4, Gain = +/-12dB
- 3. Midrange control**
 - 3a. User selectable center frequency - 600Hz or 1.4KHz, Q - 1.5, Gain = +/-12dB
 - 3b. Allows you to select low-mid or high-mid frequency
- 4. Bass control** – Center frequency - 125 Hz, Q - 1.5, Gain = +/-12dB
- 5. Volume** – Master volume control for the Mayhem. Positioned at the end of the gain chain, it regulates the loudness relative to the bypassed sound.
- 6. On/Bypass button** – Selects between true bypass and the Twin Tube Mayhem.
- 7. Active/Bypass status indicator** – When lit, it indicates that the Twin Tube Mayhem is engaged and operational. When dark, it indicates that the unit is in bypass mode and that the guitar signal is passing straight through unaltered.
- 8. Boosted status indicator** – When lit, it indicates that the Boost function is engaged and operational.

Explanation of Controls

9. Boost Selector – Selects boost level. A standard 4db for more common solo boost level, and a full 8db for total boost Mayhem. You have been warned!

10. Boost button – Activates the Boost function.



Back Panel

1. Input Jack – Plug your guitar in here

2. Output Jack – Provides the output signal. Connect to the input of a guitar amp, power amp or other device here.

3. Power Jack – This is where you connect the provided wall-mounted power supply (“wall wart”) to the Twin Tube Mayhem. Note: it is a 16 VAC/600mA unit. **Do not try to substitute a DC power supply or another AC supply with a different voltage value or current rating.** If you lose your transformer or if it breaks, contact an authorized Seymour Duncan dealer for a replacement.

As an alternative, for North America and Japan, you can order a 16 VAC/600mA transformer from Digi-Key (www.digikey.com). The part numbers for each common voltage is as follows:

- North America: 120 Volt/60Hz – Digi-Key part # MT7123-ND
- Europe and Asia: 230 Volt/50Hz – Seymour Duncan part # 352301-230 (no known off-the-shelf replacements available)
- Japan Only: 100 Volt/50Hz – Digi-Key part # MT7127-ND (note: this transformer is rated by the manufacturer as 20 Volt/450mA output with 120 Volt input, but will produce the proper output voltage and current when coupled to a 100 Volt mains supply)

Explanation of Controls

You may be wondering why the Twin Tube Mayhem uses a 16-volt AC transformer instead of a common 9-volt DC adaptor or even a battery. The Twin Tube Mayhem relies on an internal transformer to obtain the high voltage the pentodes require. The transformer cannot work on DC voltage. One alternative would be to run the tubes on low voltage in "starved plate mode." Here, the tubes are used like a clipping diode and do not actually amplify. Though starved plate voltage is used in some inexpensive tube stomp boxes, it is not true tube amplification. The circuitry in the Twin Tube Mayhem enables the tubes to work like the tubes in the preamp section a high quality tube amplifier. Another alternative would be to supply a dedicated AC power cord and an internal high voltage transformer or a DC-to-DC switching converter. However, these options would make the Twin Tube Mayhem larger, heavier and more costly. With the Twin Tube Mayhem you are getting true tube tone AND tube amplification with minimal size, weight and cost.

Basic Operation

The ¼" mono instrument cable that leaves your guitar's jack plugs into the Twin Tube Mayhem's jack marked "Input." The cable that exits from the "Output" jack on the Twin Tube Mayhem goes to the next effect in the signal chain, or to the amplifier.

When first activating the Twin Tube Mayhem, start with the Volume and Gain control knobs in the full counter-clockwise position. Then, start rotating the knobs clockwise until the desired volume level and overdrive are achieved.

Experiment with different Volume and Gain settings. Some of the coolest tones are achieved with a little discovery. Because of the Twin Tube Mayhem's incredible amount of gain and distortion available, be aware that extreme settings can result in uncontrollable feedback. And, as always, musicians and audience members are best advised to use ear protection when exposed to loud volume.

Here are some sample settings to get your started:

Classic Metal Riffage

Dial this setting for the melodic power chords, fast guitar solos, and high volume of your favorite metal tones from the '70s and '80s.



Basic Operation

Thrash

Fast tempos, blaring distortion, and chaos are all characteristics of this sound. This setting will give you the ability to nail those aggressive low register chugging riffs and articulate high register solos.



Death

This setting will give you the dark, chugging, intense tones popular in a genre known for raw, fast, and complex drop-tuned guitar work.



Basic Operation

Doom

Heavy, drop-tuned, slow, and loud riffing define this moody, dark, and epic style; and this setting nails it.



Detailed Step-By-Step Instructions

1. Connect the cable of the provided 16 VAC power supply to the distortion box then plug the “wall wart” end into a 120V wall outlet or power strip.
2. Turn master volume fully down (counter-clockwise). Set the Bass, Mid, and Treble controls at 12 o’clock.
3. Connect a good quality, shielded ¼” cable from the output jack to the input of your amplifier.
4. Connect another good quality, shielded ¼” cable, first to the output jack on your guitar, and then to the input jack of the Twin Tube Mayhem. Note that the tubes in the Twin Tube Mayhem may require two to three minutes to warm up and begin to produce sound.
5. Press the “On/Bypass” button to activate the Twin Tube Mayhem. Turn the Gain control up about half way. Slowly turn the Master Volume up as you pluck a string. Fine-tune the Gain setting to achieve the level of overdrive and saturation you want. Set the Master to achieve the playing volume you want.
6. Adjust the Bass, Mid, and Treble controls as desired. We have “pre-voiced” the Mayhem to provide what we feel is a balanced tone when the knobs are set flat. While dramatic boosting and cutting is available, more mild settings are likely to work with a multitude of guitars and gear.
7. Balance your wet to dry levels by working with the Volume control(s) on your amp and the Master Volumes on the distortion box.
8. Never open the chassis. There are no user serviceable parts inside and tampering with the high voltage tube circuits could result in serious injury or death – not to mention damage to the unit.

Specifications

Description – The SFX-04 is a single channel guitar preamp employing premium subminiature type 6205 vacuum tubes. The 6205 is manufactured to meet the stringent MIL-E-1 specification for reliability and is optimized to provide long service life under conditions of severe shock, vibration, high temperature and high altitude. The tubes are configured with a high voltage power supply for maximum dynamic range. Additional gain is achieved with a high voltage, low noise, discrete Class A input stage. The solid state input stage increases the resistance of the stomp-box to microphonics. True bypass is provided to allow uncolored feed-through.

Gain

- Before Level Compensation – 97 dB
 - After Level Compensation – 71 dB
- *Gain measured at 1 KHz

Nominal Output Level – 0.25 Vrms (-10dBu)

*Nom. Output level measured with 100mV 1 KHz input signal and all controls set to 12 o'clock

Max. output level before clipping – 0.6 Vrms (-4dBu)

*Max. output measured with all controls set full up and boost footswitch set to 8dB

Input Impedance: 100K Ω

THD @ 100mV RMS output – 1.5%

Noise @ Output – 4mV (< 3dB hum content)

Boost Footswitch Gain

- Two selectable boosts, 4dB and 8dB. No effect on tone, just increased level.

Active Equalization Section:

- Bass Control: 126 Hz, Q = 1.5, Gain = +/-12dB
- Midrange Control: 596 Hz / 1389 Hz, Q = 1.5, Gain = +/-12dB
- Treble Control: 2.93 KHz, Q = 1.4, Gain = +/-12dB

Power consumption – 10.4 W

External Dimensions – 7.50" X 6.62" X 1.96" (190mm X 168mm X 50mm)

Weight – 3.15 lbs. (1.43KG)



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Limited Warranty / Disposal Guidelines

Seymour Duncan offers the original purchaser a one-year limited warranty on both labor and materials, starting from the day this product is purchased from an Authorized Seymour Duncan Dealer. We will repair or replace this product, at our option, if it fails due to faulty workmanship or materials during this period. Defective products should be returned to your USA dealer, international distributor, or sent direct to our factory postage prepaid along with dated proof of purchase (e.g., original store receipt) and an RMA number clearly written on the outside of the box. Please call our factory for issuance of an RMA number.

This warranty does not apply to damage to this product or an instrument caused by misuse, mishandling, accident, abuse, alteration, modification or unauthorized repairs. Product appearance and normal wear and tear (worn paint, scratches, etc.) are not covered by this warranty. Seymour Duncan reserves the right to be the sole arbiter as to the misuse or abuse of this product. Seymour Duncan assumes no liability for any incidental or consequential damages, which may result from the failure of this product. Any warranties implied in fact or by law are limited to the duration of this express limited warranty.

This product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased this product.

Information in this document is subject to change without notice.

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