

# *Rick Derringer HyperDrive*

Signature Amplifier

by



**Vintage Vacuum Tube Amps, Inc.**

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When we began discussions with Rick about a signature amp, we were somewhat intimidated. How do you build an amp for a guitar virtuoso and Rock 'n Roll legend like Rick Derringer? He has played almost every production and boutique amp under the sun. His musical style can shift from rock to blues to jazz to contemporary Christian in a heartbeat. It seemed like a daunting task but we like a challenge. Rick already owned a couple of our 6V6 based amps and seemed to like them a great deal. So, from a marketing standpoint I tried to steer him toward our Earthquake 2.2 model. It's small enough to fit under the seat on an airplane, weighs in at 12 pounds, has great tone, and is exceptionally loud for 22 watts. I figured that we could repackage that amp in a nice cabinet, add a footswitch for the preamp boost, put a Derringer logo on the front, and we're done. I'm seeing visions of magazine ads boasting about the great tone, with leaders lines like, "Put a Derringer in your pocket!" and other corny stuff. But Rick said, "No, I want at least 50 watts for live shows. The Earthquake 4.5 has possibilities but..." So, now I'm thinking where do we go from here? We knew that Rick would not put his name on a repackaged vintage amp clone; any talented amp builder can do that. And, we wanted to build Rick an amp that would be worthy of his signature. So, I told Rick about another amp design that my business partner Tony and I had been working on for four years. It's a high gain design that we dubbed the Earthquake 9.1 Overdrive. But Rick said, "I don't like high gain amps; they always have this buzzy thing going on in the background." When we heard that we just smiled. That was THE same issue that we had with channel-switching-high-gain amps and was the reason that we started VVT Amps. At this point I could write a book about Tony's obsession with this amp but I'll try not to digress too much. Once we had the basic circuit design, Tony tweaked the amp with every imaginable circuit permutation and component searching for THE TONE. I have to say that Tony has golden ears, is a fabulous guitarist, and his stubbornness paid off. The bees buzzing in the background are gone; the overdrive tone is thick and rich with lots of harmonic content, superb output tube compression, and the clean channel is oh so sweet. Then, I asked Rick, "What if we could build an overdrive amp using four 6V6s without the buzz and a clean channel that you could live on?" He said he would be interested in hearing that. So I built the prototype and Tony tweaked it to perfection. We said a prayer, sent it to Rick for testing, and waited on his response. It was only a week or so, but it seemed like a year, when Rick called and said, "This is it. I'm in the studio and this amp rocks royally. But I want an access port for the overdrive tone stack. I want ivory tolex, a copper colored front with hardwood accents, and I don't use an effects loop." The result is the Rick Derringer HyperDrive. It has the best hand wound transformers by Mercury Magnetics and other components were selected for durability and most of all TONE. This amp has the versatility of an SUV and will cover any genre of music. It's exceptionally sweet with almost any guitar: tele/strat single coils, P90s, or humbuckers. Toss your pedal board but you may want to keep your tuner and wah. Am I bragging? You bet I am! I think we make the best amps on the planet and the Rick Derringer HyperDrive is exceptional in the hands of a good guitarist.

Jim Hill  
Chief Braggart and Go-fer  
VVT Amps, Inc.

## **Important Information:**

1. Please read all of the information contained in this document.
2. **HUM** - Some hum or amplified noise is normal. As the volume is increased some amplified noise may be noticeable and will be more apparent in a quiet room. Additionally, tubes have inherent noise as do resistors. However, excessive hum (noise) can be caused by electronic devices such as neon signs, light dimmers, fluorescent lights, aquariums, etc. located near the amp or your guitar. Hum can vary with different outlets, rooms, buildings and guitar pickups.
3. Do not operate this amp without a speaker load

# **CAUTION!**

## **RISK OF ELECTRIC SHOCK**

**WARNING:** This guitar amplifier contains lethal HIGH VOLTAGE. To avoid risk of injury or death from electric shock, do not open the enclosure or remove the chassis from the cabinet. Refer all service work to qualified personnel.

**WARNING:** This amplifier contains Vacuum Tubes. Vacuum tubes are heated to produce electrical currents and they get HOT. Touching this surface could result in bodily injury. To reduce the risk of injury from a hot component, allow the surface to cool before touching. DO NOT touch or attempt to remove vacuum tubes until they have had time to cool.

### **IMPORTANT! FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:**

**WATER AND MOISTURE:** This amplifier 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 amplifier should only be connected to a 120VAC household power source.

**GROUNDING OR POLARIZATION:** Precautions should be taken so that the grounding or polarization is not defeated. Do not remove the ground from the power cord.

**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 amplifier.

**SERVICING:** You should not attempt to service this amp beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

**FUSING:** Your amplifier is equipped with a marked fuse receptacle, replace only with the same type fuse.

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## *Welcome to the Family*

Congratulations and thank you for choosing the Rick Derringer Signature Amplifier! At VVT we I know you are constantly searching for new sounds and new ways to improve your existing sound. We understand the constantly evolving nature of artistic creativity and the search for the perfect sound to complement your ever-widening musical vision. Providing the tools to help you to create your own sonic signature is our primary mission.

As with all VVT amplifiers, the HyperDrive beautifully accentuates the inherent qualities of any instrument. It breathes and dynamically responds to your playing technique exactly the way a great amplifier should. The VVT Overdrive and HyperDrive models are all tube designs: no clipping diodes or transistors are used in any part of the signal path. The preamp section has a broad dynamic range which accounts for its extra touch sensitivity, tonal shaping characteristics, and excellent guitar volume control response. In addition, overdrive voicing can easily be dialed up using the unique GAIN/LEVEL structure and can be tweaked to perfection on the internal tone stack. The presence control adds dimension of an in your face sparkle to a smoother jazzy tone. From there, the boost switch lifts the mid frequencies in the 500-1K Hz range. Just a little tweaking on your guitar volume and tone controls will yield a surprising amount of control. All VVT Overdrive amps are designed for big round tone and dynamic response at low to medium guitar volumes and provide a rapid but smooth transition into saturation - turning rich and thick at full guitar volume. The combination of preamp voicing and power amp response will enhance the unique character of any guitar and pick-up combination. The specially designed, precision wound, power and output transformers from Mercury Magnetics produce optimum performance, reliability, and stability delivering excellent power tube response and just the right amount of natural output transformer saturation and compression.

Getting familiar with the HyperDrive is easy, so don't be terribly surprised when you find yourself up and running in no time; although, we highly recommend you spending some quality time with your amp due to it's chameleon like qualities. You may find yourself dialing in tones you thought might never be possible or find some tones unique to your playing style. First hand experience and real world application will yield the ultimate satisfaction of. Finding your own path of comprehension and self-expression can only be achieved by mastering your instrument in combination with your new amp. This amp is not intended to make you play or sound like Rick but we hope it will inspire you to develop your own signature tone.

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## *It All Starts Here*

The input level of this amplifier determines how much drive and sustain your guitar will produce. Tonal balance, which we refer to as VOICING, determines how your amp will respond to your playing style and how it will sound with a particular guitar. Like all amplifiers, the Overdrive amps have tone and gain controls. But, unlike any other amplifiers, the OD amps give you total control over VOICING and GAIN. This VOLUME/GAIN/LEVEL/ MASTER VOLUME configuration is the key to dialing in great overdriven tone and volume for your specific requirements.

The Volume control increases preamp gain as you rotate the knob clockwise. As the gain increases, the tonal balance is shifted from treble and upper mid frequency emphasis which produce up front sparkling tone, to a lower mid and bass emphasis, which produces a thick meaty tone. The VOLUME CONTROL AFFECTS BOTH CLEAN AND OVERDRIVE CHANNELS. In order to achieve a smooth, saturated, overdrive tone the VOLUME control needs to be set at least the 12 o'clock position.

The GAIN Control increases the gain in overdrive. As you rotate the knob clockwise you will notice an increase in drive as well as a certain amount of compression, though the sonic qualities will shift as well, as the gain increases the tone will become brighter with more bite.

The LEVEL controls the overall balance between the clean and overdrive channels, the tonal effects while increasing the LEVEL provide a meatier fuller tone. This is where balancing both gain and level controls is key to achieving the desired tone while at the same time keeping the amps volume at just the right level, different combinations of Gain and Level settings, will have a dramatic effect on the response of the amplifier and the personality of your instrument. It is easy to get familiar with the action of these controls and you'll be amazed with your ability to make any guitar sound mellow, fat, soulful or aggressive.

## *Rick Derringer HyperDrive Controls*



### **FRONT PANEL, RIGHT TO LEFT:**

1. INPUT - GUITAR INPUT. Plug in your guitar or stomp box here.
2. BOOST Switch – Turns the Mid Frequency boost on or off for the clean and overdrive channel.
3. OD Switch – Turns the Overdrive Channel on or off.  
Note: The BOOST and OD Switches provide the same functions as the footswitch. If these switches are in the ON (UP) position the footswitch WILL NOT WORK. Likewise, if the footswitches are ON the front panel switches WILL NOT WORK.
4. VOLUME – Sets the amount of drive for the clean and overdrive channels. This first gain control also serves as a tone shaping control, counter-clockwise for crisp and articulate, clockwise for thick and saturated.
5. MASTER VOLUME - Power amp output control – Loudness
6. EQUALIZATION SECTION – Passive / Interactive tone controls.
  - a. TREBLE – High frequency equalization.
  - b. MIDDLE – Mid frequency equalization.
  - c. BASS – Low frequency equalization.
7. GAIN – Sets the amount of drive for the OD channel only
8. LEVL – Sets the output level of the OD channel only
9. PRESENCE – High frequency variable feedback in power amp section.
10. STANDBY Switch - Turns ON/OFF DC voltage to the amp.
11. POWER INDICATOR LAMP – Lights when the POWER Switch is ON
12. POWER Switch – Turns AC power ON or OFF.



### **REAR PANEL, RIGHT TO LEFT:**

1. AC MAINS INPUT – 120VAC 60Hz Power Inlet. Use only the factory supplied AC cord set or a UL approved equivalent type.
2. AC Power FUSE – 2 Amp Slo-Blo Fuse – Only replace with same type and rating.
3. SPEAKER Jacks – 4, 8, 16 Ohm Outputs. Total speaker load impedance should not exceed minimum or maximum ratings. Two 8 Ohm cabs = 4 Ohms, two 16 Ohm cabs = 8 Ohms. Use a speaker cable to connect to your speaker cabinet. DO NOT use a guitar/audio cable; they cannot handle the current necessary to drive your speakers and may damage the amplifier.
4. FOOTSWITCH Jack – 5 pin XLR jack. Plug the supplied footswitch in here.

### **FOOTSWITCH:**

1. OD Switch – Turns the OD Channel ON or OFF
2. BOOST Switch – Turns the mid frequency boost ON or OFF  
Note: The Front Panel BOOST and OD Switches must be in the OFF (DOWN) position to activate the FOOTSWITCH. The LEDs on the FOOTSWITCH will light whenever the OD or BOOST functions are active.

## *Tube Location and Function Chart*

Tube locations are indicated by the V (Valve) listing below. All tubes are factory selected for superior performance, consistent tone quality, and reliability. While substituting other brands may not cause damage to the amplifier this may affect amplifier performance in unpredictable ways. For best performance, replace only with factory recommended tubes. **Warning!** Substituting other tube types is not recommended.

**Warning!** This amp operates with fixed bias. If the output tubes are changed, the bias **MUST** be set to operate with the new tubes. Failure to properly set bias **WILL** affect tone, may ruin your new tubes, or **DAMAGE** your amplifier. If you do not know how to adjust output tube bias please take your amp to a qualified tube amp technician. We recommend setting the bias between 50% and 70% of maximum plate dissipation by monitoring cathode current.

Factory recommended tubes are listed under each location. Numbering sequence is left to right looking at back **of amp** starting with V1 to the far left side.

V1 (shielded tube) - JJ/Tesla ECC83S (12AX7), Clean Channel

V2 (shielded tube) - JJ/Tesla ECC83S (12AX7), OD Channel

V3 (shielded tube) - JJ/Tesla ECC83S (12AX7), Phase Inverter

V4-V7 - JJ/Tesla 6V6S - Output Power Tubes

**USE ONLY JJ/TESLA 6V6S Output Tubes. Plate voltage in the Rick Derringer HyperDrive exceeds the maximum design rating of NOS and other 6V6 tubes. THE OUTPUT TUBES ARE NOT INTERCHANGEABLE WITH ANY OTHER TUBE TYPES!**

## A FEW SETTINGS TO GET STARTED



### CLASSIC ROCK MODE

A good starting point for great 70's/80s style Rock



### JAZZ FUSION

A good starting point for a clean spanky tone to a thick fat Overdrive tone



### HEAVY METAL

Enter Heavy Metal Land. Go from AC/DC type tones on the clean channel to an over the top feedback on demand tone. Also great for you Eddie Van Halen type tones.

**Earthquake Sample Setting diagrams & notes**

(Make copies & use!)

**Clean Channel**

**NOTES:**

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**OD Channel**

**NOTES:**

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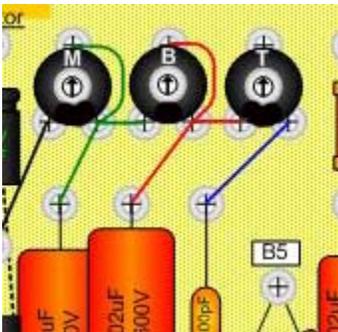
## Overdrive Tone Controls

At VVT Amps every amp is thoroughly tested and adjusted for optimal tone. So, in normal operating environments the internal tone stack should need no adjustment. However, we understand there are certain circumstances where tone shaping is necessary. If so, please read the following instructions very carefully so as to not damage the amplifier or more importantly yourself.

**WARNING!** - Please Read this Information Carefully:

Tube amplifiers use **POTENTIALLY FATAL HIGH VOLTAGE AND CURRENT**. If you are not familiar with high voltage circuits, **PLEASE DO NOT RISK YOUR LIFE BY ATTEMPTING THIS ADJUSTMENT**. If you are in any doubt as to your ability to complete this adjustment, please contact a qualified technician.

1. Place the amplifier on its side on a padded surface.
2. Remove the OD Tone Stack access cover on the bottom of the cabinet.
3. Use a flashlight or other lighting to locate the OD Tone Stack in the access port.



You will notice three trim pots located on the circuit board. The tone controls are from left to right: Middle, Bass, Treble. You will need small screwdriver with an insulated handle. **PLEASE NOTICE NOT TO TOUCH ANY OTHER PART OF THE AMPLIFIER WHILE IT IS ON OR OFF OTHER THAN THE ACTUAL TRIM POTS THEMSELVES. THERE ARE LETHAL VOLTAGES ON OTHER PARTS OF THE BOARD THAT CAN KILL YOU.** If you have any doubt as to performing this adjustment, contact a qualified technician.

Before adjusting the OD tone  
Make sure the amp is set with

the overdrive as well as in boost mode engaged, tweak the stack to your desired tone, making sure there is no high pitched squealing or oscillation (We put the OD Tone Stack inside of the amp for good reason.) After finding the tone you like, replace the access cover.

# *Rick Derringer HyperDrive*

## **LIMITED WARRANTY**

This amp is guaranteed against failure. Vacuum tubes are guaranteed for 90 DAYS from the date of purchase. If a tube fails within the 90 day period, VVT Amps will replace the tube at no charge. All other electronic components are guaranteed for FIVE YEARS. VVT Amps will service your amplifier and supply all parts at no charge providing the unit is under warranty. Any shipping costs associated with repairs are your responsibility. VVT Amps DOES NOT PAY FOR PARTS OR SERVICE OTHER THAN OUR OWN. A COPY OF THE ORIGINAL SALES RECEIPT IS REQUIRED TO VERIFY YOUR WARRANTY. VVT Amps assumes no responsibility for external speakers or other equipment damaged by this guitar amplifier. This warranty does not cover, and no liability is assumed, for damage due to: natural disasters, accidents, abuse, loss of parts, lack of reasonable care, incorrect use, or failure to follow supplied instructions. Accidental damage to the amplifier, cabinet, or Tolex is not covered. This WARRANTY does not apply to VVT amplifiers that have been tampered with, damaged by shipping carriers, reverse engineered, or modified. This warranty is void if the amplifier is used with power attenuator type devices (Power Soaks, Air Brakes, Hot Plates etc.). VVT Amps, Inc. reserves the right to suspend or terminate the Warranty at our sole discretion, should damage from any of the above limitations and or exclusions be detected upon examination. This warranty is in lieu of all other warranties, expressed or implied. No representative or person is authorized to represent or assume for VVT Amps any liability in connection with the sale or servicing of VVT Amp products. VVT Amps SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. If service is required you may contact VVT Amps at 301-396-4100 or vvtamps@vvtamps.com. We will respond as soon as possible and make arrangements to repair your amplifier. If your unit is out of warranty, VVT Amps will repair your amplifier but you will be charged the current RATE for parts and labor.

Keep the information on this page for your records.

**MODEL**

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**SERIAL NUMBER**

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**OPTIONS INCLUDED**

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**PRODUCTION DATE**

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**TESTED BY**

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Vintage Vacuum Tube Amps  
2580B Old Washington Rd  
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[www.vvtamps.com](http://www.vvtamps.com)

Specifications:

Model Name	Rick Derringer HyperDrive – Signature Guitar Amplifier
Product Number	909991050
Model Number	07211951-0000
Series	Signature Series
Type	All Tube Amp
Audio Output	48 Watts into 8 ohms
Output Impedance	4, 8, 16 ohms
Speakers	N/A
Channels	Two Channels – Normal/Overdrive – One Input
Features	100% Handmade Amplifier Voidless Plywood Cabinet, Heavy Duty Handle,
Controls	Front Panel: Right to Left Input Jack, Boost Switch, OD Switch, Volume, Master Volume, Tone Controls: Treble, Middle, Bass Gain, Level, Presence Standby Switch Power Indicator Power Switch  Back Panel: Right to Left AC Power Inlet Fuse Speaker Jacks Footswitch Jacks
Covering	Ivory or Black Textured Vinyl, Hardwood Accents
Weight	
Dimensions	Height: Width: Depth:
Tube Complement	4 X JJ 6V6S Output Tubes 2 X JJ ECC83S/12AX7 Preamp Tubes 1 X JJ ECC83S/12AX7 Phase Inverter
Accessories	Footswitch – Included with amp P/N - RDHD0001
Options	N/A
Introduced	4/2007
Notice	Product Prices, Features And Specifications Are Subject To Change Without Notice