

VYPYR TROUBLESHOOTING OUTLINE -- 12-2-2008

CONFIDENTIAL -- PEAVEY ELECTRONICS CORPORATION

- I. For ANY Vypyr that is returned for ANY reason (~95% of initial problems).
- Verify tightness of ALL Internal screws and nuts (corrects hum & noise).
 - Verify tightness of ALL cabinet/grille/speaker screws.
 - Verify foam tape to front chassis edge to quell mechanical noise.
 - Verify foam tape between grille trim and chassis to reduce noise.
 - Verify that "CMV" (22uF) is on DSP board or on MV cable (near P2).
 - Corrects unknown DC offset.
 - Corrects units that "shut down" at some particular MV level.
 - Check integrity of ALL ribbon cable connections and add glue, as needed.
 - Check Encoder switch settings (S13,S12,S11,S10)...0=Down; 1=Up.
 - Vypyr 15 -- No switches present; all "0"s.
 - Vypyr 30 -- (0,0,0,1)
 - Vypyr 75 -- (0,0,1,0)
 - Vypyr 100 -- (0,0,1,1)
 - Vypyr 60 -- (0,1,0,0)
 - Vypyr 120 -- (0,1,0,1)
 - Vypyr 120HD -- (0,1,1,0) (stock for dark 412 cab)
 - Vypyr 120HDX -- (0,1,1,1) (mod for alternate cab if "too bright")
 - Update to latest code release, per Engineering/PD
 - Remove C12 from all USB assemblies, if not done (see item III below)
 - Change R2 to 1.1K on all MIDI assemblies, if not done (see item IV below)
 - Change C85, C83, and C73 to #30300152 on DSP assembly (see item VI below)
 - Re-initialize unit by powering up unit while holding preset buttons 1 & 2 **ONLY IF** the 12 front panel presets are not working.

II. Vypyr 15 Only.

- Verify that C8 (power amp) is 3.3nF, instead of 100pF.
 - Corrects oscillation.
 - May be noted as "mechanical noise" or buzz.
 - Refer to ECN0021758.
- When swapping DSP boards, note that a V15 has a different stuffing at R7.

III. Vypyr 75 Only.

- Verify that NJR +/-15V regulators (U1 & U2) are used on power amp. *30400318*
 - Incorrect devices are marked "KIA"....must be replaced. *30400319*
 - Caught on 1st run....no ECN.
- Change R5 from 150 Ohm/5W to 250 Ohm/5W part. *31600255*
 - Refer to ECN0021799.
- Verify that VR2 (Power Sponge) is a correct 31190914 pot.
 - Earliest units shipped with incorrect single-element 10KB.
 - Incorrect parts are GREEN in color.
 - Caught on 1st run....no ECN.

III. MIDI or Sanpera Issues (30/75/100/60/120/120HD; to be corrected on ALL units).

- Verify that R2 on MIDI board is 1.1K, instead of 2.2K. *30200175*
 - Corrects MIDI functionality. Without this mod some amps will not respond to incoming MIDI from Sanpera or other units, even though the Sanpera will still respond to preset changes from amp (name on LCD, etc.)
 - Refer to ECN0021774.

IV. Tick or "clicking" on USB recordings (75/100/60/120/120HD; to be corrected on ALL units).

A. Verify that C12 has been removed from USB board.

1. Refer to ECN0021800.

V. Other likely suspects for garden variety problems.

A. Bad ribbon cables.

1. Any cables replace should be glued to the headers.

B. "Whiskering" between solder joints at headers.

1. Most common on the bottom of the PCBs.

2. Causes intermittent or lower level operation.

VI. Won't "start" in cold weather.

A. Use low-ESR capacitors in 1.2V supply on DSP assembly.

1. Change C85, C83, and C73 to #30300152.

2. Refer to to ECN0021807. ~~_____~~

Various Initialization Modes (Hold and power up):

1 & 2 Reinitialize presets.

2 & 3 Gain stages - 1st, 2nd, 3rd, 0s-to-DAC (mute).

1 & 4 Display code revision.

3 & 4 Toggle on/off light show. Setting will be seen on next powerup.

Production Test Mode (If needed):

Enter Test Mode by holding the EFFECT encoder button on power up.

Test LED sweep by pressing TAP TEMPO button.

Test Midi by pressing AMP encoder button with Sanpera inserted into MIDI. This is usually done with the loopback connector.

Test encoders by turning knobs.

Preset Buttons 1-4 engage analog TransTube stages & zeroes to DAC.