The 6740 Hot Springs Reverb project kit is just a building block approach for a line-level spring reverb unit to be patched into a mixer in a studio situation. It is only a small circuit board, a handful of components and wire, and a couple of reverb spring tanks provided as a companion to a D.I.Y. article from Modern Recording and the manual is basically a reprint and not one of our usual assembly manuals. Information for assembly of the board is contained in the article text, schematic, parts list, and wiring diagrams--it's just not the more informative step-by-step instructions we usually provide. The completed assembly is a circuit board wired to the tanks and 1/4" phone jack input and output. It must be connected to a bipolar or dual-dc (+and- 9 to 15V) power supply and housed or mounted in an enclosure or platform. The 9770R-12 is a power supply listed in our catalog that can be used for the project.

The springs and their transducers are in a steel case, but the bottom is open. The transducers in the reverb tanks are likely spots for electromagnetic interference to get in and the signal is weak like a mic so hum or other noise can be introduced without the shielding afforded from being in a grounded metal chassis or having good shielded wiring techniques applied. A metal plate could be used to cover the bottom. The patch cables to the tank RCA Phono connectors attaches the circuit ground to the tanks. Using the expected line-level input signals helps to ensure an optimum signal to noise ratio.

For use with guitar, some extras are needed. When putting it in a amp/speaker, vibration and acoustic feedback should be anticipated and a permanent installation should be tested in stages. The spring tanks should be mounted to reduce this possibility (one spot may be better than another, damping foam, felt or rubber might help in isolation). For the tanks we provide, they are intended for a wall-mount, connector-down installation, although its hard to hear a difference when listening as the unit is tilted one way or the other.

A guitar signal should be boosted to be a line-level signal using a preamp or direct interface or some effect that boosts or at least buffers its signal. Then, since the 6740 is 100% reverb on the output (no original signal remains, only the signal through the springs), a mix function is needed. This can be accomplished by splitting the boosted guitar output two ways and sending one to the 6740 and the other to a second, direct, input which could be a mixer or multiple input amp.

If you don't have devices to do the split and mix, our TubeHead, Stack-in-a-Box, Tube MicPreAmp, 9605K Buffer Amp, Spluffer or similar could be used to boost the guitar and drive the split. The CA18 is a simple mixer circuit that could be used to combine the 'effect' and 'straight' signals. These projects can be built from Craig Anderton's 'Electronic Projects for Musicians' and 'DIY Projects for Guitarists' books listed in our catalog. A home-stereo receiver can blend the signals acoustically (ie reverb left and straight signal right with blend via the balance control), or the unit set to mono so both outputs get LandR signal and the line output of a Tape Record/Monitor/Out connector.

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