

The Restoration Preamp

By Don Walizer

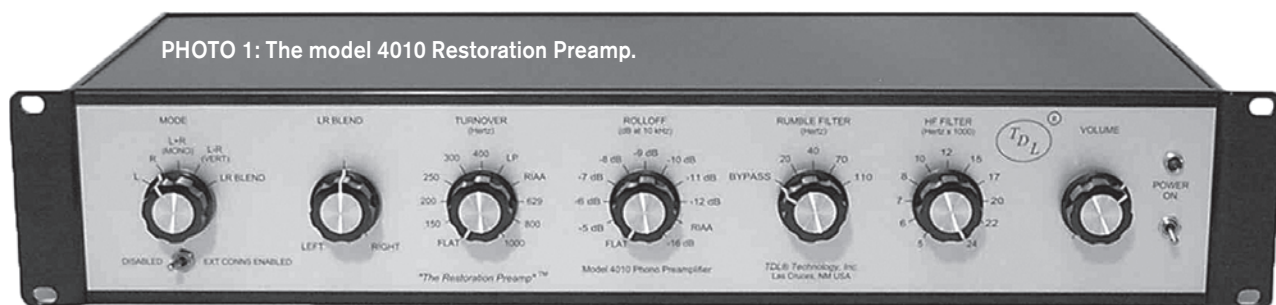


PHOTO 1: The model 4010 Restoration Preamp.

Hats off to TDL Technology for developing the 4010 audio restoration preamp. For the past 15 years I have been searching in vain for a modern replacement for the venerable OWL Audio Restoration Module that would incorporate the OWL's functionality with updated electronics and a more refined filter design. During that time I looked at the half dozen or so available alternatives that have come and gone, most of which were grossly overpriced, and none of which offered the intelligent design choices of the OWL for people genuinely interested in doing audio restoration. I was really excited when I heard about the 4010 because it seemed to incorporate everything that I had been hoping for in an audio restoration preamp. Having owned another TDL Technology preamp, I was pretty sure that the 4010 would have good sonic qualities; but would it really live up to my expectations?

PERKY PLATTERS

I have been using my 4010 for two

months now and can say that it is everything that I ever wanted in an audio restoration preamp. The 4010 makes it easy to restore even the most challenging recordings. I can quickly check the left and right groove walls for excessive distortion and blend them for best overall result. The L-R (vertical) setting lets me check for low-frequency noise and set the rumble filter correctly. (Turntable rumble isn't an issue with my KAB Broadcast Standard turntable, but it is amazing how much low-frequency noise is present on some recordings as a result of the cutting, mastering, and pressing operations.)

The most important equalization setting is finding the correct turnover. This is what really brings a recording to life, and the 4010 excels in its ability to bring the sonic field into correct focus. For example, I recently made a CD of jazz recordings from the mid-30s to the mid-40s. Two of the tracks from a 1937 Coleman Hawkins recording just didn't sound right in comparison with the other tracks I'd restored. They were sort of dull and lifeless. I'd used a 300Hz

turnover without experimenting because it was the "correct" setting for that label and year.

After wondering why these tracks just sounded OK while the other tracks sounded great, I checked the record label—it had been recorded in England! Well, that probably meant that I should have set my turnover to a lower setting. When I played the record back using a 250Hz turnover, it jumped to life. Everything sounded right, and did it swing!

Who would ever think that going from a turnover of 300Hz to 250Hz would make such a dramatic difference? Because I never owned a restoration preamp like the 4010, I was not able to make a comparison like this before. In fact, as far as I know—and I've done a lot of research on this—you can't buy another preamp that will give you this capability. I don't want to downplay the importance of accurate rolloff equalization and the usefulness of a properly designed lowpass filter. The 4010 excels in these areas as well and, again, offers more settings than any other product you can buy.

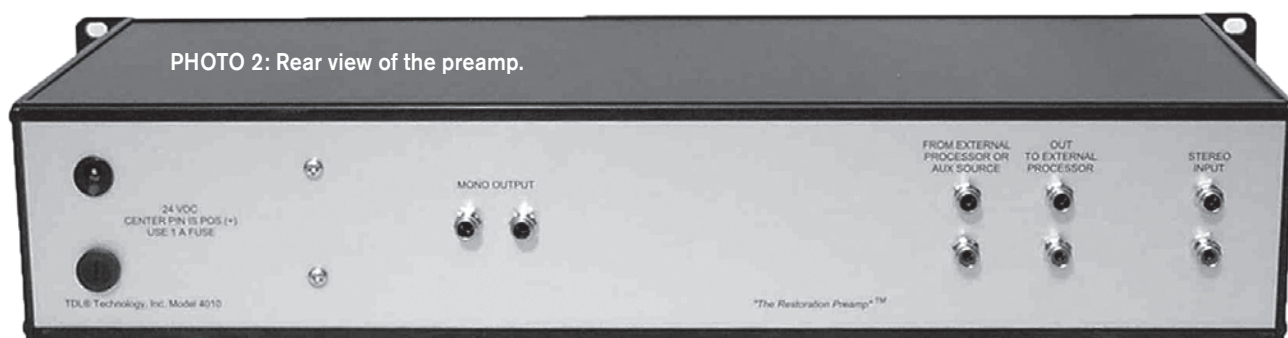


PHOTO 2: Rear view of the preamp.

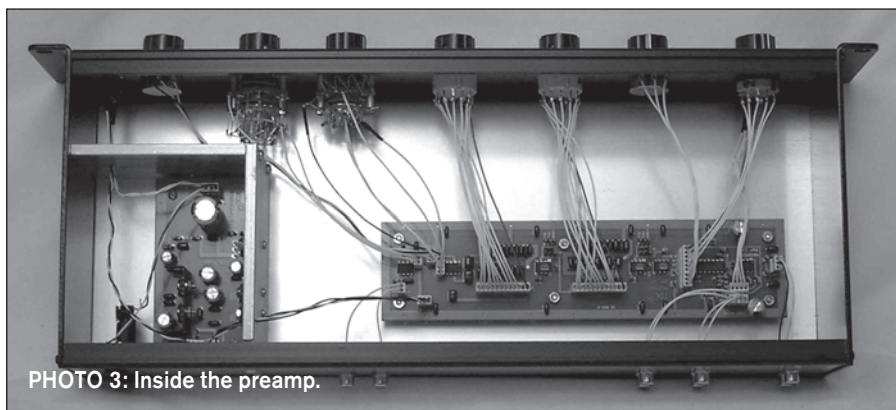


PHOTO 3: Inside the preamp.

Other things I like about the 4010 are characteristics that it shares with other products from TDL Technology. First, like me, the company is fanatical about noise. Consequently, the 4010 is dead quiet. If there is hum, buzzing, RFI, or EMI in your system, look elsewhere for its cause.

Second, build quality is second to none. High-quality components are used throughout and the 4010 has a solid feel about it. Each unit is hand assembled and undergoes a 100-hour burn-in test. The user manual contains complete block and circuit diagrams,

useful information about how to use the product, and a full parts list. If you have a question, you get a prompt, courteous reply. Who says that good customer service doesn't exist anymore in the audio industry?

I sold my OWL two weeks ago. The 4010 does everything the OWL did, only better. The king is dead, long live the king.

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CONTRIBUTORS

Kit Ryan ("Modding the Music Hall CD25.2 CD Player," p. 6) has been an avid audio hobbyist for 50 years with many self-designed and hand-built audio and test equipment projects under his belt. His goal is to modify or build high quality gear without the high cost while having fun at the same time.

Ron Tipton ("DIY Microphone Calibration," p. 18) has degrees in electrical engineering from New Mexico State University and is retired from an engineering position at White Sands Missile Range. In 1957 he started Testronic Development Laboratory (now TDL Technology, Inc.) to develop audio electronics. During the 1960s and 70s, TDL built active filters and pseudo-random noise generators for well known companies such as Bose Corp. and Acoustic Research. He is still the TDL president and principal designer.

Jan Didden ("T-reg: A High-Voltage Regulator for Tube Amps," p. 24) built his first OTL amp with 807 tubes 35 years ago. He has built speakers, preamps, and tape recorders, but is most interested in power amps, especially using error correction as discussed by Hawksford. Many of his projects have been published by *audioXpress*. Now retired from a career with the Netherlands Airforce and NATO, he tries to complete all those half-finished projects accumulated for lack of time. He now also has the time to travel to interesting audio events and interview audio luminaries. His projects are documented on his Linear Audio website.

Bill Fitzmaurice ("Building a Speaker Testing Turntable," p. 30) has been a professional musician since 1966 and has been constructing instruments, amplifiers, and speakers for just as long. Vice president of DeltaSounds Loudspeakers Inc., Fitzmaurice is the author of *Speaker Builder's Loudspeakers for Musicians* and over 30 magazine articles dealing with speakers and electric instruments, as well as the action-adventure novel *Operation: Sergeant York*. Bill and his wife of over 30 years reside in Laconia, N.H.

Ed Simon (Review: SchmartBoards, p. 32) received his B.S.E.E. at Carnegie-Mellon University. He has installed over 500 sound systems at venues including Jacob's Field, Cleveland, Ohio; MCI Center, Washington D.C.; Museum of Modern Art Restaurants, New York; The Coliseum, Nashville, Tenn.; The Forum, Los Angeles; Fisher Cats Stadium, Manchester, N.H.

Don Walizer (Review: The Restoration Preamp, p. 36) resides in Arizona.

Ian Hilton ("Keeping The Hobby Alive," p. 38) has been working in the electronics industry for 35 years. He has been involved in designing electronic equipment for use in coal mines and aircraft. He is currently employed as an analog engineer involved with optical fiber and laser technology. He has been building amplifiers on and off for donkey's years and lives with his wife and two daughters in Hampshire, England.

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