

Shure SM57 Trans-X Mod

I just finished my first 57 trans-x mod. It's actually pretty easy in general, but I tried a few things which I didn't know, before I started, whether they would be good ideas, or not.

Here's what I found out:

Unscrew the main body from the capsule body. Screw IN (anti-clockwise) the XLR retaining screw and pull out the XLR connector with small pliers. Cut the wires leading from the capsule towards the transformer. Cut the wires coming from the transformer to the XLR. Put the main body (NOT the capsule part, of course!) in boiling water for about 5 minutes. The glue softens, and the transformer can be pulled out (use the metal brace-holder inside with needle-nose pliers) from the body. There's some glue residue, but there's also a lot of white hard plastic gunk in there. I got most of the glue out, but just left the plastic. There'll be a hole in the middle of it, and in the metal piece inside, plenty large enough for the wires. Marvel at the transformer; be amazed that you've been recording through one of these for many years. (Compare it to one inside of a U-87...also marvel that you've been recording through BOTH of them for many years!)



Now is the time to paint, if you choose to do so. Carefully cover the capsule with masking tape; first a piece (with both ends folded over for easy removal) across the top of the capsule. Then two separate pieces around the capsule circumference, exposed end piece folded, being sure to cover everything capsule-wise from any paint spray. I painted the two body pieces separated at first, with an old mic stand end and a pencil holding them up (like fingers pointing inside one end), both "planted" in the ground outside, with a plastic garbage bag underneath. This way the paint will cover even the edges which will almost disappear when screwed back together. Sprayed several coats, but I also tried to finish with a clear coat of lacquer spray. That just messed everything up (globs), and I had to sand with 400 paper and start over.

Meanwhile, make a new wire harness from leftover Mogami wire. The capsule end will say "A" on the hot wire. The ground/earth is in the centre, a black wire. The other one is...the other one (-). Solder harness to the capsule end. Thread harness through the hole in body centre, and solder to the XLR. "A" (or "+," thanks to Lance "Vertigo" for this information) to pin 2. Screw body together and put masking tape on the XLR connector, inside the cavity. Paint one or two more thin coats for overall professional finished look after it is assembled.

When dry, listen to the mic.

I just did a quick voice test, but I immediately noticed increased low end. The volume was down about 10 dB or so, but that can be dealt with...anyway, how often do you have to pad a mic pre using one on snare anyway?! It sounds more like an SM7 to me, which I now suspect may be the same basic mic with a better transformer.

I'll try this out on a session soon as it is, but also I'm next going to try two other things:

1) Use the Røde D-Power plug on the output of the modded 57. This increases gain by about 10-15 dB. It is an active, 48V phantom powered mic amp. I already did this in the voice test, and it sounded very nice, almost like a dynamic/condenser hybrid.

<http://rodemic.com/?pagename=Products&product=D-PowerPlug>

2) Run the modded 57 through a MUCH better transformer mounted in an external intermediate box. I can't wait to try this, but I'm not yet sure what the output impedance of the capsule alone is, so I haven't found the correct transformer yet.

By the way, mine is now navy blue, and sounds like it.