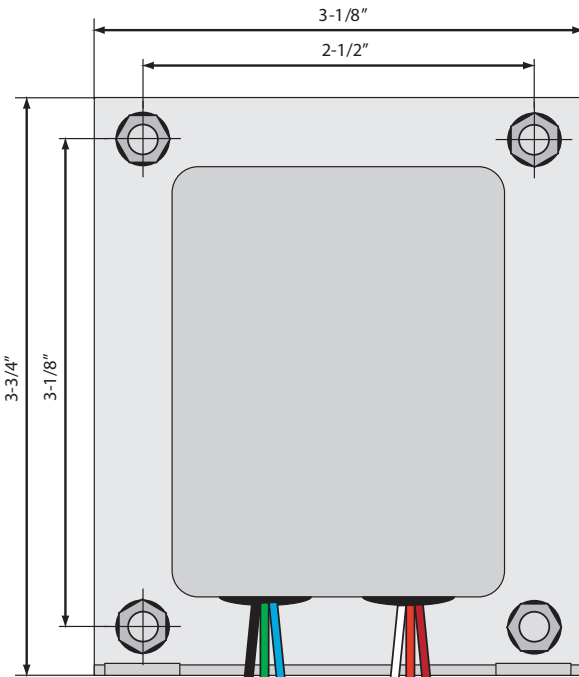
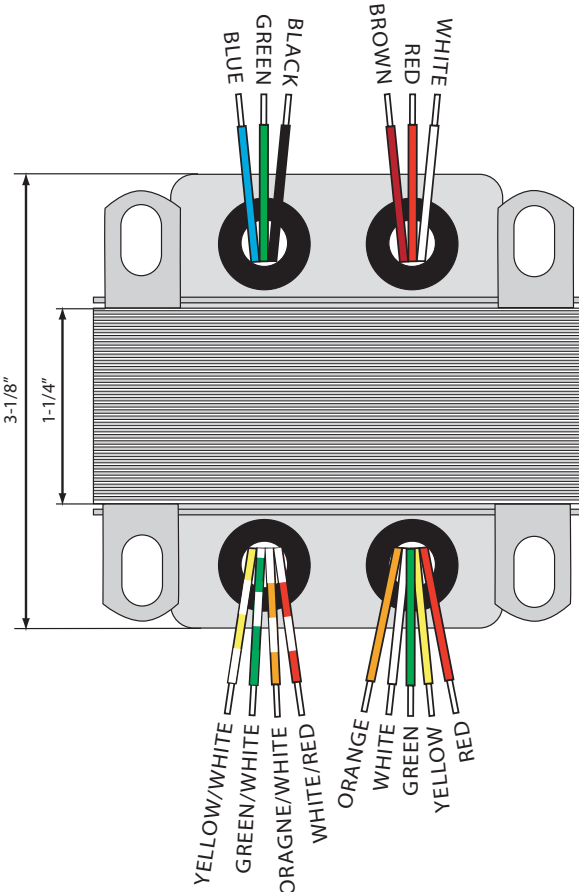
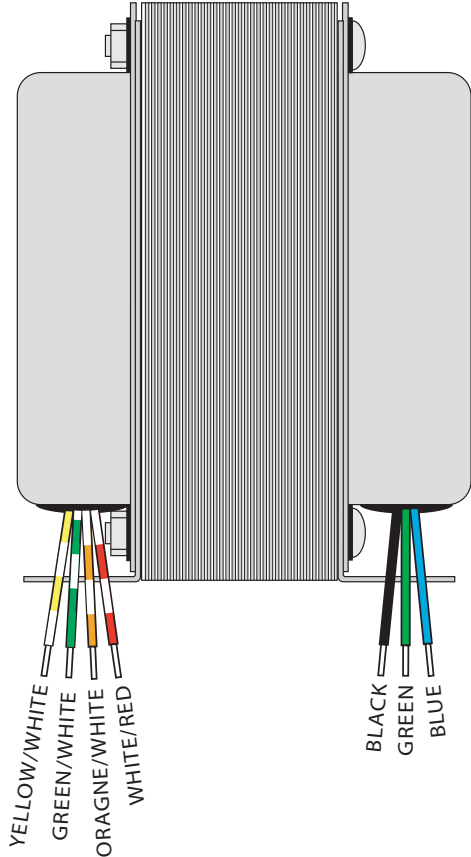


Copyright © 2019 by Mercury Magnetics. All Rights Reserved. Mercury Magnetics, FatStack & Mercury Vintage are trademarks of Mercury Magnetics. Axiom, ToneClone and Radiospares are a registered trademark of Mercury Magnetics. Marshall & Vox are trademarks of Korg USA Inc. Fender is a trademark of Fender Musical Instruments Corporation (FMIC). Mercury Magnetics is not affiliated with FMIC or Korg USA Inc.



(All dimensions are nominal)



Marshall JTM45 Amp—Radiospares “De Luxe” Audio Transformer

Origin: Cloned from one of the first 20 Bluesbreaker Combos ever built – an original first production Marshall JTM-45 aluminum chassis model. The amp was built around a “De Luxe” version of the Radiospares high fidelity output transformers. It features staggered gap, hand-tuned core with a wide bandwidth, low leakage inductance coil.

CLASS: ToneClone®

TYPE: Output Transformer

PART NO.: O45RS-L

ORIGINAL MARSHALL PART NO: Radiospares “De Luxe” Audio

MOUNTING: Vertical or Horizontal Mount

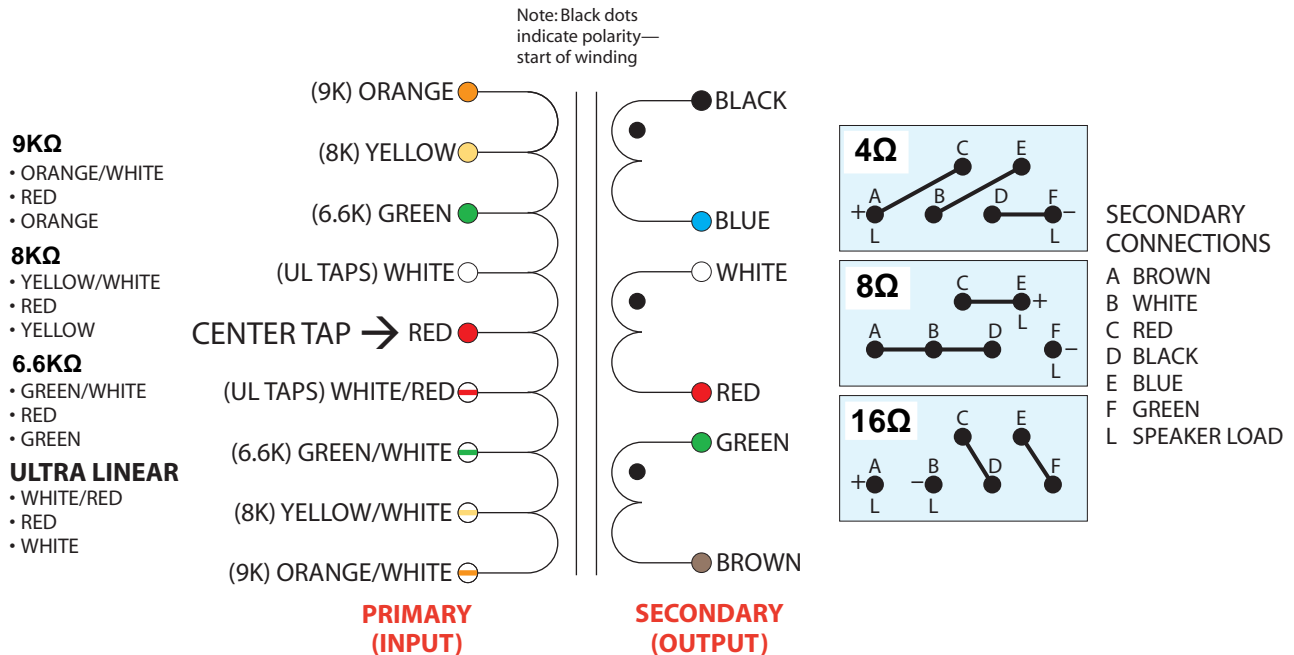
RECOMMENDED TUBE TYPES: KT66, 6L6, 5881, EL34, KT77, EL84, 6V6, EL84/6BQ5, 6550, KT88, KT90

POWER RANGE: Our OTs are rated to handle up to 50% more power than the original manufacturer spec.

DATE: 02-14-06 / revision 04-28-10 / revision 12/12/18

Marshall JTM45 Amp—Radiospares “De Luxe” Audio Transformer

Origin: Cloned from the first Blues Breaker Combo.



Some interesting discoveries were made during the course of our research, development and playing a whole bunch of the original *Marshall JTM-45* amps to help us achieve our benchmark **ToneClone** transformer series for this mighty amp.

Many thanks also to our player and collector friends for loaning us their amps and offering their insight for the cause. Many hours of tasty licks included. Incidentally, we do actually own one of the first “coffin logo” offset chassis amplifiers that Jim Marshall and crew built.

There are more *JTM-45* amps built using EL-34 tubes than with the legendary KT-66 tubes. However, changing tube types requires swapping out the *output transformer* for the correct operating impedance and tone.

All of the original (limited run) handmade amps had 6L6, 5881 or KT-66 tubes connected to a **Radiospares** “De Luxe” *output transformers*. The “De Luxe” model, being the **Radiospares** premium offering, followed down by the “Heavy Duty” and “Hygrade” models. Primary impedance was selected at 6.6K.

The **Bluesbreaker’s** legendary tone was made by using KT-66 tubes and **Radiospares (RS)** premium transformers. The transformers laid the basis for the amp’s tone with their unique high primary inductance and low leakage inductance combined with padded (surplus) primary impedance as compared to *Fenders* of the time.

Note: With the exception of the transformers the *JTM* was a copy of the *Bassman*. An interesting discovery came to our attention here. It seems that most of the amps made during that era had the output leads connected in reverse phase (backwards). Was it by intent or a happy accident? We and a number of pro players seem to prefer the reverse phase connection after many A/B tests. Giving the impression that the speaker cabs sounded better, more articulate.

When the *JTM-45* went into full production, the KT-66 tubes were switched for EL-34s and the **Radiospares** transformers were replaced with *Drake* transformers (judging by build quality and style). All to save BIG on costs since at the time *Marshall* was being hammered by a distribution deal that shot up retail prices for his amps right through the roof (a deal Jim Marshall later regretted). The EL-34s were decent sounding tubes, but the new transformers (which are not so **Bluesbreaker-ish**) bore no resemblance to the original **RS** designs. These simplified transformers had a primary impedance of 3.4K with a much more simple (and lower labor cost) design.

The bonus here, though, was in the easier to hook-up speaker connections for the player on the road, which also made it more difficult to connect speakers to the amp in reverse.

Another interesting piece of historical data is that when the EL-34 started earning the reputation as an affordable, reliable and great-sounding tube, the people at **Radiospares** added it to their compatible list of tubes for the **RS** “De Luxe” output without changing the 6.6K impedance. And the EL-34 still sounds great through the **RS** output transformer!!—**Sergio Hamernik**



NOTE: This transformer was first made famous by *Eric Clapton* on the *John Mayhall Blues Breaker* (the “Beano” album) recordings. Many players consider this OT to be the “Holy Grail” of *Marshall* output transformers. This transformer has superb tonal definition. Although it was considered an “off-the-shelf hi-fi transformer” at the time of its manufacture, it was a of unusually high quality. Also used in the earliest VOX AC30 amplifiers. Truly a very special piece.