

T-5001-RK Coil Box Rebuild Kit

Installation Instructions

This rebuild kit contains parts to “re-wood” the Ford Model T metal coil box with a thermoplastic that will stop the misfiring of coils due to dampness or water soaking of the usual stock Model T wood back and bottom. This package contains the material and fasteners for the metal type coil box used from late 1913 through 1925 and assumes that coil box to be mounted on the passenger side of the dashboard. These parts WILL NOT WORK on a coil box that mounts to the engine as in 1926-1927.

Included in this package are the following parts:

Qty	Description
1	Coil Box Back Panel, Drilled and Routed
1	Coil Box False Bottom Panel, Drilled and Routed
5	#5 x 1/2” Round Head Brass Screws
2	#6 x 1” Round Head Brass Screws
3	5/32 x 3/8” Blind Stainless Steel Rivets (“pop” rivets)
3	3/8” O.D. Brass Washers
24”	#18 Stranded Wire
1	#5 x 1/2” Flat Head Steel Screw (used for thread forming only)

NOTE: When the coil box is mounted to the car dash and the driver is seated in the car, the driver’s left-most lower post is referred to in these instructions as the coil box magneto (**MAG**) connection. All coil boxes have at least this one connection and it is used for both magneto and battery on cars with dash mounted ignition switch. The right-most lower post (if equipped) is the coil box battery (**BAT**) connection for those coil boxes that have an integral coil box mounted ignition switch.

Disassembly (coil boxes with integral front switch):

Remove the switch front panel and observe the internal switch wiring connections. Make a diagram for reattachment of the new wires. Now check your diagram. You should see 3 wires connected to the switch. Those 3 wires are coming from under the coil box false bottom and are proceeding through the coil box front panel to the switch internal connections. Note there is a “common” (**COM**) wire that is connected to the contact strip at the bottom center of the coil box while the other 2 wires are actually passing under the coil box false bottom and connecting to the 2 lowest back panel connections which correspond to the **MAG** and **BAT** connections of the coil box. Refer to Wiring Diagram.

In the “OFF” position of the switch, the **COM** wire should not be connected to anything. In the “MAG” position of the switch the **COM** wire should be connected by the switch to *only* the **MAG** wire. In the “BAT” position of the switch the **COM** wire should be connected by the switch to *only* the **BAT** wire. **Be very careful that the MAG and BAT wires are not touching each other since the magneto magnets can be discharged by an application of Battery Power to the Magneto Connection!** Assuming your diagram agrees with the above description, disconnect the wires to allow them to be pulled back through the front panel. Continue with next steps which are common to all boxes.

Disassembly (these instructions apply to all coil boxes):

Carefully remove the center metal frontpanel-to-backpanel support strip if equipped. *Save it!!*

Remove and discard the 4 outer edge wood screws that hold the coil box back panel to the coil box metal sides. DO NOT REMOVE the 2 bottom edge screws that hold the back panel to the false bottom.

Remove and discard the single center screw under the bottom of the coil box.

Remove the back and bottom panel from the coil box as a unit. The back panel and the bottom panel should still be attached to each other via the 2 bottom edge back panel screws.

Make a diagram of the wiring locations and connections. Note that not all wiring grooves in the bottom panel are used on all coil boxes and that earlier coil box bottoms often had fewer grooves.

Disassemble and save all remaining screws and terminals noting that there are left and right small terminals which will need to be reassembled in the correct locations. **DO NOT DISCARD** the old coil box back panel just yet! Check all terminals, screws, nuts, and porcelain insulators and repair, replat, or replace as necessary. Glazed porcelain insulators are best. **Wire wheel buff terminal screw threads, underside of screw heads, and spring terminal mating surface to insure good electrical connections.** Use drill to cut rivet heads when disassembling bottom terminal strip but do NOT alter terminal strip mounting hole size.

ASSEMBLY:

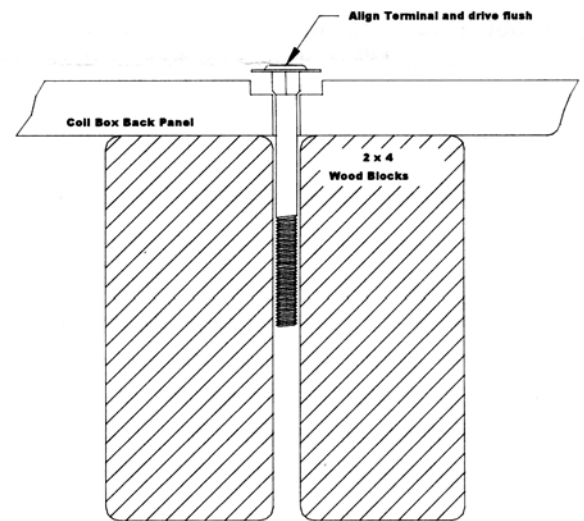
NOTE: If you do not have the old back panel, use a 1/2" thick piece of scrap wood and drill a terminal screw size hole through it for use in the following steps.

Assemble a screw and its terminal through any convenient terminal hole in the old wood back panel. Use an original porcelain insulator, washer, and nut to gently draw the screw in to bottom it into the spring terminal and wood.

Using a soldering gun, flow some rosin core solder onto the screw head and terminal. Allow to cool then clean the assembled screw and terminal using lacquer thinner to remove rosin. Do NOT use acid core solder!

Transfer this terminal assembly to the new back panel being careful to align the terminal with the back panel slot. Place a pair of wood blocks as a backup under the back panel on either side of the terminal screw. See Terminal Bolt Installation Drawing. Tap on the terminal bolt head with small hammer or mallet to drive the terminal bolt into place. When completely seated, install the regular terminal hardware and porcelain insulator. **DO NOT ATTEMPT** to draw the terminal bolts in place using the porcelain insulator and terminal nut since the new coil back material is tough and you will most likely strip the bolt or crack the insulator.

Repeat the above procedure with the remaining 7 terminals. Do not install the **MAG** and **BAT** terminal screws at this time.



Terminal Bolt Installation

NOTE: Before the bottom terminal strip is riveted to the false bottom panel, the wiring connection to it will be soldered in place. After soldering, allow this assembly to cool and clean off rosin flux with lacquer thinner before riveting in place. Do not attempt to solder to the stainless steel rivets. For best performance solder the wire directly to the terminal strip.

Strip 3/8" from the end of the supplied #18 wire and solder this wire to the top surface of the bottom terminal strip near the location where the wire will be connected. See Wiring Diagram. Make certain that no solder is in the area where the rivet head will be located and that the wire itself will not interfere with the spring terminals once the terminal strip is riveted in place.

Insert the rivets through the terminal strip from the top and rivet the bottom strip to the false bottom using the 3 rivets and 3 brass washers. The rivet holes are snug but the rivets can be pushed into place and the terminal strip should then register in the correct location. The washers are used on the underside in the countersunk holes.

At the rivet nearest the single wire connection location, drive out the center rivet slug (after installation) using a scrap broken rivet stem as a punch. File a slot in this same bottom rivet protrusion in the path that the wire will lay in so the wire can exit the rivet and not be pinched against the coil box steel bottom.

Pass the free end of the wire from the bottom strip through the rivet and route it toward the appropriate connection. The free end of this wire will go to the front panel **COM** switch connection (on boxes with switch) or solder to the rear panel **MAG** connection (on boxes without switch). Make sure that the wire will not be pinched against the coil box metal bottom at the bottom rivet location. **All coil box wiring and connections must NOT touch the coil box metal housings or switch housing.**

Determine the correct length, strip, and fasten wire(s) as necessary to the **MAG** and **BAT** terminal screws by soldering the wires directly to the terminal screw heads **BEFORE** assembling these screws to the back panel

Use the wood blocks as before and insert the **MAG** connection screw through the new back panel and drive into place. Route the wire as with the old coil box. Refer to Wiring Diagram. Assemble the porcelain insulator to the **MAG** terminal screw. Repeat this procedure with the **BAT** connection screw if equipped.

NOTE: Original flat head type screws are NOT used to assemble the new back panel to the false bottom to prevent cracking of the coil box back which can occur when using countersinking with this type of material.

Assemble the coil box back panel to the false bottom panel using the two #6 x 1 " Round Head Brass Screws. Be careful! These screws should only be "snugged up" to the bottom panel or the back panel will be distorted. Do not overtighten or you can strip out the threads or twist off the screws! Inspect the assembly to make sure no electrical connections will short against the coil box metal parts. Also inspect the **MAG** and **BAT** connections to make certain the screw heads will not interfere with ignition coil insertion.

Pre-thread the small holes using the #5 x 1/2" Flat Head Steel Screw. Insert it fully into the material at each location. This pre-threading will thus prevent breaking the softer brass screws. Note that these screws will insert into the small pilot holes from the back side and the bottom of the coil box. Route remaining switch wires (if used) as with the old coil box and then assemble the back and bottom to the coil box metal using four #5 x 1/2" Brass Round Head Screws at the back side edges and one #5 x 1/2" Brass Round Head screw at the bottom center. Again be careful not to strip the threads! Just slightly snug up the screws.

Connect the new wires at switch (if equipped) using your diagram from disassembly procedure.

Reinstall the center metal frontpanel-to-backpanel support strip if equipped. If not equipped fill this back panel hole (and any other unused hole) with small amount of silicon rubber sealant (not supplied)

WIRING DIAGRAMS

(Bottom Views)

