



# How to Repair a 2010-2014 Ford Mustang Smart Junction Box

This guide will show the user how to take apart the junction box and clean any corrosion in your 2010-2014 Ford Mustang.

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## INTRODUCTION

This guide will show the user how to take apart the junction box and clean any corrosion in your 2010-2014 Ford Mustang. If you have corrosion this can cause electrical problems.

### TOOLS:

- [Socket 10mm](#) (1)
- [1/4" Drive Ratchet](#) (1)
- [Flathead Screwdriver](#) (1)
- [Wedge](#) (1)
- [Latex or nitrile gloves](#) (1)

## Step 1 — How to Repair a 2010-2014 Ford Mustang Smart Junction Box



- Pull hood release tab inside the car.

 After this step, protective gloves should be worn.

## Step 2



- Disconnect the positive side battery cable from the battery with an 8mm wrench.
- Place the positive side battery cable on a non-conductive surface, like a towel.

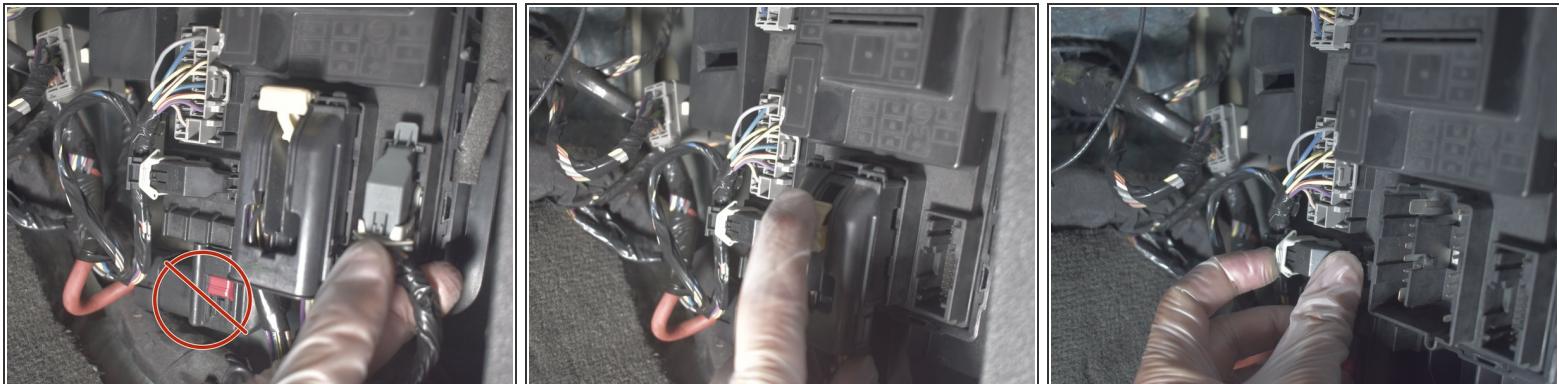
 Electric shock can occur if positive side of battery is grounded

## Step 3



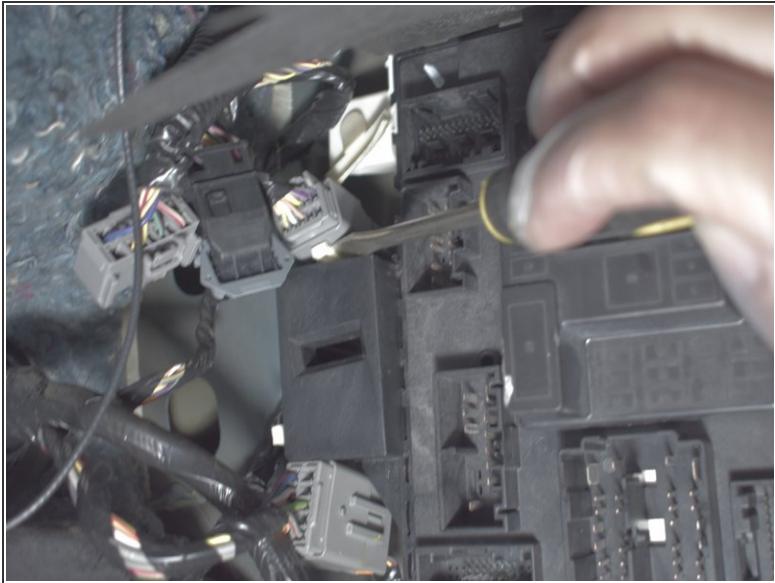
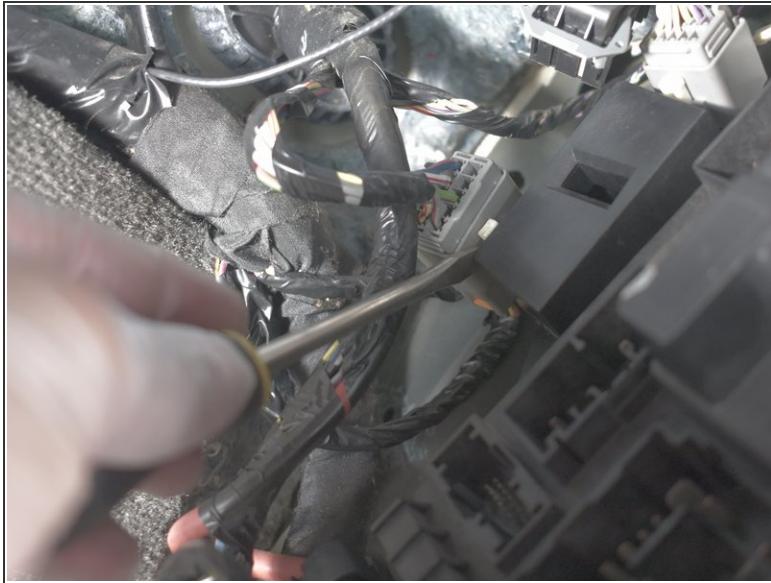
- Pull off the passenger side kick-plate panel by pulling on the unconnected end with moderate force.
- *(i)* The kick-plate panel is located under the glove compartment and beside the passenger door.

## Step 4



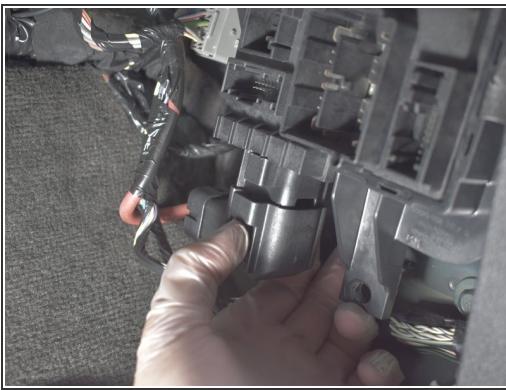
- Remove the six connectors from the junction box. The large connector at the bottom of the junction box will be removed during step 6.
-  Be careful not to break any plastic tabs or clips.

## Step 5



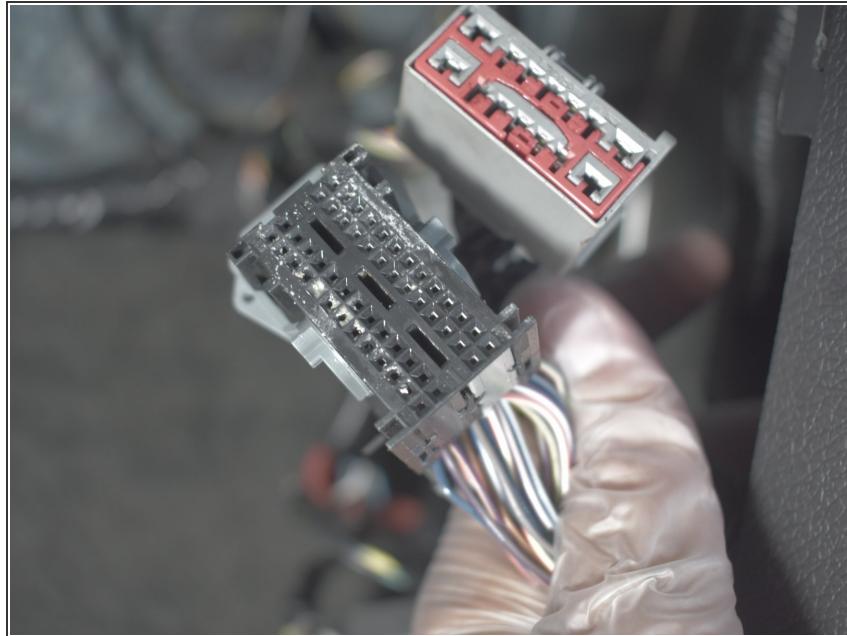
- Unhook nearby wires from hangers on junction box by using a flat head screwdriver.
- Use the screwdriver to push on the hanger tab and then pull the wire connector forward.

## Step 6



- Using a 10 mm socket wrench, remove the mounting nut from bottom of junction box.
- Slightly lift the junction box and then remove the final large connector on the bottom of the junction box.
- Lift the junction box 90 degrees to unhook the junction box from the fender wall and then pull the junction box completely out.

## Step 7



- Inspect all connectors for corrosion to indicate where the junction box needs cleaning.

## Step 8



- Place the junction box in a clean ventilated area and on a flat surface.
- Remove the fuse panel cover.

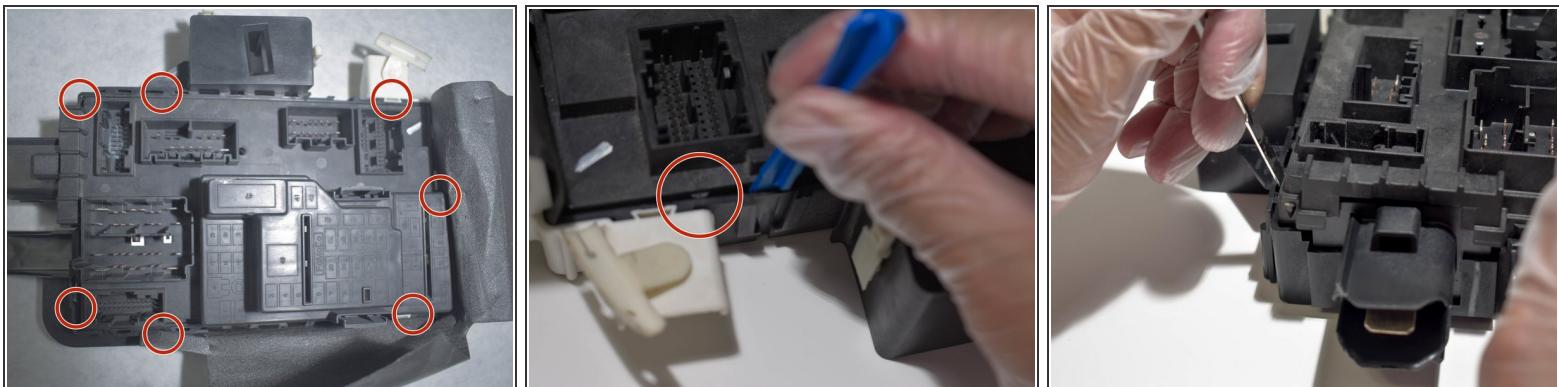
## Step 9



- Using the fuse puller located in the fuse cover, remove all of the small fuses.
- Remove the larger fuse and relay by hand using moderate force.

 Take a picture of fuses before removing to record their locations.

## Step 10

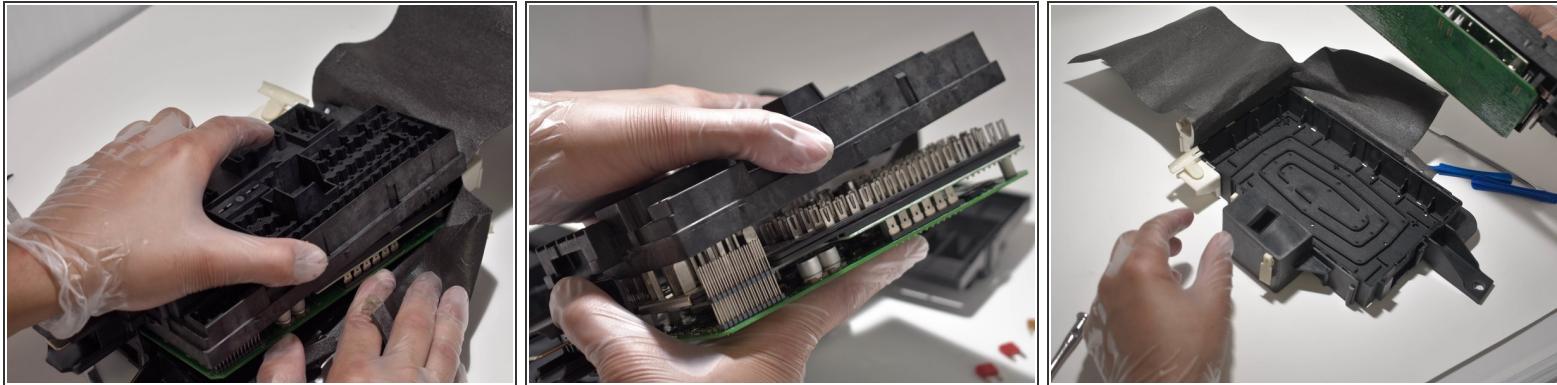


- Use a flat head screwdriver or plastic opening tool to detach the small tabs on the junction box.

 The small tab locations are circled in red.

 To prevent damage to the walls of the junction box, do not widen the side of the junction box too far.

## Step 11

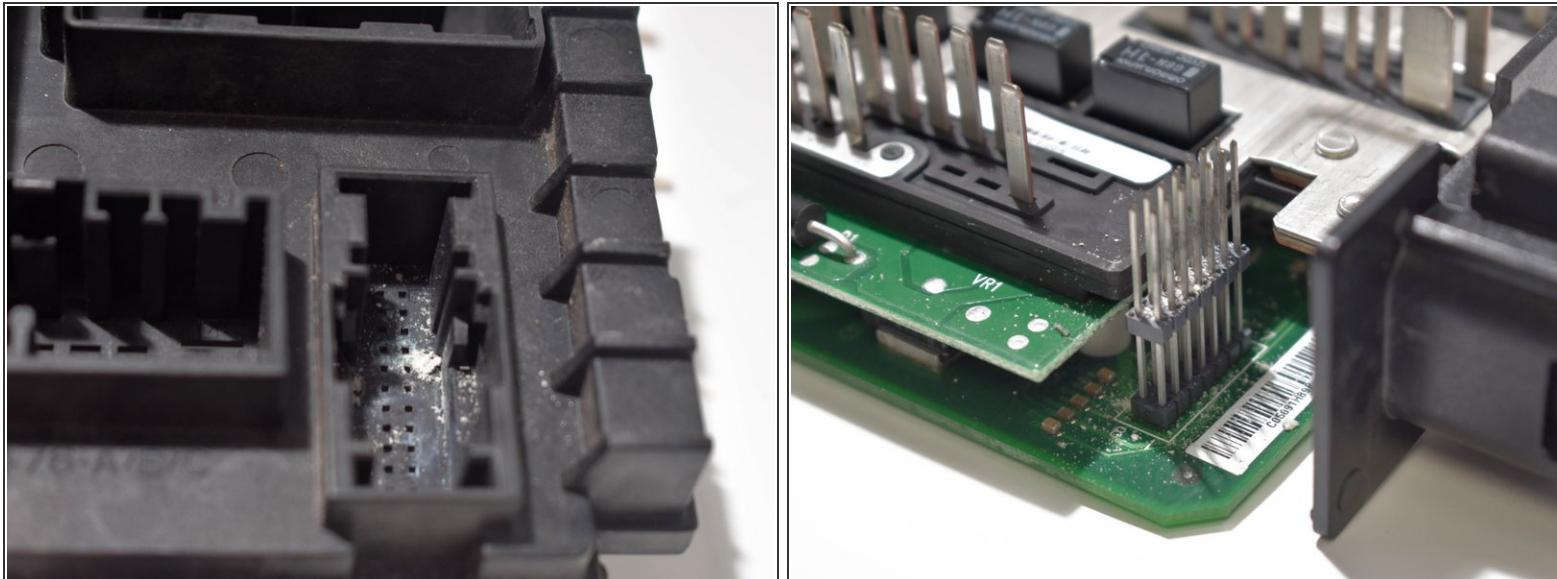


- Remove the top plastic cover and the control boards from the bottom cover.

! As you lift the top of the junction box, ensure the control boards do not fall out.

! Static shock can damage the components on the control boards. Discharge static build up by touching a large metal object before touching the control boards.

## Step 12

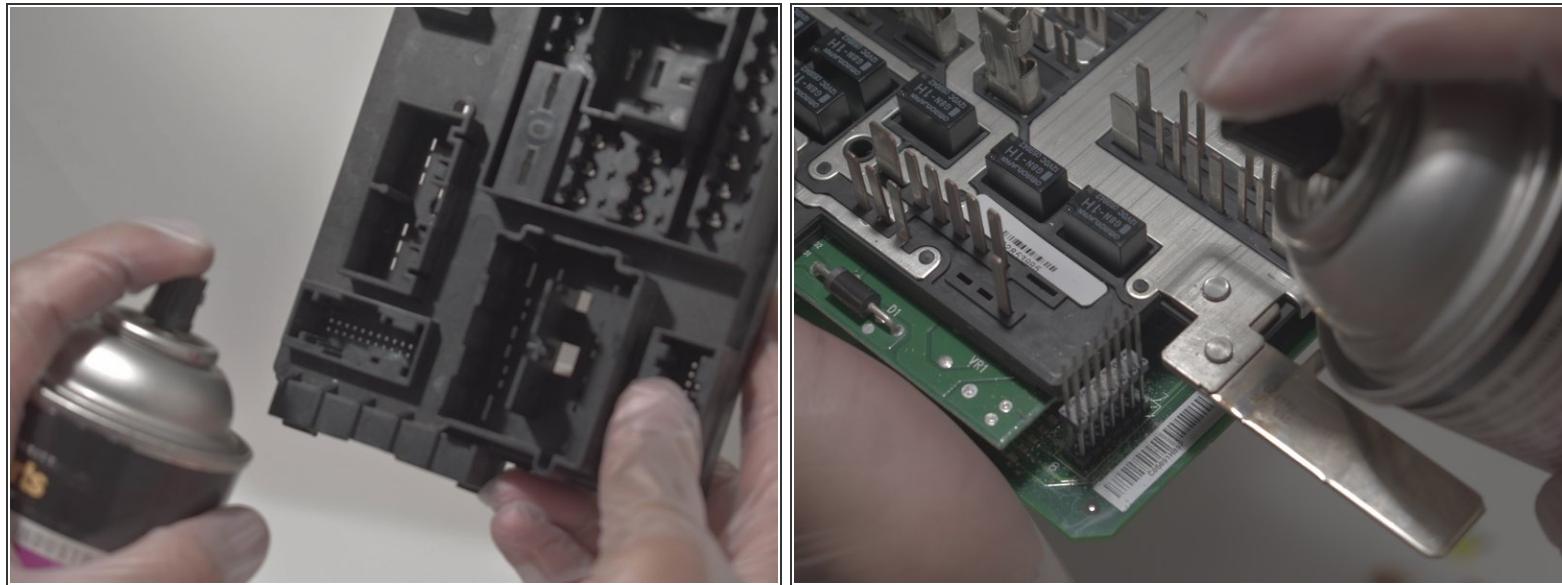


- Examine the top junction box cover for any corrosion or burn spots.

i You can identify corrosion by a green, yellow or blue substance.

i You can identify burn spots by melted plastic and/or black spots.

## Step 13



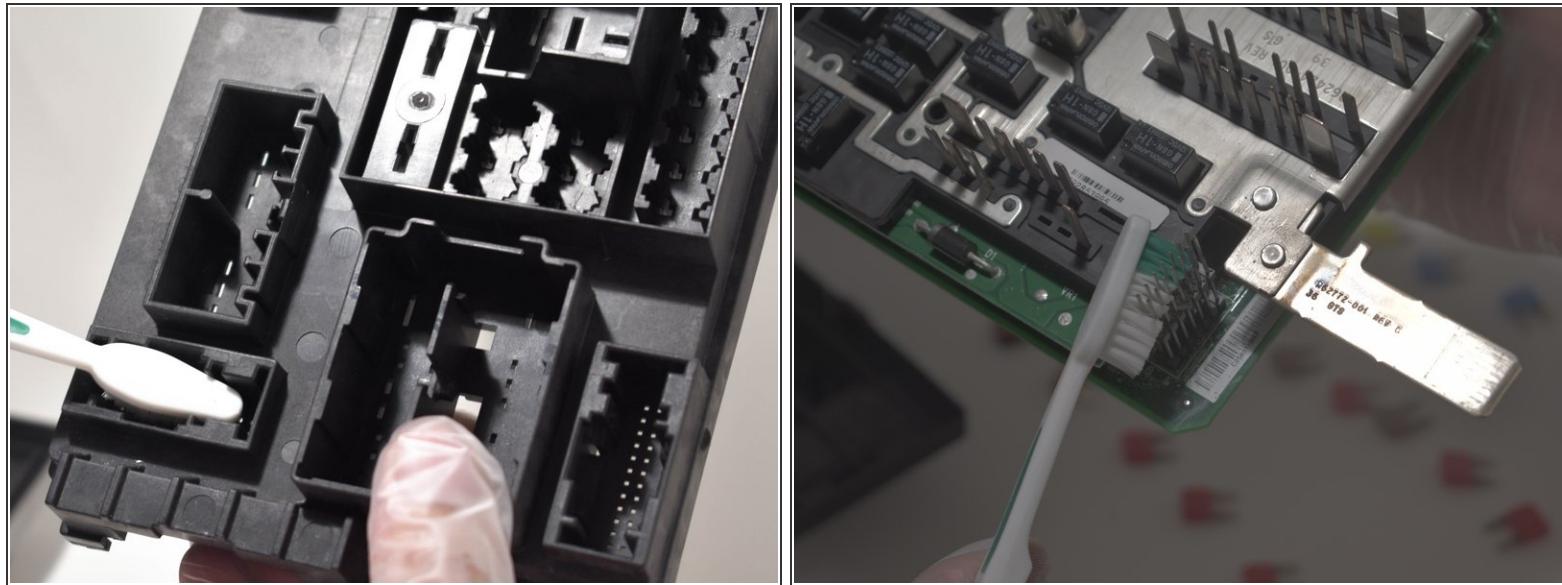
- If no burns are found, spray contact cleaner on corroded areas. If there are burns on the control board, the junction box can not be saved.

**(i)** Avoid too much overspray on adjacent components of control boards.

**!** Safety glasses should be worn to prevent cleaner from splashing in your eyes.

**!** You must be in a well ventilated area.

## Step 14



- Before the contact cleaner dries, scrub the corroded components on the control board with a tooth brush.
- Scrub the control board cover with a wire or soft brush as needed.

**⚠** Do not use wire brush on the control board. The wire brush could potentially bend pins and damage components.

## Step 15



- Spray a moderate amount of contact cleaner on all corroded wire connectors.
- ⚠ Make sure connectors that were connected to corroded areas on the junction box are cleaned even if there is no indication of corrosion.
- Before the contact cleaner dries, use a wire brush or soft brush to clean off the corrosion.
- ⓘ On hard plastic connectors, there is no risk from damage by a wire brush.
- Allow all components to dry for three or more hours.

To reassemble your device, follow these instructions in reverse order.