



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

This guide will show the user how to take apart...

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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.

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## TOOLS:

Socket 10mm (1)

1/4" Drive Ratchet (1)

6-in-1 Screwdriver (1)

Wedge (1)

Nitrile Gloves 100 Box (1)

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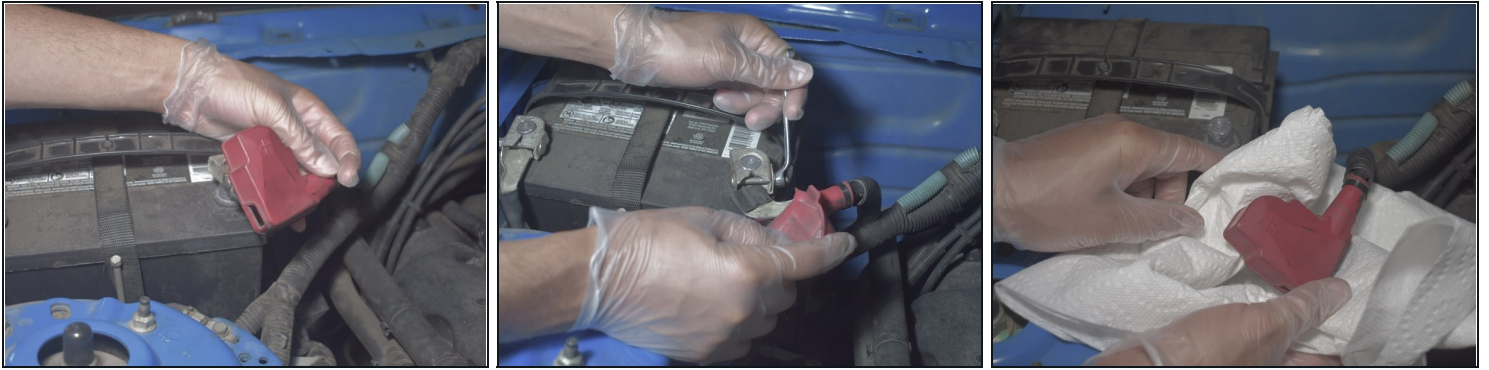
## Step 1 — How to Repair a 2010-2014 Ford Mustang Smart Junction Box



- 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

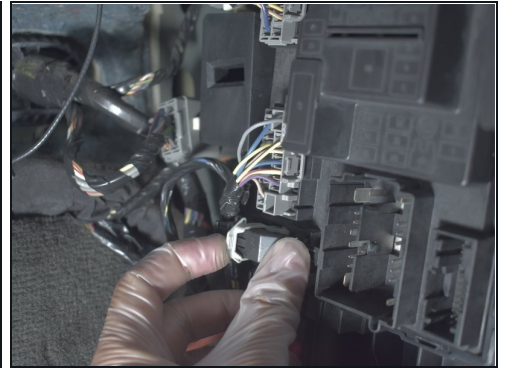
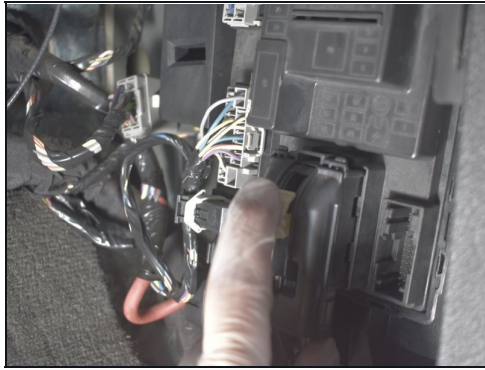
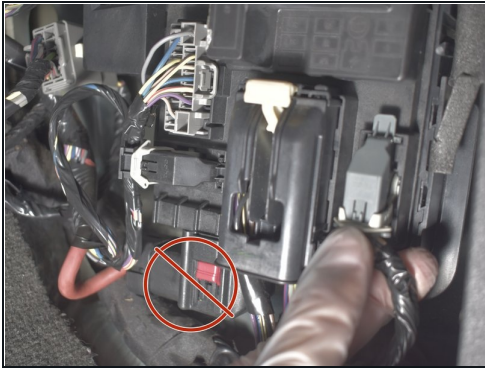
## Step 3



- Pull off the passenger side kick-plate panel by pulling on the unconnected end with moderate force.
- ① The kick-plate panel is located under the glove compartment and beside the passenger door.



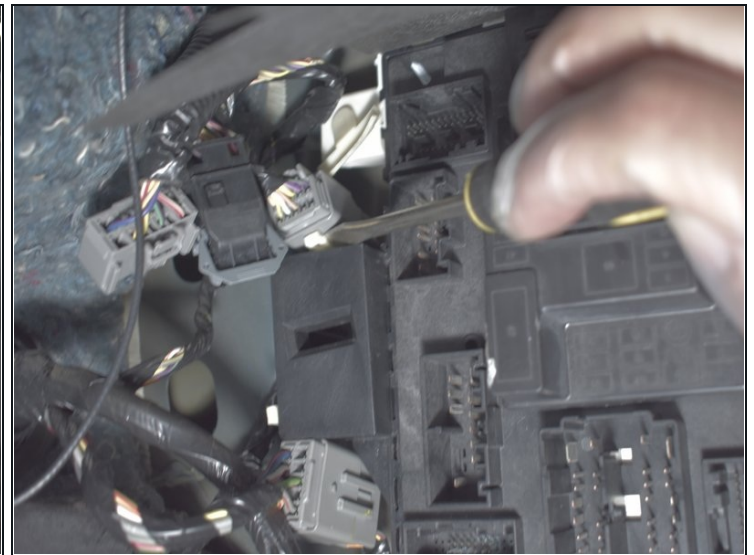
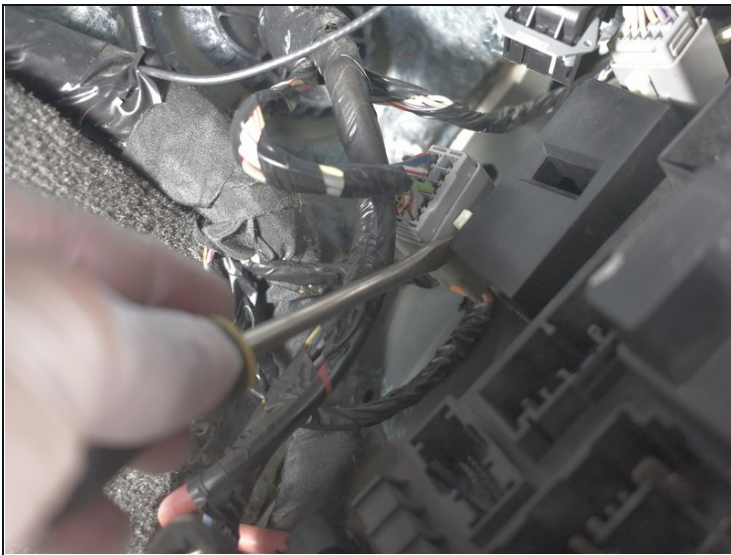
## Step 4



- Remove the six connectors from the junction box. The large connector at the bottom of the junction box will be removed during step 6.

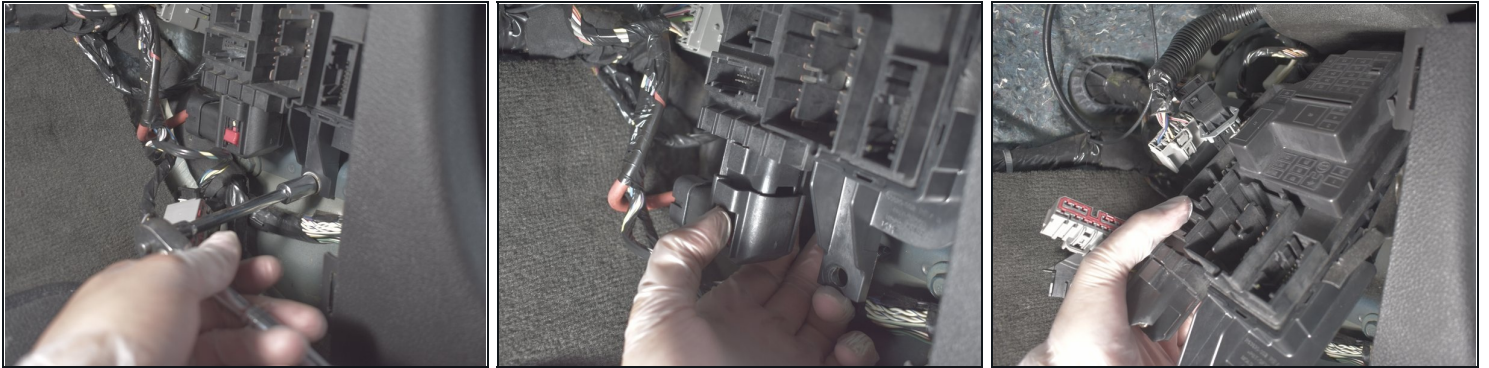
☒ Be careful not to break any plastic tabs or clips.

## Step 5



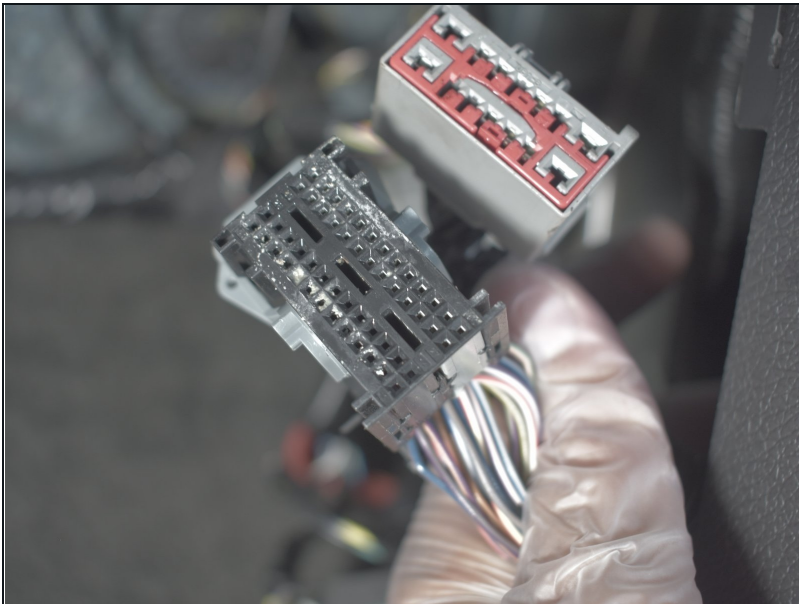
- Unhook nearby wires from hangers on junction box by using a flat head screwdriver.
- Use the screwdriver to push on the hanger tab and then pull the wire connector forward.

## 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.

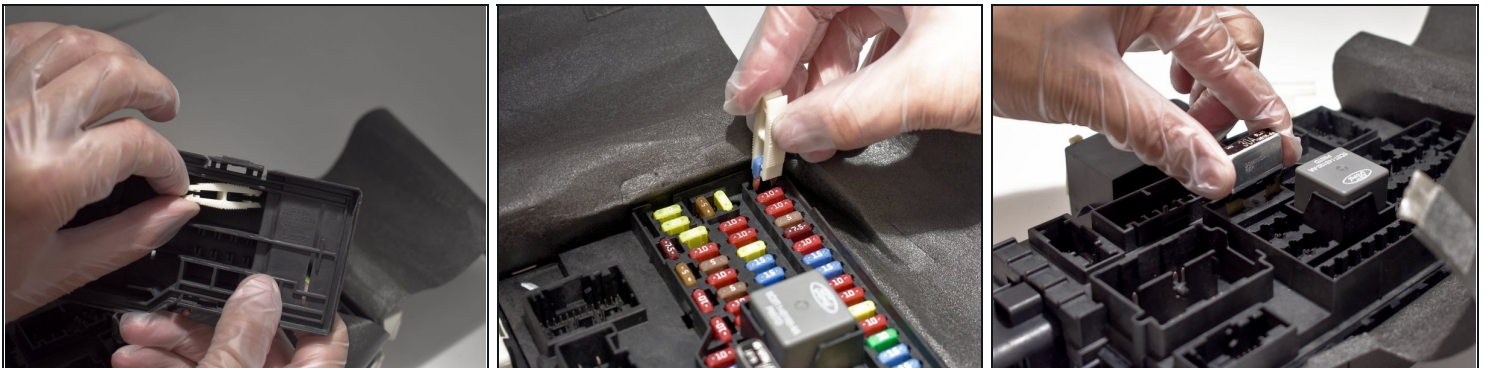


## Step 8



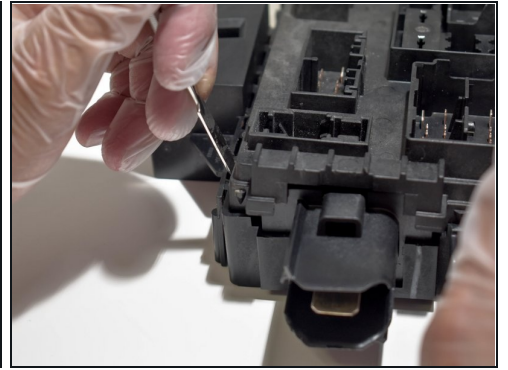
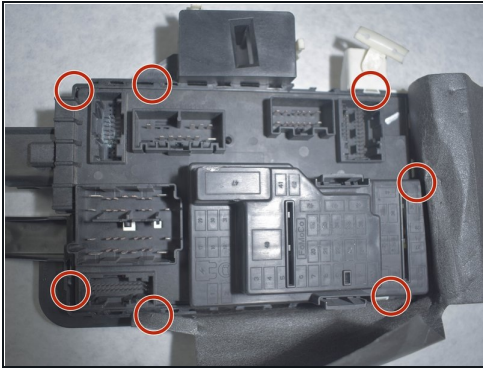
- Place the junction box in a clean ventilated area and on a flat surface.
- Remove the fuse panel cover.

## 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

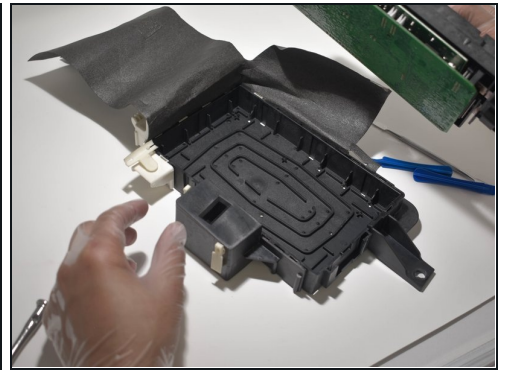
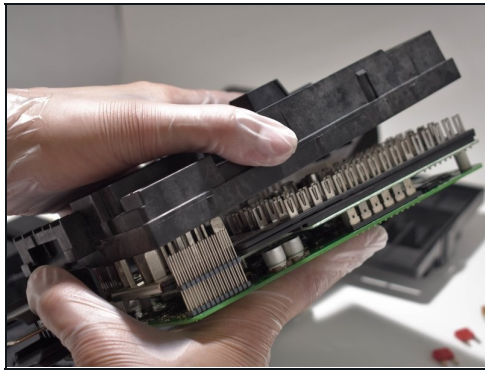


- Use a flat head screwdriver or plastic opening tool to detach the small tabs on the junction box.

① 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

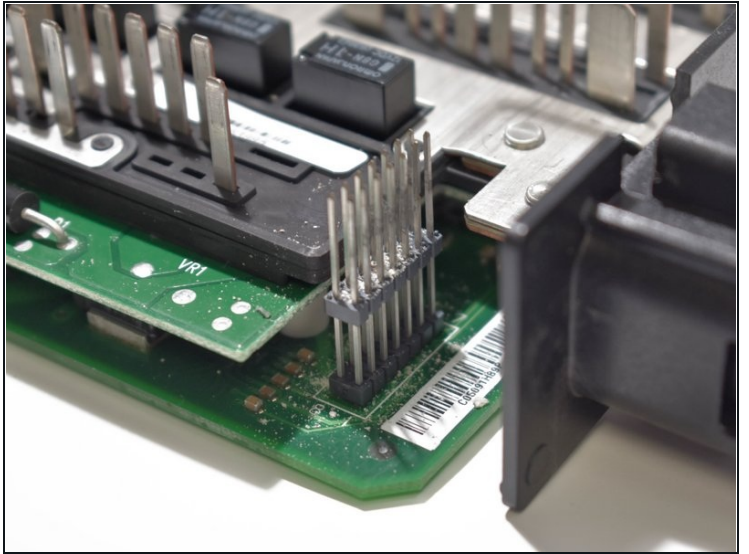
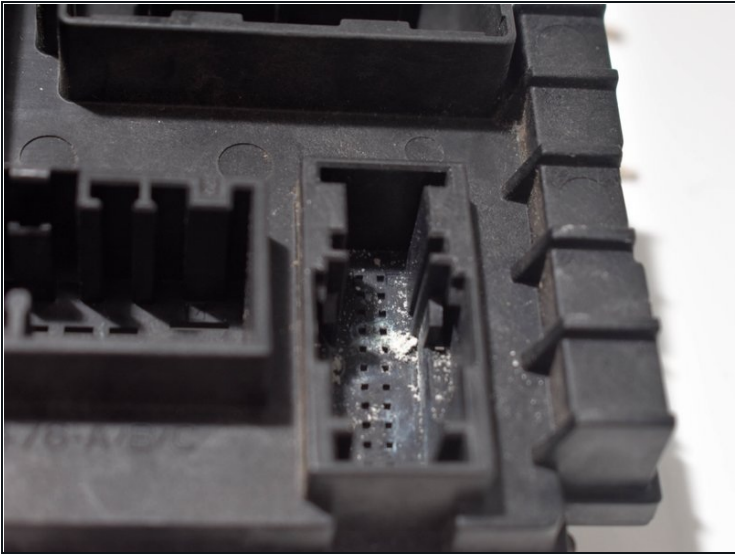


- Remove the top plastic cover and the control boards from the bottom cover.

⚠ 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.

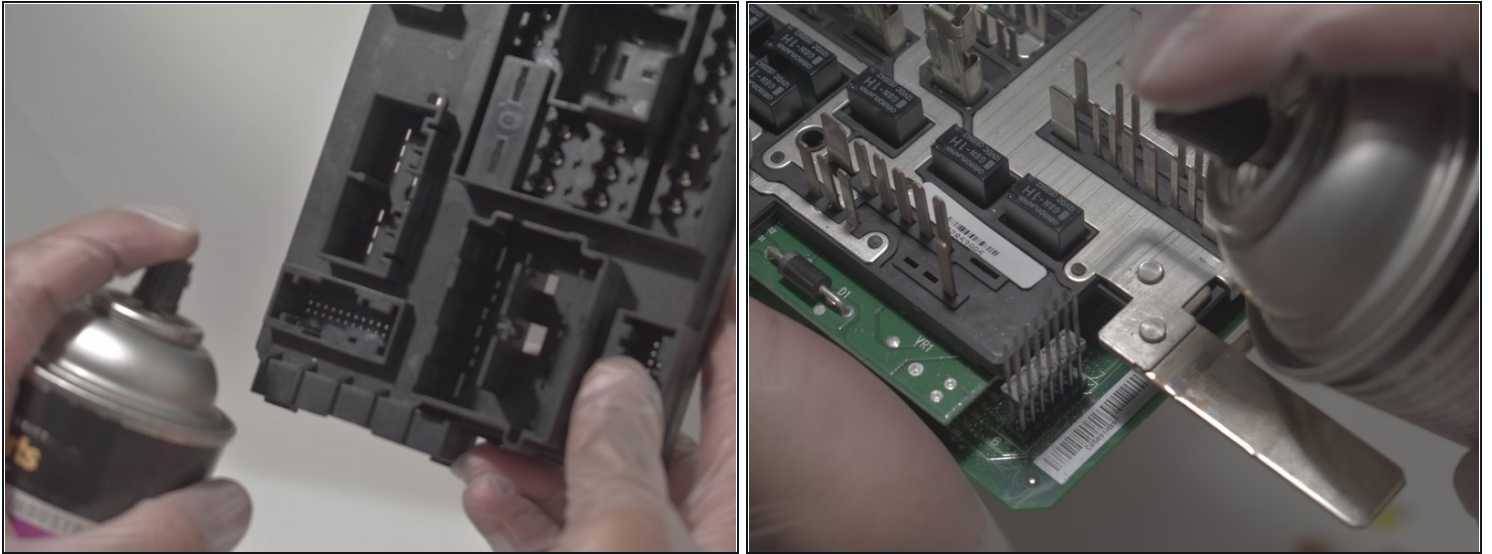
## Step 12



- Examine the top junction box cover for any corrosion or burn spots.
- ① You can identify corrosion by a green, yellow or blue substance.
- ① You can identify burn spots by melted plastic and/or black spots.



## Step 13



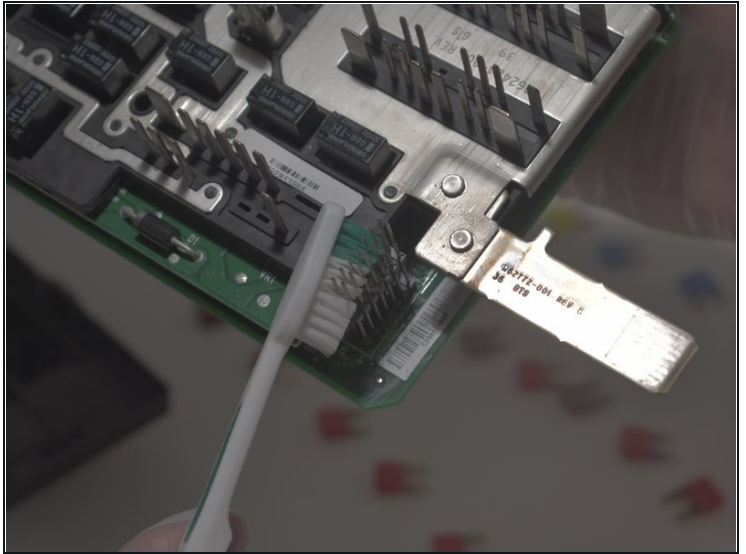
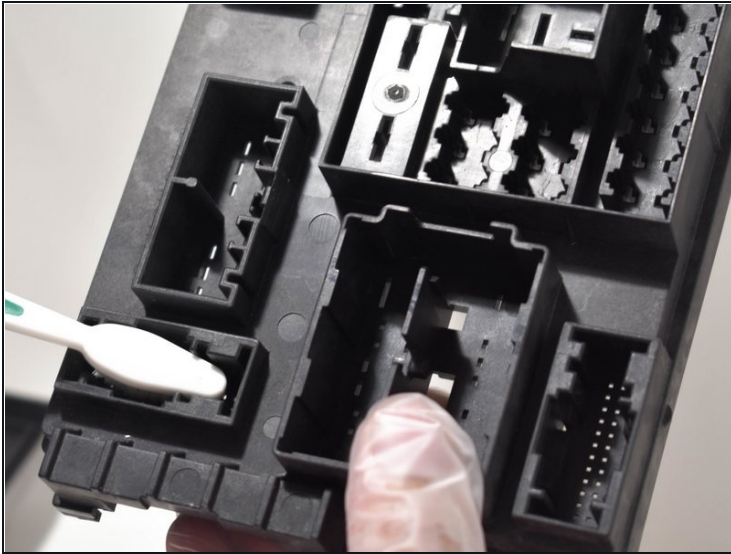
- If no burns are found, spray contact cleaner on corroded areas. If there are burns on the control board, the junction box can not be saved.

① 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.
- ① On hard plastic connectors, there is no risk from damage by a wire brush.
- Allow all components to dry for three or more hours.

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