Part Number:
0000-8E-R07A
0000-89-R32A

Trailer Hitch Harness Kit

Applicable Models:
2017 > CX-5 (GAS 2.5L)

Package Contents:
- Installation Instructions (QTY 1)
- Tie Mounts (QTY 3)
- Foam Tape (QTY 1)
- Red T-Taps (QTY 4)
- Large Tie Wraps (QTY 7)
- Tie Wraps (QTY 10)
- Main Harness (QTY 1)
- Grommet (QTY 1)
- Female Connector (QTY 1)

Tools Required

A
Panel Removal Tool

B
Small Flathead Screwdriver

C
Trim Panel Remover

D
Phillips Screwdriver

E
10mm Socket Wrench

F
Wire Cutters

G
Needle Nose Pliers

H
Drill & 6mm Drill Bit

I
Tape Measure

Before Installation

1.) Read installation instructions before proceeding.
2.) Be careful not to damage vehicle paint or kit components.
3.) Do not over tighten bolts, tighten to specified torque.
4.) Record customers preset radio stations (if applicable).
5.) Using a 10mm socket, remove negative (-) battery terminal.
**A ACCESS STORAGE COMPARTMENTS**

1. Lift rear hatch door and lower passenger seats behind driver seat as shown.
2. Temporarily remove floor deck panel.
3. Temporarily remove jack and tow bar foam inserts.
4. Temporarily remove floor deck corner panel.

**B REMOVE REAR THRESHOLD PLATE & LIFT RUBBER SEAL**

Tools Needed:

1. Locate left and right push nut pins on threshold plate and temporarily remove using a small flathead screw driver.
2. Firmly pull up on the threshold plate and temporarily remove from vehicle.

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Continues on next page
3. Temporarily lift away rubber seal along rear hatch as shown.

4. Temporarily lift away rubber seal along passenger door, behind driver’s seat.

**Tools Needed:**
- Small Flathead Screwdriver
- 10mm Socket Wrench

**ACCESS WIRE HARNESS BEHIND DRIVER’ SIDE TRIM PANEL**

1. Locate driver’s side interior trim panel and follow sequence to remove. *(a-b-c-d-e)*
   
a.) Temporarily remove push nut pin of trim panel using a small flathead screwdriver for sequence (a).
   
b.) Remove trim panel piece (b). Lift cover to access bolt and remove using a 10mm socket wrench. *(Torque Spec 9.0 - 12.0 N·m).*

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**Continues on next page**
Tools Needed:

- 10mm Socket Wrench
- Small Flathead Screwdriver
- Phillips Screwdriver

**D**

**REMOVE THE LEFT HAND SIDE TRIM PANEL**

1. Remove kick plate on the driver side rear door using a panel removal tool to release trim panel.
2. Carefully lift trim panel starting from inside driver side rear door area behind driver’s seat using trim panel remover tool.

Note: Wrap end of trim panel remover in soft tape/clothe tape to prevent damage.
3. Use trim panel remover tool to disengage two locking pin locations along trim panel side. Revert to the panel removal tool to disengage locking pin locations along top portion of trim panel.

4. Push forward, rotate, and pull out the release latch cover through trim panel opening and set aside.

5. Temporarily remove trim panel from vehicle using a rotating and pulling motion as shown in image.
1. Locate attachment point (a) on the bumper fascia to measure the drill point for the tie wrap attachment. Measure 40mm towards the receiver tube of the hitch and 15mm upwards. Drill a 6mm hole at the drill point.
Due to the extreme high temperatures produced by the exhaust, a minimum clearance of 50mm must be maintained between exhaust and harness. Failure to do so will result in severe damage to harness and loss of trailer functions, such as brake light and turn signal lights.

1. After performing Step 2, verify that a minimum of 50mm has been achieved between exhaust and harness. If not, remove tie wrap and repeat Step 2 above using a new tie wrap. If 50mm has been achieved, move on to Step 3.

2. Secure the 4-FLAT trailer connector into the hitch bracket as shown. Route the wiring towards the drilled hole (a). Use a large tie wrap to fully secure the wire harness ensuring a 50mm clearance from the indented section of the exhaust closest to the harness as shown in the measurement photo and make sure to remove all slack. It’s important that the corrugated tube is routed over the edge of the bracket for protection.

It’s important that the corrugated tube is routed over the edge of the bracket for protection. Damage to harness may occur otherwise.
3. After the distance verification trim the tie wrap using the wire cutters and rotate the tie wrap head up so it is not visible from the rear of the vehicle to avoid injury.

4. Route the harness behind fascia support bracket making sure the harness is routed between the bumper fascia and bracket (b). Use a large tie wrap to secure the harness to the fascia. Tighten the tie wrap and trim the tie wrap tail with wire cutters.

5. Use a large tie wrap (c) to secure the harness to the **bottom** of the cross member of the hitch. Tie wrap should be located 100mm from cross member end. Remove all slack, tighten the tie wrap and trim the tie wrap tail with wire cutters.
6. Route the harness near the rear most hitch attachment bolt (d). Use a large tie wrap to secure the harness to the hitch attachment bracket. Remove all slack, tighten the tie wrap and trim the tail using wire cutters.

7. Route the harness to the wire attachment point near the grommet. This is located on the rear side of the bumper deflector (e). Use a large tie wrap to secure the harness to the attachment point. Remove all slack, tighten the tie wrap and trim the tie wrap tail using wire cutters.

8. Remove and dispose of the existing cavity plug from floor of vehicle. Route the four terminated wires through the exposed opening. Use care to prevent any damage being done to wires. Slide the supplied grommet over the four terminated wires and seat the grommet into the vehicle opening.

**Tools Needed:**

- Grommet
1. Clean the indicated wire tie mount and module mounting areas behind the driver’s side trim panel with an alcohol wipe. Remove adhesive backing on module and tie mounts. Mount wire harness module and three tie mounts to specified locations.

2. Insert the provided female connector to the four terminated wires. Firmly push terminal lock into the locked position.

Attach the 4-Flat harness connector to the module connector. The wires should match color to color at the connectors. (reference illustration).
3. Use one piece of foam tape to protect connectors and to prevent rattle.
4. Use a tie wrap to secure connectors wrapped in foam tape to the main harness's mounting component as shown.
5. Cut excess tie wrap used in prior step with wire cutters.
**G MOUNT GROUND WIRE**

1. Locate ground mount and ground wire connection.
2. Remove the existing ground mount bolt using a 10mm socket wrench. Route the black ground wire from the main harness module to the bolt location and tighten. *(Torque bolt to 7 N·m)*
3. Gently pull up on 4-Flat harness until corrugated portion on harness makes contact with grommet on external portion of vehicle. While making sure corrugated tube is in contact with grommet, use three tie wraps to secure 4-Flat harness and ground wire to the three tie mount locations. Once secure, cut excess tie wraps.

**Tools Needed:**
- Wire Cutters
- 10mm Socket Wrench

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**H ACCESS VEHICLE HARNESS & CONNECT WIRE TAPS TO VEHICLE HARNESS**

1. Locate vehicle harness and unplug connection.
2. Expose vehicle harness wires by pulling back rubber casing sleeve.

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Continues on next page
3. Connect wire taps to vehicle harness on driver side. Locate and identify the tail light (PINK), left turn signal (SKY BLUE), and stop wire (RED), behind the driver’s side light. Attach a red T-tap to each of the indicated wires.
   (a) place wire into the center jaw of the wire T-Tap splice.
   (b) fold wire tap around wire.
   (c) Squeeze tightly together with pliers, making a secure connection.

4. Connect main harness spade terminals to wire taps (Use chart for reference).

5. Plug the wire harness connection back in.
REMOVE PRIMARY LOCK ON REAR JUNCTION CONNECTOR

1. Disconnect the rear junction connector by pushing down on the black primary lock and tilting back to release. **Once connector is free, lock must be returned to its closed position before removing.**
2. Remove black primary lock by using a small flathead screwdriver to pry and carefully lift the lock on both mating sides.

**Tools Needed:**
- Small Flathead Screwdriver

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DISENGAGE SECONDARY LOCK & INSERT RED POWER WIRE

1. Disengage secondary lock on rear junction connector by carefully using a small flathead screwdriver or terminal removal pick tool.
2. Route the red power wire to the rear junction connector. Locate proper cavity to be populated (see illustration). Once terminal is properly engaged in connector, squeeze secondary lock into place.

**Tools Needed:**
- Small Flathead Screwdriver
1. Reassemble and insert rear junction connector back in place. Visually check to confirm the secondary lock has re-engaged and place the black primary lock back on the connector.

2. Locate **BLUE** wire on rear junction connector for T-Tap connection.

3. Use a T-Tap on **BLUE** wire of the rear junction connector.

4. Snap in remaining green main harness wire to T-Tap connection.

5. Tie wrap green main harness wire onto cable above main harness and cut excess

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**FINISHING STEPS**

1. Seal the replacement grommet with silicon to prevent any possible water intrusion.

2. Reinstall all trim, tie downs and interior panels in reverse order of removal, ensuring all fasteners are properly installed.

3. Clean vehicle.

4. Vacuum and clean any debris caused by installation.

5. Place installation instructions in the glove box of vehicle.
TOOLS REQUIRED

TEST LIGHT

METHOD
1. Attach the test light ground connection to the male pin of the harness’s 4-flat connector.
2. Probe each of the female pins individually to confirm correct circuit operation.

Fig. 1 - Fuse Replacement

- Fuse Cover Panel
- Fuse Relay Box

1. Remove fuse relay box cover panel from underneath the dashboard on the driver side of the vehicle.
2. 15 amp fuse will be located in cavity labeled ESCL of the fuse relay box.
### Inspect the installed / reinstalled parts for the following items:

<table>
<thead>
<tr>
<th>Inspection Parts</th>
<th>Inspection Items</th>
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<tbody>
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<td>Clearance/Fit</td>
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<tr>
<td>50mm Between Exhaust &amp; Harness</td>
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<tr>
<td>Tow Harness Functions</td>
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<tr>
<td>Tow Harness Module Ground Screw</td>
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<tr>
<td>Driver’s Side Left Rear Interior Trim Panel</td>
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<tr>
<td>Passenger Side Right Rear Interior Trim Panel</td>
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<tr>
<td>Rear Threshold Plate</td>
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<tr>
<td>Rear Foam Inserts</td>
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<tr>
<td>Rear Floor Covering</td>
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<tr>
<td>Vehicle Negative Power Cable</td>
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<tr>
<td>4-FLAT Harness</td>
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### Notes:
1. Verify signal functionality at the trailer harness plug using test procedure on page 16.
2. Ensure tow harness module ground bolt is torqued to 7.0 N•m.
When the battery is disconnected, the DSC may stop operating.
(The DSC OFF indicator will flash at this time, and the TCS/DSC operation indicator will illuminate.)
1. Turn the ignition switch to “OFF” and then turn it back to “ON”.
2. Turn the steering wheel clockwise as far as it will go, and then turn it back counterclockwise as far as it will go.
3. Check that the TCS/DSC operation indicator is turned off.
4. Turn the ignition switch to “OFF” and then turn it back to “ON”.
5. Check that the TCS/DSC operation indicator is turned off. If the TCS/DSC operation indicator is still illuminated or the DSC indicator is not turned off when the ignition switch is turned back to “ON”, contact your Mazda dealer.

If the battery is disconnected, the power windows may no longer fully open or fully close automatically.
1. Turn the ignition key to the “ON” position.
2. Press the power window switch to fully open the power windows.
3. Lift up the power window switch to fully close the power windows, and keep it pulled up for approximately 2 seconds.
4. Position the engine switch at “OFF”, and then at “ON” again. When the function doesn’t work after these procedures, please contact your Mazda dealer.

Due to the extreme high temperatures produced by the exhaust, a minimum clearance of 50mm must be maintained between exhaust and harness. Failure to do so will result in severe damage to harness and loss of trailer functions, such as brake lights and turn signal lights.
1. After performing Step 2 on page 7, verify that a minimum of 50mm has been achieved between exhaust and harness. If not, remove tie wrap and repeat Step 2 using a new tie wrap. If 50mm has been achieved, move on to Step 3.