

Installation Manual

Po-40: Remote Control Mirror

Lexus IS250



Distributor for the Po-40 Folding Mirror Kit:

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1. Check out a YouTube film at <http://www.youtube.com/watch?v=d5RVKQch6I>
- 1a Wind down the window then remove the screw securing the inner handle.

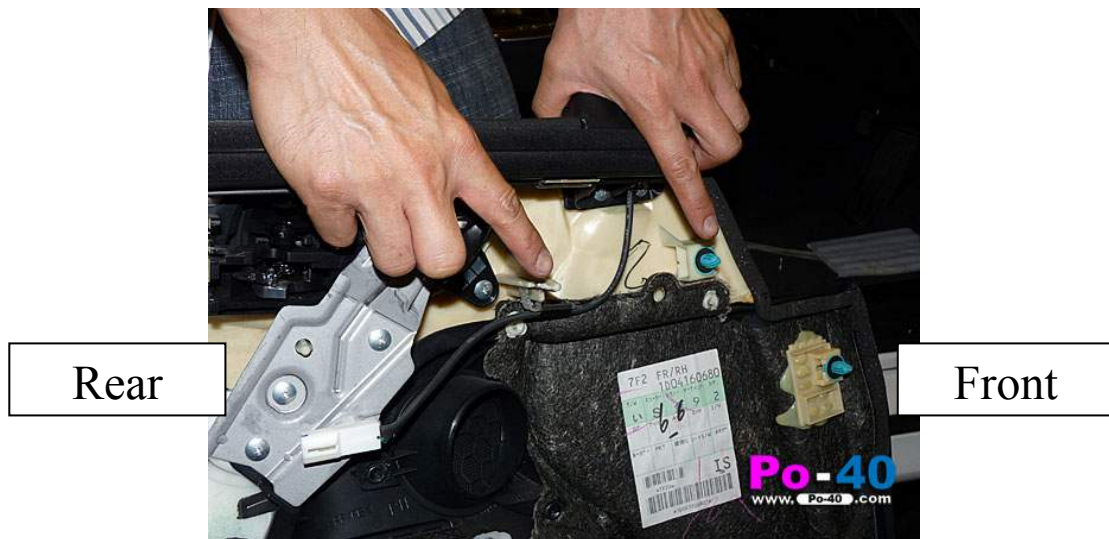


2. Remove the Power Windows Master Switch Panel and disconnect the Power Windows. Note the Master Switch Panel Connectors we will call [A] and [B].



3 Pause here and review Appendix C then...

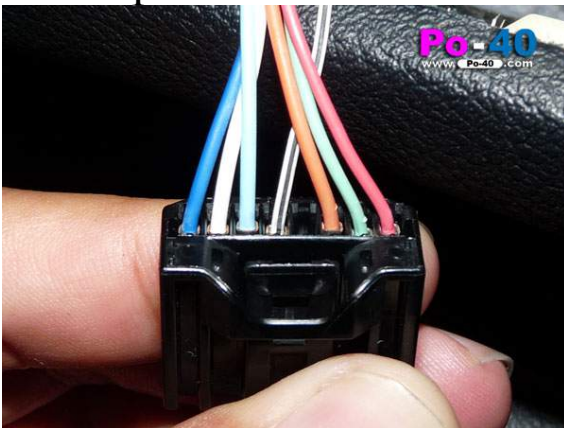
3.1 Remove the screw under the Power Windows Master Switch Panel and remove the door panel starting at the bottom edge of door panel.



Rear

Front

4.1 Inspect the number of wires in Connector A



4.2 Please now look at Appendix B for a successful and recommended position to place the Control Box.

4.3 Look at Connector A and count the wires in Connector A.

If you have Connector A with 7 wires, go to Section 5.1
If you have Connector A with 9 wires, go to Section 5.2
If you have Connector A with 11 wires, go to Section 5.3

5.1 *** Note** In some countries the Connector (A) is black (7-wires).

If you have the T-quick harness, you need to convert it to a Universal harness (see Appendix A)

We recommend that ALL connections are soldered then wrapped with insulation tape.

Cut the **PINK** wire. Now we have

- The **PINK** wire (Switch side) and the **PINK** wire (Motor Side)

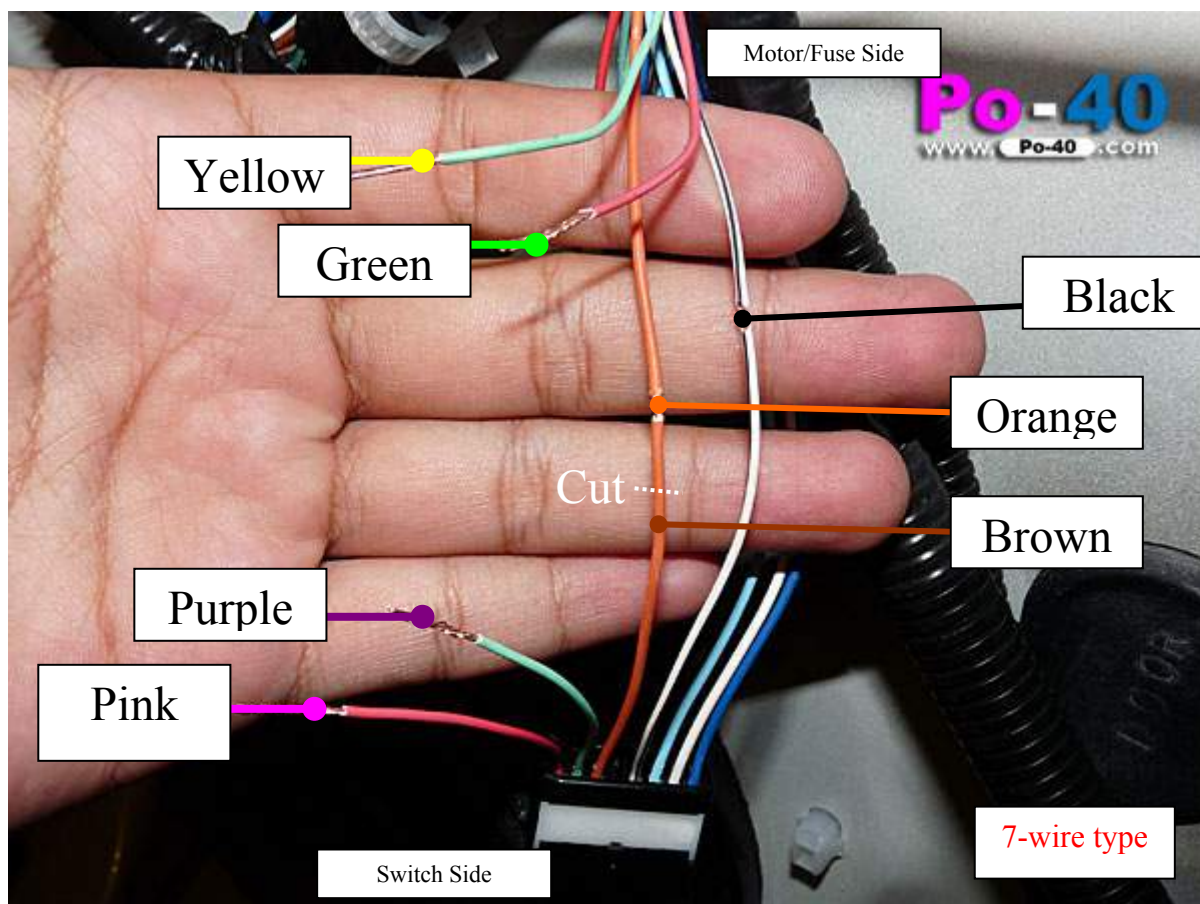
Cut the **Light GREEN** wire now we have

- The **Light GREEN** wire (Switch side) and the **Light GREEN** wire (Motor Side)

Then, follow the connections with reference to the picture **below**:

PINK wire (Switch side)	Solder/Connect to	Pink wire of Po-40 harness
PINK wire (Motor side)	Solder/Connect to	Green wire of Po-40 harness

Light GREEN wire (Switch side)	Solder/Connect to	Purple wire of Po-40 harness
Light GREEN wire (Motor side)	Solder/Connect to	Yellow wire of Po-40 harness



Cut the **ORANGE** wire. Now we have

The **ORANGE** wire (Switch side) and the **ORANGE** wire (Fuse box Side)

Then, follow the connections with reference to the picture **above**:

ORANGE wire (Switch side)	Solder/Connect to	Brown wire of Po-40 harness
ORANGE wire (Fuse box side)	Solder/Connect to	Orange wire of Po-40 harness

Remove/Expose (but do not Cut) the insulator of **WHITE/BLACK** wire of the Connector **(A)**

Splice/Connect	Black wire of Po-40 harness	WHITE/BLACK wire of Connector (A)
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GO TO Section 6

5.2 * Note - In some counties the Connector (A) is white (9-wires).

We recommend that ALL connections are soldered then wrapped with insulation tape.

- If you have the T-quick harness then use the T-quick harness and go to Section 6
- If you have the universal harness continue here

Cut the **BROWN** wire. Now we have

- The **BROWN** wire (Switch side) and the **BROWN** wire (Motor Side)

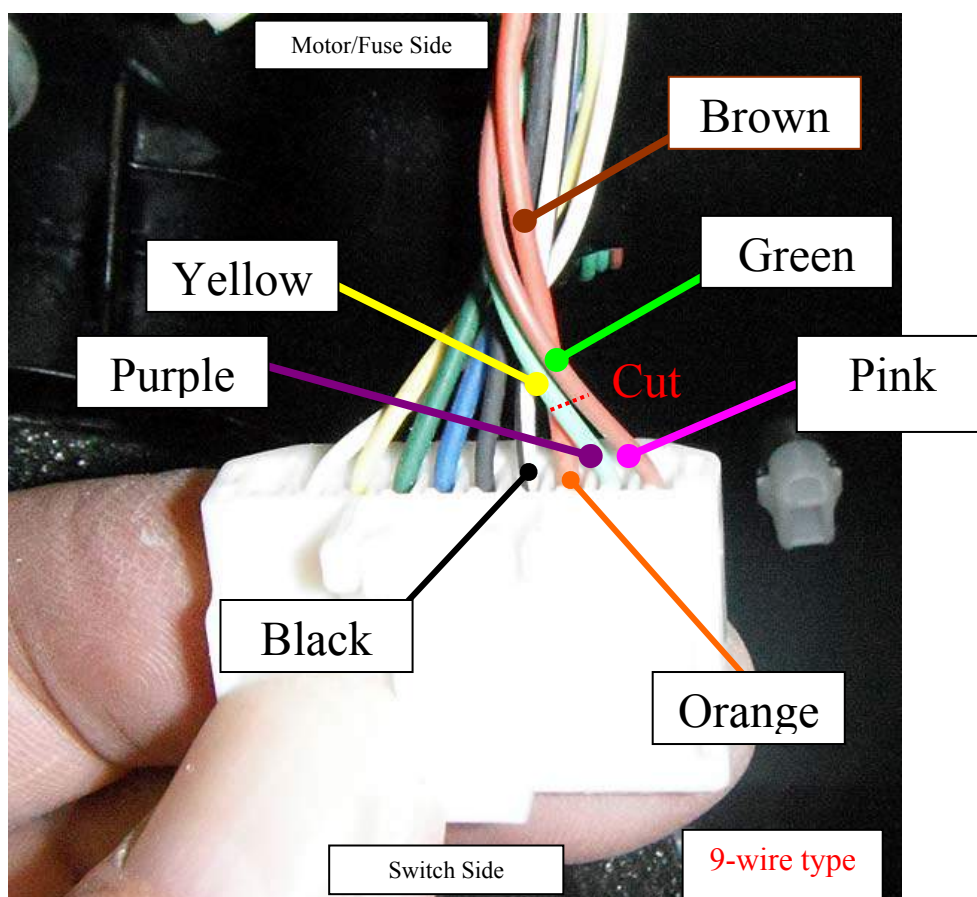
Cut the **Light GREEN** wire now we have

- The **Light GREEN** wire (Switch side) and the **Light GREEN** wire (Motor Side)

Then, follow the connections with reference to the picture **below**:

BROWN wire (Switch side)	Solder/Connect to	PINK wire of Po-40 harness
BROWN wire (Motor side)	Solder/Connect to	GREEN wire of Po-40 harness

Light GREEN wire (Switch side)	Solder/Connect to	PURPLE wire of Po-40 harness
Light GREEN wire (Motor side)	Solder/Connect to	YELLOW wire of Po-40 harness



Cut the **ORANGE** wire and now we have:

- The **ORANGE** wire (Switch side) and the **ORANGE** wire (Fuse box Side)

Then, follow the connections with reference to the picture **above**:

ORANGE wire (Switch side)	solder/connect to the	BROWN wire of Po-40 harness
ORANGE wire (Fuse box side)	solder/connect to the	ORANGE wire of Po-40 harness

Remove the insulator of the **WHITE/BLACK** wire of the Connector **(A)**

Splice/Connect	BLACK wire of Po-40 harness	To	WHITE/BLACK wire of Connector (A)
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GO TO Section 6

5.3 * Note - In some countries the Connector (A) is white (11-wires).

[There is a lamp inside this switch, you can check by turning on the headlamps]

If you have the T-quick harness, you need to convert it to a Universal harness (see Appendix A)

Cut the **BROWN** wire and now we have

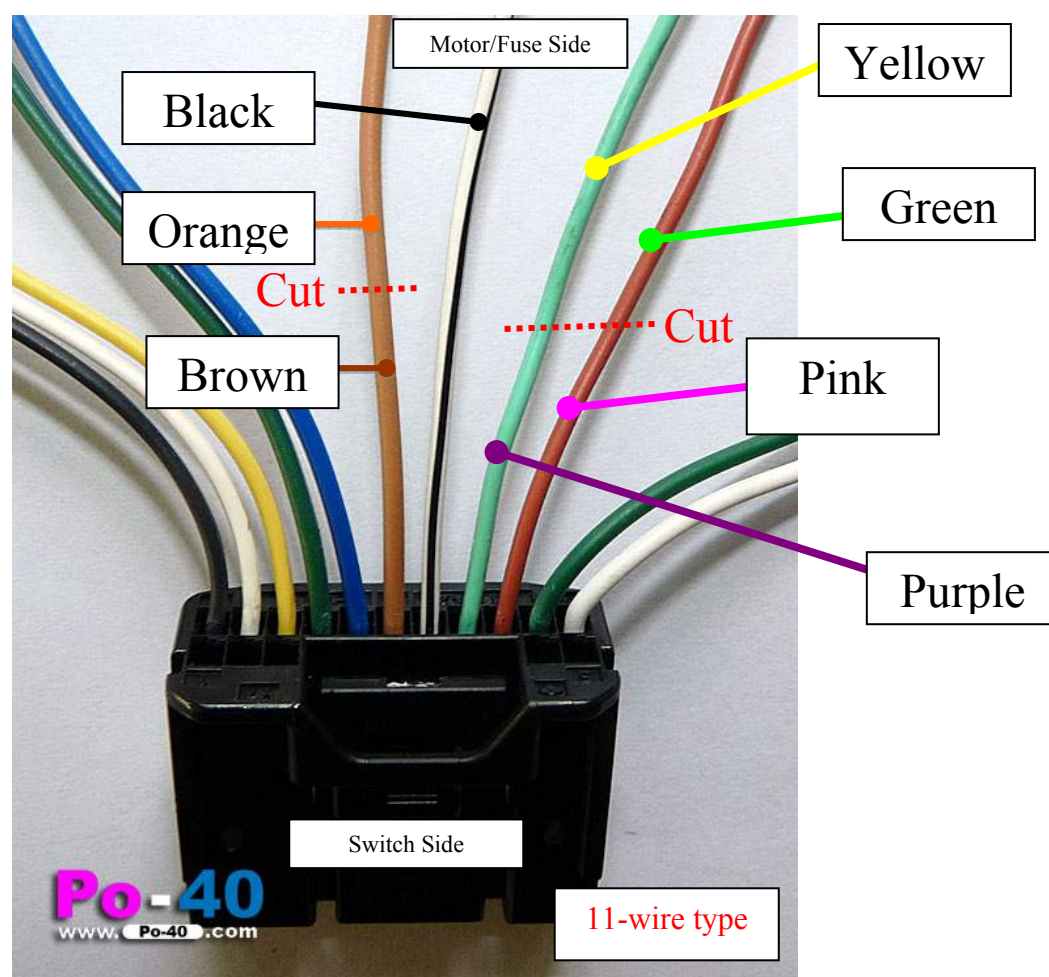
- The **BROWN** wire (Switch side) and the **BROWN** wire (Motor Side)

Cut the **Light GREEN** wire and now we have

- The **Light GREEN** wire (Switch side) and the **Light GREEN** wire (Motor Side)

Then, follow the connections with reference to the picture below:

BROWN wire (Switch side)	solder/connect to the	PINK wire of Po-40 harness
BROWN wire (Motor side)	solder/connect to the	GREEN wire of Po-40 harness
Light GREEN wire (Switch side)	solder/connect to the	PURPLE wire of Po-40 harness
Light GREEN wire (Motor side)	solder/connect to the	YELLOW wire of Po-40 harness



Cut the **Light BROWN** wire and now we have:

- The **Light BROWN** wire (Switch side) and the **Light BROWN** wire (Fuse box Side)

Then, follow the connections with reference to the picture **above**:

Light BROWN wire (Switch side)	solder/connect to the	BROWN wire of Po-40 harness
Light BROWN wire (Fuse box side)	solder/connect to the	ORANGE wire of Po-40 harness

Remove the insulator of the **WHITE/BLACK** wire of the Connector **(A)**

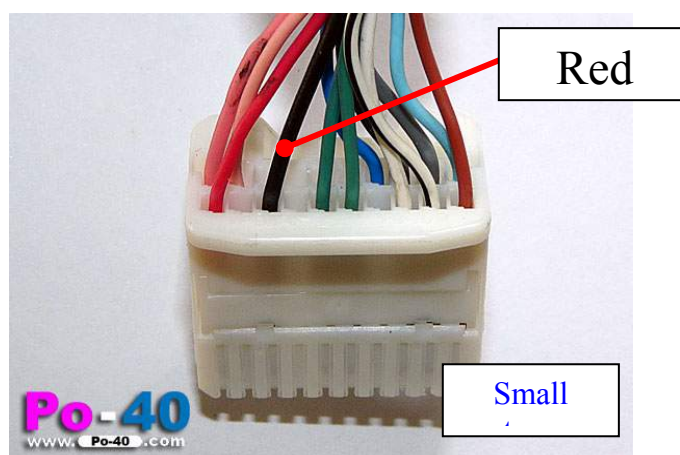
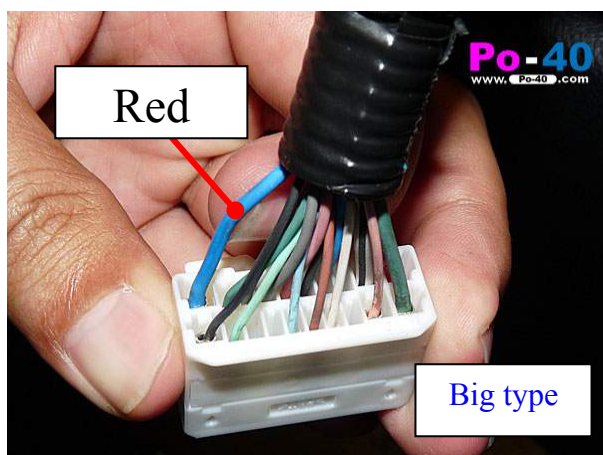
Splice/Connect	BLACK wire of Po-40 harness	to	WHITE/BLACK wire of Connector (A)
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GO TO Section 6

6. Locate the Connector (B), (white Connector)

There are two types of Connector (B),

- The big type [left picture] and the small type [right picture]
- The small type can be found in the IS250 which has 11-wire type Connector (A) only.



Remove the insulator of **BLUE** wire of the Connector (B) [big type Connector]

Splice/Connect	RED wire of Po-40 harness	to	BLUE wire of Connector (B)
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***** **OR alternatively*******

Remove the insulator of **BLACK** wire of the Connector (B) [small type Connector]

Splice/Connect	RED wire of Po-40 harness	to	BLACK wire of Connector (B)
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SPECIAL NOTE: We have been aware that some IS250/350 models 2010 onwards might not have a sufficiently strong supply for the RED wire of the Po-40 harness. We suggest that you can draw a better connection from the BLUE wire at the door Puddle Light.

7. Locate Connector C, (white Connector at back side of driver door – near the door lock).

NOTE: If your car is a European build then please read the section 7.1 before proceeding.

Remove the insulator of the **Light GREEN** (or **RED** - see **NOTE**) wire of the Connector (C)

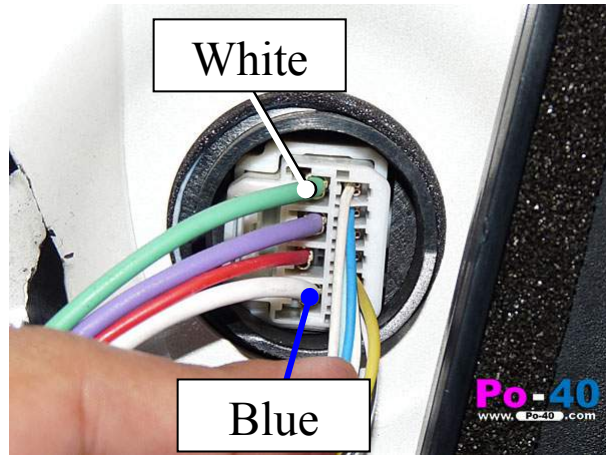
Splice/Connect	WHITE wire of Po-40 harness	to the	Light GREEN wire of Connector (C)
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NOTE: European cars MAY work better Splice/Connect to thick RED wire of Connector (C)

Remove the insulator off the **WHITE** (or **PURPLE** – see **NOTE**) wire of the Connector (C)

Splice/Connect	BLUE wire of Po-40 harness	to the	thick WHITE wire of Connector (C)
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NOTE: European cars MAY work better Splice/Connect to thick **PURPLE** wire of Connector (C)



7.1: Note about European Build Cars: Unverified reports are that the wires in Connector C *MIGHT* have been re-assigned by Lexus. Connector C is the car Central Locking System and the Po-40 module needs a pulse from the Lock wire and a pulse from the UnLock wire from Connector C in order to Fold and UnFold the mirrors.

Our experience has been that the correct wires are as listed above. In other words the white and blue wires from the Po-40 module go to the Connector C light green and white wires.

Using a multi-meter, with one lead going to the car chassis and the other to each of the wires in Connector C, you should be able to isolate the correct wire that fires a pulse when you lock or unlock the car.

Po-40 Wire	Connector C (Recommended)	Connector C (Unverified)
White	Light Green	Red
Blue	White	Purple

Please liaise with Ashpoint Pty Limited if you need to depart from the recommended connections.

7.2: Hint: It is not necessary to connect the Po-40 White and Blue wires at the Connector C. You can track (the tradesman's term is *to chase*) the Connector C Light Green and White wires through the loom and find the same wires closer to the Control box. Make your solder merges there!

Main functions of the Po-40 Control Unit

With key switch OFF and all doors closed

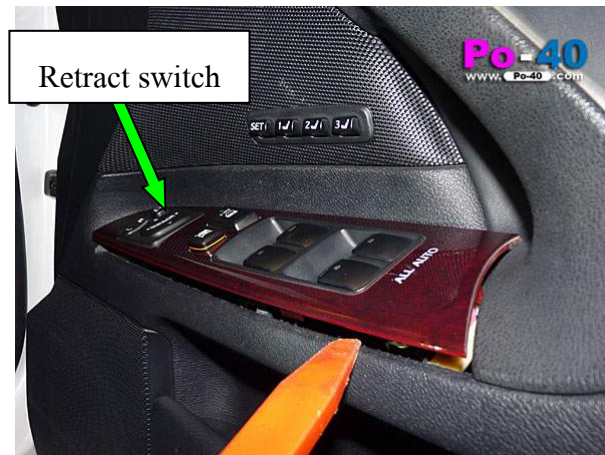
Lock by Remote, key, button on door handle → Mirror Retracts

Unloclk by Remote, key, button on door handle → Mirror Extends

With key switch in the Acc or ON position

Lock / Unlock does not control Mirror to Retract or Extend

But you can Retract/Extend outside mirror by using the Retract switch on driver door panel.



Special functions of the Po-40 Control Unit

1. Lock the car but don't retract the Mirrors

- Key switch off
- close all doors (doors are still unlocked)
- Press Unlock button and then press Lock button on your remote (within 1 second)

2. Unlock the door but leave the Mirror retracted

- come back to the car (doors are still locked)
- Press Lock button and then press Unlock button on your remote (within 1 second)

Now you can enter the car but mirrors are still retracted. They will extend with the key switch in the Acc or ON position.

Note” These special functions are one-time functions and only in the situation where you press Lock and then unlock consecutively or unlock and then lock consecutively, After 5 seconds the control box will automatically reset to normal operation.

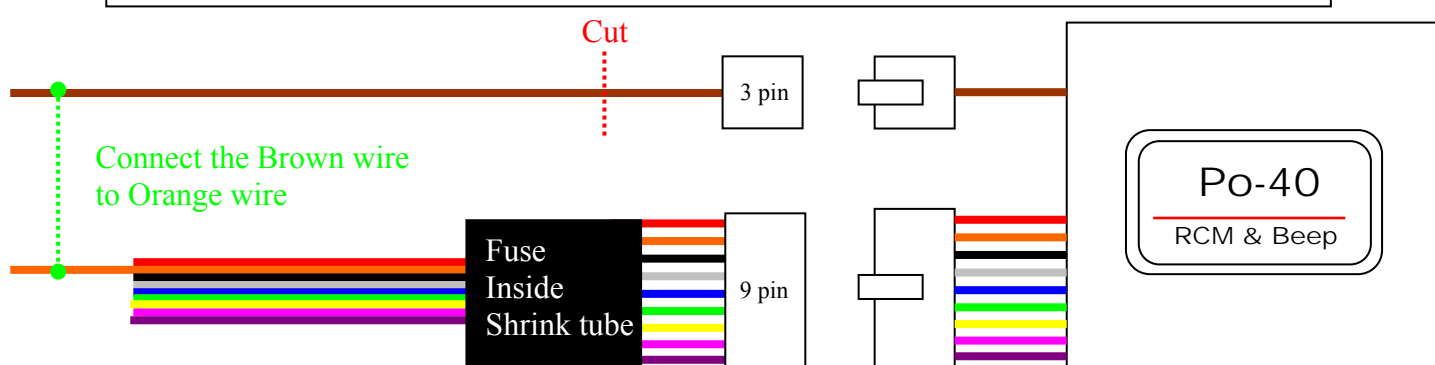
Trouble shooting:

On the harness there is white small fuse box. If you install everything correctly but the control box does not operate, please inspect if the fuse holder is loose or disconnected.

Another option:

If you want the mirror **to never** extend when Unlocked but extend when you turn ignition switch on, please:

- Cut the brown wire of the 3-pin connector
- The Brown wire (control unit side) should be wrapped with electrical tape
- The Brown wire (mirror switch side) should be splice/connected to the Orange wire in the 9-pin connector



Re-Set the Power Window Function

It has been reported that with prolonged disconnection of power, the Auto Open/Close of the windows is lost. To reprogram the Auto Window function:

1. Turn the ignition switch ON.
2. Halfway open the power window by pressing the power window switch.
3. Fully pull up the switch until the power window is fully closed and continue to hold the switch for approx. 5 seconds after the power window is fully closed.
4. Check that the AUTO UP/DOWN function operates normally.

Explanation note:

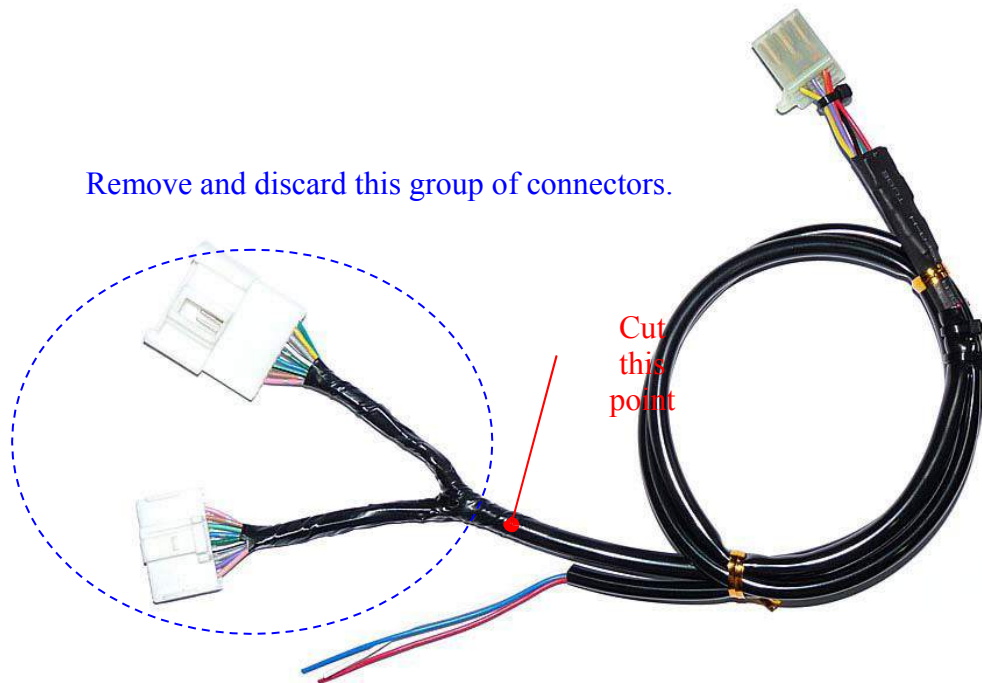
We have tried to make this installation manual as simple as possible. The task is complicated because Lexus has for the IS range (to date):

1. Two colors for Connector A
2. Three styles of Connector A
3. Three styles of Connector B
4. Two possibilities for the Lock function off Connector C

This document is a “work-in-progress” so please advise your recommendations and criticisms.

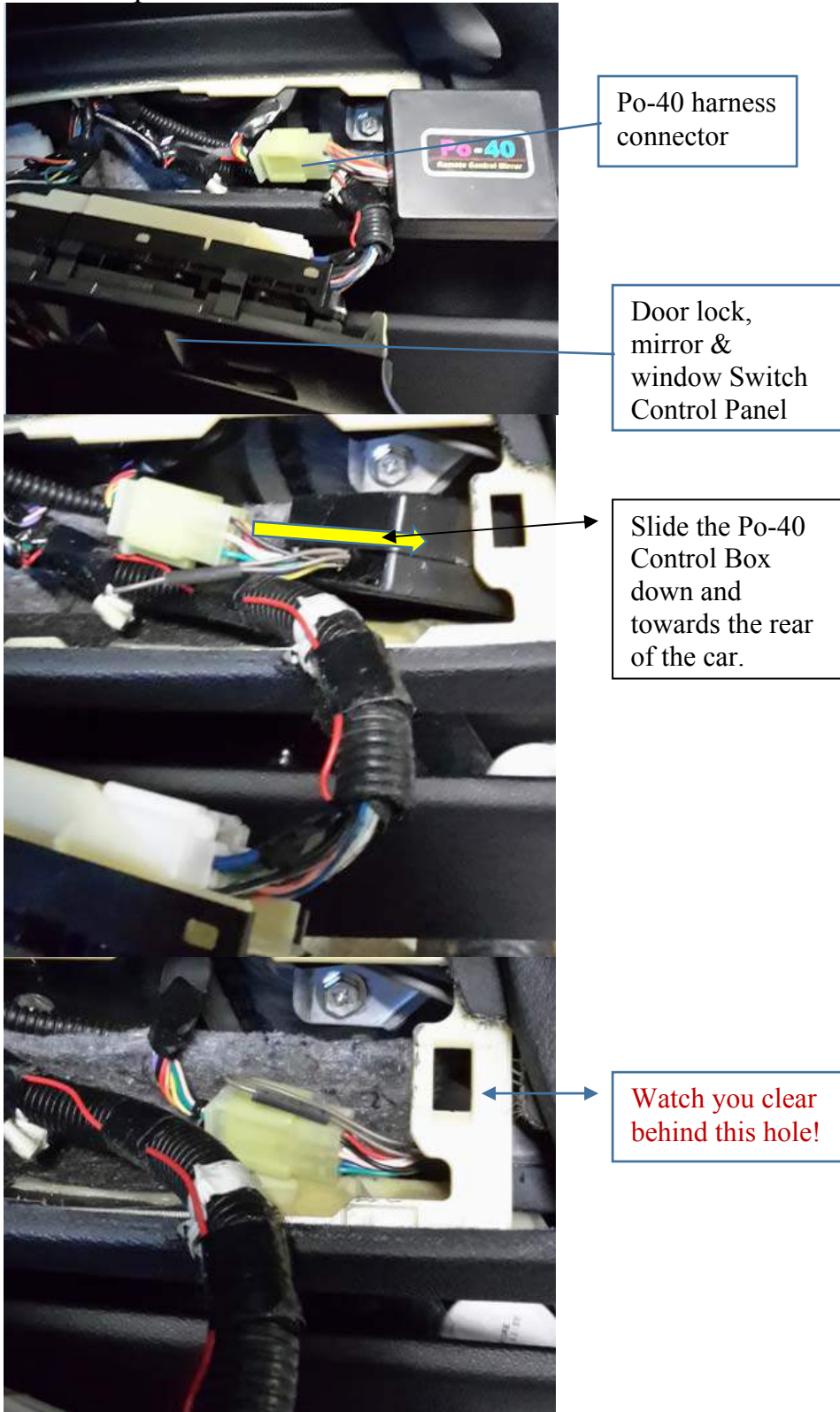
Appendix A:

Convert the **T-quick** harness to a **Universal** harness



Appendix B.

Where to place the control box.



A good spot is the area south of the mirror control panel module. That's effectively underneath the armrest. It is unnecessary to wrap the control box with any bubblewrap or similar. Once positioned the control box is fairly snug and certainly does not rattle