

How to: Nissan Armada/Titan Mirror Swap for the Nissan Frontier/Xterra/Pathfinder

Wiring Diagram and Pictures

Parts List:

1. Nissan Maxima power window switch with the blue circuit board (and the clipped wiring harness if possible)



1. Nissan Frontier/Xterra/Pathfinder power window switch (the clipped harness isn't required but could be useful if you can't get a clipped harness from the maxima switch)



2. Nissan Armada Mirrors from Nissan. Part Numbers:
 - 96302-9FK0A - driver side
 - 96301-9Fk0A - passenger side

- Multiple color wires (I used 16awg)
- Solder or electrical connectors
- Marine waterproof foam (to fill the gap between the door and mirror)
- 6x Washer for m6 stud.
- 6x double ended stud M6x1.0 - 60mm
- 6x M6x1.0 flange nuts

Part 1: Switch Conversion.

You need to unlock the fold in mirror capability on your Nissan by completing the following steps:

1. Place the power switches side by side.



2. pop the backs off each switch. make sure the front of the switch is facing down as you don't want to lose where the contacts sit in the tracks. There is four tabs, 2 on each side. Use a small screwdriver or pick set to pry loose the tabs. (Maxima left, Frontier right)



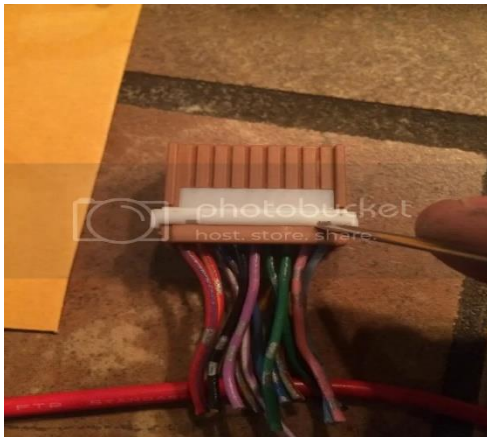
3. Take out the D pads on the Maxima switch and the Frontier/Xterra/Pathfinder switch. Maxima has 6 pads, Frontier/Xterra/pathfinder has 4.



4. swap the Frontier/Xterra/Pathfinder D pad (6 contact pad) into the Maxima switch housing.
5. Snap the Frontier/Xterra/Pathfinder circuit board into the Maxima switch housing.
6. Re-place the back-plastic cover onto the maxima switch housing.
7. The Nissan Maxima switch is now a plug and play system with your Nissan Frontier/Xterra/Pathfinder.
8. Reinstall the switch back into the vehicle.

Part 2: Adding additional wires to the factory harness for folding mirror capabilities.

1. If you look at the harness for the Frontier/Xterra/Pathfinder mirror switch, you will see 4 spots in a row where there are no wires. These 4 spots need wires tapped into them to unlock folding mirror capabilities. If your maxima switch came with a clipped harness excellent. If it did not, use a clipped harness from a Frontier/Xterra/Pathfinder switch.
2. If you have a Harness from the Maxima:
 1. Pop the white piece off.

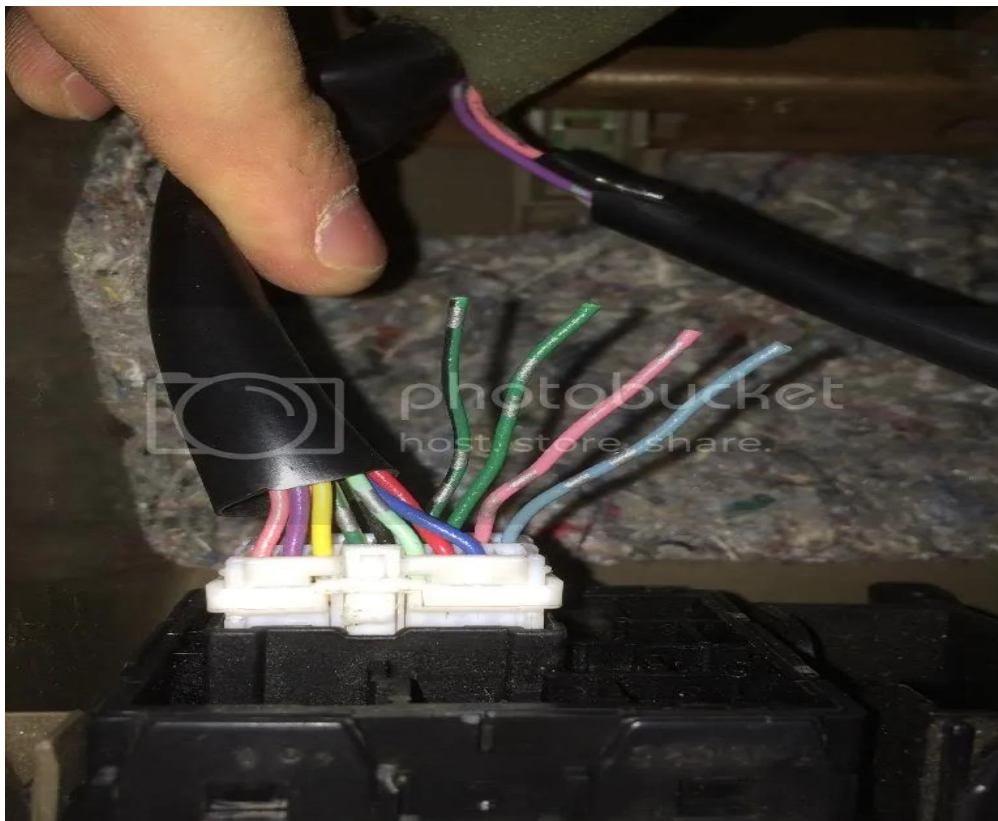


2. Remove the following Wires from the harness (you can use any color wires you want tbh, but these colors are most commonly used)
 - Light Blue
 - Pink
 - Green with Black Stripe

- Green

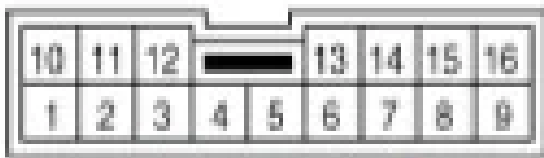


3. Take the 4 wires and install them into the harness inside your Frontier/Xterra/Pathfinder in this order.



Part 3: Wiring Schematic for the Mirror Conversion.

The Nissan Armada/Titan Mirrors will use 16 total wires on each Mirror. Unfortunately, these 16 wires are all black. To Identify the purpose of each wire and its function, we will reference their pin number on the Armada/Titan mirror connector.



Armada mirror harness

Functions of each wire based on pin numbers:

- Pin 1. up and down
- Pin 2. Right and left
- Pin 3. Ground
- Pin 4. Folding (open)
- Pin 5. ?? connected to backup lamp/exterior light system. I assume ADC system from armada
- Pin 6. Ignition switch
- Pin 7. Backup lamp (exterior light system)
- Pin 8. Ground
- Pin 9. Folding close
- Pin 10. Heated + to IPDM
- Pin 11. Ground for Turn signal and heated mirror
- Pin 12. Puddle lamp to battery saver #56 in M20
- Pin 13. Puddle lamp to interior room lamp at #63 at M20
- Pin 14. Auto dimming ground??
- Pin 15. Turn signal to #60 at M20 (LEFT side) and to #61 at M20 (right side)
- Pin 16. Auto dimming +

For the purposes of this project, Pins 5,6,7,12,13,16 will not be used. These pins are mainly used if the vehicle is equipped with a seat position system that is set by positions 1 and 2. My vehicle is not equipped with such system.

To wire the Armada Mirrors to your Nissan Frontier/Xterra/Pathfinder, here is the Armada wire to Frontier/Xterra/Pathfinder wire connection table:

Armada Mirror Wire	Front/Xtra/Path Wire	Wire Function
#1	Blue Wire on the factory mirror connection (both sides)	Up and Down
#2	Yellow Wire on the factory mirror connection (both sides)	Left and Right
#3	Purple Wire on the factory mirror connection (both sides)	Ground
#4	Right side Mirror needs to connect to the pink wire on the mirror switch. The left side mirror needs to connect to the green wire located on the mirror switch.	Fold Open

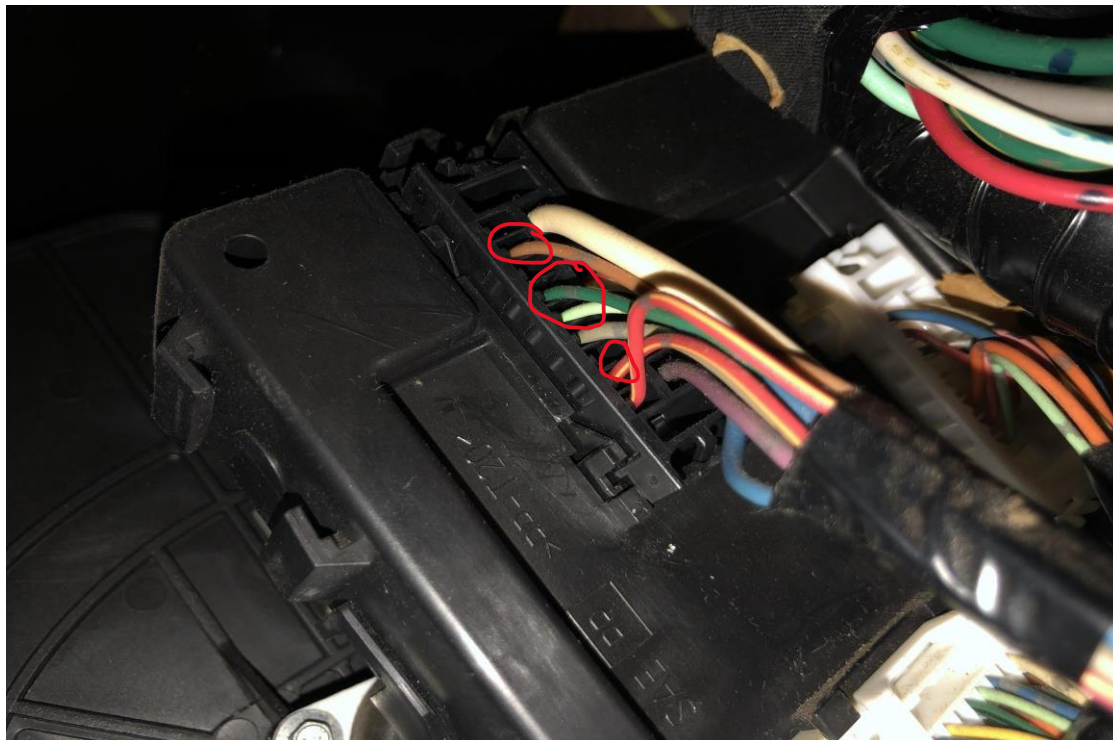
#5	NA	NA
#6	NA	NA
#7	NA	NA
#8	NA	NA
#9	Right side Mirror needs to connect to the green with black stripe wire on the mirror switch. The left side mirror needs to connect to the light blue wire located on the mirror switch.	Fold Close
#10	Install a separate switch and relay for heated mirrors. If doing this method, connect this wire to the #87 pin on the relay.	Heat Mirror +
#11	Ground both wires to a bare metal surface.	Ground
#12	Run both wires to the BCM underneath the driver side kick panel. Connect both wires to the red striped yellow wire.	Puddle Lamp Battery Saver
#13	Run both wires to the BCM Brown Wire underneath the driver side kick panel.	Puddle Lamp to Interior Dome Light

	Connect both wires to the brown wire.	
#14	Ground both wires to a bare metal surface.	Ground
#15	Connect the Left Side Mirror to the light green wire at the BCM or the turn signal wire at the headlight. Connect the Right-side mirror to the green wire at the BCM or the turn signal wire at the headlight.	Turn Signal left and right
#16	NA	Auto Dimming +

BCM PICTURES:

BCM
Conn M20

Term	Color	Item	Condition	Voltage
56	V	Battery saver (Int lamp)	Batt saver on Batt saver off	12 0
57	R/Y	Power source (BAT)	-	12
58	W	Optical sensor	Signal	
59	GR	Front LH door unlock	unlock depressed	12
60	LG	Turn signal LH	LH turn signal on Doors locked or unlocked using keyfob	pulsed 12
61	G	Turn signal RH	RH turn signal on Doors locked or unlocked using keyfob	pulsed 12
62				
63	BR	Room lamp	lamp on (lamp SW in door position and door open) lamp on (lamp SW in door position and door closed)	0 12
64				
65	V	All doors lock	lock depressed	12
66	L	All doors (except FR-LH) unlock	unlock depressed	12
67	B	Ground (power)	-	0
68	O	RAP signal (Power Windows?)	IGN On within 45 sec of IGN off after 45 sec of IGN off door opened when RAP is on	12 12 0 0
69	P	Power Window PWR (Sun Roof)	-	12
70	W	Power source (BAT)	-	12



The BCM is located underneath the kick panel and above the gas pedal