Ford Police Interceptor Utility Vehicle

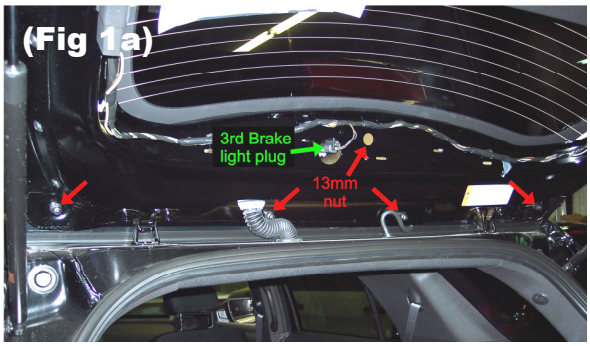
TOOLS NEEDED

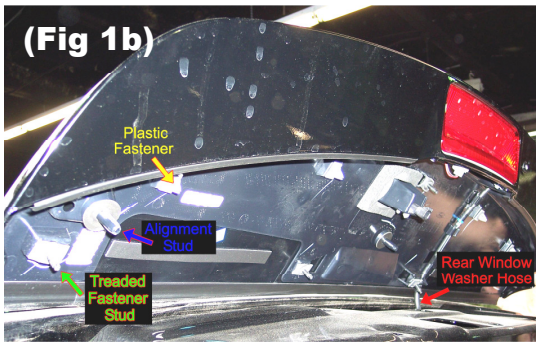
- ✓ 13 MM Twelve Point Deep Socket
- ✓ Socket Wrench Extension
- ✓ Socket Wrench
- ✓ Hand Drill or Cordless Drill
- ✓ Phillips Head Screwdriver
- ✓ Measuring Tape or Ruler
- ✓ Grease Pencil (White or Black)
- ✓ 1/8” Alan Wrench
- ✓ 3/32” Drill Bit
- ✓ Step Drill Bit (1/4” to 3/4”)
- ✓ Small Tie Wraps
- ✓ 3/8” x3” Heat Shrink
- ✓ Razor Knife
- ✓ Dremel with Plunge Bit
- ✓ Center Punch

Step #1

Removing the rear wing (spoiler)

- To remove the wing from the rear hatch, use the 13 MM twelve point deep socket and socket wrench extension to loosen and remove five (5) nut fasteners from the wing. The 13 MM nuts will be hand tight and do not require a socket wrench to be removed.
- Unplug the third brake light. (Fig 1a)
- From the outer edge of the wing, lift the wing upward. It may require extreme force and sometimes two to lift the wing from the hatch. The wing has six (6) plastic fasteners that are not accessible until the wing is removed. In some instances the plastic fasteners can break and are required to be replaced or the wing will not re-install properly.
- Once the wing has been separated from the hatch and before it is completely removed, disconnect the rubber hose for the rear window washer. (Fig 1b)

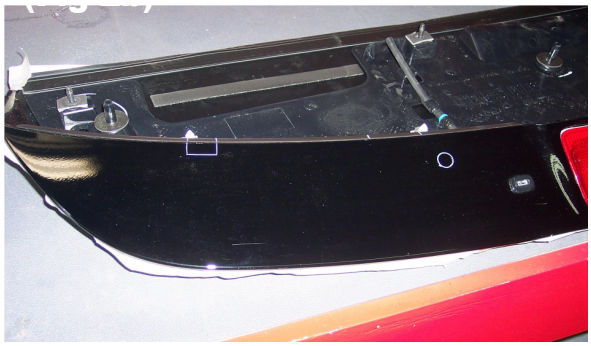




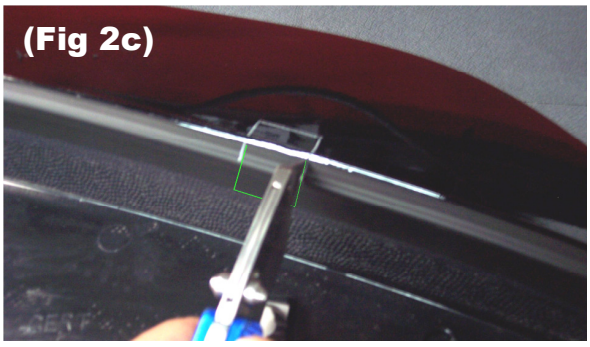
Step #2

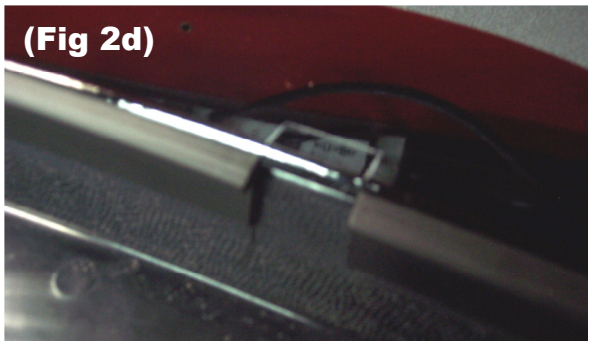
Wing (spoiler) Prep

- Using the template, align the outer edges of the template to the outer edges of the wing. (Fig 2a)
- Mark all necessary one (1) ¾" holes and two (2) square hole with well identifying marks. (Fig 2b)
- Repeat on the other side.

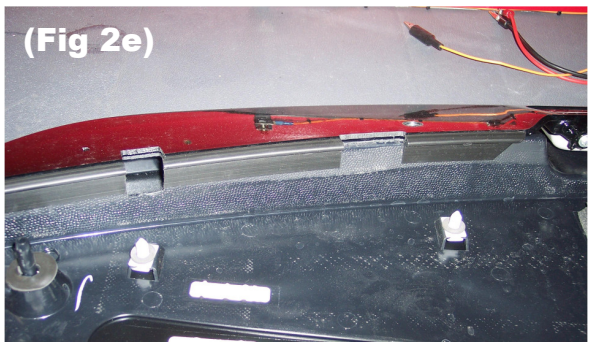


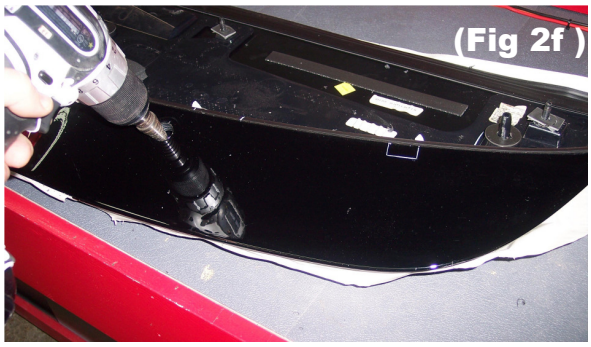
- Using a sharp razor knife, cut and remove the rubber gasket. (Fig 2c & Fig 2d)
- Repeat on the other side.

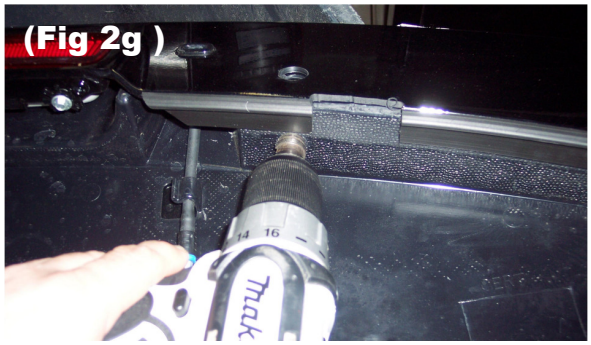


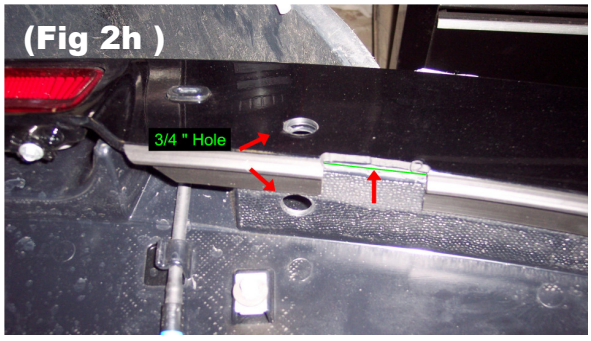


- Using the Dremel with the plunge bit, on the small square located on the outside of the wing, plunge and cut the marked area completely out. (Fig 2e)
- On the long square, located on the inside of the wing, plunge and cut **only** through the first layer of plastic from the edge to the marked area. (Fig 2h)
- Drill two (2) ¾" holes. Drill the first hole in the marked area on top of the wing. Drill the second hole in line with the marked hole just below the rubber gasket line (Fig 2f & Fig 2g)
- Repeat on other side.









Step #3

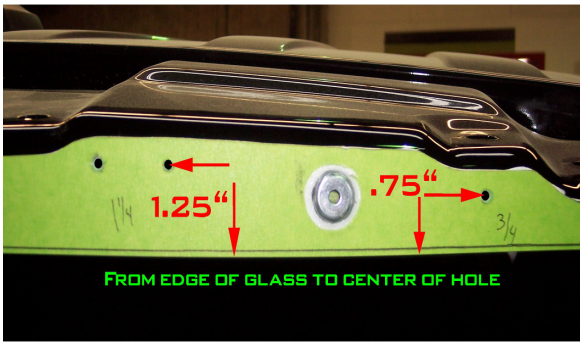
Vehicle Hatch Prep

- Using template, (Fig 3a)
- Center the template with the hatch. (Fig 3b)

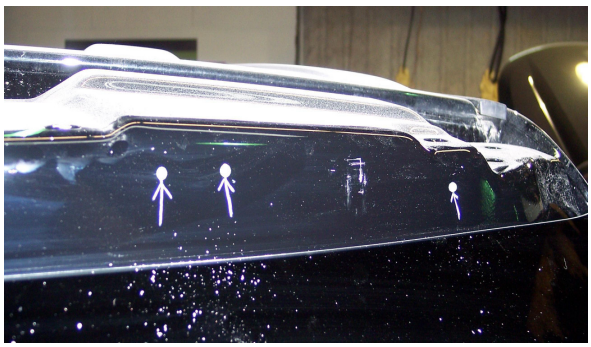
(Fig 3a)

(Fig 3b)

- Measure up from the glass to the center of inside holes 1.25” (Fig 3c)
- Measure up from the glass to the center of outside hole .75” (Fig 3c)
- Repeat on the other side
- Mark six (6) holes to be drilled (Fig 3d)

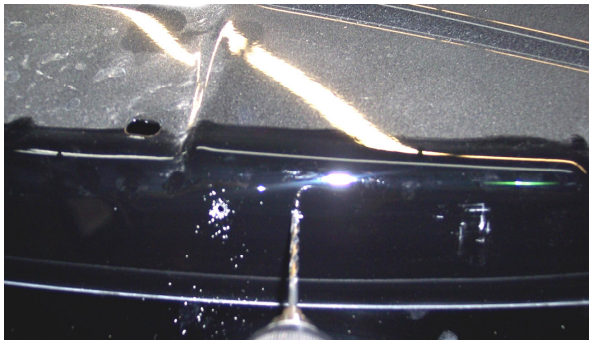


(Fig 3c)

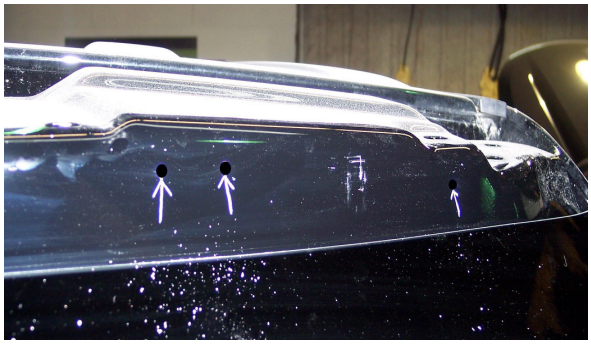


(Fig 3d)

- Center punch marked holes to be drilled
- Drill marked holes with a 3/32 drill bit

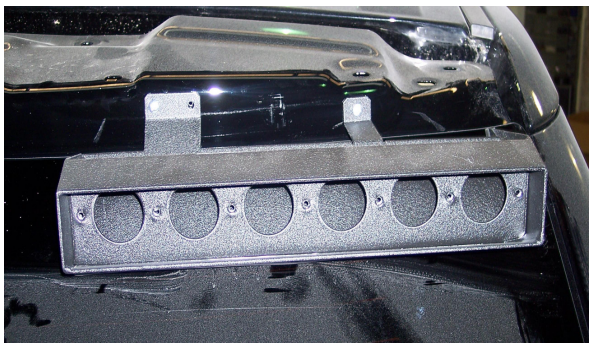


(Fig 3e)

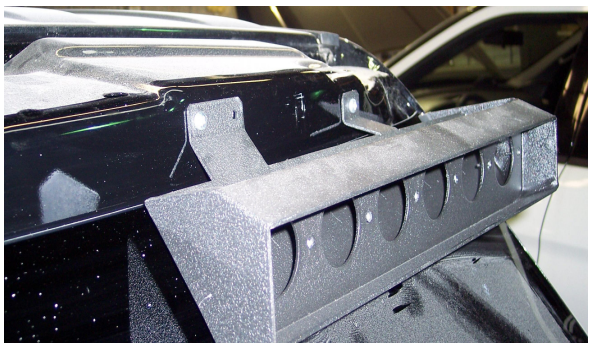


(Fig 3f)

- Place rubber u-channel (supplied) on edges of Tomar housing to prevent rattling against the glass. See finished product view (Fig 5c on page 9)
- Attach Tomar housing to hatch using #10 Philips head stainless steel screws (not supplied). (Fig 3g & Fig 3h)



(Fig 3g)



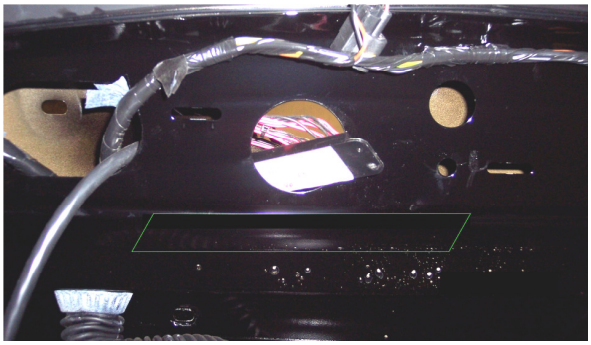
(Fig 3h)

Step #4

Installation of Flash Module

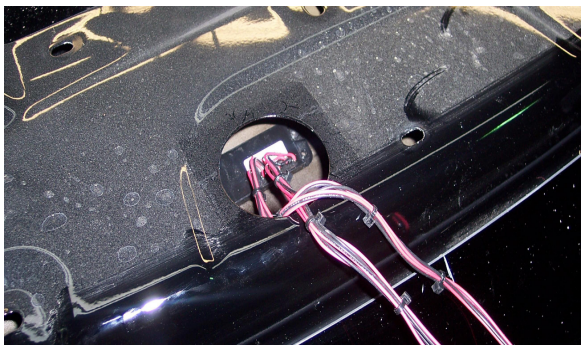
- Installation of the *LSTICK-CONT-SP6* six head flash module (Fig 4a)
- Route the flash module thru the large hole in the underneath of the hatch and secure to the flat area located just beneath the large opening (Fig 4b).

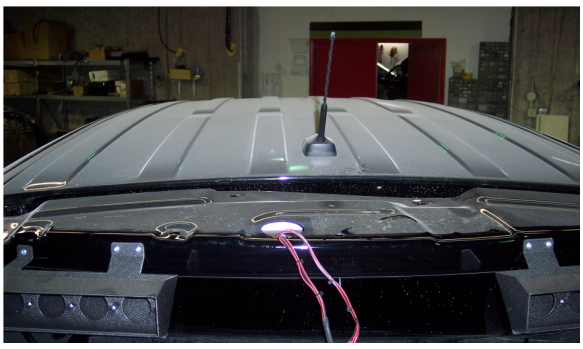
(Fig 4a)



(Fig 4b)

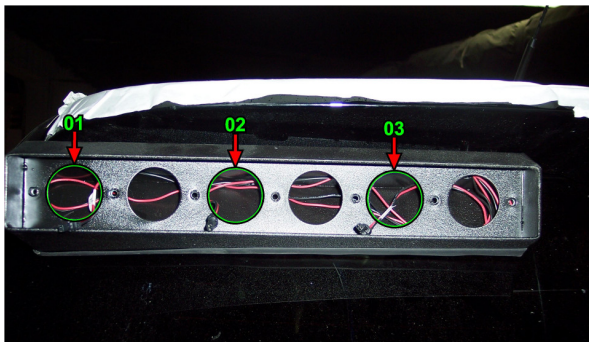
- Separate Red and Black wires labeled 01, 02, and 03 and zip tie them together.
- Separate Red and Black wires labeled 04, 05 and 06 and zip tie them together.
- Route the Red and Black wires labeled 01 thru 06 thru the top of the hatch. (Fig 4c & Fig 4d).
- Route the large multi strand wire thru the boot in the rear hatch into the cab of the vehicle and to the necessary switching area.



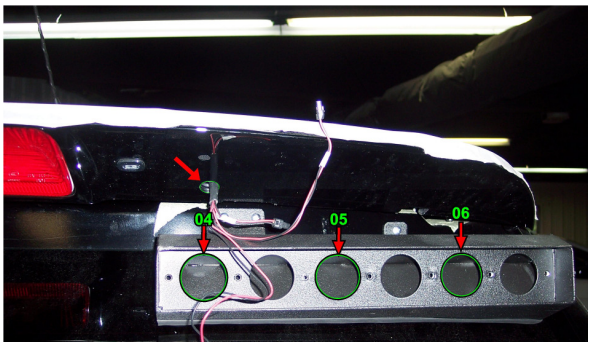


(Fig 4c) **(Fig 4d)**

- Route wires labeled 01, 02 and 03 thru the holes previously drilled into the *left* side of the wing and apply heat shrink to wires that are exposed between the wing and Spider housing. See Fig 4e.
- Route wires labeled 04, 05 and 06 thru the holes previously drilled into the *right* side of the wing and apply heat shrink to wires that are exposed between the wing and Spider housing. See Fig 4f.
- Route right side wires thru the Spider housing to the corresponding locations as marked in Fig 4f. Repeat for the left side as shown in Fig 4e.
- Re-attach wing to hatch and re-secure with factory fasteners. Use the13 MM deep socket with socket wrench and extension. Slightly tighten fasteners carefully not to over tighten. (*Remember fasteners are just hand tight from the factory*)



(Fig 4e)

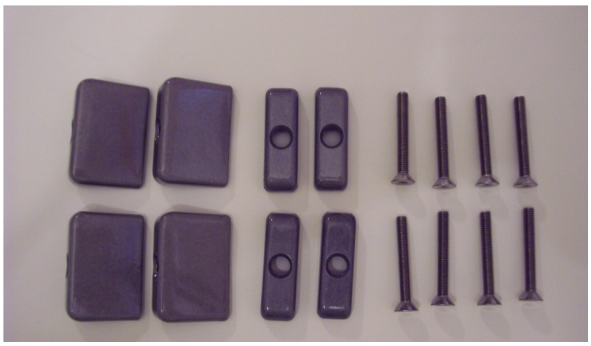


(Fig 4f)

Step #5

Installation of LED Modules

(Fig 5a)



(Fig 5b)

- Plug in each LED module to the corresponding wire from the flash module.
- Using hardware kit and a 1/8” Alan wrench, place each LED module into its designated place and secure with #10-32x1.5” hex socket screws. (Fig 5c)

(Fig 5c)

Step #6

Wiring

Red	+12Vdc
Black	Ground
Orange	Warning Mode 1
Blue	Warning Mode 2
Orange & Blue	Warning Mode 3
Brown/White	Left Arrow
Red/White	Right Arrow
Red/White & Brown/White	Center Out
Brown	N/A
Green	Intensity Control

PROGRAMMING INSTRUCTIONS

Entering Programming Mode:
To activate the L-Stick programming mode, connect the BLACK Wire to ground then simultaneously attach the GREEN wire and the RED wire to +12 Vdc.

Changing Warning Patterns and Flash Rates:
Three unique warning patterns can be selected using the ORANGE and BLUE mode selection wires. See example below:

ORANGE WIRE = Warning Mode 1
BLUE WIRE = Warning Mode 2
ORANGE & BLUE WIRE = Warning Mode 3

To change the warning mode, attach the wire(s) corresponding to the mode to be changed to +12Vdc. Tap the Red/WHITE wire to +12Vdc to advance the flash pattern. See the list of available flash patterns below.

A unique flash rate can be assigned to each warning mode. To change the flash rates enter the programming mode as described above. Move the green wire from +12Vdc to Ground. Tap the BROWN/WHITE wire to +12Vdc to advance the flash rate. See the list of available flash rates below.

Changing Traffic Direction Patterns and Flash Rates:
To change the Traffic Direction pattern, activate the L-Stick programming mode by connecting the BLACK Wire to ground then simultaneously attach the GREEN wire, RED/WHITE wire and the RED wire to +12 Vdc. Tap the BROWN wire to +12Vdc to advance the flash pattern. See the list of available Traffic Direction patterns below.

A unique flash rate can be assigned to the Traffic Direction mode. To change the flash rates enter the programming mode as described above. Move the green wire from +12Vdc to Ground. Tap the BROWN wire to +12Vdc to advance the flash rate. See the list of available flash rates below.

FLASH PATTERNS, WARNING MODES (All Versions):

1. OFF
2. COMBINATION ** *DEFAULT SCROLL FLASH*
3. INBOARD OUTBOARD
4. LEFT RIGHT
5. ALTERNATE
6. RANDOM
7. SINGLE OUTBOARD
8. DOUBLE OUTBOARD
9. SINGLE INBOARD
10. DOUBLE INBOARD
11. SWEEP

FLASH RATES (All Versions):

1. SINGLE FLASH
2. DOUBLE FLASH
3. NEOBE FLASH
4. SCROLL FLASH WARNING PATTERNS

FLASH PATTERNS, TRAFFIC DIRECTION MODES:

10 Channel Versions

1. 8 ELEMENT ARROW TRAIL, WARNING LAMPS OFF
2. 8 ELEMENT ARROW FILL, WARNING LAMPS OFF
3. 8 ELEMENT ARROW TRAIL with 2 Warning (SINGLE OUTBOARD) ALTERNATING

4. 8 ELEMENT ARROW FILL with 2 Warning (SINGLE OUTBOARD) ALTERNATING
5. 8 ELEMENT ARROW TRAIL with 2 Warning (SINGLE OUTBOARD) SIMULTANIOUS
6. 8 ELEMENT ARROW FILL with 2 Warning (SINGLE OUTBOARD) SIMULTANIOUS

6 Channel and Dual Color Versions

1. 6 LED TRAIL ARROW *** *DEFAULT SINGLE FLASH*
2. 6 LED FILL ARROW