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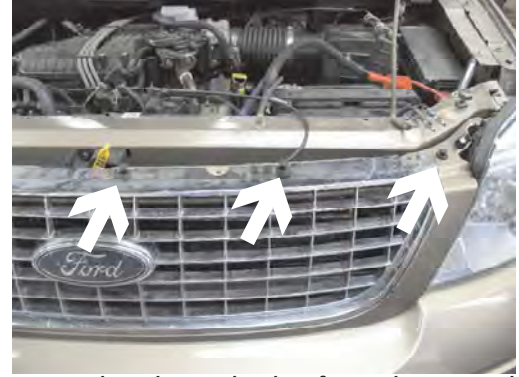
BX2178 Installation Instructions 2005 Ford Freestar

Serial No.

The headlight assembly, front fascia, horn bracket and windshield washer reservoir are removed for base plate installation. Drilling is required. Trimming on back side of fascia and frame is required. The bulb and socket wiring kit (BX8869) is available for the vehicle. Attachment Tabs are 24 inches center to center and a height of 15 1/4 inches.



1. Remove the eight push pins from black plastic cover on top side of fascia, the driver's side shown, lift cover and set aside.



2. Remove the six push pins from the top edge of fascia between headlight assemblies, the driver's side shown.



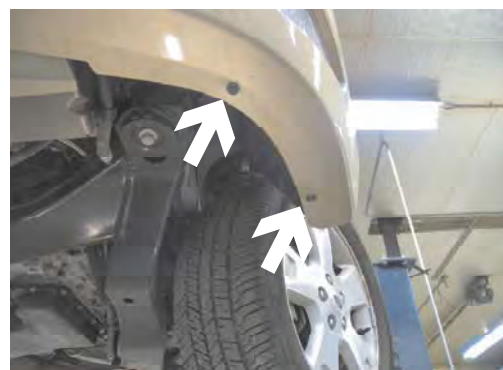
3. Remove the two phillips screws just forward of the front tire, on fascia and wheel well edge with the phillips screw driver, on both sides.



4. Pull the two clips straight up just behind headlight assembly, pull forward, unplug electrical and set aside, on both sides.



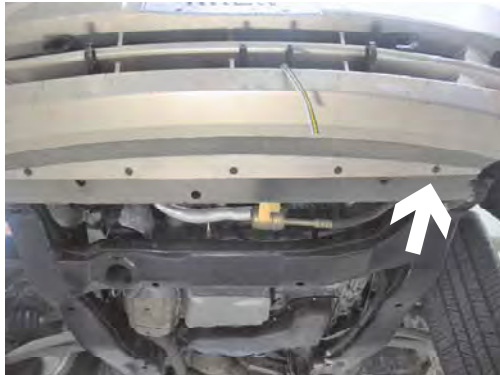
5. Just behind headlight assembly inside fender and fascia's corner are two metric bolts to remove with the 7MM socket, on both sides.



6. Remove the two phillips screws just forward of the front tire, on lower edge of fascia with the phillips screw driver, on both sides.



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7. Remove the eight push pins from the top side of fascia.



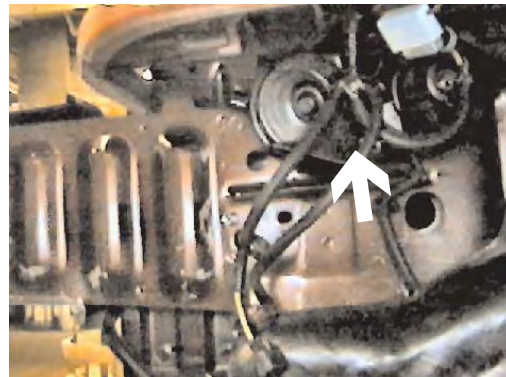
8. Push retainer clip down to release front fascia just below headlight assembly on both sides, pull forward, disconnect electrical and set fascia aside.



9. Using the 8MM socket, remove two metric bolts from radiator reservoir on the passenger side of engine compartment and pull unit away from side wall. Remove the metric bolt on the side wall and just under radiator reservoir with the 8MM socket.



10. Remove the metric bolt from washer reservoir on the edge of frame webbing with the 8MM socket on the passenger's side, unplug electrical and fluid line, pull reservoir down and set reservoir aside.



11. Remove the metric bolt from the driver's side horn bracket using the 8MM socket, pull horn and bracket out of the way for base plate installation.

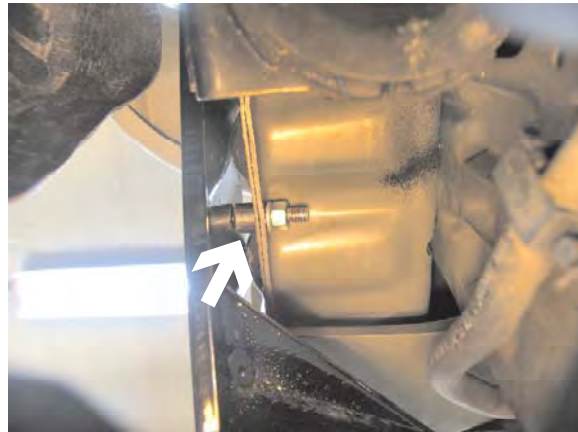
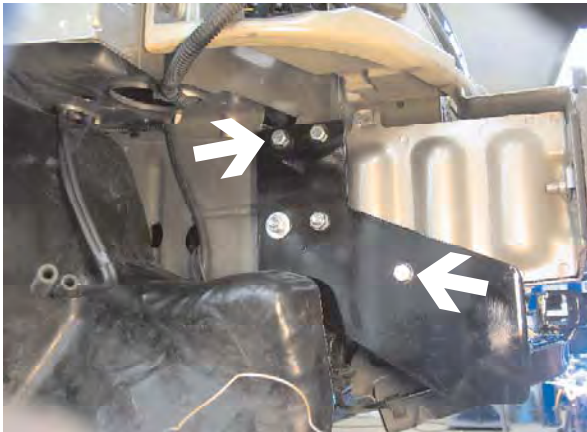


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12. Cut and remove webbing flush with the side of frame rail just behind metal bumper with the hack saw or reciprocating saw, both sides, as shown in photo to the right.



13. Insert the two bolt plates into hole on the side of frame rail (Right arrow), to align with existing holes in frame (Left arrow) align lower holes of spacer plate and insert bolt plates, on both sides. Slide base plate into place to align with mating spacer plate holes and insert bolt plates through base plate (Driver's side is shown in photo to the left). While maintaining a level position with removable attachment tabs, tighten 3/8" hex nut, flat washer and lock washer, according to drawing on last page, on both sides. **Be sure to use Loctite red on all bolts before tightening. Tighten all bolts according to Torque Chart in General Instruction Sheet.**



14. Using the base plate as a template, drill three remaining holes into webbing on the top and lower edge of frame with the 13/32" drill bit, on both sides. Insert 3/8" hex bolts into the two upper base plate holes and drilled holes of frame webbing. Tighten 3/8" hex nuts and lock washers, on both sides, according to drawing on last page, shown in left photo. Place the 1/2" pipe between the base plate's lower front hole and drilled hole in frame webbing. Insert 3/8" hex bolt into the lower front base plate hole, 1/2" pipe and drilled holes of frame webbing, tighten 3/8" hex nuts and lock washers, on both sides, according to drawing on last page, shown in right photo. **Be sure and use Loctite red on all bolts before tightening. Tighten all bolts according to Torque Chart in General Instruction**



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15. Using the 9/32" drill bit, drill out the front mount hole for washer reservoir, located on the upper frame webbing just forward of base plate. Reinstall the two bolts just below radiator reservoir for the washer reservoir. Insert 1/4" hex bolt into 1/4" flat washer, forward washer reservoir hole, 1/4" flat washer, spacer tube, drilled hole, 1/4" flat washer, tighten lock washer and hex nut, photo to the left. **Be sure and use Loctite red on all bolts before tightening. Torque all bolts according to torque chart in General Instructions.**



16. Hold fascia to its original position, trim if needed on back side of fascia. **Do not remove horizontal style in lower fascia opening.** Attachment tabs will come through the upper opening, as shown in photo below. Reinstall horn bracket, fascia and headlight assemblies. **Be sure all electrical components and fluid hoses are plugged in properly.**

17. The dimensional variations between otherwise identical cars can be considerable. While the base plate was designed for easy installation, it may be necessary to tailor the base plate slightly to compensate for auto manufacturers' tolerances. These minor adjustments may include filing a hole slightly, bending electrical rods, adding shims and/ or bending end plates.

18. Install the tow bar and safety cables according to the instructions included in their packages.

19. Do **not** substitute other devices if the tow bar pin and clip are lost.

20. **DEALER OR INSTALLER: BE CERTAIN THE USER RECEIVES THE INSTRUCTION SHEET.**





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Tools Required

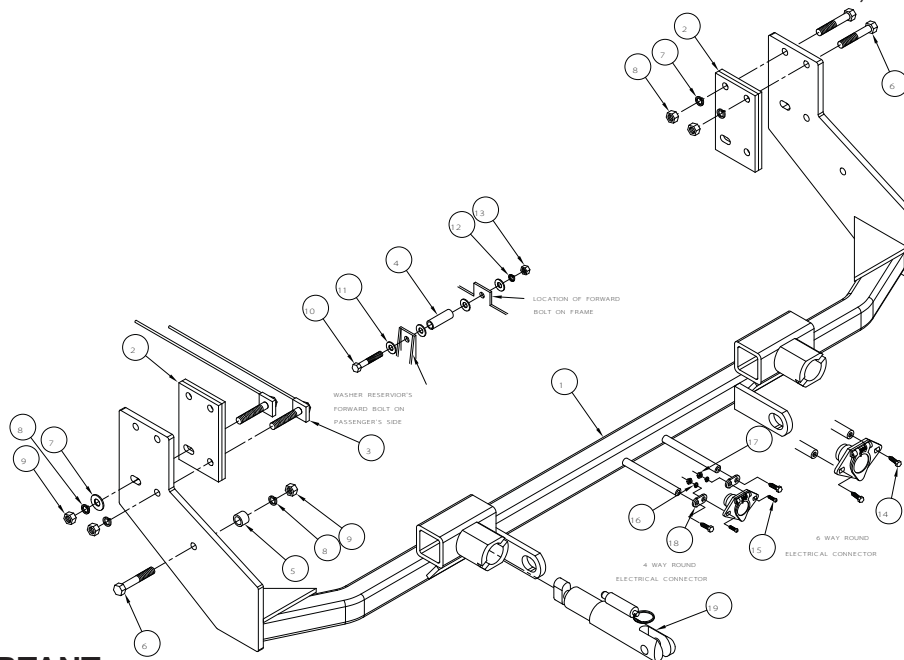
8MM Socket
9/32" Drill Bit
Phillips Screw Driver

7/16" Socket
Loctite Red
Utility Knife

9/16" Socket
13/32" Drill Bit
Hack Saw or Reciprocating Saw

Parts List

Ref. No.	Qty.	Part No.	Description
1	1	61-6139	Weldment, Base Plate, BX2178
2	2	61-5987	Weldment, Spacer Plate BX2171
3	4	61-5988	Weldment, 3/8-16 Bolt Plate, w/ 14" Wire
4	1	106-0369	Pipe, 3/8" Sch 40 x 1 1/2"
5	2	106-0368	Pipe, 3/8 Sch 40 X 1/2 Inch
6	6	201-0444	3/8-16 x 2 Hex Bolt, Grd. 5, ZP
7	2	203-0003	3/8" Flat Washer, ZP
8	10	203-0010	3/8" Lock Washer, ZP
9	10	202-0003	3/8-16 Hex Nut, ZP
10	1	201-0321	1/4-20 x 2 1/2" Hex Bolt, Grd. 5, ZP
11	4	203-0001	1/4" Flat Washer, ZP
12	1	203-0008	1/4" Lock Washer, ZP
13	1	202-0001	1/4-20 Hex Nut, ZP
14	2	201-0553	1/4-20 x 1/2 Hx. Wshd, Type F Screw, ZP
15	2	201-0192	#10-32 x 1/2 Slot, Rd. Hd. Screw, ZP
16	2	203-0054	#10 Lock Washer, ZP
17	2	202-0047	#10-32 Hex Nut, ZP
18	2	101-5822	Adapter, 4 Way Connector, ZP
19	2	62-3468	Attachment, Assembly, SF/ SB (R)
	2	226-0046	Baseplate Safety Cable, 36" CL III (Not Shown)
	2	229-0359	Quicklink, 3/8, ZP (Not Shown)
	2	290-0437	Receiver, Cap Plug (BLK) (Not Shown)



IMPORTANT: Use only genuine factory replacement parts on your Base Plate. Do not substitute homemade or non-typical parts. If a bolt is lost or in need of replacement, for your safety and the preservation of your Base Plate, be sure to use a replacement bolt of the same grade (Usually Grade 5, refer to parts list). Repair parts may be ordered through your nearest **Blue Ox** dealer or distributor.