

# **BX1688** 2009-11 Chevy Aveo **Includes Foglights**

Installation Instructions

#### Please read BOTH these Installation Instructions and the General Towing Instructions before attempting to install or operate this equipment.

- 1. Blue Ox<sup>®</sup> towing products and accessories are intended to be installed by Blue Ox® Dealers who are familiar with our products and have the equipment and knowledge to do "fit work." When necessary, Blue Ox® Dealers can be found at www.blueox.com or by contacting our Customer Care Department at (402) 385-3051.
- 2. Many Blue Ox<sup>®</sup> Baseplates are designed to use existing holes and hardware to mount the baseplate to the towed vehicle. Even though bolts are there, do not assume they are adequate for baseplate mounting. Always use hardware supplied in the hardware kit or existing hardware specified in the Baseplate Towing Installation Instructions.

Confirm the towability and pre-towing procedures for your vehicle with the owner's manual or contact the vehicle's manufacturer for specific towing procedures.



If the front of your vehicle looks different than this, call us at (402) 385-3051.

Attachment Tab Height:

Attachment Tab Width:

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14"	rial N
17 5/8'	, S

<b>Bolt Torque Specifications</b> Torque in Foot-Pounds for Metric Bolts						
Bolt Size	Grade 8.8	Grade 10.9				
6MM	6	8				
8MM	16	22				
10MM	31	40				
12MM	54	70				
14MM	89 (	117				

**Bolt Torque Specifications** Torque in Foot-Pounds for Inch Bolts

Bolt Size	Grade 5	Grade 8
1/4"	10	14
5/16"	19	29
3/8"	33	47
7/16"	54	78
1/2"	78	119
5/8"	154	230



Failure to read and follow these instructions could result in separation of the towed vehicle from the tow bar, causing property damage, loss of towed vehicle, personal injury or death.

Parts List					
Ref. No.	Qty.	Part #	Description		
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	1 4 2 6 4 4 2 10 4 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	61-6665 107-3117 107-1753 61-5208 201-0368 201-0444 203-0010 202-0090 201-0448 203-0001 203-0008 202-0001 201-0553 201-0192 203-0054 202-0047 101-5822 62-3468 226-0046 229-0359 290-0437	WLDM'T, BP, BX1688 SPACER TUBE, 3/4 OD X .406 ID X 1/2" SPACER TUBE, 3/4 OD X .406 ID X 3/4" WLD, NUT PLT, 1/4X1X1, 3/8" WITH 14" WIRE 3/8-16 X 1 1/4 HEX HEAD BOLT, GRADE 5 3/8-16 X 2 HEX BOLT, GRADE 5, ZP 3/8-16 X 1 1/2 HEX BOLT, GRADE 5, ZP 3/8-16 HEX NYL. INS. LOCK NUT, ZP 1/4-20 X 1 1/2 HEX BOLT, GRADE 5, ZP 1/4 FLAT WASHER, ZP 1/4 FLAT WASHER, ZP 1/4 LOCK WASHER, ZP 1/4-20 HEX NUT 1/4-20 X 1/2 SLOT, ROUND HEAD SCREW #10 LOCK WASHER #10-32 X 1/2 SLOT, ROUND HEAD SCREW #10 LOCK WASHER #10-32 HEX NUT ADAPTER, 4 WAY CONNECTOR ATT TAB ASSY, REM, SF/SB, 1 HOLE BASEPLATE SAFETY CABLE, 36" CL III (Not Shown) QUICKLINK, 3/8, ZP (Not Shown) RECEIVER, CAP PLUG (BLK) (Not Shown)		
Tools Req 7MM Socket 10MM Socket/ Jarge Vise Gr Reciprocating Drill Flat Screwdriv Phillips Screw 1 1/4" Hole Sa 13/32" Drill Bi Loctite® RED	t Wrench Saw Saw ver vdriver aw	AIR BAFFLE ON PASSENGER'S SIDE			
Q			16 16 18 4 WAY REUND ELECTRICAL CONNECTOR		
Important	t	0	6 WAY ROUND		

#### Important:

Use only genuine factory replacement parts on your baseplate. 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 baseplate, be sure to use a replacement bolt of the same grade (In most cases it will be Grade 5, please reference the parts list above). Replacement parts may be ordered through your nearest Blue Ox® Dealer or Distributor. Failing to follow and/or altering these installation instructions in either installation or required equipment will void the manufacturer's warranty.

Vehicle Weight: Motorhome mount tow bars are recommended for use with this baseplate. Due to the design of the removable tabs, the RangeFinderII and Ambassador tow bars can not be used. Adapters, except the BX8833 and BX88151, can not be used with this baseplate.

Installation Notes: The grille, headlight assembly, fascia and air baffle are removed and reinstalled during installation of the baseplate. Drilling is required. Trimming is required.

The dimensional variations between otherwise identical vehicles can be considerable. While the baseplate was designed for easy installation, it may be necessary to tailor the baseplate slightly to compensate for auto manufacturer's tolerances. These minor adjustments may include filing a hole slightly, bending electrical rods or bending end plates.

The BX8869 Bulb & Socket Wiring Kit is recommended for this vehicle.



Possible location of the Bulb and Socket Wiring Kit (BX8869)

#### Installation Instructions:



 Remove three plastic push pins from black plastic grille cover on top side of fascia. Do this to both sides of the vehicle. Set the pins aside to be reinstalled later.



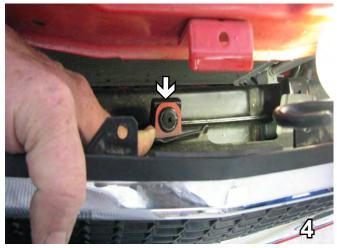
2. In the center of the plastic grille cover on the top side of the fascia, remove three plastic push pins. Lift the cover and set it and the pins aside to be reinstalled later.

Handling of some cosmetic parts when installing this product may require the use of protective covers, rags, specialty tools, etc. to prevent damage.

Do not use the towed vehicle for storing luggage, equipment, etc. This may cause you to exceed the towing capacity of the tow bar, baseplate, and its accessories.



3. Inside between the grille and the radiator, remove one push pin. Do this to both sides of the vehicle. Set push pins aside to be reinstalled later.



4. Bend the plastic covering out to remove the push pin from the center. Set grille and push pins aside to be reinstalled later.



5. Just forward of the front tire, using a 7MM socket remove one screw. Do this to both sides of the vehicle. Set screws aside to be reinstalled later.



6. Underneath just forward of the front tire, using a 7MM socket remove two metric bolts. Do this on both sides. Set bolts aside to be reinstalled later.



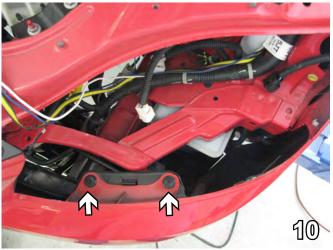
7. Underneath on the bottom side of the bumper going across, remove three push pins. Set pins aside to be reinstalled later.



8. Just forward of the front tire in the wheel well, pull the plastic cover forward. Use a 7MM socket to remove one metric bolt. Do this on both sides of the vehicle. Set the bolts aside to reinstall later.



 Using the 10MM socket, remove three bolts from the top of the headlight assembly. Unplug and set assembly and bolts aside. Do this to both sides of the vehicle.



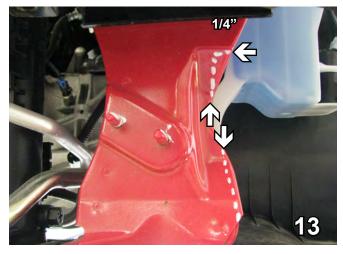
 Remove two push pins just below headlight assembly. Do this on both sides. Set pins aside to reinstall later.



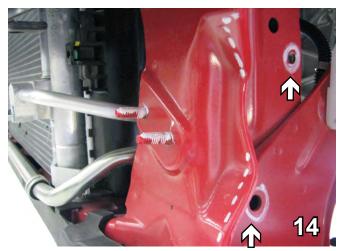
11. Using the 7MM socket, remove the screw from the corner of the fascia. Do this on both sides. Pull fascia forward and set it and the screw aside carefully to be reinstalled later.



12. On the passenger side, using a 10MM socket remove the two metric bolts and one metric hex nut, disconnect tube and set air baffle aside.



 Cut 1/4" inch across where the frame starts to bow and straight down. Continuing on down trim off 1/4". Do this on both sides.



14. Locate these two existing holes on lower frame extension, just above tie down bracket and drill out with the 13/32" drill bit. Do this on both sides.



15. On the back of the lower frame extension, undo the hose clip and using the 1 1/4" hole saw drill out the small hole. Do this on both sides.





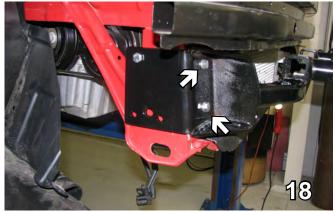
- 16. On the back side of the fascia, cut 3/8" up from the protruding edge and down to the contour then straight across. Do this on both sides.
- 17. Align the baseplate with the upper existing hole on the side of the frame extension. Insert 3/8-16 x 2" hex bolt through baseplate's top hole and 3/4" spacer between the frame and the baseplate. Install 3/8" lock washer and 3/8-16 hex nut on the back side of webbing, tighten with loctite. On the driver side, the bolt comes through the frame to the outside of the baseplate. Be sure the baseplate is level with respect to the vehicle frame.

BE SURE TO USE LOCTITE® RED ON ALL BOLTS BEFORE TIGHTENING. TIGHTEN ALL BOLTS ACCORDING TO THE TORQUE CHART ON THE FRONT PAGE OF THESE INSTRUCTIONS OR ON PAGE 3 OF THE BASEPLATE TOWING GENERAL INSTRUCTIONS.

When using power drills be aware of the dangers of torque and drill bit length.

405-0085 Rev E

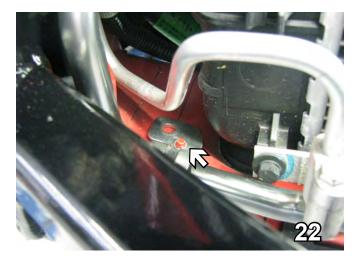
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18. Using the baseplate as a template, drill the two holes on the front of baseplate with the 13/32" drill bit. Insert the 3/8-16 nut plates into the 1 1/2" drilled hole in lower frame extension to tighten with 3/8-16 x 1 1/4" bolts and 3/8" lock washers, both sides. Use loctite on bolts.



20. Reinstall air baffle on passenger side using the 1/4-20 x 2 1/2" hex bolt, 1/4" flat washer, 1/4" lock washer and 1/4-20 hex nut on front bolt location as shown on page 2. Use the existing hex nut and hex bolt for the back bolt locations. Be sure the connecting tube is properly installed.





19. Drill out the two bottom holes on the side. Insert 3/8-16 x 2" hex bolt and 3/8" lock washer through the front side hole (white arrow), through 1/2" spacer into 3/8-16 nut plate. Insert 3/8-16 x 1 1/2" hex bolt into back side hole (gray arrow), through 1/2" spacer tighten with 3/8" lock washer and hex nut, both sides. Be sure and use loctite on all bolts. On the driver side the bolts are turned around.



- 21. Attach the permanent baseplate safety cables to the provided convenience link on the baseplate. The photo above shows the recommended installation of the cables to frame of vehicle. Additional options may interfere with suggested mounting; in this case secure the cables to a solid piece of the frame as described in the instructions included with the permanent baseplate safety cables. Be sure the safety cables do not rub against any hoses or moving parts. Do this to both sides.
- 22. On the passenger side only, unbolt the power steering coolant line. Measure 3/4" back, drill a hole and reattach.

Be sure that **ALL** electrical connections are plugged in properly and functioning **BEFORE** installing the fascia.

DEALER or INSTALLER: Be certain the user receives the instruction sheets for their products.

Install the tow bar and safety cables according to the instructions provided in their packages. When demonstrating this to the customer, be sure to include all the contents and packages.

Do **NOT** substitute other devices if the tow bar pins and clips are misplaced.



Shown without removable tabs installed.



Shown with removable tabs installed.

#### **CUSTOMER SERVICE COMMITMENT**

Blue Ox is committed to providing you with exceptional customer care throughout your lifetime with our products. Our team is here to assist you with any questions you may have regarding the performance of your product. Simply call (402) 385-3051 and you can speak with our customer care team.

Additionally, please visit our website to see which rallies our Destination America team will be attending. For a nominal fee, our service technician will service your towing system to ensure it's in proper working condition. Also, as a commitment to our customers, should you visit our factory, you can stay at our full service Blue Ox campground at no charge along with enjoying a factory tour.

Again, thank you for being our customer and for the confidence you have shown in the performance of our products. It is because of customers like you we enjoy the success we have today.

If the baseplate is in an accident, it must be replaced. DO NOT use it again! An accident can cause unseen damage and using it again could result in more damage or serious injury. DO NOT use the baseplate if it is damaged or missing parts.



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