

Baseplate Installation Instructions

2005-07 Toyota Avalon

Installation Instructions

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

- 1. Blue Ox® 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.us or by contacting our Customer Care Department at (888) 425-5382.
- 2. Many Blue Ox® 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 Installation Instructions.

Attachment Tab Width: 24"

12 3/4" Attachment Tab Height:

Bolt Torque Specifications

Torque in Foot-Pounds per 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

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.

Bolt Torque Specifications Torque in Foot-Pounds per 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	



WARNING

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.

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Parts List				
Ref. No.	Qty.	Part #	Description	
1	1	61-6312	Weldment, Baseplate, BX3771	
2	2	61-5556	Weldment, 3/8-16, Nut Plate, with 12 inch Wire	
3	6	61-5208	Weldment, 3/8-16, Nut Plate, with 14 inch Wire	
4	2	61-3799	1/2-13, Nut Plate, with 10 inch Wire	
5	2	201-0011	1/2-13 x 1 1/4" Hex Bolt, Grd. 5, ZP	
6	2	203-0012	1/2" Lock Washer, ZP	
7	10	201-0368	3/8-16 x 1 1/4" Hex Bolt, Grd. 5, ZP	
8	10	203-0010	3/8" Lock Washer, ZP	
9	2	202-0003	3/8-16 Hex Nut, ZP	
10	2	201-0979	#12-14 x 1" Self Drilling Screw, ZP	
11	2	202-0047	#10-32 Hex Nut	
12	2	203-0054	#10 Lock Washer	
13	2	201-0192	#10-32 x 1/2 Slot, Rd. Hd. Screw	
14	2	101-5822	Adapter, 4 Way Connector	
15	2	62-3469	Attachment Tab, SF/LB, ZP	
	2	226-0046	Baseplate Safety Cable, 36" CL III (Not Shown)	
	4	229-0359	Quicklink, 3/8, ZP (Not Shown)	
	2	290-0437	Receiver, Cap Plug (Not Shown)	

Tools Required

10mm Socket 3/4" Socket
14mm Socket Vise Grips
9/16" Socket Hack Saw
13/32" Drill Bit Flat Screwdriver
17/32" Drill Bit Tape Measure
Loctite® RED

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.

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Attachment Tabs:

Due to the design of the removable tabs, the RangeFinderII tow bar can not be used. Adapters, except the BX8833 and BX88151, can not be used with this baseplate.

Installation Notes: The radiator cover, fascia, styrofoam bumper, metal bumper and air dams are removed for installation. Trimming of the air dams is required. Drilling 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, and/ or bending end plates.

The BX8848 4-Diode Wiring Kit is recommended for this vehicle.

Installation Instructions:



 Remove six pushpins from the top of the radiator cover. Pull radiator cover forward to remove. Set pushpins and radiator cover aside to be reinstalled later.



 On top corner of the fascia, remove one metric bolt (see white arrow) and remove one pushpin (see grey arrow) using the 10mm socket. Do this to both sides of the vehicle. Set bolts and pushpins aside to be reinstalled later.

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3. Remove one pushpin just forward of the hood latch. Set pushpin aside to be reinstalled later.



 Using the flat screwdriver, turn screw on outside edge of wheel well 90 degrees to remove it. Do this to both sides of the vehicle. Set screws aside to be reinstalled later.



 Pull wheel well cover aside. Using the 10mm socket, remove one metric bolt just forward of front tire, on edge of fascia. Do this to both sides of the vehicle. Set bolts aside to be reinstalled later.



6. Using the 10mm socket, remove seven metric bolts from the front edge of belly pan (three on each side and one in the center). Pull upper corner of fascia to the side to release from clips. Do this to both sides of the vehicle. Pull fascia forward to remove. Set bolts and fascia aside to be reinstalled later.

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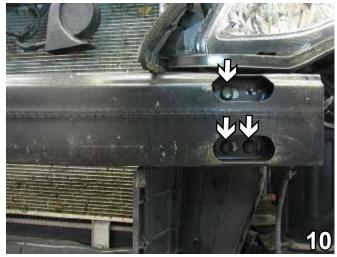
7. Align baseplate to the side of the frame rail and bottom of metal bumper. Clamp baseplate against bottom of metal bumper using vise grips. Using the baseplate as a template, drill lower right hole into the frame (see white arrow) using the 17/32" drill bit. Drill four remaining holes into the frame using the 13/32" drill bit (see grey arrows). Do this to both sides of the vehicle. Unclamp vise grips and set baseplate aside to be reinstalled later.



8. Pull styrofoam bumper forward to remove. Set styrofoam bumper aside to be reinstalled later.



Remove the wire loom from the clip on the top of the metal bumper. Do this to both sides of the vehicle.



10. Using the 14mm socket, remove three metric bolts from the metal bumper. Do this to both sides of the vehicle. Pull metal bumper forward to remove. Set bolts and metal bumper aside to be reinstalled later.

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 On the side of the radiator, pull the air dam forward to remove. Do this to both sides of the vehicle.

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.



12. On the air dam, mark and trim a 3" x 3" square just below the opening for the metal bumper. Using the hack saw, cut the marked area. Do this to both sides of the vehicle. Set air dams aside to be reinstalled later.



13. Insert 3/8-16 nut plates with 14-inch wire through frame end hole and align to upper three drilled holes. Install 3/8-16 x 1 1/4" hex bolts with 3/8" lock washers and tighten to nut plates. Do this to both sides of the vehicle.



14. Insert 1/2-13 nut plate through frame end hole. Align to lower right drilled hole (see white arrow). Install 1/2-13 x 1 1/4" hex bolt with 1/2" lock washer and tighten to nut plate. Install 3/8-16 x 1 1/4" hex bolt in bottom drilled hole with 3/8" lock washer and 3/8-16 hex nut and tighten. Trim all excess nut plate wire. Do this to both sides of the vehicle.

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15. Reinstall metal bumper. Using the baseplate as a template, drill into the bottom of the metal bumper with the 13/32" drill bit. On side of metal bumper, insert 3/8-16 nut plate with 12-inch wire and align to drilled hole. Install 3/8-16 x 1 1/4" hex bolt with 3/8" lock washer and tighten. Do this to both sides of vehicle.

16. Reinstall air dams, metal bumper, styrofoam bumper, fascia, radiator cover, bolts, pushpins and screws.

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.



17. Attach the permanent baseplate safety cables to the provided convenience link on the baseplate (see grey arrow). The photo above shows the recommended installation of the permanent baseplate safety cables to frame of the vehicle (see white arrow). 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.

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.

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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 1-800-228-9289 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.



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General Information

- 1. Ensure that your product(s) are registered online at www.blueox.com. It is crucial to register your product(s) so that you may be alerted of product offerings, updates, upgrades, maintenance and safety bulletins, and/or recalls.
- 2. It is the owner's responsibility to inspect all towing equipment for cracked welds, missing or worn parts and loose bolts before each towing trip. Be sure to use Loctite® Red on all bolts and tighten to the recommended specifications.
- 3. It is the owner's responsibility to hook up all towing equipment per manufacturer's instructions/recommendations.
- 4. Remove the attachment tabs when not in use (if applicable).

Notice To Baseplate Installer

- 1. It is YOUR responsibility to watch for:
 - Oil cooler and air conditioner lines
 - Electrical wires and hoses
 - Missing parts or attaching points on the frame
 - ** If the baseplate is improperly installed and is against a wire or hose, it could cause fluid leaks or electrical shorts some time after the actual baseplate installation.

Permanent Baseplate Safety Cable Installation

Permanent baseplate safety cables are strongly recommended when towing a vehicle with a tow bar. The principle function of the permanent baseplate safety cables is to prevent the towed vehicle from breaking loose in the event the connection between the frame of the towed vehicle and the baseplate fails or becomes disconnected. The cables must be connected from the baseplate to the frame rail or cross member of the vehicle's frame. The illustrations below show the possible arrangements recommended by Blue Ox®. Each permanent baseplate safety cable must have an adequate weight rating for the towing system. The weight rating of the two (2) cables together will not qualify.

Do not mount the permanent baseplate safety cables against wires, hoses or brake lines.

These permanent baseplate safety cables should remain installed as long as the baseplate is installed on the vehicle. Permanent baseplate safety cables are to be used in conjunction with, and NOT a replacement for legally required safety cables attaching the towed vehicle to the towing vehicle.

