

Introduction

Thank you for choosing Smittybilt accessories for your Vehicle If you would like to view our full range of available accessories, please visit us at *www.smittybilt.com*



Important Notes Before Starting

IMPORTANT NOTE

Carefully read through this entire instruction manual thoroughly before attempting to install this part.

WARNING

Serious injury can occur when working on vehicles alone.

When possible, work with another person to reduce risk of injury from strain or other dangers that can occur when working alone.

NOTE: This kit is designed to work with most winch applications. Two mounting solutions are provided. A specific Smittybilt X20 gen 3 winch mount and a "universal" mount designed to mount to the winch control box. Not all control boxes are the same, so some modifications to the mount may be required to meet your particular application

The following tools will be required to complete the installation of this part:

TOOLS REQUIRED							
10mm Wrench	T30 Torx Socket	T25 Torx Socket					
10mm Socket	Box Cutter	1/4 Drive Rachet					
Plastic Pry Tool	Screw Driver						



Box Contents



Camera Relocation Mount Kit					
ITEM	DESCRIPTION	QTY			
1	Relocation Mount (Universal)	1			
2	Relocation Mount (X20 GEN 3)	1			
3	Camera Cover	1			
4	Silicone Hose	1			
5	Extension Cable	1			
6	Adhesive Foam Backing	1			
7	Barbed Fitting	2			
8	M6 Hex Nut	2			
9	M6 Nylocks	2			
10	Button Head Screws	2			
11	Washers	4			





Step 1:

Remove the (9) push pins with a plastic pry tool and remove the top panel.

Note: If bumper and winch are already installed they will need to be removed for this installation.



Step 2:

Next remove the (4) 10mm bolts.





Step 3:

Before removing, the grille disconnect the camera wire and water hose. Some washer fluid may come out so fix the water hose in an upright position.



Step 4:

After bolts are removed and lines are disconnected grab the grille and carefully pull out the grille from one side to the other.



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5



Step 5: Removing the Camera

Remove the (4) T30 torx screws and disconnect the camera wire and water hose.

Step 6: Trim OE Camera Mount

Once the backing is off, remove the OE plastic camera mount. Using the new mount bracket as a guide, mark and trim the factory camera mount so that it fits inside the new cover. The two outermost mounting holes on the flange will be removed.









Step 7: Apply Foam Backing

Determine which mounting bracket works best for your particular application. See steps 11 - 12

Remove the backing on the foam strip and stick it to the mount as shown in the picture.



Step 8:

Disconnect water hose from the original mounting location. Next cut hose where the yellow mark is indicated, in between the fitting and regulator. Use the new hose and fittings provided to splice in the new, longer hose section. Once you are done it should look like the picture below.









Step 9: Camera Install

Place the camera inside the trimmed OE mount and secure to the new mounting bracket. The foam backing should hold the camera secure. Use the provided M6 button head screws, washers and nuts and tighten. Next slide the camera cover onto the existing button head screws, use the M6 nylocks and washers to hold the cover in place. Now connect new water hose and camera wire to the back of the camera.





Step 10:

Reinstall the bracket to the grille from Step 5 and connect new water hose and camera wire. Pass them out through the front of the grille. You can now reinstall the grille to the vehicle





Installation Instructions: Mounting to Winch







Step 11: Installing Relocation Mount to Winch

Note: For **Smittybilt X20 Gen3** winches follow this step. If using another winch proceed to step 12.

First remove the top covers (four 3mm allen head screws). Once covers are removed loosen the three cable wires and remove them(black, red, yellow), using a screw driver take off all the yellow highlighted screws and remove the covers (this will give you better access to the red highlighted screws). Finally loosen the screws highlighted in red(loosen the two back screws and remove the two front ones). Now install the camera mount under the control box mount and reinstall screws. Zip tie wires to make them look nice and tidy. You are now complete...





Step 12: "Universal" Mounting

Remove the two screws and take off the control box.

Note: With different winches screws may be in different positions but mounting should be the same.



Installation Instructions: Mounting to Winch



Step 12: (Continued)

Take off the (4) screws underneath and install the camera mount to the bottom of the control box. Once the mount is installed insert all the screws and tighten. You are now complete with the installation...

NOTE: Not all winch control boxes are the same. Some modifications may be required for your particular application.







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10

Use this only as a guide for hardware without a called out torque specification in the instruction manual.

Bolt Torque and ID								
Decimal System		Metric System						
All Torques in Ft. Lbs. Maximums								
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 9.8	Class 10.9	Class 12.9		
5/16	15	20	M6	5	9	12		
3/8	30	45	M8	18	23	27		
7/16	45	60	M10	32	45	50		
1/2	65	90	M12	55	75	90		
9/16	95	130	M14	85	120	145		
5/8	135	175	M16	130	165	210		
3/4	185	280	M18	170	240	290		



Grade 5 Grade 8 (No. of Marks +2)

G= Grade (Bolt Strength)

1/2-13x1.75 HHCS

D

Т

D= Nominal Diameter (Inches)

Х

- T= Thread Count (Threads per Inch)
- L= Length (Inches)
- X= Description (Hex Head Cap Screw)



- M12-1.25x50 HHCS
- P= Property Class (Bolt Strength)
- D= Nominal Diameter (Millimeters)
- T= Thread Pitch (Thread Width, mm)
- L= Length (Millimeters)
- X= Description (Hex Head Cap Screw)



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11

Notes and Disclaimers

Product cleaning and maintenance instructions

Stainless Steel Finish – Aluminum polish may be used to polish small scratches and scuffs on the finish. Mild soap, window or glass cleaner may be used to clean the finish. Dual state powder coat finish – Mild soap, window or glass cleaner may be used to clean the finish. In order to protect the finish, you may wax your product on a regular basis with pure carnauba automotive wax. Do not use any types of soap, polish or was that contains abrasive that could damage the finish. Textured coated finishes should be cleaned with a mild soap on a damp sponge. Do not apply polish or was that requires to be removed by means of buffing. This type of wax is commonly used at car wash facilities. Chrome Finish – Mild soap, window or glass cleaner may be used to clean the finish. In order to protect the finish, you should wax your product on a regular basis with pure carnauba automotive wax. Do not use any types of soap, polish or was that contains abrasive the finish – Mild soap, window or glass cleaner may be used to clean the finish. In order to protect the finish, you should wax your product on a regular basis with pure carnauba automotive wax. Do not use any types of soap, polish or was that contains abrasive that could damage the finish.

Limited Warranties

Smittybilt's products are covered under the following limited warranties only. Note that the duration of the limited warranty differs according to the material and finish of the product purchased. Subject to the duration and conditions of the limited warranty stated below, Smittybilt warrants to the original retail purchaser that its products are free from defects in material and

workmanship. All other warranties and representations express or implied, are hereby disclaimed, including fitness for merchantability and buyer's intended use or purpose. All parts are sold "AS IS" except for the limited warranties granted herein. Buyer assumes all risks as to the selection, suitability and performance of all goods and products selected. This limited warranty does not cover damage or impairment in any part due to misuse, improper installation, accident or contact with on-road or off-road hazards, product modification, improper or inadequate cleaning and/or maintenance. Smittybilt is not responsible for items damaged during shipping. This warranty is not transferable from the original buyer. For the original Buyer to be eligible for the limited warranty coverage, the Buyer must provide proof of purchase. Smittybilt strongly recommends returning the warranty registration card.

Customer's remedy hereunder shall be limited only to repair or replacement (at Smittybilt's option) of any defective part(s) returned to Smittybilt at customer's expense. The determination of whether or not a returned part is defective or subject to coverage under the limited warranties stated herein shall be made at Smittybilt's sole discretion.

To assure product quality, Smittybilt reserves the right to change product design, material, specification and finishes without prior notice to customers. This limited warranty gives you specific legal rights and you may also have other rights, which may vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply as to you. Also, some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. Smittybilt

reserves the right to discontinue product lines and substitute products or provide other remedies than those listed in this limited warranty for those discontinued products.

Warning

Rollover and other types of vehicle accidents may result in serious injury or death to you, your passengers and others sharing the road. Smittybilt accessories are decorative and are not intended to reduce or avoid injury or damage in the event of an accident. The weight and location of Smittybilt accessories may affect your vehicles' handling, stability and performance, creating an increased risk of accident or rollover. Before installing any accessory, check state laws and assure that the

accessory will not obscure any lights or interfere with proper operation on your vehicle's safety equipment. Consult your owner's manual and the Smittybilt instructions, or additional safety information. Smittybilt products, nor the warnings contained

herein, are not a substitute for your safe driving. Don't drink and drive, always use seat belts and don't drive faster than conditions permit.



