

INSTALLATION INSTRUCTIONS

REMOTE MOUNT FUEL FILLERS



Document: 19-0208

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This document is for: 20-0147, 20-0360, 20-0504-V, 20-0505-V, 20-0527, 20-0547, 20-0548-V, 20-0549-V, 20-1003, 20-1004-V, 20-1005-V, 20-1027, 20-1047, 20-1103, 20-1104-V, 20-1105-V, 20-1203, 20-1204-V, 20-1205-V, 20-1548.

NOTES:

1. The Fuel Cell Surge Tank (FCST) fill flange uses a 6-bolt, 2.18" (55mm) bolt circle with 1/4"-28 threads.
2. The Fuel Cell Surge Tank (FCST-X) fill flange uses a 3-bolt, 2.34" (59.5mm) bolt circle with M5x.8mm threads.
3. See Radium P/N: 20-0597 for adapting 1.5" ID fuel fill tubing and P/N: 20-0297 for adapting 2.25" ID fuel fill tubing.

CAUTION

Only a qualified technician following applicable safety procedures should perform the installation of this product. One must have knowledge in repair and modification of fuel systems and general vehicle modifications to install this product. **Gasoline and other fuels are flammable and can be explosive.** Only install in a well-ventilated location to minimize buildup of fuel vapors. No sparks, open flames, smoking or other ignition sources are to be present. Draining and removal of all fuel from the fuel system is recommended. Proper eye and personal protection is required at all times during installation.

WARNING

The fuel system is under pressure! Do not loosen any connections until relieving the fuel system pressure. Consult a service manual for instructions on relieving fuel pressure safely. This product is designed for off-highway and racing use only. Fuel system components may not be legal for sale or use on emissions controlled motor vehicles. Consult local, state, and federal laws.

STEP	TOOLS NEEDED	INSTRUCTIONS	PHOTO
1	5/32" Allen Wrench	20-0147 Remote Mount Fill Neck, Straight, 2.25in Barb The rubber flapper valve CAN BE installed from the top side of the FCST. First, hold the gasket against the fill neck flange and insert the long bolt through the center hole. From underneath, insert the small gasket then washer onto the long bolt. Screw the included lock nut just past the first thread. Do NOT fully tighten.	
	10mm Socket	Place the loose assembly down onto the FCST 6-bolt flange. Use a long blunt object to push the small gasket down into the fuel cell. Tighten the 6 bolts. NOTE: only older 20-014X-XX FCSTs require sealing washers.	
	5mm Allen Wrench		
		NOTE: Radium Fill Cap P/Ns: 20-0148 or 20-0148-V will screw onto this neck, as shown.	
2	5/32" Allen Wrench	20-0547 and 20-0527 Remote Mount Fill Neck, 1.5in Barb The rubber flapper valve CAN BE installed from the top side of the FCST. First, hold the large gasket against the fill neck flange and insert the long bolt through the center hole. From underneath, insert the small gasket then washer onto the long bolt. Screw the included lock nut just past the first thread. Do NOT fully tighten. Place the loose assembly down onto the FCST 6-bolt flange. Push the small gasket down into the fuel cell. Tighten the 6 perimeter bolts. NOTE: only older 20-014X-XX FCSTs require sealing washers.	
	10mm Socket		
	5mm Allen Wrench		
	1-7/8" Wrench		
	3mm Allen Wrench	20-1027 and 20-1047 FCST-X, Remote Mount Fill Neck, 1.5in Barb Place the O-ring that the fill neck down and tighten down the 3 bolts. NOTE: The FCST-X has an internal rubber roll-over flapper valve and does not require sealing washers.	
		20-0547 and 20-1047 Remote Mount Fill Neck, 24AN, 1.5in Barb Tighten the -24AN hose end to 45ft-lbs using the non-marring aluminum wrench.	
3	3mm Allen Wrench	20-0505-V, 20-1005-V, 20-1105-V and 20-1205-V Remote Mount Fuel Filler, Vented Find a relatively flat mounting surface higher than the fuel tank fill point. A large 3.033" (77mm) hole will need to be fabricated. Place the gasket down. Prior to marking 5 indicators for drilling holes, consider one of the holes to be at the lowest point. This is ideal for installing the tether, if applicable. Now drill 1/4" (6mm) holes for the mounting bolts.	
	Oil Lubrication		
	Cutter		
	Marker	Slide the gasket on the housing and place onto the surface. Orientate the nut ring on the backside for optimal fitment. Push the M5x0.8mm bolts through the housing, gasket, and drilled holes. Tighten the bolts to the nut ring.	
	Drill		
		20-0548-V Fuel Cap, Remote Mount, Vented Apply oil lubrication to the cap's O-ring and spin clockwise to tighten.	
4	3mm Allen Wrench	20-0504-V, 20-1004-V, 20-1104-V, and 20-1204-V Dry Break, Remote Mount, Vented Find a relatively flat mounting surface higher than the fuel tank fill point. A large 3.033" (77mm) hole will need to be fabricated. Place the gasket down, make 5 indicators, and then drill 1/4" (6mm) holes for the mounting bolts.	
	Oil Lubrication		
	Cutter		
	Marker	Slide the gasket on the housing and place onto the surface. Orientate the nut ring on the backside for optimal fitment. Push the M5x0.8mm bolts through the housing, gasket, and drilled holes. Tighten the bolts to the nut ring.	
	Drill		
		20-0549-V Dry Break, 1.5in, Female, Vented Apply oil lubrication to the cap's O-ring and spin clockwise to tighten.	

5	Oil Lubrication	20-1003, 20-1103 and 20-1203 Remote Mount, SVF, Swing Valve Filler Find a relatively flat mounting surface higher than the fuel tank fill point. A large 3.033" (77mm) hole will need to be fabricated. Prior to drilling, a few things need to be considered.	
	Marker		
	Drill	1. Lubricate the O-ring on 20-1548 Remote Mount, SVF, Swing Valve Filler, Cap. 2. Make sure the SVF cap is fully tightened to the flanged housing. 3. Pull off the dust cap (if applicable) and note the engraved text underneath. 4. Rotate the assembly so the text is upright. The outer text will be on each side, as shown. 5. The inner text is the indicator of where the swing valve hinge is inside the cap. 6. The outer flange holes will likely not be in the exact orientation shown. 7. The hole closest to the lowest point will be used for the dust cap tether.	
		Place the gasket down and mark the 5 holes. Drill 1/4" (6mm) holes for the mounting bolts.	
6	Oil Lubrication	20-1003, 20-1103 and 20-1203 Remote Mount, SVF, Swing Valve Filler	
	3mm Allen Wrench	Slide the gasket on the housing and place onto the surface. Orientate the nut ring on the backside for optimal fitment.	
		Push the M5x0.8mm bolts through the housing, gasket, and drilled holes. Carefully hand tighten the 5 screws to the nut ring.	
		Prior to pushing on the dust cap, confirm the O-ring is lubricated. Remove the lower bolt for the dust cap tether. Tighten the ring terminal bolt and all others in a crisscross sequence.	
7	Scissors	20-1005-V, 20-1105-V and 20-1205-V Remote Mount Fuel Filler, Vented There is an optional tether provided.	
		If installing, first insert the tether cord down through the center hole.	
		Tie the end into a knot (as shown) and cut the tail off.	
8	Scissors	20-1005-V, 20-1105-V and 20-1205-V Remote Mount Fuel Filler, Vented	
	Crimper	Radium Engineering suggests the tether cord should be 4" (102mm) long.	
	Heat Gun	Slide the provided shrink tubing then the ring terminal over the tether cord.	
		As shown, tie the cord into a knot.	
		Crimp the ring terminal and apply heat to the shrink tubing.	
9	3mm Allen Wrench	20-1005-V, 20-1105-V and 20-1205-V Remote Mount Fuel Filler, Vented Install the ring terminal to the lowest mounted perimeter screw.	
10	5/32" Allen Wrench	20-0360 and 20-1060 Fill Neck Block-Off Kit Place the gasket then the block-off plate down and tighten the bolts to 32in-lbs. NOTE: Only older 20-014X-XX FCSTs require sealing washers (shown).	