



INSTALLATION INSTRUCTIONS OIL CATCH CAN KIT

2012-2016 Scion FR-S | 2012+ Subaru BRZ

2012-2021 Toyota 86 | 2022+ Toyota GR86

Kit # 20-0901-FL, 20-0902-FL, 20-0903-FL, 20-0911-FL, 20-0913-FL

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Support: info@radiumauto.com

20-0901/20-0911 CATCH CAN KIT, PCV: Follow Steps 1-18

20-0902 CATCH CAN KIT, CCV: Follow Steps 19-32

20-0903/20-0913 DUAL CATCH CAN KIT: Follow Steps 1-32

*Apply a small amount of engine oil to all fittings which have O-rings. Thread sealant of any kind is not required on O-ring boss (ORB) threads.

*It is recommended to temporarily remove the strut tower braces for this installation.







*See last page for catch can servicing instructions.






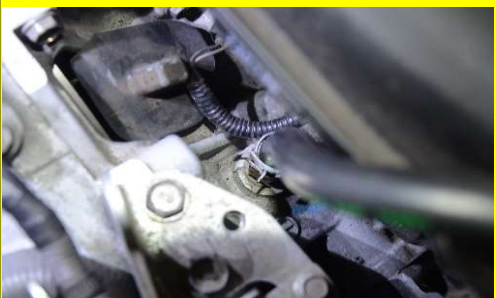







20-0913-FL

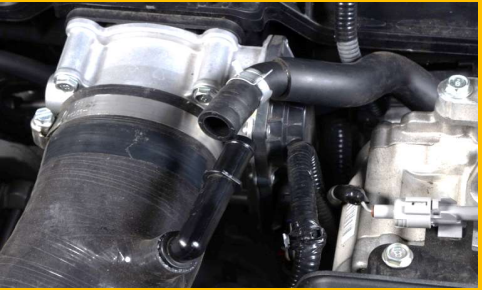





Item Description	Qty	Item Description	Qty
Bracket, Catch Can, FT86, RH	1	PUSHLOK HOSE END, 8AN STRAIGHT	2
Bracket, Catch Can, FT86, LH	1	Plastic Tube Fitting, 1/2" Tube ID	1
Catch Can, Fluid Lock 2, Preassembled	2	SPRING CLAMP, 1/2" HOSE	2
1/2 PCV/FUEL HOSE	6 ft	M6 Washer	6
5/8 PCV/FUEL HOSE	5 ft	BHSCS, M6 x 1.0, 16mm Long, SS	1
10AN ORB SWIVEL BANJO TO 8AN MALE	1	M6 Flang Nut	2
10AN ORB TO 8AN MALE FITTING	1	10AN ORB TO 10AN MALE FITTING	1
BHSCS, M6 x 1.0, 16mm Long, SS	1	PUSHLOK HOSE END, 10AN STRAIGHT	1
10 inch Zip Tie, Black Nylon	6	PUSHLOK HOSE END, 10AN 90DEG	1
SPRING CLAMP, 5/8" HOSE	2	10AN ORB SWIVEL BANJO TO 10AN MALE	1
		CATCH CAN SERVICE INTERVAL STICKER	1



STEP	TOOLS NEEDED	F	PHOTO
1	4mm Allen wrench	SECTION 1: PCV CATCH CAN KIT Begin by preparing the catch can for installation. Use the four M5 countersink screws to fasten the bracket to the catch can. Install the swivel fitting in the top port. For Gen 1 cars (12-21), this swivel fitting will feature a 6AN male. For Gen 2 cars (22+, FA24), this swivel fitting will feature a 10AN male. Install the straight fitting into the side port. For Gen 1 cars, this will feature a 8AN male. For Gen 2 cars, this will feature a 10AN male.	
	6mm Allen wrench		

2	10mm Socket	Locate the ground wire connection near the battery on the RH strut tower.	
		Remove this bolt using a 10mm socket. This bolt will be reused.	
3	10mm socket	Further back, near the fender, locate the bolt shown and remove.	
		This bolt will be reused.	
4	12mm Socket	<u>Gen 1 Cars ONLY</u>	
		Remove the nut that secures the negative cable to the battery terminal.	
		Rotate the cable 90 degrees and reinstall the nut.	
		The cable should now look as shown in the picture.	
5	10mm Socket	<u>Gen 2 Cars ONLY</u>	
		Orientate the negative battery terminal and connecting wires as shown. This will create clearance for the catch can.	
6		Place the catch can with bracket in location near the battery. Line up the forward-most bracket mounting hole with the threaded hole where a ground wire was attached. Re-use the M6 screw at this location, with the ground wire ring terminal underneath the bracket.	
		Do not yet tighten the screw.	
7	4mm Allen Wrench	Install the provided M6 button head Allen screw in the hole next to the screw from the previous step. Slide one of the provided M6 washers under the bracket at this location to act as a spacer. Install the M6 nut on this screw.	
	10mm Socket Wrench		
		Do not yet fully tighten.	

8	10mm Socket	<p>Reuse the OEM M6 screw removed in previous steps in the last hole of the catch can mounting bracket. Use another M6 washer under the bracket at this location to act as a spacer.</p> <p>All bracket mounting screws can now be tightened to approximately 80 in-lbs.</p>	
	4mm Allen Wrench		
9		<p><u>For right hand drive (RHD) vehicles ONLY</u></p> <p>There are 2 brake lines (shown with arrows) that are in close proximity to the catch can.</p> <p>These will need to be simply bent slightly out of the way. Be sure not to kink or put too much stress onto the ends of the hard tubes.</p>	
10	Long-reach Pliers	<p><u>Gen 1 Cars ONLY</u></p> <p>Remove the cover from the center of the intake manifold. Disconnect the large diameter PCV hose that is attached to the vacuum port. Disconnect the other end from the PCV valve located on the engine block and remove it from the vehicle. This hose will not be reused.</p>	
11		<p><u>Gen 2 Cars ONLY</u></p> <p>Remove the intake manifold cover and disconnect the PCV hose from the intake manifold. Disconnect the other end from the PCV valve on the engine block. This hose will not be reused.</p>	
12	Hose Cutter	<p>Gen 1 Cars: Locate the section of 3/8" (6AN) hose from the catch can kit and install one of the straight 6AN push-lok hose ends as shown.</p> <p>Gen 2 Cars: find the 5/8" PCV hose in the kit and cut and cut it in half. For one hose, install the 90 degree push-lok hose end. For the other hose, install the straight push-lok hose end.</p> <p>Lubricate the push lok hose end barbs. NOTE: hose clamps are not required for push-lok hose ends.</p>	
	Oil		
13	Long reach pliers	<p><u>Gen 1 Cars ONLY</u></p> <p>Attach the 3/8" hose (from the previous step) to the fitting on the catch can top port. Route this hose to the PCV valve on the engine block. Cut the hose to the proper length and install on the PCV valve. Secure in place with 1 of the provided spring clamps. Tighten the hose end on the swivel fitting.</p>	
	Hose Cutter		
	11/16" Wrench		

14	Hose Cutter	<p>Gen 2 Cars ONLY</p> <p>Take the 5/8" hose with the 90 degree hose end installed and slip the open end onto the PCV valve. Cut the hose to length. The total length will be roughly 26.5" long.</p> <p>Secure in place with the provided spring clamp, as shown.</p> <p>Route the hose to the top port of the catch can.</p>	
	Long reach pliers		
15	1" Wrench	<p>Gen 2 Cars ONLY</p> <p>Secure the 90 degree hose end to the swivel fitting in the orientation shown.</p>	
16		<p>Gen 1 Cars: Locate the section of 1/2" hose in the kit and install the straight push lok hose end into one side.</p> <p>Gen 1 and Gen 2 Cars: Screw the hose with the straight hose end to the side port fitting of the catch can. Route this hose over towards the open intake manifold barb.</p> <p>NOTE: When routing hoses, avoid possible chafing points with sharp edges and other components.</p>	
17	Hose Cutter	<p>Cut the hose to length. Install and secure the hose to the intake manifold barb using one of the provided spring clamps.</p>	
	Pliers		
18	Diagonal Cutters	<p>Use the included zip ties to secure the hoses to each other. Pay close attention to possible chafing points. Reinstall the plastic cover on the center of the intake manifold.</p> <p>INSTALLATION COMPLETE.</p> <p><i>Note: Radium Engineering catch cans are pressure sealed and designed to withstand boost pressure. For turbo and supercharger applications, these hoses can remain routed as instructed. There will be boost pressure in the hoses and catch can from the intake manifold, but the PCV valve will be closed.</i></p>	

25	Pliers	Disconnect the crankcase breather from the intake pipe barbed fitting.	
26	Pliers	Install the provided plastic male-to-male hose barb union fitting into the end of the hose. Re-use the factory spring clamp.	
27	Oil Lubrication	Locate the ½" (8AN) hose included in the kit and install one of the straight 8AN push lok hose ends. Some lubrication may be necessary. NOTE: push lok hose ends do not require hose clamps.	
28	7/8" Wrench	Connect the hose from the previous step to the top catch can fitting.	
29	Hose Cutter	Route the hose from the previous step to the crankcase breather hose and cut it to an appropriate length. Push the hose onto the installed plastic male to male hose barb union. Secure with one of the provided hose clamps. NOTE: For a cleaner appearance, the catch can hoses may be routed underneath the intake manifold.	
	Pliers		
30	7/8" Wrench	Install the last straight 8AN push lok hose end into the remaining section of ½" (8AN) hose. Some lubrication may be necessary. NOTE: push lok hose ends do not require hose clamps. Connect to the side port catch can fitting (shown).	

31	Hose Cutter	Route the hose to the intake pipe fitting and cut to length. Secure using the OEM spring clamp.	
	Pliers		
32	Diagonal Cutter	<p>Use the included zip ties to secure the hoses to each other. Pay close attention to possible chafing points. Make sure all fittings and hoses are tightened. INSTALLATION COMPLETE.</p> <p>NOTE: For turbocharger and centrifugal supercharger applications, this catch can side port hose must be routed into the inlet of the turbocharger or centrifugal supercharger. It should NOT be plumbed into a compressor pipe.</p>	
SERVICING	<p>It is recommended to check catch can fluid level every 5,000 miles (8,000km). It may be necessary to check more frequently in cases of extreme use.</p> <p>Catch can contents can be monitored using the dipstick.</p> <p>The contents can be emptied by one of three ways:</p> <ol style="list-style-type: none">1. Unscrewing the bottom half of the catch can and dumping out the collected fluid.2. Extracted through the dipstick hole using a hand vacuum pump and straw.3. A remote drain hose can be installed on the bottom of the catch can (P/N 20-0024) <p>Carefully drain contents into an oil-safe container and dispose in the same manner as used motor oil.</p>		