

INSTALLATION INSTRUCTIONS

14-19 CHEVROLET CORVETTE

LT1 CATCH CAN KITS

P/Ns: 20-0985-FL, 20-0986-FL, 20-0987-FL

Document: 19-0350

Support: info@radiumauto.com

COLOR LEGEND FOR EACH STEP

20-0985-FL CATCH CAN KIT, PCV, 14-19 CORVETTE LT1, FLUID LOCK

Follow **GREEN** and **YELLOW** areas below

20-0986-FL DUAL CATCH CAN KIT, CCV, 14-19 CORVETTE LT1, FLUID LOCK

Follow **GREEN** and **ORANGE** areas below

20-0987-FL TRIPLE CATCH CAN KIT, 14-19 CORVETTE LT1, FLUID LOCK

Follow **GREEN**, **YELLOW**, and **ORANGE** areas below














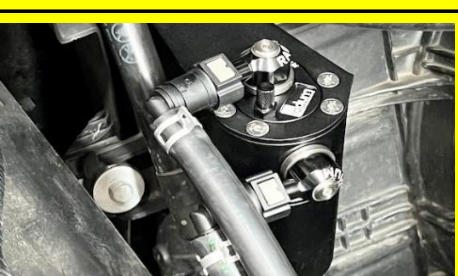
20-0987-FL







ITEM DESCRIPTION	QTY	ITEM DESCRIPTION	QTY
CATCH CAN, FLUID LOCK, PREASSEMBLED	3	10AN ORB TO 10MM SAE MALE	2
BRACKET, CATCH CAN, SINGLE, C7	1	ALUMINUM SPACER, 5/8" OD, 3/8" LONG	1
BRACKET, CATCH CAN, DUAL, C7	1	BUTTON HEAD CAP SCREW, M6X1X10, SS	3
MOUNT, CATCH CAN, DUAL, C7	1	HEX HEAD CAP SCREW, FLANGED, M6X1X25	1
10MM SAE FEMALE TO 3/8IN BARB, STRAIGHT	3	CABLE ZIP TIE, 10IN, BLACK	5
10MM SAE FEMALE TO 3/8IN BARB, 45DEG	4	SPRING CLAMP, 3/8IN HOSE	12
10MM SAE FEMALE TO 3/8IN BARB, 90DEG	4	CATCH CAN SERVICE INTERVAL STICKER	2
10AN ORB SWIVEL BANJO TO 10MM SAE MALE	4	3/8IN PCV/FUEL HOSE	15FT






STEP	TOOLS NEEDED	INSTRUCTIONS	PHOTO
1		<p>NOTES:</p> <p>a. The terms "driver-side" and "passenger-side" will NOT be referenced. As depicted, these instructions will always reference "LH" and "RH" areas of the vehicle.</p> <p>b. Aluminum wrenches are recommended to prevent surface marring on all anodized finishes.</p> <p>c. Lubricate all O-rings with engine oil prior to installation.</p>	



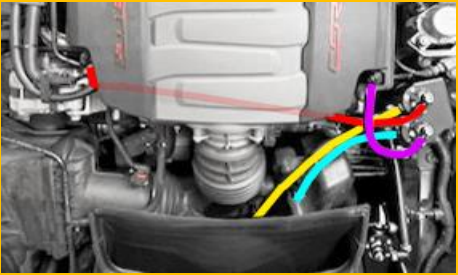
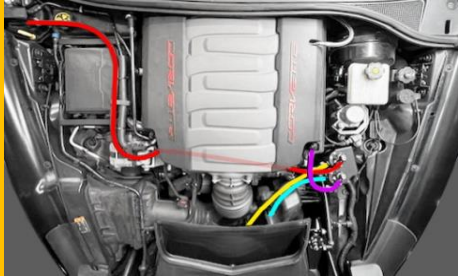


2	10mm Socket Wrench	Disconnect the negative battery terminal.	
		CAUTION: Disconnecting the battery may cancel fault memories of some control units. Consequently, before disconnecting the battery, always cross examine any fault memories.	
3		20-0985-FL CATCH CAN KIT, PCV, 14-19 CORVETTE Follow YELLOW section.	
		20-0986-FL DUAL CATCH CAN KIT, CCV, 14-19 CORVETTE Follow ORANGE section.	
		20-0987-FL TRIPLE CATCH CAN KIT, 14-19 CORVETTE Follow YELLOW/ORANGE sections.	
4	Oil Lubrication	20-0985-FL PCV CATCH CAN KIT	
	4mm Allen Wrench	Find the 10AN ORB to 10mm SAE quick connect banjo fitting and the catch can in the kit. Lubricate the O-ring and install the fitting to the side port, as shown.	
5	7mm Socket Wrench	The catch can will mount to LH side of the radiator, near the hydraulic hood lift support. First, remove the small screw shown.	
6	10mm Socket Wrench	Find the catch can bracket, M6x1mm hex bolt, and the spacer in the kit.	
		Place the spacer down, then the catch can mounting bracket. Now screw the hex bolt in and hand tighten.	
7	7mm Socket Wrench	To secure the catch can mounting bracket, first reinstall the screw, as shown. Now, tighten the lower hex bolt.	
	10mm Socket Wrench		

8	Thread Locker	Apply a medium-strength thread locker to the four provided M5x0.8mm flat head bolts.	
9	3mm Allen Wrench	Using the four flat head screws, secure the catch can to the mounting bracket, as shown.	
10	Oil Lubrication	<p>Find the other 10AN ORB to 10mm SAE quick connect banjo fitting in the kit. Lubricate the O-ring and install the fitting to the top port, as shown.</p>	
	4mm Allen Wrench		
11		<p>At the front LH side of the LT1 engine, there is a short line that loops from the PCV valve to the intake manifold. To disconnect the SAE quick connectors, squeeze the grey locks and simultaneously pull to release.</p> <p>As shown, pull the OEM line out. This will NOT be reused.</p>	
12	Hose Cutter	Cut the provided 6AN (3/8") hose exactly in half.	
13	Oil Lubrication	<p>Grab the two 45 degree SAE quick connectors in the kit.</p> <p>Lubricate the barbed areas.</p>	


14	Pliers	Insert the SAE quick connectors into the end of each hose. Secure using the provided spring clamps.	
15	Oil Lubrication	Lubricate the internal O-rings inside the SAE quick connectors.	
		Push the SAE quick connector over the PCV valve until a "click" is felt. Push the other SAE quick connector over the intake manifold port until a "click" is felt.	
16	Oil Lubrication	Lubricate the internal O-rings inside the 90 degree SAE quick connectors. Install each SAE quick connector to the male quick connector catch can fittings until a "click" is felt.	
17	Cutter	Route the hoses around the shielded wire harness (shown) then along the side of the LH frame rail towards the catch can. Using the provided cable zip tie, secure the hoses to the side of the frame rail. NOTE: If also installing the Radium Engineering dual CCV catch cans, be sure these hoses are not secured on top of the LH fuel rail. This will avoid any potential catch can interference later.	
18	Hose Cutter	Make sure the hose plumbing is as follows: Hose#1: Intake manifold hose to side catch can port Hose#2: PCV valve hose to top catch can port Cut the hoses to length for best fitment. Allow extra slack for engine movement.	
19	Oil Lubrication	Lubricate the barbs on the 90 degree SAE quick connectors.	
	Pliers	Push each hose onto the barbs and secure using the provided spring clamps, as shown.	
		Confirm there is no interference with the hydraulic hood lift support.	

20		Start the engine and check for any leaks or errors.	
		INSTALLATION COMPLETE	
21	Oil Lubrication	<u>20-0986-FL DUAL CATCH CAN KIT, CCV</u>	
		Find the two 10AN ORB to 10mm SAE quick connect fittings in the kit. Lubricate the O-rings and install the fittings to the catch can side ports, as shown.	
22	13mm Socket Wrench	On the LH frame rail, remove the M8x1.25mm screws that secure the 3 ground ring terminals shown.	
23	Pry Tool	For Corvette trims that have MRC (Magnetic Ride Control), carefully pry up to dislodge the plastic wire harness stay shown.	
24		Move the connector towards the front of the engine bay and out of the way.	
25	13mm Socket Wrench	Place the provided aluminum grounding block down and lineup the 3 holes. Place the ring terminals down and secure with the OEM screws, as shown.	

26	4mm Allen Wrench	Place the catch can mounting bracket down and lineup the 3 holes.	
		Using the three M6x1mm button head screws, secure the bracket.	
27	Thread Locker	Apply a medium-strength thread locker to the four provided M5x0.8mm flat head screws.	
28	3mm Allen Wrench	Position the catch cans into the mounting bracket and secure.	
		NOTE: carefully tweaking the wire harnesses underneath can permit additional space.	
29	Oil Lubrication	Find the swivel banjo fittings in the kit. Lubricate the O-rings and screw the fittings into the catch can top ports, as shown.	
	4mm Allen Wrench		
30		To release the front LH crankcase breather tube, squeeze each SAE quick connector lock and simultaneously pull.	
31		WET SUMP ENGINES: The RH valve cover vent routes crankcase vapors directly to the intake system. No actions for this step.	
		DRY SUMP ENGINES: The RH valve cover vent routes crankcase vapors to the dry sump first, then to the intake system. Prior to removing the tubing, there are 2 clamps that need to be opened. To unlock, simply squeeze the clamps, as shown.	

32		<p>WET SUMP ENGINES: To release the front RH crankcase breather, squeeze the SAE quick connector locks from the valve cover and from the intake system and pull to release the tube shown.</p>	
33		<p>DRY SUMP ENGINES: Only the tubing from the dry sump to the intake system will be removed. To release, squeeze the SAE quick connector locks from the dry sump and from the intake system and pull to release the tube shown.</p> <p>NOTE: The crankcase vent tube from the front RH valve cover to the dry dump will NOT be removed or altered in any way.</p>	
34		<p>WET SUMP ENGINE PLUMBING In the next few steps, hoses will be routed as shown.</p> <p>BLUE: Front Can Side Port (Straight) to Intake (90deg) YELLOW: Rear Can Side Port (Straight) to Intake (90deg) RED: Rear Can Top Port (45deg) to RH Valve Cover (OEM) PURPLE: Front Can Top Port (45deg) to LH Valve Cover (OEM)</p> <p>NOTE: The RED hose can fit under the throttle body, as shown.</p>	
35		<p>DRY SUMP ENGINE PLUMBING In the next few steps, hoses will be routed as shown.</p> <p>BLUE: Front Can Side Port (Straight) to Intake (90deg) YELLOW: Rear Can Side Port (Straight) to Intake (90deg) RED: Rear Can Top Port (45deg) to Dry Sump Port (Straight) PURPLE: Front Can Top Port (45deg) to LH Valve Cover (OEM)</p> <p>NOTE: The RED hose can fit under the throttle body, as shown.</p>	
36	Hose Cutter	<p>Hose lengths will be determined by the engine type, aftermarket modifications, and hose paths.</p> <p>Fortunately there is ample hose provided. Roughly 1-3ft (305-915mm) will be left over.</p>	
37	Knife	<p>WET SUMP ENGINES: Both the RH and LH crankcase tubes will be permanently modified. Only the large SAE quick connectors (that connect to the valve covers) will be reused. Carefully cut a slit in the tubing and pull each of the large SAE quick connectors out, as shown.</p> <p>For new OEM crankcase tubing: -GM P/N: 12670907 Passenger Side Positive Crankcase Vent -GM P/N: 12670908 Driver Side Positive Crankcase Vent</p>	

38	Knife	<p>DRY SUMP ENGINES:</p> <p>No modifications are required for the RH valve cover to the dry sump tube. Only the large SAE quick connector from the LH valve cover will be reused. Carefully cut a slit in the tubing and pull the large SAE quick connector out, as shown.</p> <p>For new OEM crankcase tubing: -GM P/N: 12670909 Driver Side Positive Crankcase Vent</p>	
	Oil Lubrication	Lubricate the OEM connector barbs.	
	Pliers	Fully insert the hose over the OEM connector and secure using the provided spring clamp.	
39	Oil Lubrication	Shown is an example of lubricating one of the provided SAE quick connectors.	
40	Pliers	After securing hose, be sure to also lubricate the internal O-rings inside the new provided SAE quick connectors.	
	Oil Lubrication	NOTE: When installing SAE quick connectors, wait for a "click". Gently tug on the connection to confirm they have locked in place.	
41	Cutter	Install 2 of the cable zip ties to the intake hoses, as shown.	
42	Cutter	Install 2 of the cable zip ties to the dry sump hoses, as shown.	
43	Cutter	Install 2 of the cable zip ties to the dry sump hoses, as shown.	

44		Start the engine and check for any leaks or errors.	
		DUAL CCV CATCH CAN INSTALLATION COMPLETE	
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 extreme cases.</p>	<p>Catch can contents can be monitored using the dipsticks. When collected fluid reaches a certain level, a float ball in the catch can will block the passage into the collection chamber and the catch can will not collect any additional fluid.</p> <p>To empty, unscrew the bottom half of the catch can. Carefully drain contents into an oil-safe container and dispose of in the same manner as used motor oil. Contents may also be drawn out through the dip stick hole using a hand vacuum pump and a straw.</p>	