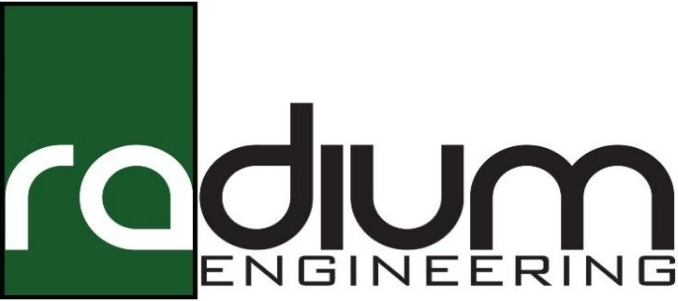




INSTALLATION INSTRUCTIONS
MAZDA RX-7 FD3S
PCV CATCH CAN KIT

P/N: 20-0977-FL

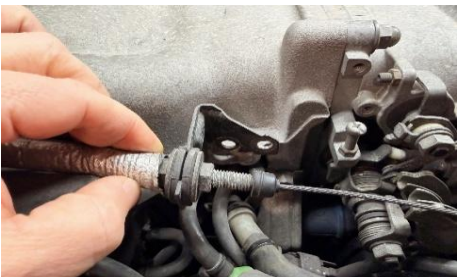
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Support: info@radiumauto.com



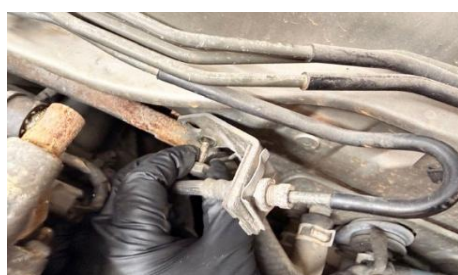
20-0977-FL			
ITEM DESCRIPTION	QTY	ITEM DESCRIPTION	QTY
CATCH CAN, FLUID LOCK, PREASSEMBLED	1	BLACK Y-FITTING ADAPTER, 3/8IN TUBE	1
BRACKET, CATCH CAN, FD3S	1	SPRING CLAMP, 5/16IN HOSE	3
BRACKET, MAP SENSOR, FD3S	1	SPRING CLAMP, 3/8IN HOSE	4
5/16IN SAE FEMALE TO 3/8IN BARB, 45DEG	1	VACUUM CAP, 3/8IN OD	1
5/16IN SAE FEMALE TO 5/16IN BARB, STRAIGHT	1	ZIP TIE, 10IN, BLACK NYLON	1
10AN ORB SWIVEL BANJO TO 5/16IN SAE MALE	1	3/8IN PCV/FUEL HOSE	2FT
10AN ORB SWIVEL BANJO PCV VALVE TO 5/16IN SAE MALE	1	5/16IN PCV/FUEL HOSE	2FT
FLAT HEAD CAP SCREW, M5X0.8X10, SS	6	5/32IN VACUUM HOSE	1FT
FLANGED HEX HEAD SCREW, M6X1X16	2	CATCH CAN SERVICE INTERVAL STICKER	1

STEP	TOOLS NEEDED	INSTRUCTIONS	PHOTO
1		NOTES:	LH SIDE FRONT REAR RH SIDE
		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.	
		b. Lubricate all O-rings with engine oil prior to installation.	
		c. Pop the hood and allow the engine to cool before proceeding.	

2	10mm Wrench	Disconnect the battery negative terminal. CAUTION: Disconnecting the battery may cancel fault memories of some control units.	
3	14mm Socket	If equipped, remove the strut bar.	
4		Rotate and hold the throttle body butterfly open. As shown, push the end of the throttle cable out of the pulley.	
5	10mm Socket	Remove the two M6 screws that secure the throttle cable bracket.	
6	Pliers	Slide the PCV valve hose off the oil fill neck.	
7	10mm Socket	Carefully pull the vacuum lines off the plastic vacuum chamber box in front of the upper intake manifold. Remove the two M6 screws that secure vacuum chamber box. As shown, remove the vacuum chamber box from the vehicle.	

8	Pliers	Slide the OEM spring clamp from the hose connection on the intake manifold port. As shown, pull the OEM PCV valve hose off.	
9		This PCV valve hose assembly will NOT be reused.	
10		NOTE: There are 2 different size spring clamps provided in the kit. Visually, they are very similar. The small (5/16") clamp is shown on the left. The large (3/8") clamps is shown on the right. Be careful not to get these mixed up in the next few steps.	
11	Pliers	Insert the provided vacuum cap to the aforementioned intake manifold barb. As shown, secure the cap using one of the small spring clamps included in the kit.	
12	Pliers	Find the brake booster hose on the top RH side of the upper intake manifold. Slide off the spring clamps and remove the hose. NOTE: For RHD vehicles, this hose goes (right) directly to the brake booster. For LHD vehicles, the hose loops around (left) to a firewall-mounted hard line that then attaches to the brake booster. IMPORTANT: As noted on the OEM hose, there is an integrated 1-way check valve that is visible by looking into the hose.	
13	Hose Cutter	Cut a 55mm section (shown) from the provided 3/8" PCV hose.	

14	Pliers	Install this short hose to the exact barb shown on the Y-fitting. Secure using one of the large spring clamps in the kit.	
		Using the OEM spring clamp, install the OEM brake booster hose to the exact Y-adapter barb shown. NOTE: Be sure the "<-ENG" logo will be pointing at the intake manifold when installed.	
15	Pliers	Install the short 55mm hose to the intake manifold barb. Orient the assembly as shown. Secure using a large spring clamp.	
		NOTE: Be sure the "<-ENG" logo is pointing at the intake manifold.	
16	Hose Cutter	Line up the OEM hose to the brake booster barb.	
		WARNING: Do NOT accidentally cut the integrated check valve out of the OEM brake booster hose. Internally prior before cutting.	
		NOTE: The cut length will depend if the vehicle is RHD or LHD. A RHD vehicle is shown.	
17	Pliers	Secure the OEM brake booster hose using the OEM spring clamp.	
		As shown, install the leftover 3/8" PCV hose to the 3rd barb on the vacuum hose Y-assembly. Secure using a large spring clamp.	
18	10mm Socket	Remove the screw that secures the MAP sensor bracket to the firewall. This screw will NOT be reused.	
		NOTES:	
		1. The provided bracket in the kit is designed to fit Mazda MAP sensor N3A1 18-211 found in Dec 1991-Dec 1995 model years.	
		2. In later steps, use a zip-tie to secure the Mazda MAP sensor N3F1-18-211 found in Jan 1996-Aug 2002 model years.	
19		Pull the vacuum hose off the bottom port of the MAP sensor.	

20		Unplug the MAP sensor connector.	
21	Flathead Screwdriver	Pry the tab to release the MAP sensor from the mounting bracket. NOTE: The OEM mounting bracket will NOT be reused.	
22	10mm Socket	Remove the screw that secures the clutch line bracket to the firewall. NOTE: This screw will NOT be reused.	
23	3mm Allen Wrench	Using 2 of the M5x0.8mm flat head screws, install the provided MAP sensor adapter to the catch can bracket.	
24	10mm Socket Wrench	Lineup the catch can bracket mounting holes to the 2 open threads on the firewall. For the lower mount, be sure to place the catch can bracket over the clutch line mount. Using the two M6x1mm hex head screws, secure the catch can bracket to the firewall.	
25		NOTE: For Jan 1996-Aug 2002 model years, secure the MAP sensor N3F1-18 211 using a cable zip-tie. For Dec 1991-Dec 1995 model years, snap the MAP sensor into the new billet aluminum mount. Simply push downwards until it locks in place. Next, the short OEM MAP sensor vacuum hose will be replaced with the longer vacuum hose included in the kit. Be sure to route the new vacuum hose around the backside of the catch can, as shown. This will provide ample space for the catch can.	

26	Oil Lubrication	Lubricate the O-ring on the PCV valve banjo fitting. NOTE: The PCV valve fitting is easily identified with internal components. As shown, secure the PCV valve fitting to the catch can side port.	
	4mm Allen Wrench		
27	Thread Locker	Apply a medium-strength thread locker to the four M5x0.8mm flat head screws.	
28	3mm Allen Wrench	From underneath, insert the catch can upwards into the bracket. Using the four M5x0.8mm flat head screws, secure the catch can to the bracket.	
29	Oil Lubrication	Lubricate the O-ring on the (non PCV valve) banjo fitting. As shown, secure the fitting to the catch can top port.	
	4mm Allen Wrench		
30	Oil Lubrication	Lubricate the internal O-rings on the two SAE quick connectors in the kit. Push the straight connector onto the top catch can banjo fitting. Push the 45 degree connector onto the side PCV valve fitting. Orient the banjo fittings and connectors (as shown) but know that these will come back off in a few steps.	
31	Hose Cutter	Route the 3/8" hose (from the intake manifold Y-fitting) to the catch can side port fitting. Cut the hose to length.	

32	Pliers	Slide a large spring clamp over the end of the 3/8" hose.	
		Remove the SAE quick connector from the side catch can port. Lubricate the O-ring and barbs. Fully insert the SAE quick connector into the 3/8" hose and secure the spring clamp, as shown.	
		Lastly, push this hose onto the side catch can port fitting until it clicks. Give the hose a gentle tug to confirm it has locked in place.	
33	Pliers	Route the provided 5/16" PCV hose safely under the upper intake manifold towards the firewall and the top catch can fitting.	
		Push the hose onto the oil fill neck barb. Secure using one of the small spring clamps, as shown.	
34	Hose Cutter	Route this 5/16" hose (from the oil fill neck) towards the catch can top port fitting shown.	
		Cut the hose to length allowing for engine movement.	
35	Pliers	Slide a small spring clamp over the end of the 5/16" hose.	
	Oil Lubrication	Remove the SAE quick connector from the top catch can port. Lubricate the O-ring and barbs. Fully insert the SAE quick connector into the 5/16" hose and secure the spring clamp.	
		As shown, push this hose onto the top catch can port fitting until it clicks. Give the hose a gentle tug to confirm it has locked in place.	
36	Cutter	Optionally use the provided cable zip-tie to the secure hoses together.	
		Reinstall the MAP sensor electrical connector.	
37		Reinstall all components in reverse order.	
		Start the engine and check for any leaks or errors.	
		INSTALLATION COMPLETE	

SERVICING	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.	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. 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.	 A close-up photograph showing a person's hand holding a black dipstick and inserting it into the top of a black cylindrical catch can. The catch can has a mounting bracket on its side and a dipstick hole on top. The background is plain white.
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