



INSTALLATION INSTRUCTIONS

2022+ FL5 HONDA CIVIC TYPE-R

FUEL PUMP HANGER

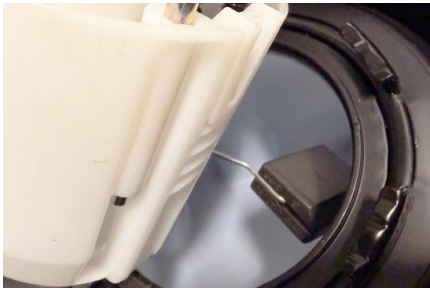
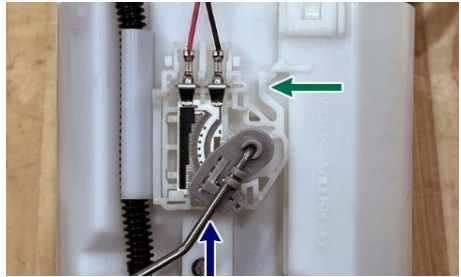
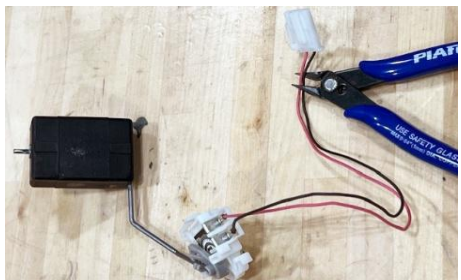
Document: 19-0462

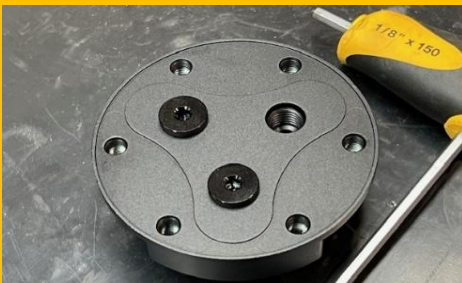
Support: info@radiumauto.com

COLOR LEGEND FOR EACH STEP	CAUTION
20-1090 FUEL PUMP HANGER Follow ORANGE areas	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.
20-1092 FUEL PUMP HANGER Follow GREEN areas	
20-1095-0X FUEL PLUMBING KIT Follow YELLOW areas	
	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.

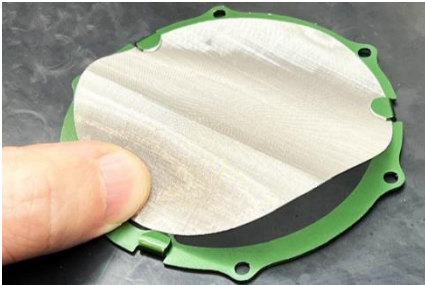
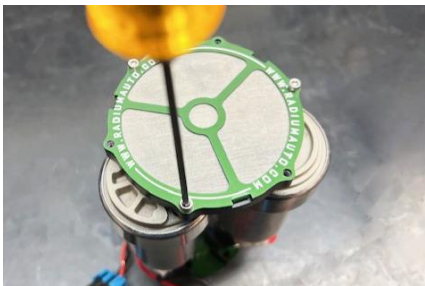
STEP	TOOLS NEEDED	INSTRUCTIONS	PHOTO
1		Prior to beginning, be sure not to work on a full fuel tank.	
		The terms "driver-side" and "passenger-side" will NOT be referenced. As depicted, these instructions will always reference "LH" and "RH" areas of the vehicle.	
2	Pick	For increased workspace, tilt and move the front seats all the way forward.	
	Screwdriver		
		Pop-off the 2 plastic caps in the front of the trunk behind the rear seats. Remove the 2 internal screws. Dislodge the plastic carpet stays. Rotate the rear trunk carpet out of the way, as shown.	
3	12mm Socket Wrench	Fold the upper rear seats down and fold the carpet back near the hinges to expose the mounting hardware.	
	10mm Socket Wrench		
		The RH upper seat must be removed first. Unscrew the inner and outer hinge hex bolts. For the LH upper seat, unscrew the center hex bolt (shown) and the outer hex bolt(s).	
		Unscrew the (non centered) bolt for the lower rear bench. Remove the bench seat from the vehicle.	
4		There are 2 clips (shown) under the rear bench seat. Using your fingers (or pliers), pull each clip forward and simultaneously yank the bench seat upwards to release.	

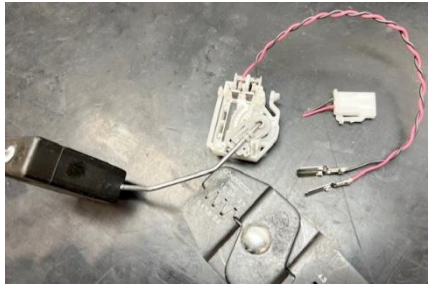
5	Phillips Screwdriver	To release the fuel pump access cover, spin each of the 4 fasteners (depicted) a quarter turn. This will allow the fastener heads to fit through the panel.	
6		Lift up the fuel pump access cover.	
		Remove the black protective EPDM dust cover (shown).	
7		Set the access cover aside, as shown. It is a good idea to clean this area now as it will be dirty.	
		Unplug the fuel pump module electrical connector. Start the vehicle and allow the engine to stall. Continue to crank the engine over for a few more seconds to release all of the pressure from the fuel lines.	
8	10mm Wrench	Remove the negative battery terminal.	
		CAUTION: Disconnecting the battery may cancel fault memories of some control units. Consequently, always cross examine any faults prior to disconnecting.	
9	Rag	For the outlet fuel line, first push the SAE quick connector further onto the male mating connector. While holding the connector male connector in, squeeze the side locks inwards and pull to release.	
		CAUTION: fuel will spill from the pump outlet connection.	
10	Pick	Carefully pry the SAE lock from the outlet on the OEM fuel module hat.	
		Now insert the SAE lock into the OEM SAE quick connector on the feed line, as shown.	

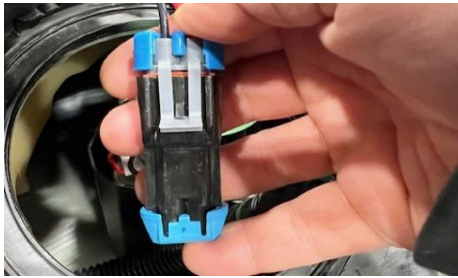
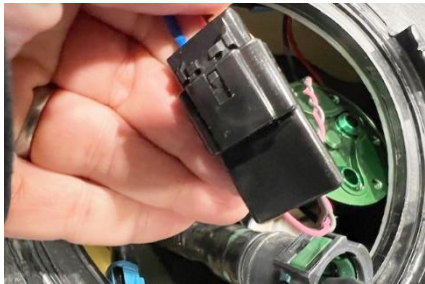
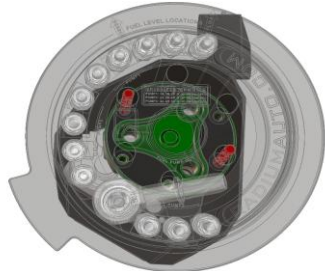
11	Lock Ring Tool	To release the hold-down ring, a Honda tool is required. However, there are aftermarket variations available, such as LPHUMEX P/N: G2116 (shown). To disengage, carefully push downwards on the tool while rotating the lock counterclockwise. This is best performed with a second person. NOTE: The OEM fuel pump unit is spring-loaded and will pop up when released.	
		Remove the OEM fuel tank lock ring. This will be reused.	
12	Bucket	As shown, pivot the assembly back and forth to get the fuel level float out of the tank. Have a bucket handy as fuel will be prevalent.	
	Rag		
		Transport the assembly to a workbench.	
13		The only parts that will be reused is the fuel level assembly and the large fuel tank O-ring which can be placed back into the fuel tank channel.	
		To remove the fuel level sensor, first free the 2 wires from the plastic stays. Next, unplug the 2 position connector from underneath the fuel hat, as shown.	
14		To disengage the fuel level sensor from the OEM bucket, squeeze the outer lock (shown green) and simultaneously push the sensor upwards (shown blue) to release.	
15	Cutters	Cut the 2 fuel level sensor wires leaving as much slack as possible with the fuel level sensor itself.	
16	3/8" Nut Driver	As shown, the fuel hanger is prewired for 1 fuel pump.	
		NOTES:	
		1. Add the appropriate amount of the (provided) wiring connectors to the bottom of the fuel hat. Be sure to reference the terminal labeling on the top side.	
		2. If installing Deatschwerks DW440 pump(s), the preassembled wiring must be removed. Wiring for these pumps will be performed in a later step.	

17	Oil Lubrication	20-1090 FUEL PUMP HANGER ONLY	
	1/8" Allen Wrench	Find the triple pump collector and the 2AN ORB plugs in the kit. Reference the list below to determine how many plugs should be installed. Be sure to lubricate the O-ring(s).	
		Single pump applications: Use 2 plugs (shown)	
		Dual pump applications: Use 1 plug	
		Triple pump applications: Use 0 plugs	
18	Oil Lubrication	20-1092 FUEL PUMP HANGER ONLY	
	1/4" Allen Wrench	Find the triple pump collector and the 6AN ORB plugs in the kit. Follow the list below to determine how many plugs will need to be installed. Be sure to lubricate the O-ring(s).	
		Single pump applications: Use 2 plugs (shown)	
		Dual pump applications: Use 1 plug	
		Triple pump applications: Use 0 plugs	
19		20-1092 FUEL PUMP HANGER ONLY	
		To install the Walbro F900002XX pump(s), first inspect the outlet hose barb. If deformed, modified or damaged, the Radium pump adapter will not install correctly and the pump cannot be used.	
		Slide the black collar over the pump outlet with the flat surface upward. Slip the stainless steel retainers between the 2 large hose barbs. When assembled, they will get lodged under the hose barb ridge closest to the end of the pump outlet. Place the included O-ring on the pump outlet, as shown.	
20	Oil lubrication	20-1092 FUEL PUMP HANGER ONLY	
	Thread Locker	To permit the fitting to swivel when assembled, lubricate the O-ring.	
	2.5mm Allen Wrench	Apply a high strength thread locking compound to the 3 included bolt threads. Slide the black collar upward and line up the green fitting holes to the black fitting threads. Secure and tighten all bolts evenly, as shown.	
21	Oil Lubrication	20-1092 FUEL PUMP HANGER ONLY	
	15mm Wrench	Lubricate the external O-ring(s) on the green 6AN pump outlet fitting(s).	
		Tighten the pump outlet fitting(s) to the triple pump collector port(s). Swivel the fuel pump(s) around so the connector wires are facing outwards, as shown.	
22	Oil Lubrication	20-1090 FUEL PUMP HANGER ONLY	
	Heat Gun	If installing AEM 50-1220 compact fuel pump(s), use the plastic submersible tubing provided in the kit (not the rubber submersible hose).	
	Phillips Screwdriver		
		Lubricate the pump barb and the inner walls of the tube. Apply a small amount of heat and quickly insert. Secure the tubing to the pump(s) using the provided EFI clamp(s).	

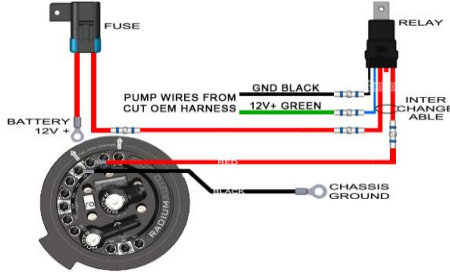
23	Screwdriver	20-1090 FUEL PUMP HANGER ONLY If installing Deatschwerks DW440 fuel pump(s), use the submersible rubber hose provided in the kit (not the plastic submersible tubing). Cut the hose to 52mm for each fuel pump. Secure the hose to the fuel pump(s) using the provided EFI clamp(s).	
24	Screwdriver	20-1090 FUEL PUMP HANGER ONLY Insert the provided EFI clamp(s) over the hose then install the pump(s) to the collector. Secure the hose to the pump(s) using the EFI clamp(s). Triple Deatschwerks DW440 fuel pumps shown, but the same procedure is required for AEM 50-1220 pumps.	
25	Cutter	20-1090 FUEL PUMP HANGER ONLY If installing a Deatschwerks DW440 fuel pump, a wire harness (not included) is required. This is typically provided by the pump manufacturer. Plug in the connector to the pump. Cut off the connector on the opposing end leaving as much wire as possible with the pump.	
24	Wire Stripper	20-1090 FUEL PUMP HANGER ONLY If installing a Deatschwerks DW440 fuel pump, strip the insulation off the end of the wires. Place small diameter heat shrink over the wires, as shown.	
25	Wire Crimper	20-1090 FUEL PUMP HANGER ONLY	
	Heat Gun	If installing a Deatschwerks DW440 fuel pump, install the included ring terminals and heat shrink as shown. DW440 Brushless Fuel Pump: White Wire = "A" Blue Wire = "B" Orange Wire = "C" Black Wire = "G" (<-this ground is shared with pump 1,2,3)	
26	3/8" Socket Wrench	20-1090 FUEL PUMP HANGER ONLY If installing Deatschwerks DW440 pumps, the ring terminals must be installed later (during fuel tank installation). If installing AEM 50-1220 pumps, find the extension harness (shown). Plug this into the pump(s) now.	

27		Flip the fuel pump assembly over. Press the black fuel filter mount onto the pump inlet(s), as shown.	
28		Insert the long M6x1mm hex bolt through the fuel filter mount center hole, as shown.	
29	Torque Wrench	Loosely secure the hex bolt. Do NOT overtighten!	
	10mm Socket	Torque Spec: 1 Nm (9 lb-in)	
30		Insert the filter strainer into the lower green filter mounting tabs, as shown,	
31		There are six #5-40 screws included in the kit.	
		Three screws are short (1/4" thread length) and the other three screws are long (5/16" thread length), as shown.	
32	3/32" Allen Wrench	Install the three short #5-40 screws in every other hole in the exact pattern depicted. Notice how the screws are installed to the right side of each fuel pump.	
		NOTE: The three long #5-40 screws will be installed next.	

33	3/32" Allen Wrench	Insert the fuel pump assembly into the collector box.	
		Now flip the collector box upside down. If the screws (from the previous step) were properly located, there should be 3 open threaded holes.	
		Use the three long #5-40 screws to secure the collector box to the fuel pump filter mount assembly.	
34	Wire Stripper	Strip 3/16" of insulation off the fuel level sensor wires.	
	Crimper	Not critical, but it is recommended to twist the wires together for added flexibility.	
		Crimp the 2 included terminals to each wire using a tool such as Molex 63811-1000 hand crimper (shown).	
35		Properly orient the terminals and slide them into the 2 position plastic connector until a "click" is felt. There is no polarity (it cannot be wired backwards).	
36		Find the six M5x0.8mm socket head screws and the six O-rings in the kit. Insert the O-rings over the threads and against the bolt heads, as shown.	
37	4mm Allen Wrench	The fuel pump hanger will be installed in 2 different sections (upper half and lower half).	
	5mm Allen Wrench		
		Drop in the lower fuel pump section into the tank. Rotate the assembly around so the integrated fuel level mount (shown) is towards the rear of the car.	
38		Now insert the fuel level sensor into the tank. While both are inside the tank, attach the level sensor to the collector box.	
		NOTE: The fuel level sensor can NOT be preinstalled. The entire assembly will not fit through the hole in the tank.	

39		Grab the upper fuel hat assembly and hold it above the lower fuel pump assembly.	
40	3/8" Socket Wrench	20-1090 FUEL PUMP HANGER ONLY If installing Deatschwerks DW440 fuel pump(s), install the 4 fuel pump ring terminals to the appropriate studs under the fuel hat while referencing the labeling on the fuel hat top. White Wire = "1A or 2A or 3A" Blue Wire = "1B or 2B or 3B" Orange Wire = "1C or 2C or 3C" Black Wire = "G" (<-this ground is shared with pump 1,2,3)	
41		As shown, plug in the 2-pin fuel level sensor connector.	
42		Reference the top of the fuel hat for properly orienting the lower fuel pump assembly. On the perimeter of the fuel hat, there are "FUEL LEVEL LOCATIONS" engraving that locates where the fuel level "SENSOR" and "FLOAT" will be when fully installed.	
43		Loosely hand tighten the 2 provided all-thread studs (shown red) in the exact locations shown. NOTES: 1. As depicted, verify the fuel level sensor/float is at the rear. 2. The all-thread studs will be removed in a later step. 3. Install the OEM gasket into the fuel tank opening. 4. Lineup and seat the gasket (shown) to the merge collector.	
44		Slowly lower the upper section making sure the wires are clear of the merge collector. Lineup and allow the 2 studs (shown pink) to penetrate the exact fuel hat holes shown. Be certain the wires are not in the way. This would create an internal fuel pressure leak.	

45	4mm Allen Wrench	To make the following process easier, temporarily remove the FUEL PUMP OUT fitting. Install the screws into the 4 holes (shown red). Replace the all-thread studs (shown) with the remaining screws. Do not torque yet.	
		NOTE: For servicing pump(s), the O-rings under the 6 screw heads will likely stay in the counterbores when removed. Retrieve the O-rings and reinstall them to the 6 screw heads.	
46		Lineup the slots in the OEM lock ring to the fuel tank opening. To set the lock ring, spin the tool clockwise.	
47	Torque Wrench	Torque the six M5x0.8mm screws to 3.4 Nm (30 lb-in).	
	4mm Allen Wrench	Reinstall the FUEL PUMP OUT fitting.	
	5mm Allen Wrench		
48		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		NOTE: For the plumbing kits, the entire OEM feed line will be repurposed as a return line.	
		Push the OEM line onto the RETURN fitting until a "click" is felt. Give the line a tug to confirm it has locked in place.	
49	Cutter	Cut the OEM connector off leaving just enough wire if the connector ever needs to be reattached.	
50	Wire Stripper	As shown, strip 3/16" (5mm) of insulation off each wire.	

51	Wire Crimper	SINGLE PUMP APPLICATIONS ONLY	
	Heat Gun	The OEM Honda wiring for the LPFP is designed for 15 amps. If a pump draws more current than 15 amps, it is not recommended to use the factory wiring.	
		Use the small heat shrink and small ring terminals for a single 2-wire (non brushless) fuel pump.	
52	Wire Crimper	Use the small heat shrink and small ring terminals for the small gauge fuel level sensor wires.	
	Heat Gun		
	8mm Nut Driver	Secure the ring terminals with the acorn nuts.	
		-Green wire to PUMP1 +	
		-Black wire to PUMP1 -	
		-The Mauve/Purple and Mauve/Red wires are for the fuel level sensor. The sensor has no polarity. These 2 wires cannot be wired backwards.	
53		AFTERMARKET FUEL PUMP WIRING	
		An independent relay and fuse MUST be used for each pump. This schematic is using RADIUM P/N: 17-0031 on PUMP 1. It may apply unless the second pump will be staged by an adjustable pressure switch (Radium P/N: 20-0236) or an ECU trigger. Neither scenarios are detailed here.	
		NOTE: For brushless fuel pump controllers, use the manufacturer's suggested wiring diagram.	
54	Flat Blade	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Safely lift the car. The plastic lower panel located at the LH rear of the vehicle will need to be uninstalled.	
		To remove the 8 plastic clips, carefully pry and pull.	
55	17mm Socket	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Remove the 3 large plastic nuts.	
56	10mm Socket	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Remove the four M6x1mm screws.	

57		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Shown is all the hardware laid on top of the removed plastic lower panel.	
58	7/8" Wrench	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
	Adjustable Wrench	Find the short 8AN PTFE hose in the kit. The hose will be routed around the backside of the fuel tank and down to the LH side of the fuel tank.	
59	12mm Socket	Support the LH portion of the fuel tank. Remove the OEM M8x1.25mm mounting hex bolt that secures the outer LH side of the fuel tank.	
60	5mm Allen Wrench	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Using the provided countersunk M8x1.25mm socket head screw, install the upper portion of the fuel filter mount exactly as shown.	
61	Oil Lubrication	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
	Adjustable Wrench	Lubricate the O-rings on the provided 10AN ORB to 8AN male fittings. Secure the fittings to the fuel filter ports.	
	1" Wrench		
62	Thread Locker	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
	4mm Allen Wrench	Apply a medium-strength thread locker to the two fuel filter M5x0.8mm socket head screws. Orient the fuel filter so the green outlet is pointing towards the front of the vehicle. Secure using the M5x0.8mm socket head screws.	
	7/8" Wrench		
	Adjustable Wrench		
	Secure the 45 degree hose end (from the fuel pump hanger) to the fuel filter inlet port, as shown.		

63		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		There are 3 plastic fuel/brake line retainers underneath the center portion of the car. These will be replaced.	
		First, gently pull the heat shield down to expose the lines. Next, spread the locks away from the threaded studs.	
64		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Next, pry the plastic fuel/brake line retainers downward away from the chassis.	
65		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		One of the plastic fuel/brake line retainers is shown.	
66	11mm Socket	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		The replacement retainers are 2 piece. As shown, install the black upper portions using the included plastic flanged nuts.	
67	2.5mm Allen Wrench	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Find the long 8AN PTFE hose, the 3 lower (green) retainers, and the 6 small M3x0.5mm screws in the kit.	
		Starting from the center retainer, secure the long 8AN PTFE hose, as shown.	
68	2.5mm Allen Wrench	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Now secure the long 8AN PTFE hose using the front and rear retainers, as shown.	

69	Cutter	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Attempt to thread-on the 45 degree hose end (from the long 8AN PTFE hose) to the fuel filter outlet fitting. Slide the hose through the 3 retainers for optimal fitment. Hand tighten the 45 degree hose end. Using a cable zip tie, secure the long 8AN PTFE hose to the hard line in the area shown in red.	
70	7/8" Wrench	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
	Adjustable Wrench	Secure the 45 degree hose end to the fuel filter outlet.	
71	Cutter	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Run the long 8AN PTFE hose up to the engine bay. Using a cable zip tie secure the long 8AN PTFE hose to the hard line in the area shown in red.	
72	10mm Socket	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
	Extension	Unscrew the vacuum line mounting bracket screw.	
73		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Unlatch the vacuum lines and remove the bracket from the engine bay.	
74		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Temporarily disconnect the "Y" vacuum fitting.	

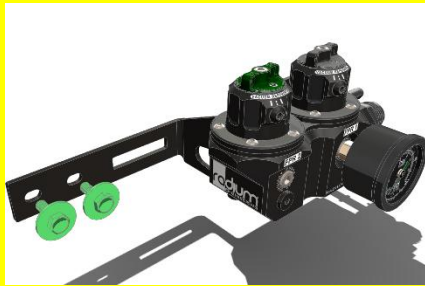
NOTES:

1. The OEM M6x1mm screw will be reused.
2. FK8 Honda Civic Type-R shown.

75		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		To permit more space for the fuel pressure regulator, reroute and reconnect the vacuum lines underneath everything, as shown.	
		NOTE: FK8 Honda Civic Type-R shown.	
76	10mm Socket	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Unscrew the two exposed M6x1mm hex bolts that secure the metal cover to the fuel line bracket on the firewall. Remove the metal fuel line cover from the vehicle. It will NOT be reused.	
		NOTE: FK8 Honda Civic Type-R shown.	
77	Flathead Screwdriver	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		To release the fuel line from the bracket, push the plastic mounting tab lock from the backside. When disengaged, the plastic tab will rotate up and forward, as shown.	
78		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		As shown, pry up to remove the plastic SAE quick connect cover from the OEM fuel line on the firewall.	
		NOTE: FK8 Honda Civic Type-R shown.	
79		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		To dislodge the OEM fuel line, pull it away from the firewall. This will expose the two M6 bolts that secure the fuel line bracket to the firewall.	
		NOTE: FK8 Honda Civic Type-R shown.	
80	Rag	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		To disconnect the OEM fuel line, first push the SAE quick connect fitting further onto the hard line. Next, squeeze the outer locks inward and simultaneously pull the connection apart, as shown. Be prepared as fuel will leak from the area. Remove the SAE quick connect lock from the hard line.	
		NOTE: FK8 Honda Civic Type-R shown.	

81	10mm Socket	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Unscrew the two M6x1mm bolts that hold the fuel line bracket to the firewall. Remove the bracket (shown).	
		NOTES:	
		1. The OEM M6x1mm screw will be reused.	
		2. The OEM mounting bracket will NOT be reused.	
		3. FK8 Honda Civic Type-R shown.	
82		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		As shown, pry up to remove the plastic SAE quick connect cover from the OEM fuel line at the HPFP (high pressure fuel pump).	
		NOTE: FK8 Honda Civic Type-R shown.	
83	Rag	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		To disconnect the OEM fuel line, first push the SAE quick connect fitting further onto the HPFP. Next, squeeze the outer locks inward and simultaneously pull the connection apart, as shown. Be prepared as fuel will leak from the area.	
		NOTE: FK8 Honda Civic Type-R shown.	
84	Pick	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Release the fuel line from the plastic stay.	
		NOTE: FK8 Honda Civic Type-R shown.	
85		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Remove the soft line from the vehicle. It will NOT be reused.	
		NOTE: FK8 Honda Civic Type-R shown.	
86	Pick	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		As shown, remove the SAE quick connect lock from the HPFP.	
		NOTES:	
		1. Both SAE locks can be reinserted into each end of the OEM soft line for storage.	
		2. FK8 Honda Civic Type-R shown.	

87		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		NOTES:	
		1. Radium Engineering makes an optional port injection kit (shown) for the Honda K20C1 engine.	
		2. The provided DFPR (dual fuel pressure regulator) has the ability to run an isolated independent fuel pressure for port injection via the FPR2 OUT port.	
		3. FPR1=Direct Injection, FPR2=Port Injection	
		4. Port injection will NOT be further discussed in this manual.	
88	Threadlocker	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
	1/8" Allen Wrench	Use a wicking threadlocker, such as green Loctite, when installing the vacuum port fittings on the DFPR.	
		To mimic the factory "constant" pressure for the direct injection system, screw the plug (shown pink) into the FPR1 vacuum port. If using port injection, there are optional fittings for a 1:1 fuel pressure ratio. Otherwise, plug the FPR2 vacuum port (shown pink).	
89	Oil Lubrication	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
	7/8" Wrench	Lubricate the O-rings and install the fittings, as shown.	
	4mm Allen Wrench	PUMP IN: 8AN ORB to 8AN Male	
	5/16" Allen Wrench	FPR1 OUT: 8AN ORB to SAE Quick Connect Straight	
		RETURN: 8AN ORB to SAE Quick Connect 90deg Banjo	
		FPR2 OUT: 8AN ORB Plug (unless port injection will be used).	
90	PTFE Paste	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
	3/16" Allen Wrench	If port injection is being used, a sensor or gauge (not provided) can be installed into the FPR2 auxiliary port.	
		Otherwise, apply plumber's paste to the threads of the provided 1/8" NPT plug. Hand tighten the plug, then add an additional 1.5 to 3 turns with a wrench.	
91	PTFE Paste	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
	11mm Wrench	Apply plumber's paste to the threads of the provided fuel pressure gauge. Hand tighten the gauge to the FPR1 auxiliary port, then add an additional 1.5 to 3 turns with a wrench.	
92	5mm Allen Wrench	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Find the two M6x1mm bolts (shown orange) and the DFPR mounting bracket (shown yellow).	
		Install the assembled DFPR to the mounting bracket.	

93		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		As shown, the DFPR assembly (depicted in purple) is slid over the OEM fuel line (depicted in yellow).	
94	10mm Socket	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		When mounting the DFPR assembly, the FL5 Civic uses the hole location shown in blue. Install the LH side of the assembly to the firewall using the OEM M6x1mm screw.	
		TIP: loosely thread the screw into the firewall then slide the bracket underneath the flanged hex head.	
95		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Using the 2 OEM M6x1mm screws (shown green), secure the RH side of the DFPR assembly to the firewall.	
96		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Two EFI hoses will be assembled and plumbed to the engine as illustrated. Reference this picture for the next few steps.	
97	Hose Cutter	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Cut the provided 3/8" (6AN) EFI hose in half.	
98	Oil Lubrication	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
	9/32" Nut Driver	Find the 90 degree SAE quick connect fitting and one of the EFI hose clamps in the kit. Lubricate the barbs and insert the SAE quick connect into one of the hoses. Secure the hose with an EFI clamp, as shown.	
		Temporarily install this fitting to the DFPR "RETURN" port.	

99	Marker	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
	Hose Cutter	Find one of the straight SAE quick connectors in the kit. Temporarily install it to the OEM fuel line on the firewall. Make a cut line mark on the hose, remove it, and put it on a workbench.	
	Oil Lubrication		
	9/32" Nut Driver		
		Cut the hose. It will be around 14" (356mm) long. Lubricate the barbs and insert the straight SAE quick connect. Secure the hose with an EFI clamp, as shown.	
100		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		The finalized return line will look as pictured. Install in the vehicle.	
101	Oil Lubrication	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
	9/32" Nut Driver	Find the 45 degree SAE quick connect fitting and one of the EFI hose clamps in the kit. Lubricate the barbs and insert the SAE quick connect into the other hose. Secure the hose with an EFI clamp, as shown.	
		Temporarily install this fitting to the "FPR1 OUT" port.	
102	Marker	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
	Hose Cutter	Find the other straight SAE quick connectors in the kit. Temporarily install it to the HPFP. Make a cut line mark on the hose, remove it, and put it on a workbench.	
	Oil Lubrication		
	9/32" Nut Driver		
		Cut the hose. It will be around 13.5" (343mm) long. Lubricate the barbs and insert the straight SAE quick connect. Secure the hose with an EFI clamp, as shown.	
103		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		The finalized feed line to HPFP line will look as pictured. Install in the vehicle.	
104	7/8" Wrench	<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u>	
		Install the long 8AN PTFE feed line (from underneath the car) to the DFPR "PUMP IN" port, as shown.	

105	10mm Socket	Reinstall the battery.	
		Switch the ignition to the ON position. While observing the dashboard, add fuel to the tank and verify the fuel level gauge is working properly.	
		Start the engine and check for leaks.	
106		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u> NOTE: From Honda, the fuel pressure upstream of the HPFP is regulated around 4.8bar (70psi). The exact pressure varies depending on the engine's operating status and speed. Discuss with your tuner what should be an ideal target fuel pressure for your specific application.	
107		<u>20-1095-03/05 FUEL HANGER PLUMBING KIT ONLY</u> Turn the knobs clockwise to increase pressure and counterclockwise to decrease pressure. If not using port injection, adjust FPR1 first. Now adjust FPR2 up until it starts raising FPR1 with it. Now back FPR2 down a couple clicks. Performing this step will prevent regulator noise. If using port injection (FPR2), note the following: 1. FPR2 pressure will always be equal to or less than FPR1 pressure. It cannot physically be higher. 2. If FPR2 is 1:1 boost referenced, FPR1 pressure will increase accordingly to match FPR2.	
108		Reinstall all components in reverse order.	
		INSTALLATION COMPLETE	