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Revision  
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## 22RE LC PRO FUEL INJECTION PLATE KIT (FOR KIT #3 ONLY) Part # 1065000

The LC Engineering Pro Fuel Injection System will give you total control over the fuel and ignition curve of your engine. This system can be programmed to handle unlimited engine modification, performance options and environmental changes.

With this level of performance, careful engine tuning is required. Keep records on what your settings are and what changes you make. This will give you a reference tool regarding the setup you use for your system.

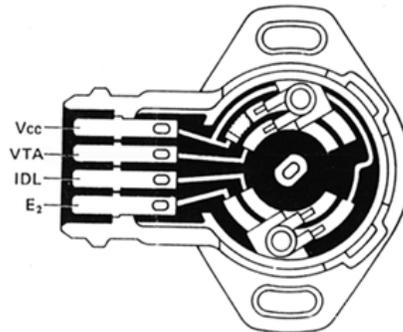
**Warning: Improper ignition timing and/or setting the fuel mixture too lean or too rich will damage your engine.**

Follow the guidelines in the SDS instructions for base setup. For computer and programming support, please call LC Engineering technical support at (928) 855-6341

### Throttle Position Sensor (TPS) Instructions

Connect the SDS wiring harness TPS wires to the stock Toyota 85-95 TPS Switch. Unscrew the TPS switch and reposition it pointing toward the fire wall for wire layout convenience. Connect wires as follows:

Red Wire	=	Vcc
White or Green Wire	=	VTA
No Wire	=	IDL
Black Wire	=	E2



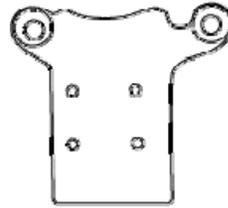
We recommend soldering and shrink wrapping your wire connections to ensure a strong connection that will not loosen up over time. We also recommend testing your throttle position sensor and replacing as needed. It can be very frustrating to track down a running issue when it is caused by a bad TPS. LC Engineering also has a TPS mounting kit that consist of allen head screws and a with a ball headed allen wrench for easier accessibility and adjustment.

The following pages have a list of items and guidelines for installing the LC Engineering Plate Kit and Pro Fuel Injection. For more in depth installation support on this kit please call LC Engineering Technical Support at 928-505-2501.



## 1063036 Magnet Pick Up Bracket

<u>Hardware:</u>	1	8mm x 1.25 x 40 Flat Head Allen
	1	8mm x 1.25 x 45 Flat Head Allen
	1	8mm x 1.25 x 50 Flat Head Allen
	2	1/4" Spacer



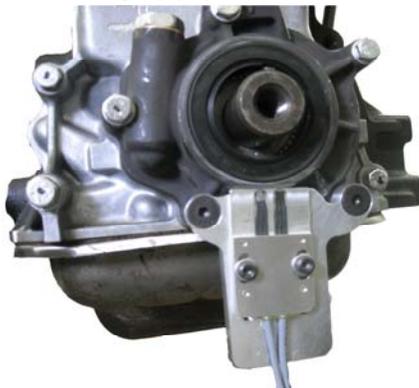
### Instructions:

- 1 If you are using an LC Engineering Underdrive Crankshaft Pulley you will need to follow the next step of the instructions. If you are using a stock crankshaft pulley skip to step #3.
- 2 In order to achieve proper pick up sensor depth you will need to file or cut approx 1/8" off the top of the pick up and 1/8" off the bottom of the oil pump. Be carefull not to cut into the oil seal on the pump or into the sensor strips on the pick up!! We recommend trimming the oil pump while it is off the vehicle and replace the front seal after the work is done. See pics below to see where to trim the oil pump housing and pick up.



- 3 If you are using the stock oil pump pulley then there is no modifications required to the pump or pick up.
- 4 Mount the pick up bracket onto the oil pump using the lower mounting holes.
- 5 The kit is supplied with 3 different bolts depending on what timing cover and chain kit you are using.
  - a. Early engines(81-84) with either single or dual row chains and late(85-95) engines with our dual row conversion kit will use the 40mm bolt on the passanger(RH) side and the 45mm bolt on the drivers(LH) side of the oil pump. You will not need the 1/4" spacers for these applications.
  - b. Late engines(85-95) with single row chains will use the 45mm bolt on the passanger(RH) side and the 50mm bolt on the drivers(LH) side of the oil pump. You will need to install the 1/4" spacers on the mounting bolts between the oil pump and the bracket for these applications.
- 6 Use the hardware supplied with the pick up sensor to mount the sensor onto the bracket.
  - a. For the underdrive applications you will use the top set of bolt holes on the bracket. For a stock pulley you will use the lower set of bolt holes on the bracket.
- 7 Verify proper magnet to pick up clearances per S.D.S. instructions.
  - a. The magnets shoud protrude approx. .040" to .050" out from the pulley.
  - b. The magnets should pass right over the black square on the pick up sensor.
  - c. You should have a minimum of .080" and a maximum of .120" clearance between the magnets and the pick up.
- 8 Be sure to route the pick up wires out of the way of any heat or moving parts to prevent damage.

**Underdrive**



**Stock Pulley**





**1032006 Water Block Off (Under Manifold)**

Hardware	2	6mm x 1.00 x 12mm Hex Bolt
	2	6mm Flat Washer

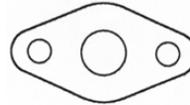


**Instructions:**

This plate will mount underneath your EFI manifold to eliminate the water pipe that runs over to the heater core. You may or may not use this depending on your application. If you do use it we supply new bolts and washers to mount it. Use a small amount of silicone to seal it to the manifold (we recommend Ultra-Grey).

**1063012 Air Temp Plate**

Hardware	2	6mm x 1.00 x 12mm Hex Bolt
	1	6mm Flat Washer



**Instructions:**

This plate will locate the air temp sensor into the old cold start injector location. Use the supplied hardware and a very small amount of sensor safe silicone to seal the plate to the manifold. If your original gasket is in good shape you can re-use it without any silicone.

**\*Also included, a M8 1.00 x 10mm Hex Bolt and a M8 Crush Washer for removing the cold start injector feed line from the fuel rail. Simply remove feed line and install Hex Bolt with Crush Washer into the fuel rail.**

**1016005 EGR Block Off (Head)**

Hardware:	3	8mm x 1.25 x 20mm Hex Bolt
	2	8mm Flat Washer



**Instructions:**

With the LC Pro Fuel Injection Kit you will no longer need to run an EGR valve. This plate will block off the EGR passage on your cylinder head. Use a small amount of silicone to seal it to the head (we recommend Ultra-Grey).

**1032005 EGR Block Off (Manifold)**

Hardware:	2	8mm x 1.25 x 20mm Hex Bolt
	3	8mm Flat Washer



**Instructions:**

With the LC Pro Fuel Injection Kit you will no longer need to run an EGR valve. This plate will block off the EGR passage on your intake manifold. Use a small amount of silicone to seal it to the manifold (we recommend Ultra-Grey).

**1085003 Ignition Coil Mount Plate**

Hardware	4	10-24 x 3/8" Flat Head Allen
	3	6mm-1.00 x 20 Flat Head Allen



**Instructions:**

This plate can be used to mount the new coil pack. It is designed to fit in the stock igniter but can be used to mount the coil packs wherever you choose.

**1063033 Map Sensor Mount Plate**

Hardware	2	10/24 x 1 Allen Screw
	2	#10 Flat Washer
	1	8mm x 1.25 x 20mm Hex Bolt
	1	8mm Flat Washer



**Instructions:**

The LC Pro Fuel Injection Kit comes with a new MAP sensor. We supply a plate to mount this new sensor onto your valve cover or back of the intake plenum.

**1081024 Distributor Plug**

**Instructions:**

Remove the valve cover. Lubricate the o-ring on the distributor plug and install in the hole (where the distributor used to go). Be sure to orient the plug so that the set screw is easily accessible. Tighten set screw down to hold plug in place.