

Design Engineering, Inc

604 Moore Road  
Avon Lake, OH 44012



Installation Instructions

CryO<sup>2</sup> Fuel Chiller System

PART NO. 080125

KIT CHECKLIST

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1	Cryogenic Fuel chiller w/ bracket
1	Vent /Connection Hose
1	Vent Plug 1/8npt with hole
1	1/8" to 1/8" NPT close nipple Fitting
1	4AN m-1/8m fitting
1	4ANm-1/8f fitting
2	6ANm-#6m fitting
2	3/8 barb-#6m fitting
1	4ANm-#6m fitting
1	1/8" NPT female-#6m fitting

NOTE

You will need to arrange to tap into existing fuel line. Note that the fuel chiller has #6 female pipe openings. If using with a fuel injected motor, be aware of the pressure and the proper clamps/hardware needed.

DIRECTIONS

- 1 - Install CryO<sup>2</sup> system tank & Install Kit before starting this installation.  
**NOTE: Install Fuel Chiller with zero fuel pressure, engine cold, and DO NOT install near or around fire**
- 2 - Disconnect existing fuel line. Be sure to drain any excess fuel that may be in the fuel lines.
- 3 - Decide where to mount the Fuel Chiller near existing fuel line. Mount so the fuel inlet / outlet are pointing up. The closer to the engine the better. **CryO<sup>2</sup> entry and exit ports are at the ends of the tube.**
- 4 - If Fuel Chiller is the first component in the CryO<sup>2</sup> system it is recommended that the solenoid valve be mounted directly to the Fuel Chiller using the 1/8-1/8 nipple into the #6-1/8f bushing. Make sure the supply line is on the inlet side of the solenoid and Fuel Chiller is on the outlet side. Install solenoid before wiring and be sure to use teflon paste on all pipe threads.
- 5 - If Fuel Chiller is the last CryO<sup>2</sup> component in the system you will need to vent the CO<sub>2</sub> from the exit port of the Fuel Chiller. You can simply insert the vent plug into the #6-1/8 bushing or use the supplied connection hose to vent remotely. **NOTE: Make sure CO<sub>2</sub> is vented and directed away from the air intake. CO<sub>2</sub> can be directed to other CryO<sup>2</sup> components such as a CryO<sup>2</sup> Air Intake or Intercooler Sprayer - see step # 9 below. Be sure to use Teflon paste on all pipe threads.**
- 6 - Wire the Solenoid valve per instructions and test the CryO<sup>2</sup> system for leaks.
- 7 - Arrange for the fuel connection. Making sure all pipe threads have teflon paste and AN fittings are securely seated.

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- 8- **Using CAUTION!!!** Start the fuel pump begin fuel flow. Have someone monitor the fuel inlet and outlet of the Fuel Chiller for leaks. Be prepared to shut off the system if leaks are detected. It may be necessary to fill the Fuel Chiller prior to the initial test to rid system of air bubbles. Solve leak issue and always re-test.
- 9- If connecting Fuel Chiller to another CryO<sup>2</sup> component, install 1/8"m - 4AN male fitting into bushing at the end of the chiller and connect supplied hose. Route to next CryO<sup>2</sup> component. Remember to vent after the last component.

**WARNING! Keep all released or vented CO<sup>2</sup> away from intake. If CO<sup>2</sup> is drawn in to the motor vehicle may stall due to O<sup>2</sup> deprivation.**



**CryO2 Systems and Components**



**5 & 10 lb CryO2 Kits**



**Intercooler Sprayers**



**3" & 2-1/2" Air Intakes**