PROTAPER. **Patent Pending** 234 230 0000

- Keeps Your Hands Warm
- Maintains Consistent Engine Temp
- Billet Inline Thermostat
- Flow Control Valve
- ProTaper Henry/Reed Bars
- PTFE Black Lines and AN Fittings

- Easy Install
- Compatible with All Hand Guards
- No Stressing Insufficient Charging Systems
- No Dead Battery
- No Delicate, Pain-in-the-Ass Hand Warmer Coils

HQVID HEATED— HANDLEBARS

Keep Your Hands Warm, while Maintaining Consistent Engine Temperature

We have been running these bars on our snowmobiles for a long time. They rock.

The Thermostat is the Key.

One of the root problems are most dirt bikes being converted to snow bikes don't have a thermostat. Dirt bikes were originally designed to be run in hot environments where you need maximum cooling without restriction. When being used as a snow bike the coolant system overpowers the BTU output of the engine, resulting in a cold engine. The OEM ECU monitors the engine coolant temperature and bases many aspects of the engine calibrations on it.

When the fuel and intake track are very cold, the atomization of the fuel is not as efficient. Fuel droplets pool in the intake track or on top of the piston. This negatively effects the efficiency of the combustion chamber. Not only does the engine coolant temperature need to maintain its target temperature, but so does the engine oil. In all gasoline engines a small amount of fuel gets past the piston rings and ends up in the engine oil — especially in stock snow bikes run for long periods with cold coolant and oil. When the engine oil temperature is at proper operating temperature, the oil flashes off any fuel found in the oil. If the oil isn't at operating temperature the crankcase will slowly fill with fuel, and over long runs — like those in the cold mountains — the engine can hydro lock. Some snow bikers have already experienced this situation. This problem gets exaggerated because the ECU commands a richer fuel mixture when it sees a cold coolant reading. The OEM ECU does this for many reasons, such as combating 4-point seizures on the piston from not letting the engine warm up.

So when riding a stock snow bike without a thermostat, in typical cold conditions, you will have an extremely rich air/fuel ratio — causing horrible fuel consumption, calibration tables limiting maximum horsepow-

er, and risk severe engine failure from fuel thinning out the engine oil. Or a seizure.

Our fix: Install a thermostat and maintain a consistent target engine temp.

How a Thermostat Works — The type of thermostat we are talking about is a mechanical auto adjusting valve that restricts the flow of the coolant system. A properly selected thermostat is what controls and maintains a liquid cooled combustion engine's operating temperature. When the engine coolant is cold, the valve is closed. Once the engine gets up to operating temperature, the valve opens a little, and starts to allow coolant to flow to the radiator. When the engine is hot the valve opens more, allowing the coolant to flow through the radiator to dissipate excess heat. As the engine heats up or cools off, due to environment or work load, the valve self-adjusts to maintain a targeted 180°F, the proper engine temperature.

The Heated Handlebars

Dirtbike engines do not have enough power output to power coil style grip heaters. Even on the electric start bikes the battery gets drained completely and will not start in the middle of the mountains.

With our patented system, engine coolant is routed through the bars which takes no electricity and sets a perfect temperature. The high-pressure side to the bars is routed from the back side of the thermostat so you have warm bars in less than 30 seconds of starting of the engine. Since the bars are the highest point on the cooling system, the bars stay warm for up to 15 minutes after you shut the engine off, due to a natural thermo-siphon.

The throttle side runs the same temperature as the clutch side. It is designed to work with thread-in insert hand guards.

Heated Handlebar Kit Customization

These bars can easily be mounted onto a snowmobile with a 7/8" to 1 1/8" bar adapter which we have in stock. We are more than happy to build you a custom

kit for you snowmobile application with everything needed for the same cost to you as advertised, we will just need the following information: 1) Low-Pressure Coolant Line Diameter. 2) High-Pressure Coolant Line Diameter. 3) Length of Low-Pressure handlebar coolant line. 4) Length of High-Pressure handlebar coolant line.

Raze Liquid Heated Handlebars Feature

Billet Inline Thermostat — provides consistent engine temperature for better power, fuel consumption, and it protects your engine from the perils of running a cold engine.

ProTaper Henry/Reed Bars — These oversize diameter, impact absorbing handlebars have Raze's patent-pending system inside, and are threaded to attach the coolant lines to.

PTFE Black Lines, and AN Fittings —

All parts needed for installation are included.

Temperature Control Valve — Before we had the control valve, we were roasting our hands on spring condition days. Now you can control the bar temp with the valve.

Hand Guard Compatible — Works with all hand guards including thread-in insert guards

No Electricity Needed — No dead batteries, no stressing insufficient charging systems, and no delicate painin-the-ass hand warmer coils.

Easy Install — If you can turn a wrench, you can install these yourself.

