



H V A C S Y S T E M P R O T E C T I O N

Red Dot Model **ProTecht**

DIAGNOSTICS

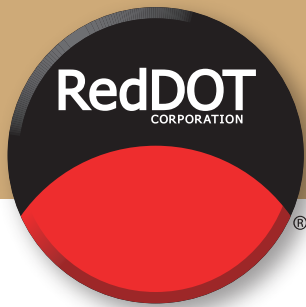
ProTecht



The ProTecht System
A/C System Protection &
Real-Time Diagnostics

Red Dot's ProTecht™ System, the latest in Red Dot's HVAC Reliant Technology™. The patented* ProTecht™ System is comprised of a compact electronic control unit (ECU), that performs input signal processing, A/C system diagnostics, communication with the vehicle's SAE J1708 serial bus and A/C function control through output drivers.

* US Patent No. 6293114



PROTECH™ System Features

PROTECTION FEATURES

- Exhibits visual blink codes providing system protection and troubleshooting diagnostics
- Limits excessive system pressures
- Limits excessive compressor clutch cycling
- Engages the condenser fan based on A/C and vehicle operating conditions
- Prevents compressor clutch from engaging under low battery voltage conditions
- Transmits A/C error and diagnostic codes to the Data Bus
- Displays faults and real-time diagnostics with Windows® based Red Dot A/C Technician software

COMPONENTS

- Electronic Control Unit (ECU)
- Electronic High Side Pressure Transducer
- Refrigerant Charge Sensor
- Wire Harness

FUNCTION AND PERFORMANCE

- Low Battery Voltage Detection
- Compressor Clutch Rapid Cycling Prevention
- High Side Pressure Measurement
- High Side Pressure Limiting
- Condenser Fan Control
- Low Ambient Temperature Compressor Clutch Lock Out
- Low Refrigerant Charge Detection
- Lost Refrigerant Charge Detection
- Compressor Clutch Diagnostics
- Sensor Diagnostics
- Data Bus Communications

ON-BOARD DIAGNOSTICS

- Exhibits visual blink codes providing trouble shooting diagnostics
- Transmits A/C error and diagnostic codes to SAE J1708 Data Bus

ADVANCED DIAGNOSTICS

COMPONENTS

- A/C Technician Software

FEATURES

- Displays diagnostic information
- Displays active fault codes
- Displays clutch current readings
- Displays high side pressure
- Retains fault code history
- Records clutch fan and high pressure cycles
- Records hours of operation
- Saves and prints reports with all relevant data

REQUIREMENTS

- Laptop or desktop PC with Intel 486 or newer microprocessor
- Microsoft Windows® 95/98/NT/2000
- Hard drive with 1Mb free space
- CD-ROM or floppy drive
- 8Mb RAM
- One available serial (COM) port
- VGA or higher resolution monitor
- SAE J1708 Serial interface adapter

RELIANT TECHNOLOGY

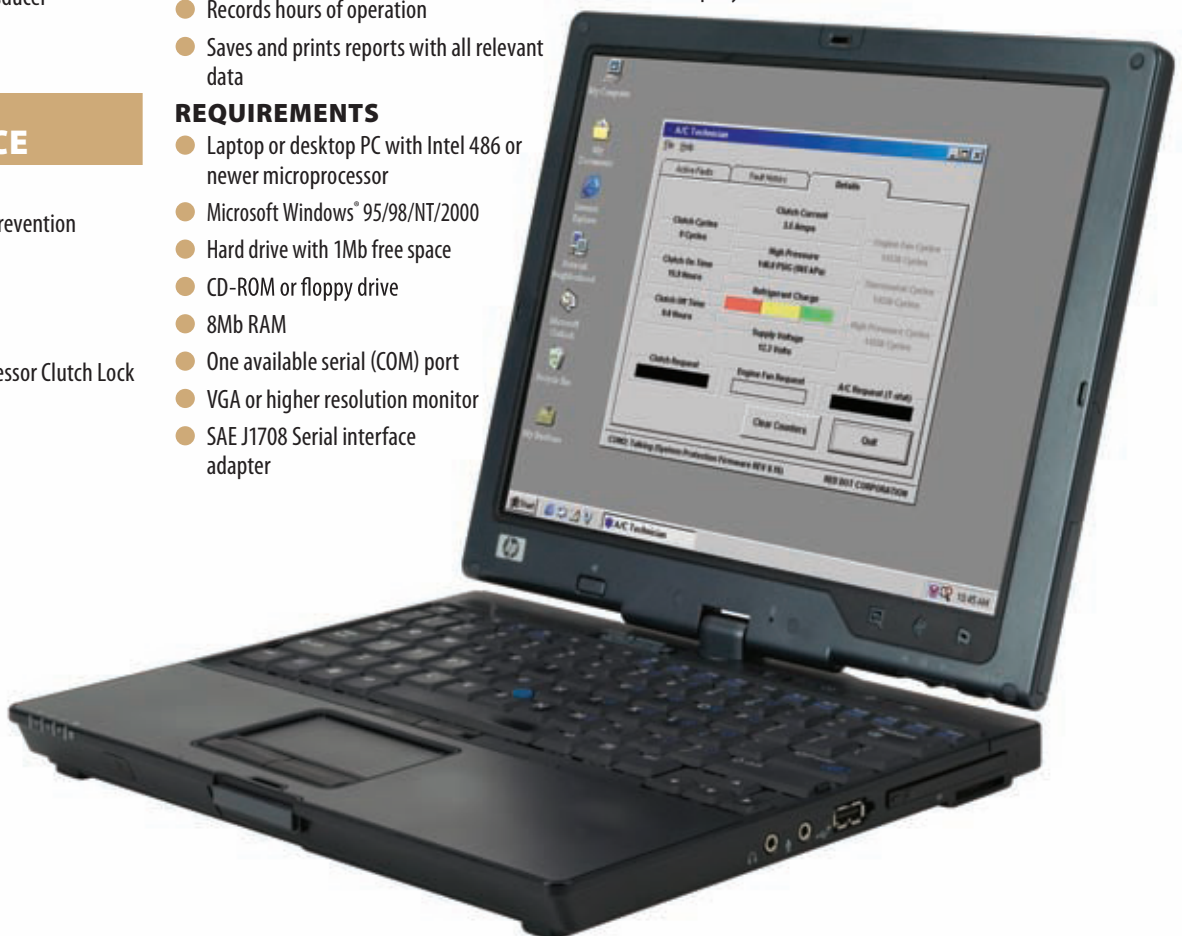
The Red Dot Corporation utilizes advanced microprocessor and sensor technology in the design and production of its HVAC controls and diagnostic systems. We call it **Reliant Technology**. This ongoing commitment to the development of state-of-the-art controls using the Reliant Technology platform has led to a family of products, including:

ATC – Automatic Temperature Controls

PROTECHT – System Protection and Diagnostics hardware that provides sophisticated, real-time diagnostics.

A/C Technician – System Diagnostic Software. Everything you'll need to keep your fleet of vehicles running smoothly. Requires installation of PROTECHT hardware.

Give us a call. We'd love to discuss how our advanced, "Reliant Technology" can benefit you and your company's vehicles.



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