AdaptiView™ Chiller Control Comparison

Trane Tracer™ CH530 control panels were offered on water-cooled Optimus® model RTHD chillers built from 2003 through 2014, water-cooled CenTraVac® chillers built from 2001 through 2008, Series R models RTWD and RTUD chillers built from 2007 through 2024, CGAM chillers built from 2009 through 2023, and RTAC chillers build prior to 2014. These panels have many of the control features of new AdaptiView™ panels. However, they have limited communications and service interface capabilities. For improved user communications, logging and servicing capabilities, and compatibility with Trane Intelligent Services (TIS), Trane Service recommends that these panels be upgraded to new Trane Tracer AdaptiView™ control panels.

Tracer CH530

AdaptiView™

Features	Tracer CH530 Control Panel	Tracer AdaptiView™ Control Panel	AdaptiView™ Benefits
Base Technology	Networked digital sensors and display, controlled by Tracer DynaView™ controller with monochrome graphic display.	Networked digital sensors and display, controlled by Tracer UC800 digital controller and Tracer OD color graphic display.	Provides unit control flexibility and monitoring not possible with early generation digital controls.
Primary Repair Components	Modular digital component design that minimizes cost of individual service parts and all components are used in Trane present production equipment.	Modular digital component design that minimizes cost of individual service parts and all components are used in Trane present production equipment. AdaptiView uses pluggable-style connectors for easy component replacement.	Repair components are in stock and affordable. Cable kits available as an option when upgrading to AdaptiView.
Trane Communications Capability	Same capabilities as AdaptiView.	Compatible with current Tracer Summit™ building automation system.	Communicates with Tracer systems which allows advanced energy saving strategies such as Tracer chiller plant optimization.
Facility Communications Capability	Native LonTalk™. Requires Tracer Summit for Modbus and BACnet communications capability with facility communications systems.	Native LonTalk™, BACnet, and Modbus® communications capability.	Communicates with leading commercial and industrial building management systems. No intermediate panel needed.
Temperature Control Strategy	Same Feedforward control as AdaptiView.	Feedforward Adaptive Control uses open-loop, PID predictive control strategy designed to anticipate and compensate for load changes. It uses evaporator entering-water temperature as an indication of load change.	Responds faster and maintains stable leaving-water temperatures. It also eliminates the inherent proportional error seen with deadband controls.
Variable Primary Flow Compensation	The Tracer CH530 chiller controller uses a patented, variable water-flow compensation algorithm to maintain stable, precise capacity control under changing flow conditions. Variable-flow compensation is a new, optional, control feature that includes water differential pressure-sensor transducers. Variable-flow compensation improves the ability of the chiller to accommodate variable flow.	Tracer AdaptiView uses the same control algorithms as CH530, with an enhanced component set to provide even more precise control. This is an option when upgrading to AdaptiView from CH530, even if your chiller previously did not have this feature.	Varying the water flow reduces the energy consumed by pumps, which can be a significant source of energy savings, depending on the application.

Features	Tracer CH530 Control Panel	Tracer AdaptiView™ Control Panel	AdaptiView™ Benefits
Chiller Protective Control Strategy	Same adaptive protection strategies as AdaptiView.	Adaptive protection strategies - The tracer controller monitors chiller refrigerant temperatures, refrigerant pressures and electrical phase imbalances and adjusts chiller operation when conditions approach alarm limits. An example of such a condition is when there is a partial failure of a cooling tower, limiting total capacity.	Maximizes the ability to keep the chiller running under adverse phase imbalance and refrigerant conditions.
Motor/Power Protective Control Strategy	Same advanced starter protections as AdaptiView.	Advanced motor/power protection - Digital control protection from current overload, phase imbalance, phase loss, momentary power loss, and over and under voltage variations.	Digital controls are more accurate and faster than analog overload controls. Also, AdaptiView provides voltage imbalance and dry run protections that address important causes of chiller failures.
Power Failure Recovery Strategy	Same adaptive fast restart method as AdaptiView.	Fast Restart - The controller allows the chiller to restart during the postlube process. If the chiller shuts down on a nonlatching diagnostic, the diagnostic has 30–60 seconds to clear itself and initiate a fast restart. This includes momentary power losses.	Typically restarts 30-60 seconds after a power failure.
Performance Monitoring Capability	Same performance monitoring parameters as AdaptiView.	Capable of measuring entering and leaving water, oil temperature, tons, power consumption, power factor (uncorrected), compressor phase amps, and compressor phase voltage.	Allows users to monitor and diagnose chiller operation trends.
Logging and Reporting	Current status and alarms are indicated on monochrome LCD display.	Recorded data logs include ASHRAE 3 report, Custom report, Graphical custom historical data log, and 100 alarm log.	Allows users to monitor and diagnose chiller operation trends.
Setpoint Saving and Backup	Setpoints can be edited and stored for backup using Tracer Techview™.	All unit configurations and setpoints are recorded digitally via Tracer TU and KestrelView™ allowing complete backup and restoring of unit operating parameters.	Speeds replacement and assures accuracy in case the panel requires repair.

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