SIMPLICITY® SMART EQUIPMENT CONTROLS SYSTEM

FAULT DETECTION AND DIAGNOSTICS (FDD) FOR 3 – 40 TON PACKAGED PRODUCTS
CONVENIENCE AND CONTROL — SIMPLIFIED

MAXIMIZE THE PERFORMANCE OF ROOFTOP UNITS WITH TEMPMASTER® FAULT DETECTION AND DIAGNOSTICS

Today, buildings are being affected by changing occupancy rates, higher utility charges and shifting energy-usage patterns. That makes it difficult to see if buildings and mechanical equipment are meeting their efficiency and performance potential. But getting the most out of rooftop units just got a lot easier, thanks to Fault Detection and Diagnostics (FDD) from TempMaster®. Available exclusively with Simplicity® Smart Equipment (SE) Controls, FDD allows contractors to configure, commission and troubleshoot packaged units faster. Engineers can confirm specifications confidently. And building owners can cut energy and service costs dramatically.

USE THE POWER OF FDD TECHNOLOGY TO SAVE TIME AND ENERGY: FDD technology uses multiple sensors to constantly monitor refrigeration circuit temperatures and pressures, economizer operation and outdoor humidity and temperatures. Then patented FDD algorithms process that data to provide detailed alerts if and when issues arise, which makes it easier to ensure the unit is always performing as specified.

PUT ACTIONABLE INFORMATION AT YOUR FINGERTIPS: With FDD, detailed alerts are accessible 365 x 24 x 7 from a smartphone or other remote device. With the Simplicity® SE Mobile Access Portal (MAP) gateway, alerts can be viewed on a web browser — no expensive software or “app” download is needed.

DETECT ISSUES BEFORE THEY SHOW UP DURING A ROUTINE INSPECTION: FDD provides easy access to detailed alerts, speeding up response to situations before they lead to possible equipment performance issues. All system data is in-hand before anyone sees the equipment, and refrigerant gauges or temperature probes are not required for troubleshooting. FDD provides all the sensor, fault and diagnostics data you need to know.
DATA ON-DEMAND

VIEW ALERTS AT YOUR FINGERTIPS RATHER THAN THE ROOFTOP: FDD connects with the Simplicity® SE Mobile Access Portal (MAP) gateway. A Wireless MAP gateway communicates with mobile devices up to 300 feet away. The Stationary MAP connects BACnet or MS/TP bus with local area networks using Ethernet IP, and an Ethernet port on the MAP device creates a secure HTTPS link for worldwide access over the Internet.

CUT SERVICE CALL STEPS NEARLY IN HALF: Typical service calls involve detecting a problem, calling a contractor, a tech being dispatched, a trip to pick up parts and a return trip to fix the problem. With FDD, the service process simply involves the discovery of an issue, a contractor diagnosing the problem and a tech arriving to do the repair with the parts already in-hand.

TYPICAL SERVICE

SERVICE WITH FDD

CONFIGURING, COMMISSIONING AND TROUBLESHOOTING IS EASY WITH PERFORMANCE INFO IN THE PALM OF YOUR HAND.

REFRIGERANT CIRCUIT ALERTS INCLUDE
(35 ALERTS POSSIBLE):
• Low refrigerant charge
• Low/high charge
• Poor evaporator heat transfer
• Refrigerant flow restriction
• Low compressor pumping efficiency

ECONOMIZER ALERTS:
• Economizing at wrong times
• Not economizing at right times
• Damper stuck
• Excess outdoor air
• Failed sensor

INCLUDES KEY FDD SENSOR INPUTS:
• Refrigerant pressure sensors: Suction and discharge
• Refrigerant temperature sensors: Suction and liquid
• Standard temperature sensors: Ambient, supply air, return air
• Humidity sensor (optional)
IT’S EASIER THAN EVER TO KEEP TENANT SATISFACTION UP, AND UTILITY COSTS DOWN

Properly functioning HVAC systems make for happier tenants. And proper maintenance also reduces repair costs while improving efficiency, which can result in considerable savings at today’s utility rates and peak-usage charges.

HERE’S HOW THE SAVINGS ADD UP.

TempMaster® FDD provides the information needed to keep packaged units operating at peak performance under demanding conditions. It produces a substantial payback by reducing repairs, saving energy and extending equipment service life.

*IF PROPERLY MAINTAINED USING THE FDD INFORMATION PROVIDED.