

## CT80 Communicating Touch Screen Thermostat



- Controls Five Stages of Heat
- External Humidifier and Dehumidifier Control
- Text Message Capable
- Giant Touch Screen Display

## Technical Specifications

### Physical - Operational Characteristics

Height	4.56" (116.0 mm)
Width	5.57" (141.50 mm)
Thickness	1.38" (35mm)
Operating Temperature	32°F ~ 122°F (0°C ~ 50°C)
Storage Temperature	-4°F ~ 158°F (-20°C ~ 70°C)
Shock (Non-Operating)	10 free drops (1 corner, 3 edges plus 6 faces) per ISTA-1A
Vibration	14,200 circular impacts per ISTA-1A
Display	160x110 dot matrix LCD with white backlight
Touch Screen	Yes
Setpoint Accuracy	1° F (0.5°C)
Ambient Temperature Display Accuracy	0.5° F (0.5°C)
Remote Control	Yes via Wi-Fi or 2 USNAP ports
Power Requirements	C-Wire Input: AC: 12V~25V AC or DC

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## Compatible Systems

Heat	Up to 3 Stages
Cool	Up to 2 Stages
Heat Pump	Up to 2 Stages
Electric Aux Heat	Up to 3 Stages
Hybrid (Fossil Aux Heat)	Up to 3 Stages
Forced Air Zoned Heat	Up to 3 Stages
Forced Air Zoned Cool	Up to 2 Stages
2 Wire Hydro Valves	Yes
3 Wire Hydro Valves	Yes
Millivolt Heat	Yes
External Humidifier Control	Yes
External Dehumidifier Control	Yes
External Air Baffle Control	Yes

## Reliability

Operational Lifetime	15 years
Relays	250,000 cycles
Compressor	8,000/year
Heating	8,000/year
Fan	16,000/year
Contact Rating	(@ 24VAC)
G W W2 W3 Y Y2 DH H EX O/B	2A carry, 5 A surge
Power-on Time	Continuous
Immunity to Voltage Dips	70% 10ms, 40% 50ms
Electrostatic Discharge (Contact)	8KV
Electrostatic Discharge (Air)	20KV

## Z-Wave Radio Specifications

Frequency (US)	908.42 MHz
Generic Device Type	Thermostat
Specific Device Type	Thermostat General v2
Node Type (C-Wire)	Enhanced Routing Slave
Node Type (Battery)	FLIRS
Z-Wave API	v5.03
Z-Wave Chipset	ZM3102N

## ZigBee Radio Specifications

Profiles	Home Automation, Smart Energy
Output Power	20.45 dBm
Receive Sensitivity	-97.56 dBm
Over-the-Air Upgradeable	Yes

## Wi-Fi Radio Specifications

Wi-Fi Radio	802.11b/g
Local API	JSON
Provisioning	Ad-hoc network
Cloud Service	Yes
Over-the-Air Upgradeable	Yes

## Installer Setup Options

HVAC Setup by Interview
HVAC Fast Setup
Swing from .5°F ~ 3°F
Multiple Recovery Settings (FAST/ECON)
Differential Temperature Setpoint Control
UV Bulb Replacement Indicator
Filter Timer Replacement Indicator
Humidity Pad Replacement Indicator
Dynamic Humidity Controls w/ and w/o HVAC
External Dehumidifier w/ or w/o FAN
Radio Network Setup

## Homeowner Setup Options

True Auto
Screen Contrast Adjustment
Night Light
12/24 Time/Day with Autoset from Internet
Simple Screen Mode with Limited UI*
Interview 4 Period Program
Calendar Programming Periods (up to 7 per day)
Program Schedule (EPA default)
Two 7 Day Selectable Programs (A/B)
Holiday Program
Vacation Mode
Hold
Remote HOME / AWAY Set Points
Energy Price Offset (Save Energy)
Radio Information Display
Radio Network Setup
Fan On/Auto/Circulate Timer /Fresh Air
Fresh Air as 1st Stage
EMER Select (Aux Heat only)
Automatic EMER (Heat Pump Systems)
Multi-Level Locks with Simple UI
Calibrate Feature
Text Messaging Capability
Energy Price Indicators
Grid Status Indicators (Red, Yellow, Green)

\*option with custom firmware 10k pcs MOQ