

HWRQ BACNET VARIABLE LIST ©2007 HEAT-TIMER CORP.(rev 2/29/08)

| OBJ ID | OBJECT NAME | DESCRIPTION | TYPE* | UOM | RANGE | READ ONLY |
|-------------------|---------------------------------|----------------------------|-------|--------------------------|---|-----------|
| 0 | BOOST | Boost Offset | AV | °C(62), °F(64) | 0 - 33°C, 0 - 60°F | |
| 100 | BOOSTMODE | Boost Mode | MV | | 1=Off, 2=Vari Boost, 3=Vari Boost & ESD | |
| 200 | BPTIME | Bypass Time | AV | Minutes(72) | 0 - 2,147,483,647 | X |
| 300 through 331 | BSTATUS | Boiler Status | MV | | 1=Off, 2=On 1=Off, 2=Low, 3=High 1=Off, 2=Low, 3=Med, 4=High 1=Off, 2=Low, 3=MLow, 4=MHigh | X |
| 400 | BTYPE | Boiler Type | MV | | 1=On/Off, 2=2-Stage 3=3-Stage, 4=4-Stage | |
| 500 | BYPASSMODE | Bypass Mode | BV | | 0=Auto, 1=Bypass | |
| 600 through 631 | COMERR00 through COMERR31 | Communication Error | BV | | 0="", 1=C/E | X |
| 700 | CONTROL | Control Mode | BV | | 0=Reset, 1=Set Point | |
| 800 | CUTOFF | Outdoor Cut-off | AV | °C(62), °F(64) | 0 - 25°C, 30 - 75°F | |
| 900 | DHWMODE | DHW Call Mode | BV | | 0=No Priority, 1=Priority | |
| 1000 | DLS | Day Light Saving | BV | | 0=Enable, 1=Disable | |
| 1100 | FAULTMODE | Sensor Fault Mode | BV | | 0=Stages On, 1=Stages Off | |
| 1200 | FCD | Fast Cool Down | BV | | 0=Minimum Target Temp, 1=Off | |
| 1300 | INMODE | Sensor Type | BV | | 0=°F Sensor, 1=°C Sensor | |
| 1400 | LEAD | Lead Boiler | MV | | (Refer to Table 2) | |
| 1500 through 1531 | LOCK00 through LOCK31 | Lockout Input | BV | | 0=(inactive), 1=L/O, | X |
| 1600 | LOGIC | Logic Mode | BV | | 0-PID 1-OSS | |
| 1700 | LSTHOLD | Last Stage Hold | AV | °C(62), °F(64) | 0 -17°C, 0 - 30°F | |
| 1800 | MINRUN | Min Runtime | AV | Minutes(72) | 1-60 | |
| 1900 | MINTGT | Min Water Temp | AV | °C(62), °F(64) | 21 - 77°C, 70 - 170°F | |
| 2000 through 2031 | MODE00 through MODE31 | Boiler Mode | MV | | 1=Auto, 2=Standby, 3=Off, 4=On | |
| 2100 | NBOILER | Total Boilers | AV | | 1 - 32/(BTYPE+1) | |
| 2200 | ODTEMP | Outdoor Sensor | AV | °C(62), °F(64) | -40 - 121°C, -40 - +250°F | X |
| 2300 | ODTRIM | Outdoor Sensor Trim | AV | °C(62), °F(64) | -3 - +3°C, -5 - +5°F | |
| 2400 | OFFSET | Offset Temp | AV | °C(62), °F(64) | -22 - +22°C, -40 - +40°F | |
| 2500 | PDATE | Panel Date | AV | Days (70) since 1/1/1981 | 0 - 2,147,483,647 | |
| 2600 | PRUNON | Pump Run-On | AV | Minutes(72) | 0 - 60 | |
| 2700 | PTIME | Panel Time | AV | Minutes(72) since 0:00 | 0 - 1439 | |
| 2800 | PUMP | Pump | BV | | 0=Off, 1=On | X |
| 2900 | PURGE | Purge Delay | AV | Minutes(72) | 0-10 | |
| 3000 | R | Reset Ratio | MV | | 1=A, 2=B, 3=C, 4=D, 5=E, 6=F, 7=G, 8=H, 9=I, 10=J | |
| 3100 | REACT | Reaction Time | AV | Minutes(72) | 1 - 10 | |
| 3200 | RTMODE | Lead Stage Rotation Mode | MV | | 1-Time 2-Manual 3-FOFO (No FOFO for LOGIC=OSS) | |
| 3300 | RTTIME | Periodic Rotation Interval | AV | Hours(71) | 1 - 999 | |
| 3400 through 3455 | SCHEDULES00 through SCHEDULES55 | Schedules | AV | Minutes(72) since 0:00 | 0 - 1439, 1440=empty schedule | |
| 3500 | SEASON | Season | BV | | 0=Winter, 1=Summer | |

| | | | | | | |
|------|----------|--------------------|----|------------------|--|---|
| 3600 | SEQUENCE | Sequence | BV | | 0=Lo/Hi/Lo/Hi 1=Lo/Lo/Hi/Hi | |
| 3700 | SETBACK | Night Setback Temp | AV | °C (62), °F (64) | -44 - 0°C, -80 - 0°F | |
| 3800 | SETPT | Set point | AV | °C (62), °F (64) | 21 - 116°C, 70 - 240°F, | |
| 3900 | SHIFT | Day Night Shift | MV | | 1=Day, 2=Night, 3=Day Extended 90 Minutes, 4=Resync to Schedule | |
| 4000 | STBYDLY | Standby Delay | AV | Minutes (72) | 1 - 60 | |
| 4100 | SYSEN | System Sensor | AV | °C (62), °F (64) | -40 - 121°C, -40 - +250°F | X |
| 4200 | SYTRIM | System Sensor Trim | AV | °C (62), °F (64) | -3 - +3°C, -5 - +5°F | |
| 4300 | TARG | Calculated Target | AV | °C (62), °F (64) | 0 - 116°C, 0 - 240°F | |
| 4400 | THROTTLE | Throttle Range | AV | °C (62), °F (64) | 1 - 11°C, 2 - 20°F | |
| 4500 | ZMAXTGT | Max Target Temp | AV | °C (62), °F (64) | 32 - 116°C, 90 - 240°F | |

| BTYPE | LEAD - Special value (Up to NBOILER -1) |
|-------|--|
| 0 | 1 - 32 'A', 'B', 'C', ..., 'X', 'Y', 'Z', 'a', 'b', 'c', 'd', 'e', 'f' |
| 1 | 1 - 16 'AB', 'CD', 'EF', ..., 'WX', 'YZ', 'ab', 'cd', 'ef' |
| 2 | 1 - 10 'ABC', 'DEF', 'GHI', ..., 'STU', 'VWX', 'abc', 'def' |
| 3 | 1 - 8 'ABCD', 'EFGH', 'IJKL', 'MNOP', 'QRST', 'UVWX', 'abcd', 'efgh' |

Table 2

* AV=analog value(2), BV=binary value (5), MV=multi-state value(19).

Note: The device object id is set through the menus. The device object name is 'HTC_' followed by the panel serial number.

Note: All variables with multiple UOM's depend upon the value of INMODE to determine which one to use.

Note: Use BOOST when BOOSTMODE is set to Vari Boost or Vari Boost & ESD.

Note: BSTATUS range changes with BTYPE. For example: when BTYPE is set to 0, BSTATUS range 0 to 1; when BTYPE is set to 1, BSTATUS range 0 to 2.

Note: Use LSTHOLD, MINRUN, OFFSET, PURGE, R, REACT, STBYDLY when LOGIC set to 0.

Note: Use RTTIME when RTMODE set to 0.

Note: Use THROTTLE when LOGIC set to 1.

Note: Use ZMAXTGT when CONTROL set to 0.

Note: The HWRQ has a schedule, which is 7-days, 4 day/night pairs per day. For example: Instance 3400 is the first DAY schedule of Monday; Instance 3401 is the first NIGHT schedule of Monday; Instance 3408 is the first DAY schedule of Tuesday; Instance 3409 is the first NIGHT schedule of Tuesday and so on.

Note: Use HWR installation menu for supplementary information.