

# Calls to MsgBomb

The MsgBomb ERROR has the following format:

```
Abnormal simulation results detected. Please  
send this input and weather file to program developers.  
MsgBomb call argument: WWWW XX-YY Month/Day/Hour ZZZ
```

## Where

WWWW is a 4 digit code giving the location where the error was detected as indicated in the following section

2nnn indicates the HVAC air-side SYSTEM simulation subprogram unit

3nnn indicates the HVAC water-side PLANT simulation subprogram unit

**XX** is the simulation period mode indicator

0 indicates the post-sizing energy simulation mode

-100,-1 indicates sizing for zone air terminals mode

2 indicates sizing for electric generators mode

4 indicates sizing for plenum(s) and meter(s) mode

6 indicates sizing for circulation loops(s)/pump(s) mode

8 indicates sizing for heat rejection unit(s) mode

10 indicates sizing for boiler(s)/chiller(s) mode

12 indicates sizing for air-handlers mode

14 indicates sizing for zone air terminals mode

**YY** is the initialization indicator

1-7 indicates the simulation is within the initialization period

0 indicates the simulation has finished initialization and has begun

**ZZZ** is the scheduled day of the week the error was detected (Sun-Sat, Hol is holiday, HDD is heating design day and CDD is cooling design day)

Month/Day/Hour tell the time step the error was identified (hour is 1-24 daily loop index not the schedule hour)

## In the SYSTEMS subprogram (Sys.lis)

In Subroutine AHUs(Mode) Calculations common to all AHU types. Called by for each HVAC system

Call MsgBomb(2001) at AHCom 533

In Subroutine Coil\_DX(Mode, Kcc) Simulates a DX cooling coil in a central AHU.

Call MsgBomb(2002) at CIDX 902

In Subroutine Terminal\_CtrlZone(Mode) Simulates the control zone of a single-zone system

IF (<sy:UNIT-STAGING> .eq. 0) Call MsgBomb(2003) at TrmCZ 613

Call MsgBomb(2004) at TrmCZ 626

In Subroutine Terminal\_DualDuct(Mode) Simulates a dual-duct mixing box

Call MsgBomb(2005) at TrmDD 490

Call MsgBomb(2006) at TrmDD 494

In Subroutine Terminal\_IU(Mode) Simulates an two-pipe or four-pipe induction unit with zonal heating and cooling.

Call MsgBomb(2007) at TrmIU 604

In Subroutine Terminal\_Parallel(Mode) Simulates a parallel fan-powered VAV induction terminal

Call MsgBomb(2008) at TrmPar 678

Call MsgBomb(2009) at TrmPar 682

Call MsgBomb(2010) at TrmSer 844

In Subroutine Terminal\_Series4(Mode) Simulates a series fan-powered VAV induction terminal where the INDUCED-AIR-SRC is the cold deck

Call MsgBomb(2011) at TrmSr4 719

In Subroutine Terminal\_StgVol(Mode) Simulates the control zone of a two-speed or staged-volume system  
IF (<sy:UNIT-STAGING> .eq. 0) Call MsgBomb(2013) at TrmStg 566

In Subroutine Terminal\_Subzone(Mode) Simulates a subzone of a single zone system, or a slave zone of another terminal. The supply air temperature and flow is determined by the master zone.

Call MsgBomb(2014) at TrmSub 376

In Subroutine Terminal\_VAV(Mode) Simulates a single-duct VAV or constant-volume terminal

Call MsgBomb(2015) at TrmVAV 462

Call MsgBomb(2016) at TrmVAV 468

In Subroutine TerminalDCV(CFMind Calculates the flow from the mixed air plenum needed to provide the required ventilation air to a zone

Call MsgBomb(2017) at TrmDCV 85

In Subroutine AH\_ColdDeck(Mode) Simulates a cooling coil, including an optional waterside economizer and dehumidification

Call MsgBomb(2018) at AHCD 105

In Subroutine AH\_MixedAir(Mode) Simulates an outside-air economizer, and other mixed-air auxiliaries such as preheat, desiccant dehumidifiers, heat recovery, and evaporative precoolers

Call MsgBomb(2020) at AHMxAr 405

Call MsgBomb(2021) at AHMxAr 417

## **In PLANT subprogram (plt.lis)**

In Subroutine CircLoopPlant(Jlp) Allocates load to primary equipment and calls equipment simulations. Called sequentially for each primary loop

Call MsgBomb(3001) at CirLpP 709

Call MsgBomb(3002) at CirLpP 670

Call MsgBomb(3003) at CirLpP 730

Call MsgBomb(3004) at CirLpP 742