Honeywell

S7760A COMMAND DISPLAY FOR RAPIDZONE SOLUTION



M18305A

GENERAL

The command display shows system variables and alarms. You can also modify setpoints, schedules, basic system parameters and acknowledge alarms at the display. Easy navigation between building, zone and diagnostic views allow you to quickly tailor the RapidZone system for comfort and energy savings.

The system must first be configured using the RapidZone Software package. The RapidZone software is designed primarily for your HVAC contractor to configure and monitor your rooftop unit (RTU) and zone controllers. For more information refer to the RapidZone Application Guide 74-3449 and the S7760A Command Display User Guide 74-2974.

The command display is an easy way to make changes to the schedules and other configuration options after the Rapid-Zone application is downloaded.

Room temperature, setpoints, occupancy schedules, equipment alarms, current date and password access are some data screens that you are able to work with when using the RapidZone command display.



ZONES

Control data and settings for individual zones can be viewed and modified using the RapidZone command display. A typical screen is displayed below.

TO CHANGE TEMPERATURE SETPOINTS

Starting at the Main screen, make the following selections to select the specific zone whose setpoint you want to change.

Main—>BuildngVw—>Zone Data—>Zone Name

	Zone Name	
Room Temp Control Setting	71.3 F 76.5 F	Prev
Occupancy Status Operating Mode Damper Pos	Occupied Cool 60%	

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Press ChngValue to view and modify setpoints.
Highlight **Details** and press the down arrow key to display the setpoint screen below. Use + or - and

press Apply to change the temperature setpoint.



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- NOTE: Standby setpoints must always be set equal to the unoccupied temperature setpoint.
- Press the Back key to return to the first Zone Name screen.
- Press OccOvride to display the override screen where you can set timed or continuous Occupied or Unoccupied override.

NOTES:

- The Occupied setpoint defines the comfort level desired during periods when a given area or zone is in use. The Unoccupied setpoint captures operational, equipment and energy savings during periods when a given area or zone is not in use.
- In zones with temperature sensor and setpoint adjustment, the occupied temperature setpoint is controlled by the zone sensor. The command display should not be used to modify the occupied setpoints for these zones.
- Be sure to press the Apply key after you've made any changes that you want saved.

Schedules

The RapidZone solution allows the user to define up to eight separate schedules that specify different periods throughout the day where temperatures in the assigned zones will be maintained at the occupied setpoint for comfort, or the unoccupied setpoint for energy savings. Each of these schedules can be assigned to any single zone or combination of zones using the RapidZone software. Each RapidZone schedule consists of a normal daily schedule (Monday through Sunday) that allows the operating hours for each day to be separately defined. Each RapidZone schedule also provides for up to two temporary periods that can be programmed for unusual days where occupancy periods do not follow normal daily or special holiday hours, e.g. inventory or vacation times. Finally, each RapidZone schedule allows for the programming of up to three special days whose occupancy periods can be assigned to the various scheduled holidays throughout the year. Each of these components - daily, temporary and special, are unique to the schedule being programmed and apply only to the zone(s) assigned to that schedule. Holidays are defined for, and available to, all schedules. Holidays may be assigned to include or exclude individual schedules as appropriate.

The following is an illustration of the various components that make up a RapidZone schedule.



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For more detailed information regarding schedules, refer to the XL15 Command Display Users Guide 74-2974.

To view or modify a schedule, from the Main screen select BuildngVw then Zone Data. Highlight the zone whose schedule you want to view/modify and press the Schedule softkey. Enter the required password and press Apply. (Refer to the password section.)

There are four types of schedules:

- · Days-for daily operating hours under normal conditions.
- Temp—for temporary operating hours not associated with holidays.
- Special—for special hours that can be assigned to holidays.
- Holiday—for holidays.
- NOTE: When changing schedules, always press Apply to save the updates.

DAYS

Pressing the Days softkey allows you to modify separate daily schedules Monday through Sunday. A typical schedule is shown below with an Occupied period for Monday from 7:00 AM (E1) to 6:00 PM (E2).

· Press the Days softkey:



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All schedule changes for the selected zone automatically apply to all zones assigned to that schedule.

• Press plus (+) or (-) soft keys to change values.

The Occ on line E1 indicates that RapidZone will control to the occupied setpoint from 7:00 AM until the next scheduled event (E2). The Unocc on line E2 indicates that RapidZone will control to the unoccupied setpoint from 6:00 PM on. UNCNFIG (unconfigured) indicates that no change occurs from the previously programmed event (e.g. E2).

NOTE: The STNDBY is not used in the RapidZone application and should not be programmed.

TEMP

The Temp softkey allows the user to program up to 2 sets of temporary hours for one or more days that override the daily (and holiday) schedules.

Press the Temp softkey:

SC Tempora	HEDULE_1 ry One (Mon	day)	
E1 08:00 AM UNOCC E2 01:00 PM OCC	Start	01 / JAN 2000	
E3 10:00 PM UNOCC E4 00:00 PM UNCNFIG	Stop	02 / JAN 2000	
E6 00:00 PM UNCNFIG			NextTemp

Temporary periods affect all zones assigned to that schedule.

SPECIAL

The Special softkey is used to define up to three sets of operating hours that can be assigned to scheduled holidays.

· Press the Special softkey:

SCHEDULE 1 Special 1	
E1 08:00 AM OCC E2 01:00 PM UNOCC	
E3 02:00 PM UNCNFIG E4 08:00 PM UNCNFIG	Apply
E5 09:00 PM UNCNFIG E6 11:00 PM UNCNFIG	NxtSpecial



HOLIDAY

The Holiday softkey is used to enter Holiday dates and identify what schedule should be used for that day such as Special One, Special Two, Sun, etc. Holidays can be assigned to any or all schedules.

· Press the Holiday softkey:

Applies to	/ ●
12345678	PageUp
1 2 3 4 5 6 7 8	
1 2 3 4 5 6 7 8	PageDown
1 2 3 4 5 6 7 8	
12345678	
12345678	
12345678	
	Applies to 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8

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 Highlight a specific Holiday and press the Select key to view or modify the start/stop dates and select the special or daily occupancy hours that should be used.



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Diagnostics

The Rooftop Unit Diagnostics screen provides a quick status of critical system parameters.

Main—>BuildngVw—>Rooftop Unit Diagnostics

	Rooftop Unit Diagnostics	/ ●
CoolFailure	Off	Schedule
EconoFailure	Off	P A
HeatFailure	Off	
LowStaticPAIm	Off	Page Up
FanFailure	Off	
		Page Down

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NOTES:

- FanFailure appears only when monitoring a system with a proof of air flow sensor.
- ÉconoFailure appears only when the system has an economizer.
- Alarms feature will not be active unless the system has an Excel 15A building manager.

Alarms

Use this screen to check for alarms and get information if an alarm has occurred. Use Next and Prev to navigate through the alarms. Use Ack to acknowledge alarms. Once an alarm has been acknowledged it is no longer viewable via the command display. Use Silence if the beep function is activated.

To View Alarms

Press the Alarm softkey and enter the required password.

Main—>Alarms

Alarm Details Total # of Alarms = 39	
<object name=""></object>	Next
<alarm text=""> <additional alarm="" text=""></additional></alarm>	Prev
Seq# 1 Of 39 Priority 1 Date/Time Aug/16/2000 10:30 AM	Ack

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Alarms are another diagnostic tool provided by RapidZone. Critical system parameters are constantly monitored within the RapidZone application. Any deviation outside of preset limits will trigger an alarm. The RapidZone Command Display indicates an active alarm by sounding an intermittent beep and/or by flashing the !! indicator. Active alarms can be displayed by pressing the Alarms softkey.

NOTE: Once the conditions that triggered the alarm have been cleared, a second alarm is issued with the original text preceded by RTN (return to normal). Alarms are listed in order of occurrence and are displayed in the following format:

- <Object name>: control that originated the alarm.
- <Alarm Text>: text corresponding to Alarm Type.
- <Additional Alarm Text>: additional text if available.
- Sequence #: sequence number of alarm.
- Date/Time: date and time recorded.

Some common alarms are: **CoolFailure** Potential cooling failure. **HeatFailure** Potential heating failure. **EconoFailure** Potential economizer failure. **FanFailure** Potential fan failure. **LowStaticPAIm** Potential low static pressure. **Sensor Failure** Sensor reading is not available. **Node failure** Network communication failure. **Input Network Failure** Network communication failure. **FreezeStat** Coil freeze protection is activated.

Refer to the RapidZone Application Guide (74-3449) for additional details.

Setting Changes

Setup

Use this screen to change the display settings or to turn on and off the alarm beep. Main—>Settings—>Setup

	Setup	<u> </u>
Beep on New Alarm	Off	
Inactivity Timeout	3.00 MIN	
Time Format	12	
Date Format	mm / dd / yy	Apply
Engineering Units	English	
		Cancel
L		_

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NOTE: Be sure to press the Apply key to save changes.

Password

Use this screen to view or change the 3 levels of passwords. Pressing Apply saves the modified password.

Main—>Settings—>Password

	Pa	assword Entry	
1	Alm,StPt	1000	
2	Alm,StPt,Schd	2000	Apply
3	Alm,StPt,Schd,Cnfg	3000	NextTemp

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NOTES:

- Level 3 has the highest privilege while level 1 has the lowest privilege.
- Initial settings for all passwords are <u>0 0 0 0</u>.

Time

Use this screen to view or change the date and time. Pressing Apply saves the modified settings.

Main—>Settings—>Time

	Time	/
Sept/7/2000		•
Month Day Year		
9:40:12AM		
Hour min sec		Apply
		Cancel



ROOFTOP UNITS (RTU)

Main—>BuildngVw—>RTU Data



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The RapidZone Command Display provides access to equipment data via the RTU Data screen. The list below contains brief descriptions of the data available.

Duct Static Pressure: displays duct static pressure. Control sensor: displays duct static pressure Control Setting: displays static pressure setpoint (see IMPORTANT below)

EPID Output: displays bypass damper position as a percent open

Cooling Stages: displays the number of cooling stages that are commanded on

Econ Mixed Air: displays mixed air temperature Control sensor: displays mixed air temperature Control Setting: displays mixed air setpoint (see IMPORTANT below)

EPID Output: displays economizer damper position as a percent open

Fan Command: displays the fan control output state

Heating Stages: displays the number of heating stages that are commanded on

Mod Cooling: displays cooling valve position as a percent open

Mod Heating: displays heating valve position as a percent open

RTU Controller: displays discharge air temperature DischargeAir Temp: displays discharge air temperature Fan Status: indicates the actual fan status when an optional fan sensor has been installed Outdoor Air Temp: displays outside air temperature Status Filter: displays alarm when filter needs service

IMPORTANT

The Rooftop Unit Control settings can be modified by pressing the ChngValue softkey and entering the new values. In RapidZone all three settings (occupied, standby and unoccupied) must be set to the same value.

NOTES:

- This screen displays heating stages or Mod Heating and cooling stages or Mod Cooling depending on the type of heating and cooling being used.
- Additional data for some items is available by highlighting the item and pressing Select.
- The mixed air temperature refers to the temperature of the mixture of outside (economizer) air and return air prior to being heated or cooled. An economizer must be part of the system for this to be displayed.

DATA POINT INFORMATION

Rooftop Unit Data

RTU Controller: discharge air temperature BuildngVw —> Rooftop Unit Data Cooling Stages: number of active cooling stages BuildngVw —> Rooftop Unit Data Discharge Temperature: discharge air temperature BuildngVw —> Rooftop Unit Data Duct Static Pressure: duct static pressure BuildngVw —> Rooftop Unit Data press ChngValue to modify Economizer Mixed Air: temperature of the mixed air (return air + outside air) BuildngVw —> Rooftop Unit Data press ChngValue to modify Heating Stages: number of active heating stages BuildngVw -> Rooftop Unit Data Mod Cooling: cooling valve percentage open BuildngVw —> Rooftop Unit Data Mod Heating: heating valve percentage open BuildngVw —> Rooftop Unit Data Outdoor Air Temperature: outdoor air temperature BuildngVw —> Rooftop Unit Data—>RTU Controller Status Filter: displays alarm on dirty filter BuildngVw — Rooftop Unit Data — RTU Controller

Rooftop Unit Diagnostics Data

Heat Failure: heating alarm status, off = no alarm BuildngVw —> Rooftop Unit Diagnostics

Cool Failure: cooling alarm status, off = no alarm BuildngVw —> Rooftop Unit Diagnostics

Economizer Failure: economizer alarm status, off = no alarm BuildngVw —> Rooftop Unit Diagnostics

Low Static Pressure Failure: static pressure alarm status, off = no alarm

BuildngVw —> Rooftop Unit Diagnostics

Zone Data

Room Temperature: room temperature of selected zone BuildngVw —> Zone Data —> Zone Name

Control Setting: room temperature setpoint of selected zone BuildngVw —> Zone Data —> Zone Name — press ChngValue to modify

Occupancy Status: indicates current setpoint Occupied or Unoccupied

BuildingVw —> Zone Data —> Zone Name — press Override to modify

Operating Mode: current mode heat or cool

BuildngVw —> Zone Data —> Zone Name Damper Position: zone damper position as % open

BuildngVw —> Zone Data —> Zone Name



Home and Building Control

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