

kanmor® - User Brochure

Mixing Control 362e

U 362e

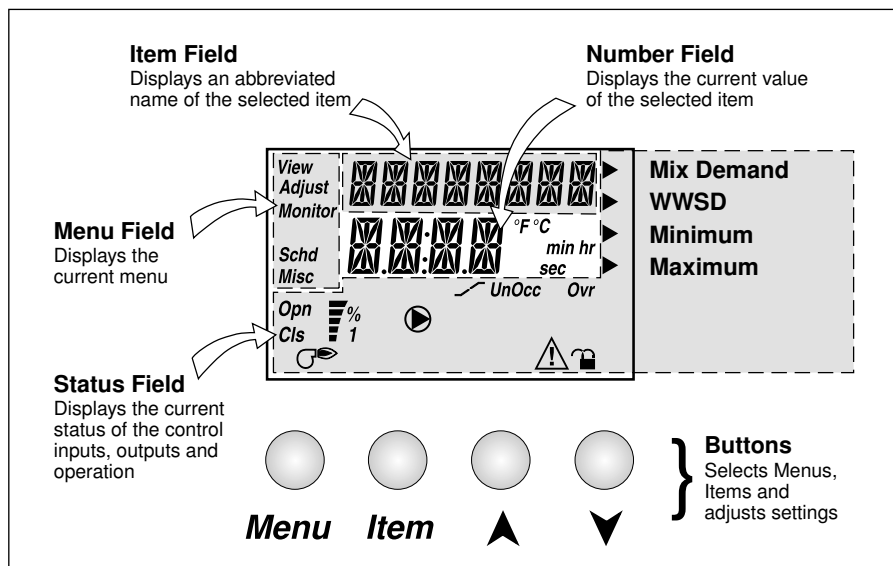
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The 362e is a microprocessor based control designed to provide a compensated mixed supply water temperature to a heating system based on outdoor air temperature. Multiple zone temperature control can be achieved by using either a conventional thermostat system or by using kanmor Zone Controls attached to the 362e. For single zone heating applications, a single Room Temperature Unit (RTU) can be connected directly to the control for zone temperature control. The control incorporates a large Liquid Crystal Display (LCD) in order to provide system status and operating information. The same LCD is used when setting up and installing the control. Standard features include boiler return protection, intelligent boiler operation, Warm Weather Shut Down (WWSD), and pump exercising. As well, with the use of the Monitor feature, it is possible to track pump and boiler running hours, boiler cycles and high and low sensor temperatures.

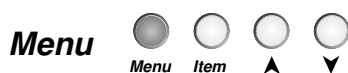
User Interface

Access Level(s) The kanmor Mixing Control 362e has four access levels which are **LTD** (limited), **USER**, **INST** (installer), and **ADV** (advanced). This brochure only covers the **LTD** (limited) and **USER** levels. Only qualified service people should make adjustments in the **INST** (installer) and **ADV** (advanced) access levels.

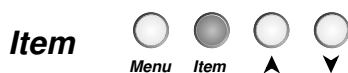


Open / Close <i>Open</i> <i>Close</i>	Displays when the actuator is opening or closing the mixing valve.
Burner 	Displays when the boiler relay is turned on.
Pump 	Displays when the mixing pump is turned on.
Boost 	Displays when the control is in boost after setback.
UnOccupied Mode <i>UnOcc</i>	Displays when the control is in unoccupied mode.
Occupied Mode <i>Occ</i>	Displays when the control is in occupied mode.
Override <i>Ovr</i>	Displays when the control is in override mode.
Warning 	Displays when an error exists or when a limit has been reached.
Lock / Unlock 	Displays whether the access levels are locked or unlocked.
Units of measurement °F °C min, hr sec	Units of measurement.
Pointer 	Displays the control operation as indicated by the text.

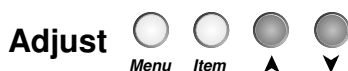
The kanmor 362e has a Liquid Crystal Display (LCD) and four push buttons (Menu, Item, ▲, ▼) which are used to view and adjust the settings.



All of the items displayed by the control are organized into various menus. These menus are listed on the left hand side of the display (Menu Field). To select a menu, use the **Menu** button. By pressing and releasing the **Menu** button, the display will advance to the next available menu. Once a menu is selected, there will be a group of items that can be viewed within that menu.



The abbreviated name of the selected item will be displayed in the item field of the display. To view the next available item, press and release the **Item** button. Once you have reached the last available item in a menu, pressing and releasing the **Item** button will return the display to the first item in the selected menu.



To make an adjustment to a setting in the control, begin by selecting the appropriate menu using the **Menu** button. Then select the desired item using the **Item** button. Finally, use the **▲** and / or **▼** button to make the adjustment.

Additional information can be gained by observing the Status and Pointer fields of the LCD. The status field will indicate which of the control's outputs are currently active. Most symbols in the status field are only visible when the View menu is selected.

Note: Depending on the settings the installer makes in the control, certain items may not appear.

Item	Ltd	User	View Menu	Range
OUT DOOR	●	●	Current outdoor air temperature as measured by the outdoor sensor. This is the default display for the control.	-67 to 149°F (-55 to 65°C)
ROOM TRG		●	Target room air temperature. “— — —” denotes no heat is required. Will not display if RTU is connected.	— — —, 35 to 100°F (- — —, 2 to 38°C)
ROOM	●	●	Measured room air temperature at the indoor sensor. Will not display if RTU is connected.	-58 to 167°F (-50 to 75°C)
MIX SUP		●	Current mixed supply water temperature as measured by the mixing sensor.	-31 to 266°F (-35 to 130°C)
Boil SUP		●	Current boiler supply water temperature as measured by the boiler sensor.	-31 to 266°F (-35 to 130°C)
Boil RET		●	Current boiler return water temperature as measured by the boiler sensor.	-31 to 266°F (-35 to 130°C)

Item	Ltd	User	Adjust Menu	Range
ROOM <i>Occ</i>	●	●	The desired room air temperature during an Occupied period for zones in the heating system. Will not display if RTU is connected. In LTD access level, this setting can only be adjusted $\pm 3^{\circ}\text{F}$ ($\pm 1^{\circ}\text{C}$).	35 to 100°F (2 to 38°C)
ROOM <i>UnOcc</i>		●	The desired room air temperature during an UnOccupied period for zones in the heating system. Will not display if RTU is connected.	35 to 100°F (2 to 38°C)
FLOR MIN		●	The minimum temperature at the floor (slab) sensor, provided the control is not in Warm Weather Shut Down. This item can only be adjusted if a kanmor sensor is connected.	OFF, 35 to 120°F (OFF, 2 to 49°C)
WWSO <i>Occ</i>		●	The system's warm weather shut down during the Occupied period.	35 to 100°F, OFF (2 to 38°C, OFF)

Item	Ltd	User	Monitor Menu	Range
OUT HI	●	●	The highest recorded outdoor air temperature since this item was last cleared. To clear this item, press and hold the ▲ and ▼ buttons until 'CLR' is displayed.	-67 to 149°F (-55 to 65°C)
OUT LO	●	●	The lowest recorded outdoor air temperature since this item was last cleared. To clear this item, press and hold the ▲ and ▼ buttons until 'CLR' is displayed.	-67 to 149°F (-55 to 65°C)
FLOR HI		●	The highest recorded temperature at the slab sensor since this item was last cleared. To clear this item, press and hold the ▲ and ▼ buttons until 'CLR' is displayed.	-58 to 167°F (-50 to 75°C)
FLOR LO		●	The lowest recorded temperature at the slab sensor since this item was last cleared. To clear this item, press and hold the ▲ and ▼ buttons until 'CLR' is displayed.	-58 to 167°F (-50 to 75°C)

Note: Depending on the settings the installer makes in the control, certain items may not appear.

Item	Ltd	User	Schd (Schedule) Menu	Range
OVERRI DE	•	•	The type of setback override that is in effect. DIP switch = Setback HOL is available even if DIP ≠ Setback	NONE, TMPY Occ Ovr, PERM Occ Ovr, TMPY UnOcc Ovr, PERM UnOcc Ovr, HOL
<p>None - No override. TMPY Occ - Overrides to Occupied setting for 3 hours. PERM Occ - Overrides to Occupied setting until new override is selected. TMPY UnOcc - Overrides to UnOccupied for 3 hours. PERM UnOcc - Overrides to UnOccupied setting until new override is selected. HOL - Room & WWSD temperature at 62°F (17°C).</p>				

Item	Ltd	User	Misc (Miscellaneous) Menu	Range
UNITS	•		The units of measure that all of the temperatures are to be displayed in by the control.	°F, °C
BACKLITE	•		The operating mode for the back lighting of the LCD and the time until the control returns to the view menu after any button was pressed. If Backlight is set to OFF , the control returns after 10 seconds and the backlight stays off. If Backlight is set to 30 SEC , the control returns after 30 seconds and the backlight stays on for 30 seconds after any button press. If Backlight is set to ON , the control returns after 90 seconds and the backlight stays on.	OFF, 30 sec, ON
ACCESS	•	•	The access level that is to be used by the control. DIP switch = \uparrow Only qualified service people should adjust items in the ADV (Advance) and INST (Installer) access levels.	ADV, INST, USER, LTD



Room Temperature Unit (RTU) 062e, 063e

A single RTU may be connected to the Mixing Control 362e in order to provide the control with indoor temperature feedback for the mixing side of the heating system. When using an RTU, several items related to the mixing side of the heating system are no longer available in the control's User Interface. These items are available only in the RTU's User Interface. Also, the number of items that are available on the RTU depends on the type of RTU that is connected to the control.


Item	Ltd	User	062e	063e	RTU View Menu	Range
ROOM	•	•	•	•	Current room air temperature.	14 to 167°F (-10 to 75°C)
ROOM TRG		•	•	•	Target room air temperature.	35 to 100°F (2 to 38°C)
OUTDOOR	•	•	•	•	Current outdoor air temperature as measured by the outdoor sensor.	-67 to 149°F (-55 to 65°C)
FLOR		•	•	•	Current slab sensor temperature. This item is only available if a kanmor slab sensor is connected to an RTU 063e.	-58 to 167°F (-50 to 75°C)

Item	Ltd	User	062e	063e	RTU Adjust Menu	Range
ROOM Occ	•	•	•	•	The desired room air temperature during an Occupied period for the heating zone. In LTD access level, this setting can only be adjusted $\pm 3^\circ\text{F}$ ($\pm 1^\circ\text{C}$).	35 to 100°F (2 to 38°C)
ROOM UnOcc	•	•	•	•	The desired room air temperature during an UnOccupied period for the heating zone. In LTD access level, this setting can only be adjusted $\pm 3^\circ\text{F}$ ($\pm 1^\circ\text{C}$).	35 to 100°F (2 to 38°C)
FLOR MIN		•	•	•	The minimum temperature desired at the floor (slab) sensor while the control is not in WWSD. This item can only be viewed if a kanmor slab sensor is connected to a RTU 063e.	OFF, 35 to 120°F (OFF, 2 to 49°C)

Note: Depending on the settings the installer makes in the control, certain items may not appear.

Item	Ltd	User	062e	063e	RTU Monitor Menu	Range
OUT HI	•	•	•	•	The highest outdoor air temperature recorded since this item was last cleared. To clear, press and hold the ▲ and ▼ buttons until "CLR" is displayed.	-67 to 149°F (-55 to 65°C)
OUT LO	•	•	•	•	The lowest outdoor air temperature recorded since this item was last cleared. To clear, press and hold the ▲ and ▼ buttons until "CLR" is displayed.	-67 to 149°F (-55 to 65°C)
ROOM HI		•	•	•	The highest room air temperature recorded since this item was last cleared. To clear, press and hold the ▲ and ▼ buttons until "CLR" is displayed.	14 to 167°F (-10 to 75°C)
ROOM LO		•	•	•	The lowest room air temperature recorded since this item was last cleared. To clear, press and hold the ▲ and ▼ buttons until "CLR" is displayed.	14 to 167°F (-10 to 75°C)


Item	Ltd	User			RTU Schd (Schedule) Menu	Range
OVERRIDE		•			The type of setback override that is in effect. DIP switch = Setback HOL is available even if DIP ≠ Setback	NONE, TMPY Occ Ovr, PERM Occ Ovr, TEMP UnOcc Ovr, PERM UnOcc Ovr, HOL
<p>None - No override. TMPY Occ - Overrides to Occupied setting for 3 hours. PERM Occ - Overrides to Occupied setting until new override is selected. TMPY UnOcc - Overrides to UnOccupied for 3 hours. PERM UnOcc - Overrides to UnOccupied setting until new override is selected. HOL - Room & WWSD temperature at 62°F (17°C).</p>						

Item	Ltd	User	062e	063e	RTU Misc (Miscellaneous) Menu	Range
UNITS		•	•	•	The units of measurement in which all of the temperatures are to be displayed by the control.	°F, °C
BACKLITE		•	•	•	The operating mode for the back lighting of the LCD and the time until the control returns to the view menu after any button was pressed. If Backlight is set to OFF , the control returns after 10 seconds and the backlight stays off. If Backlight is set to 30 SEC , the control returns after 30 seconds and the backlight stays on for 30 seconds after any button press. If Backlight is set to ON , the control returns after 90 seconds and the backlight stays on.	OFF, 30 sec, ON
ACCESS	•	•	•	•	The access level that is to be used by the RTU. DIP switch =  Only qualified service people should adjust items in the ADV (Advance) and INST (Installer) access levels.	ADV, INST, USER, LTD



Remote Display Module (RDM)

An optional Remote Display Module can be connected to the 362e if an RTU is not used. All items displayed on the control menu will also be displayed on the remote module. Adjustments can be made from the Remote Display Module. This module is connected to the control through two wires and has the same physical appearance as an RTU.

	kanmor Control Systems Ltd. 5100 Silver Star Road Vernon, B.C. CANADA V1B 3K4 250-545-2693 Fax. 250-549-4349 Web Site: www.kanmor.com
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