



Installation and Operation Guide



KMD-1002
NetView

Important Notices

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SECTION 1

About NetView

This section provides a general description of KMC Controls KMD-1002 NetView. Review this material before installing or operating the equipment.



Illustration 1-1 KMC NetView

Introduction

The KMD-1002 NetView is an operator interface designed for viewing and controlling a KMC Tier 2 (sub LAN) network. The LCD touch screen provides crisp, easy-to-view access to a direct digital network without a computer or special programming. Based on password permissions stored in the network controllers, you can view and change the following with a KMC NetView:

- ◆ Time and date
- ◆ Weekly schedules
- ◆ Annual schedules
- ◆ System groups (text only)
- ◆ Inputs
- ◆ Outputs
- ◆ Setpoints/Variables
- ◆ Alarm reporting
- ◆ Trend/Run Time Log Data (text Only)

Specifications

Display	LCD touch panel with electro luminescence lighting
Size	256 x 128 pixels
Character size	5 x 8 pixels
Screen size	42 characters by 16 rows
Viewing area	2.56 x 4.9 in. (124.5 x 65.0 mm)

Communications	KMC Tier 2 RS-485: 2400 to 38400 (auto baud detection) Limit of one NetView per Tier 2 network.
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Connections	
Network	RJ-11 female
Power	Screw terminals

Power	24 volts AC, 20 VA Dedicated transformer recommended
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Mounting	
Surface mounting	Back-plate mounts to 2 x 4 inch or 4 x 4 inch standard electrical handy-box or any flat surface.
Panel mounting	Optional brackets mount the NetView in 6.81 x 5.81 inch cutout.

Weight	18.1 ounces (513 grams)
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Material	Light almond ABS
-----------------	------------------

Regulatory	UL 916 Energy Management Equipment FCC Class A, Part 15, Subpart B CE mark
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Environmental limits	
Operating	32 to 120°F (0 to 49°C)
Shipping	-40 to 140°F (-40 to 60°C)
Humidity	0-95% relative humidity (non-condensing)

Accessories	
Panel mount brackets	HMO-4540
Plug-in transformer	HPO-0068
Network cables	KMD-5690 25 feet (7.6 meters) KMD-5691 50 feet (15.2 meters) KMD-5690 75 feet (22.9 meters)

Dimensions

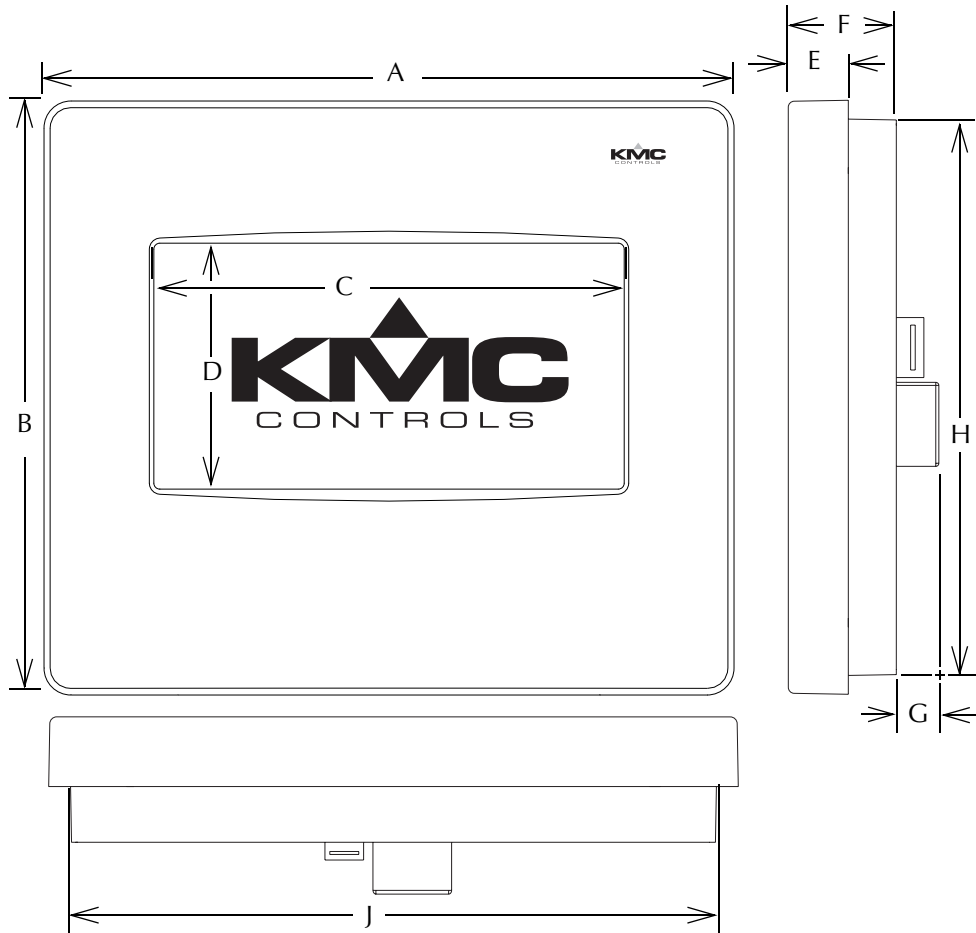


Table 1-1 KMD-1002 dimensions

A	B	C	D	E	F	G	H	J
7.19 in.	6.19 in.	4.90 in.	2.56 in.	.75 in.	1.13 in.	.44 in.	5.80 in.	6.80 in.
482.6 mm	157.2 mm	124.5 mm	65.0 mm	19.5 mm	28.6 mm	11.3 mm	147.3 mm	172.7 mm

Safety Considerations

KMC Controls assumes the responsibility for providing you a safe product and safety guidelines during its use. Safety means protection to all individuals who install, operate, and service the equipment as well as protection of the equipment itself. To promote safety, we use hazard alert labeling in this manual. Follow the associated guidelines to avoid hazards.



Danger

Danger represents the most severe hazard alert. Bodily harm or death will occur if danger guidelines are not followed.



Warning

Warning represents hazards which could result in severe injury or death.



Caution

Caution indicates potential personal injury or equipment or property damage if instructions are not followed.



Note

Notes provide additional information which is important.



Detail

Provides programming tips and shortcuts which may save time.

SECTION 2

Installing NetView

This section provides important guidelines for installing a KMD-1002 NetView. Review this information carefully for proper installation.

Power Requirements NetView requires 24 volt AC power. KMC Controls recommends supplying power to NetView with a dedicated transformer. If powering NetView from a transformer which also powers other devices, observe the polarity of the wiring. Connect the ~ terminal to the ~ or + terminal on other power connectors.

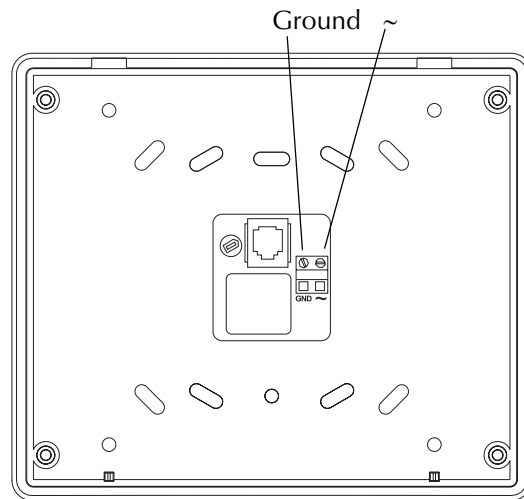


Illustration 2-1 NetView power connection



Caution

Incorrectly connecting power to NetView will result in equipment damage and improper operation. Observe the correct polarity when using a transformer common to other devices on the network.

Network Connections

NetView connects directly to the RJ-11 connector on KMC Tier 2 (sub LAN) controllers with an RJ-11 cable. See [Accessories on page 2](#) for the KMC part numbers.

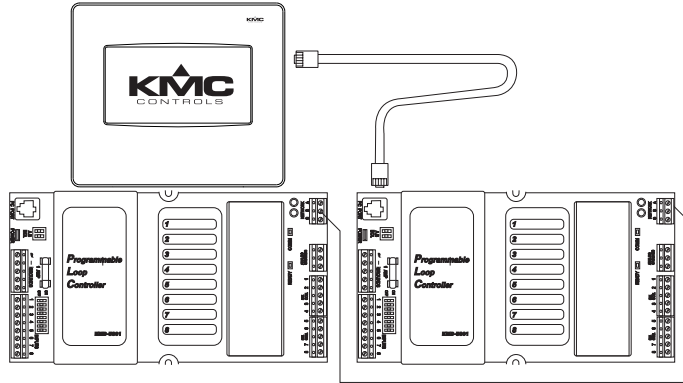


Illustration 2-2 NetView network connection

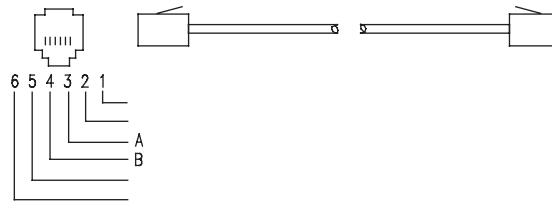


Illustration 2-3 NetView network cable



Caution

Operating more than one NetView per Tier 2 network may result in unpredictable results.

Mounting

Mount NetView using one of the following methods:

- ◆ Surface mount to a flat surface or 2-inch or 4-inch handy-box
- ◆ Panel mount through a cut out opening.

Surface mount

Use the surface mounting method to attach NetView to a flat surface or a standard electrical box.

1. Remove the back-plate from NetView by turning the two 1/16 inch allen screws clockwise. Once the allen screws have cleared the bottom of NetView, the back-plate will swing away from NetView front.
2. Carefully separate the NetView front from the back-plate.
3. Mount the NetView back-plate on a 2 x 4 inch or 4 x 4 inch handy-box, or to any flat surface using the mounting holes provided.

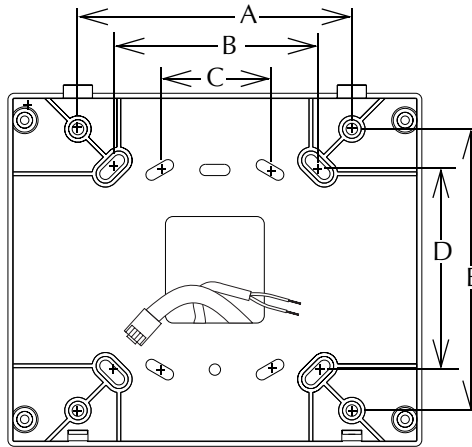


Illustration 2-4 Surface mounting dimensions

Table 2-1 Mounting dimensions

A	B	C	D	E
4.5 in	1.81 in.	3.38 in.	3.38 in.	4.63 in.
114.3 mm	46.0 mm	85.8 mm	85.8 mm	117.5 mm

4. Pull the network and power cables through the back-plate access hole.
5. Plug the network cable into the RJ-11 female connector on the NetView back.
6. Connect 24 volt AC power to the power terminal block. Observe the polarity.
7. Hook the NetView front on the top of the back-plate.
8. Proceed to [Initial Warm Up on page 9](#)

Panel mount

Use the panel mounting method to mount NetView in a panel where both the front and back of the panel are accessible.

1. Cut an opening in the panel using the dimensions shown in Illustration 2-5.

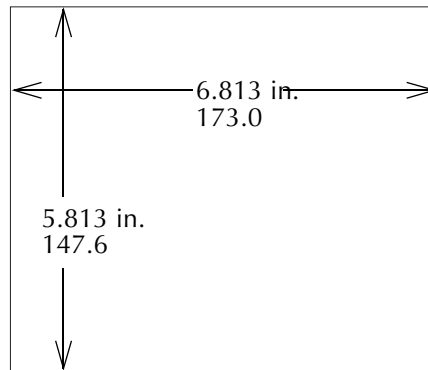


Illustration 2-5 Panel cutout

2. Plug the network cable into the RJ-11 female connector on the NetView back.
3. Connect 24 volt AC power to the power terminal block. Observe the polarity.
4. Attach the four mounting brackets as shown in Illustration 2-6.

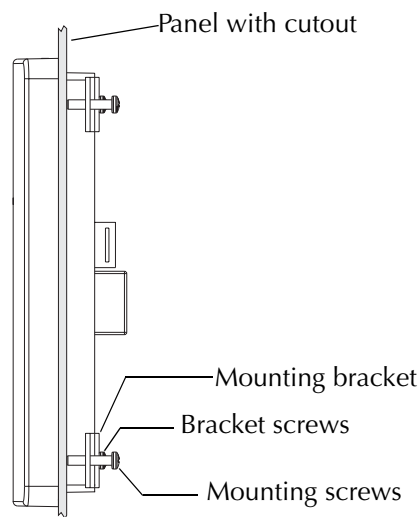


Illustration 2-6 Panel mounting brackets

5. Position NetView in the opening and tighten the mounting screws (four places).
6. Proceed to [Initial Warm Up on page 9](#)

Initial Warm Up

The network must be up and running prior to starting NetView. Start NetView by pressing any area of the touch screen. The KMC logo will appear. Allow NetView to warm-up for 15 minutes before adjusting the contrast using the P1 potentiometer.

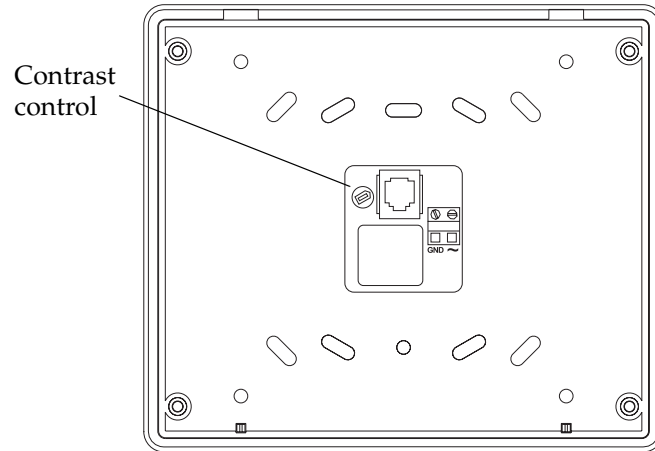


Illustration 2-7 Contrast control

If NetView is surface mounted, attach the NetView front onto the back-plate. Secure by turning the allen screws clockwise until they are flush with the bottom of the NetView.

SECTION 3

Using NetView

This section provides general operating instructions for using a KMD-1002 NetView.

Start up

Before starting NetView, verify the following:

- ◆ NetView was installed following the procedures from [SECTION 2 on page 5](#).
- ◆ The network is operating as designed and baud is not likely to change.
- ◆ At least one operator name and password is assigned to the network with *WinControl*.
- ◆ The highest numbered controller is designated as *Last Panel*.

To start NetView, touch any area on the dark screen. The screen will illuminate and display the KMC logo. The logo is automatically replaced with the sign-on screen.

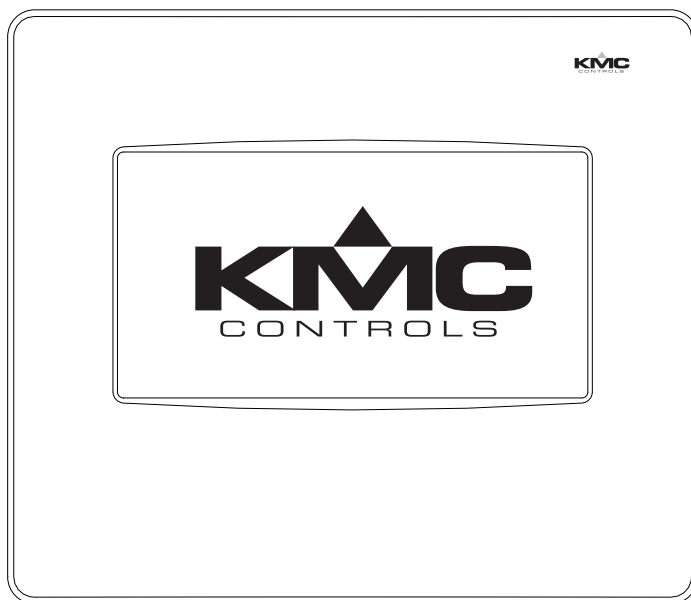


Illustration 3-1 NetView logo screen

Sign-on Screen

The sign-on screen opens immediately following the display of the KMC logo. To sign on to a KMC system with NetView, you must have an operator name and password. Names and passwords are entered by the system administrator with WinControl or WinControl XL.



Detail

Items enclosed by parenthesis () are the screen hotspots. Use these spots as you would use buttons on a keyboard.

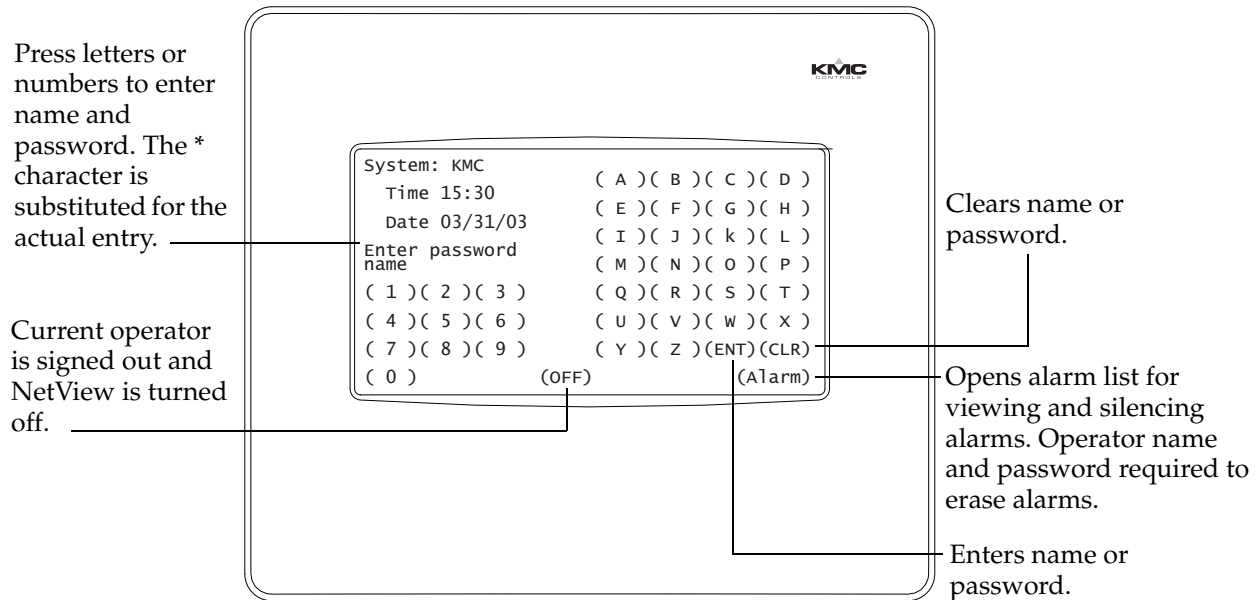


Illustration 3-2 NetView sign-on screen

Standard sign-on

Use the letters and numbers to enter your operator name and password following each by (ENT). If both name and password are valid, the *Controller list* screen opens.

Sign-on screen commands

Four sign-on screen commands set or display NetView operating parameters. To use the commands enter *Alarm*, *Time*, *Reset* or *Ver* before entering a name and password.

Table 3-1 Sign-on screen commands

Command	Action
Alarm	Sets audible signals and alarm functions. See Alarm and Key Sounds on page 21 .
Time	Set system time and date from NetView. See Set Time and Date on page 20 .
Reset	Runs NetView power-up initialization sequence.
Ver	Displays the firmware version in NetView.

Sign-off

Navigate to the sign-on screen to sign off of the network with NetView.

If NetView is left for a few minutes without a screen touch, NetView will sign off the current operator and turn the power off.

Controller List

The *Controller list* displays all of the controllers on the network. Touch (*Up*) or (*Dn*) to scroll through the list seven controllers at a time. Touch the controller number to choose the controller.

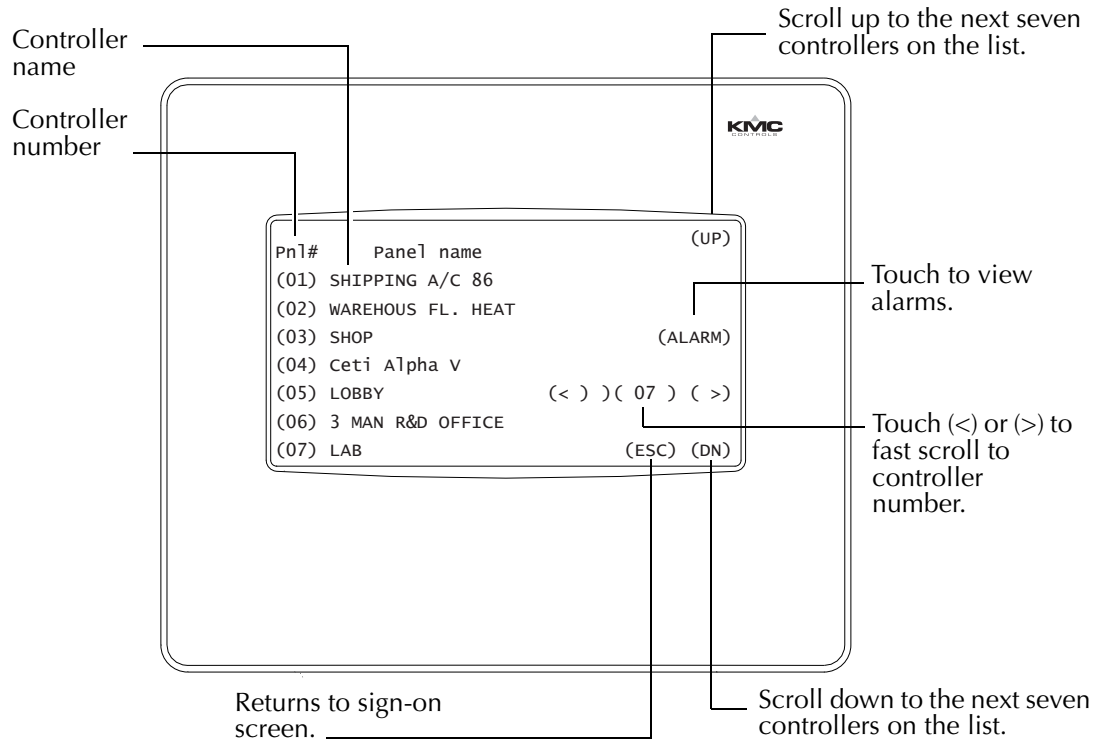


Illustration 3-3 Controller list

Controller Main Menu

The controller *Main Menu* opens after choosing a controller number from the controller list screen. With the controller *Main Menu* you can choose the following functions.

- ◆ Weekly Schedules
- ◆ Annual Schedules
- ◆ System Groups
- ◆ Set Points/Variables
- ◆ Inputs
- ◆ Outputs
- ◆ Runtime Logs
- ◆ Trend Log Data

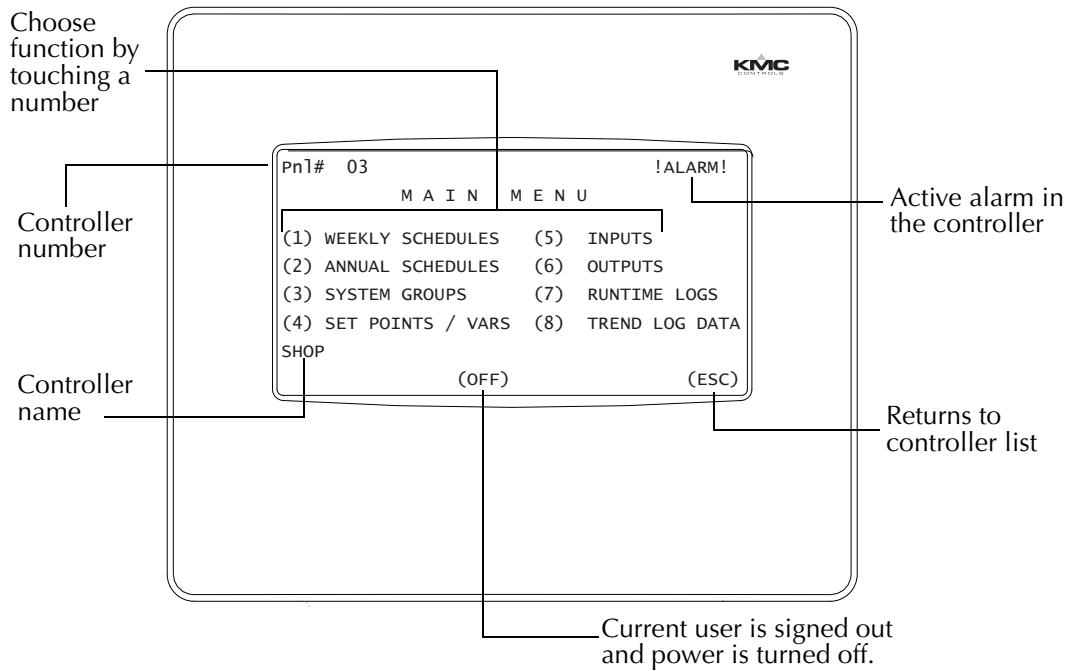


Illustration 3-4 Controller Main Menu

Inputs, Outputs and Setpoints/Variables

Use the *Function Edit* screen to make changes to an input, output or setpoint/variable. Changes are limited to altering the value and changing the state of the manual override.

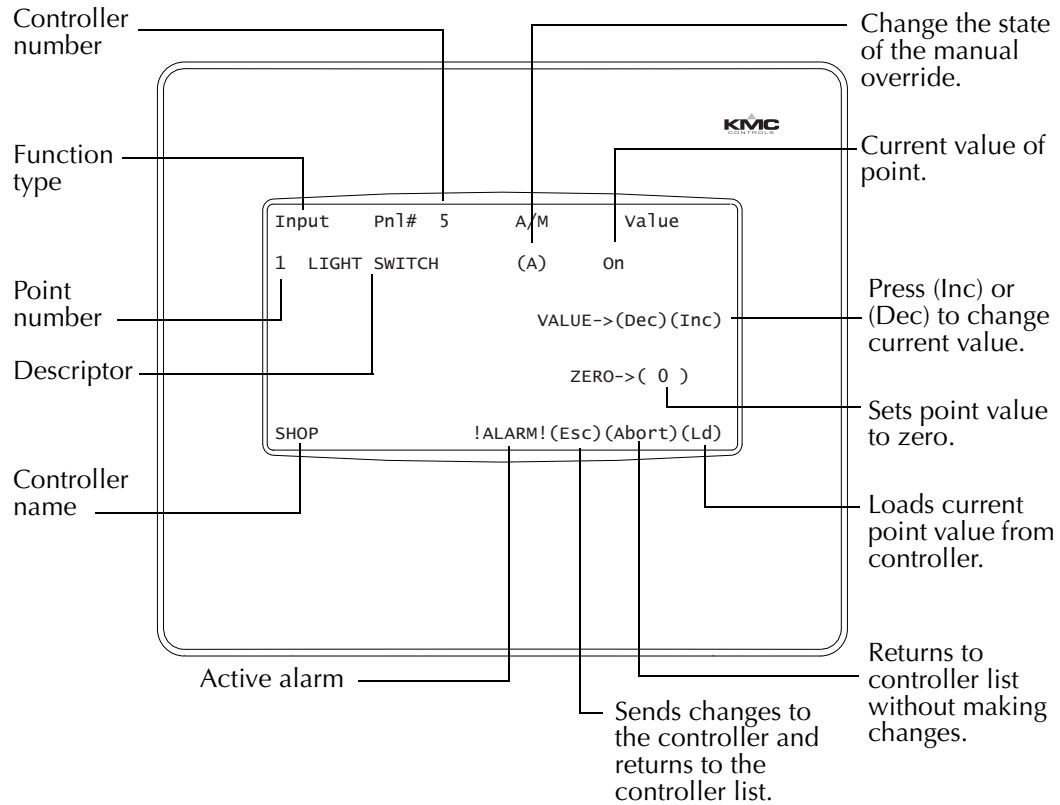


Illustration 3-5 Function edit screen

Weekly Schedules

Weekly Schedules list

Altering a schedule is limited to changing the state of the manual override and changing the *On* and *Off* times.

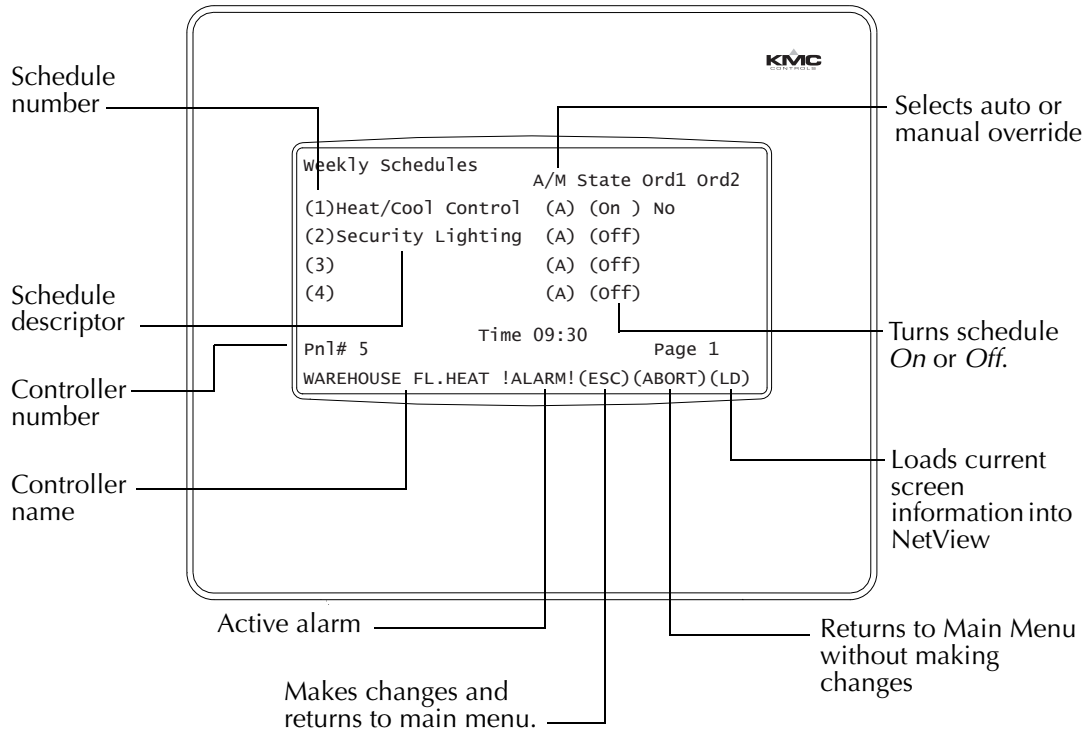


Illustration 3-6 Weekly Schedules list

Weekly Schedule Daily Details

Weekly schedule daily details are entered on two screens. The screen for Monday through Friday is identical in operation to the Saturday, Sunday and Override screen.

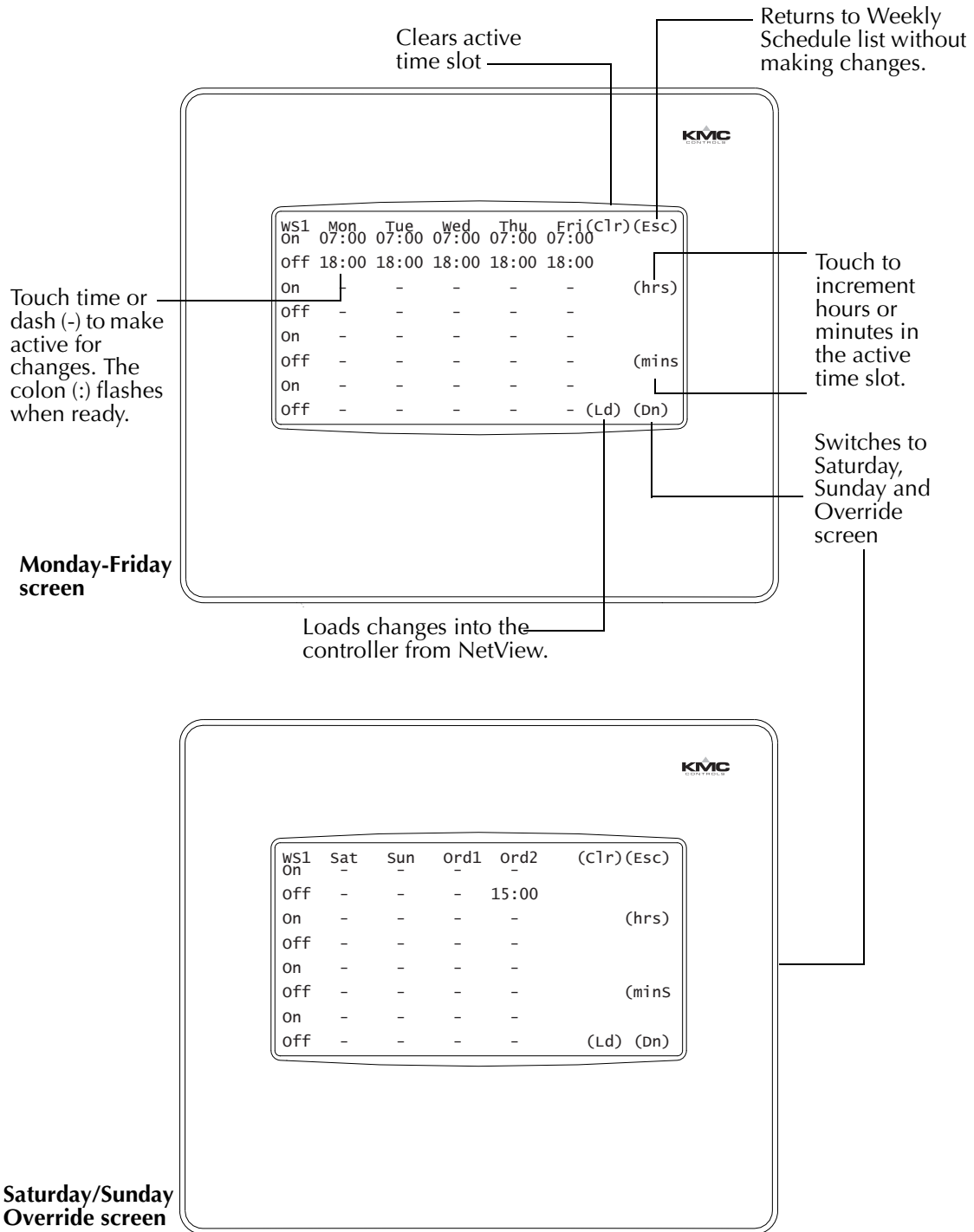


Illustration 3-7 Weekly Schedules daily details

Annual Schedules

To alter the annual schedule, select the schedule from the annual schedule list and then designate special days in the annual schedule detail screen.

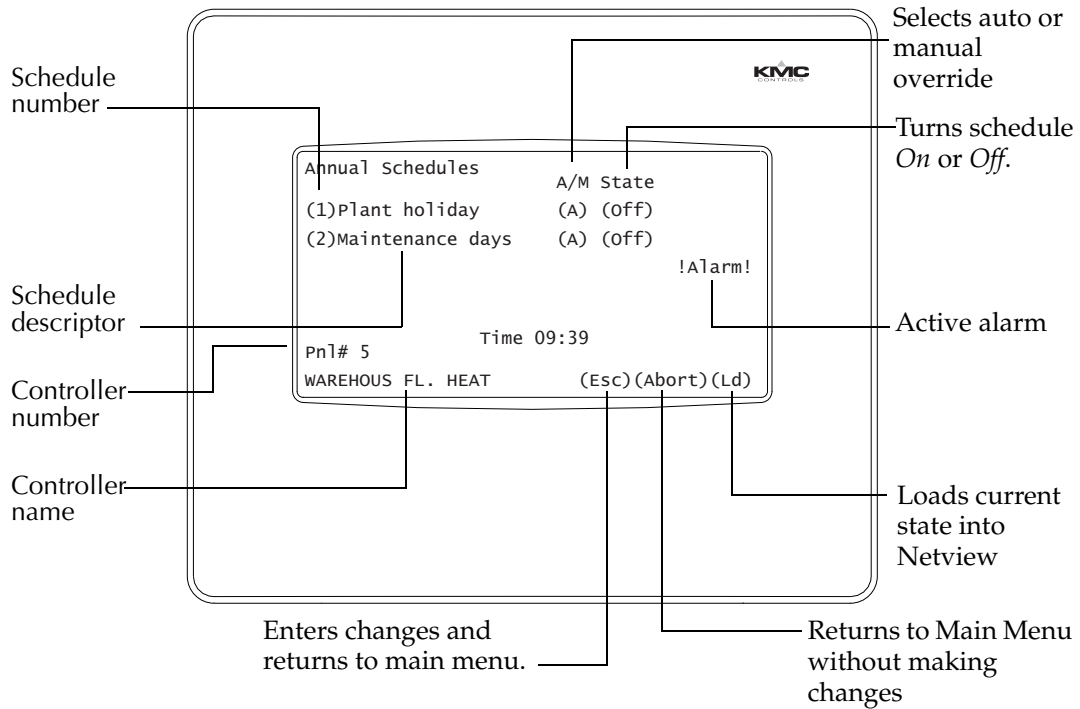


Illustration 3-8 Annual schedule list

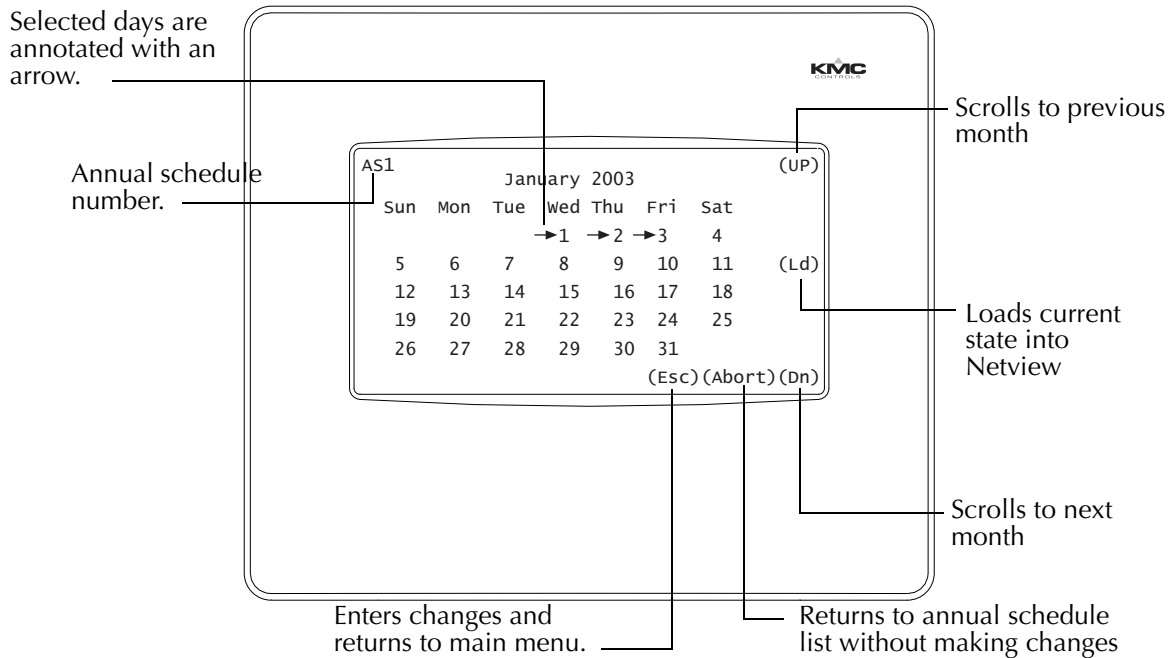


Illustration 3-9 Annual Schedule details

Runtime Logs

Open *Runtime Logs* from the Controller Main Menu. The Runtime Log screen shows the total equipment on time, start date, total number of *Off* to *On* transitions and the number of starts for the current day.

The arrow in the far left column points to the current selected log. To view the data in the selected log, touch (LD). To select a different log, move the arrow using (Up) and (Dn). All start and stop times stored in the controller (up to 75) are accessible.

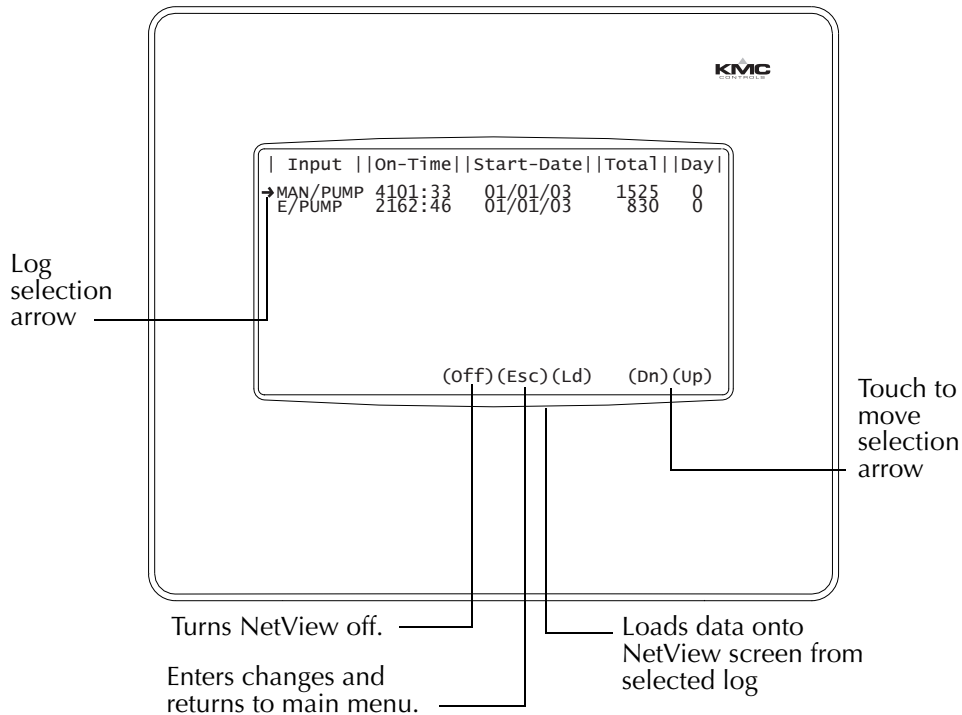


Illustration 3-10 Runtime log

Trend logs

Open *Trend Log Data* from the Controller Main Menu. The arrow in the far left column points to the current selected log. To view the data in the selected log, touch (LD). To select a different log, move the arrow using (Up) and (Dn). All data stored in the controller (up to 400 points) is accessible.

System Groups

System Groups displays the text equivalent of each graphic object in a system group. Touching the text on NetView opens the function screen for view or change. If a system group contains no points, NetView beeps and returns to the *System Groups* screen.

System groups from any controller on the network can be opened immediately after sign-on by assigning a group number and controller number when assigning operator names and passwords with WinControl.

Set Time and Date

Use the *Set Time/Date* screen to set or make changes to the system time and date. To enter a new time or date, open the sign-on screen. When the sign-on screen is open:

1. Enter *TIME* and then press (*ENT*).
2. Enter your operator name and password following each by (*ENT*).
3. Make changes to the time and date.
4. Press (*Send*) to make the changes effective.

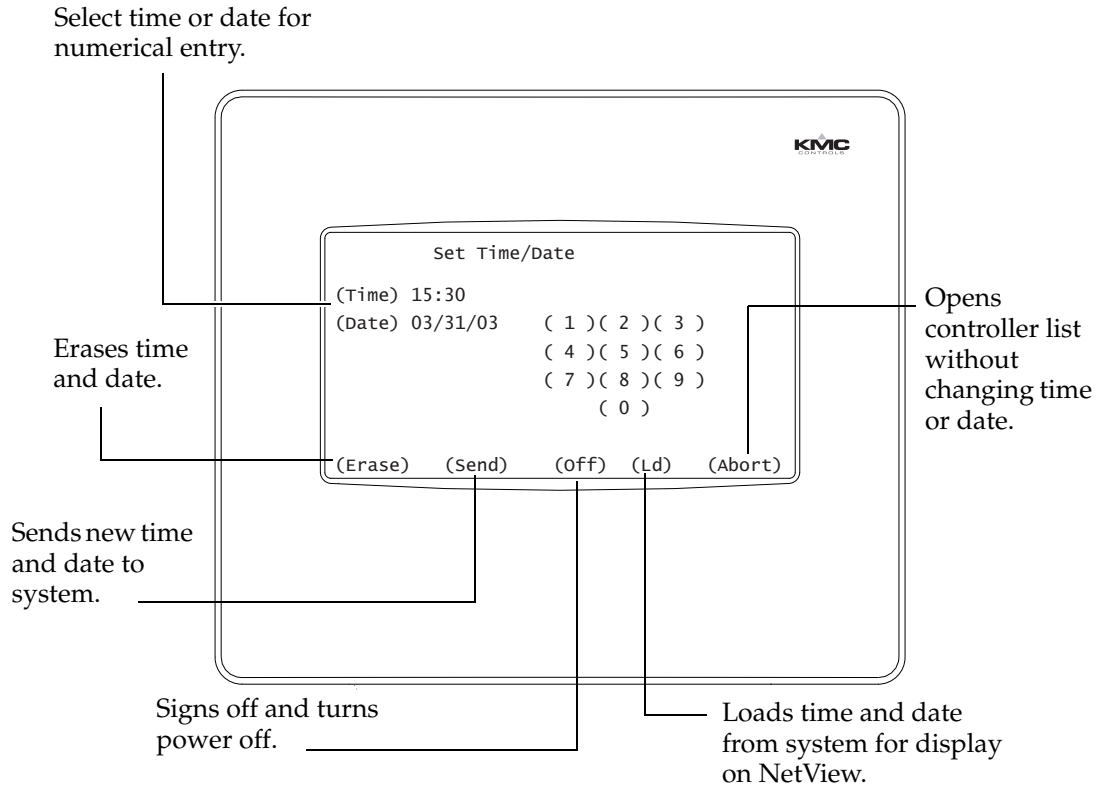


Illustration 3-11 Set Time and Date screen

See [Sign-on screen commands on page 12](#) for instructions to open this screen.

Alarm and Key Sounds

The *Alarm and Key Sounds* screen programs the audible signals you hear as the NetView display is touched. The same sound is also used to signal an alarm condition in a controller. Changes made in the *Alarm and Key Sounds* screen take effect as soon as the selection is made.

1. Enter *ALARM* and then press *(ENT)*.
2. Enter your operator name and password following each by *(ENT)*.
3. Make changes to the alarms and sounds.

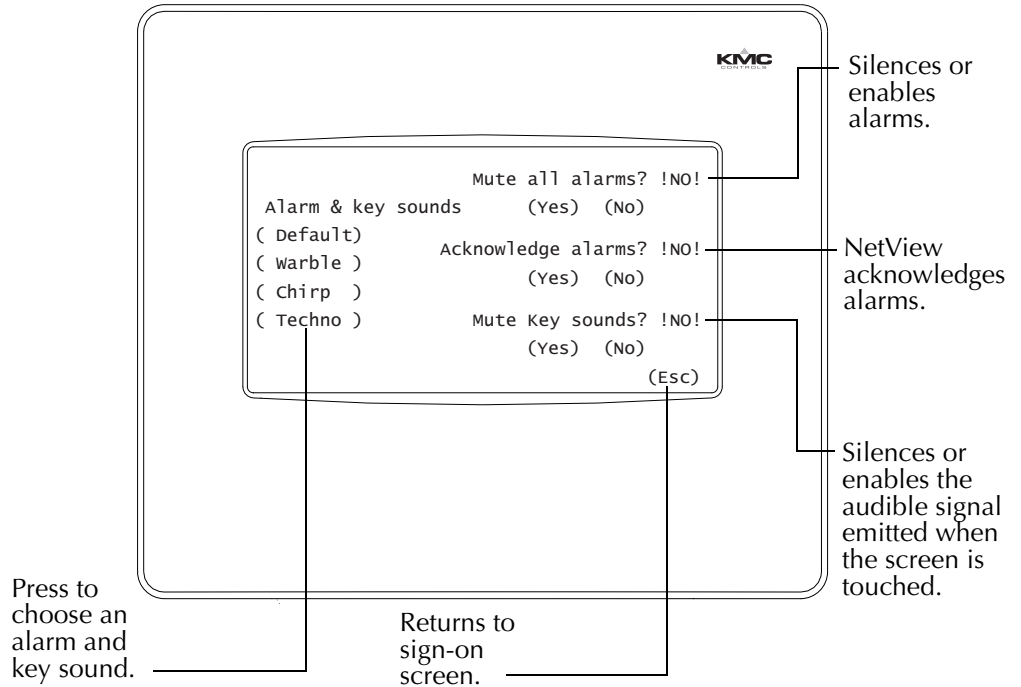


Illustration 3-12 Alarm and key sound screen

See [Sign-on screen commands on page 12](#) for instructions to open this screen.

In Case of Difficulty

NetView will display messages if it cannot establish communications with a network. Most difficulties can be solved by correcting one of the following areas.

Missing passwords

No Passwords Found in System or Password level not set

The network must have user-defined passwords before connecting NetView to it. If no passwords are defined, NetView will shut off.

Corrective action Use WinControl to assign operator names and passwords to the network.

Last Panel not set or missing panels

Last Panel Not Detected Please Set Last Panel.

KMC Controls designed NetView for use on complete networks. The network of controllers should be operating and stable before applying power to NetView. When power is first applied, NetView builds a list of available controllers and gathers configuration data. If controllers are missing from the network or a controller is not designated as *Last Panel*, operations will be significantly slower.

Corrective action Use HCM to set *Last Panel* and then use WinControl to verify the panel is reporting *ON* as viewed with the *Network Status* screen.

Baud rate changed

Lost Communications with the Network. . . Initiating a System Restart.

If the baud rate of the Tier 2 (sub LAN) network is changed after NetView has initialized, or if the network wiring to NetView is incomplete, the screen will eventually go blank.

Corrective action NetView will automatically reset and search for the new baud rate. If the communications to controllers on the network cannot be established, for instance if the communication wires are cut, the unit displays: *Cannot determine the baud rate. Please check connections to the network. The system will be reset in 5 seconds.* NetView will continue to reset until communications can be established. Once established, the sign-on screen will be displayed.

If communications with the network cannot be established, verify NetView is connected correctly.

Incorrect display

When NetView is first placed on a network it retrieves and stores information. If programming in a controller is changed, the data stored in NetView memory may become out of date and not match the data viewed with WinControl.

Corrective action Navigate to the sign-on screen and then enter *RESET* followed by *(ENT)*. This will refresh the memory in NetView.

SECTION 4

Programming Considerations

This section lists settings and describes functions which are unique to programming the KMD-1002 NetView. Other programming features and instructions are covered in the *WinControl XL User's Manual*.

Viewing Tier 1 Points

NetView behaves similarly to a computer on a KMC digital network which limits it to viewing but not changing points in a Tier 1 controller. To view a point in a Tier 1 controller, use WinControl XL in modify mode to add the point to a Tier 2 system group. When programming a system group, enter the mnemonic designation for the Tier 1 point with the number 0 as a prefix.

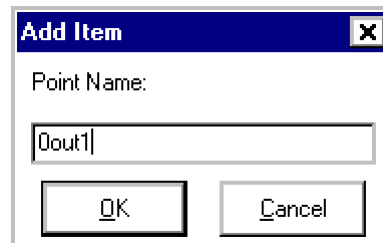


Illustration 4-1 Add point

This method will display the entry shown in Illustration 4-1 as 0OUT6 followed by its value in a system group.

View Descriptors

Adding a Tier 1 point to a system group does not make descriptors available to a Tier 2 controller. To display descriptors, use Control Basic to assign a block of variables in a Tier 2 controller to correspond to Tier 1 points.

Example:

```
10 VAR1 = 0IN1
20 VAR2 = 0IN2
30 VAR3 = 0OUT1
40 VAR4 = 0VAR45
50 VAR5 = 0WS1
60 VAR6 = 0IN3
100 END
```

Line 10 sets the first variable in the Tier 2 controller equal to the Tier 1 controller's first input. Add the Tier 2 variables to the system group instead of the Tier 1 points



Note

The variables (1 through 6 in this example) must be set up with the same range and descriptors as the Tier 1 points for a meaningful display.