

KDU

KEYBOARD DISPLAY UNIT (KDU SOS Version 4.1)

OPERATING MANUAL



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1.0 Introduction

The purpose of this manual is to provide easy to follow instructions for the use of the Keyboard Display Unit (KDU) on the 7200 Series fire alarm control panel. It will explain step by step how to perform the various functions available with the KDU and how to interpret the information shown on the display.

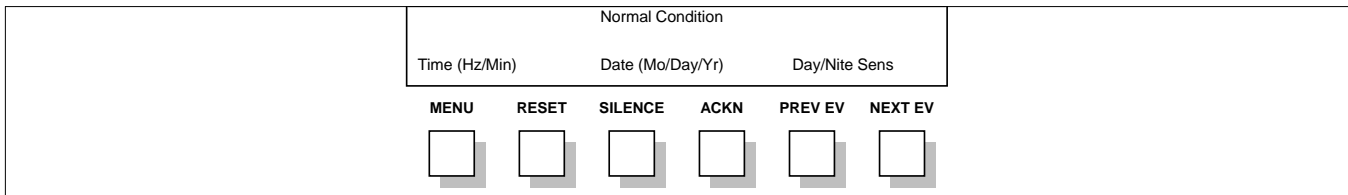
WARNING - These functions may be performed only by authorized personnel.

2.0 The Alpha-numeric Display

The heart of the KDU is the 80-character alpha-numeric display which provides messages that identify the sources of alarms, off-normal indications and trouble conditions as they occur within the system.

The Display in Normal Condition

While the system is in normal condition, the display shows two lines in the following format:



The “Normal Condition” banner is a factory default setting and can be replaced by a programmable banner up to forty characters in length. For example, the street address of the building, the name of the building or the name of a building owner can be displayed instead.

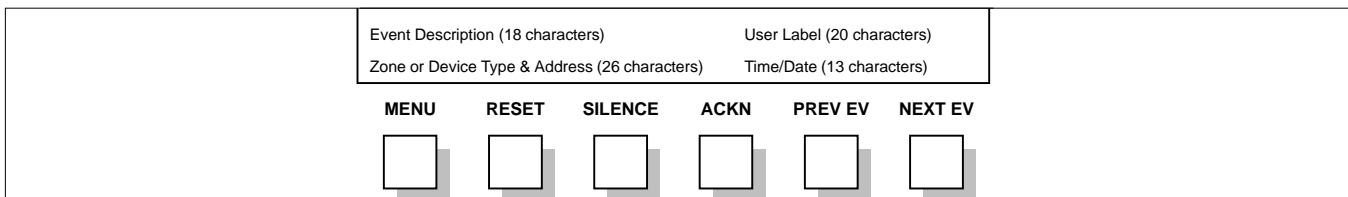
The Time and Date fields continuously display the system’s real-time clock which is used to stamp events with the time and date of their occurrence. This clock can be set by the KDU, and is explained later.

Analog smoke sensors, which are connected to an Analog Loop Unit (ALU), can be programmed to have a lower sensitivity setting for daytime hours (e.g. office hours) and a higher sensitivity setting during the night and/or weekends. The Day/Nite indication in the lower right-hand corner of the normal display shows which setting is currently in effect. Systems not programmed for the Day/Nite feature will always be in the “Nite” mode.

2.1 The Display

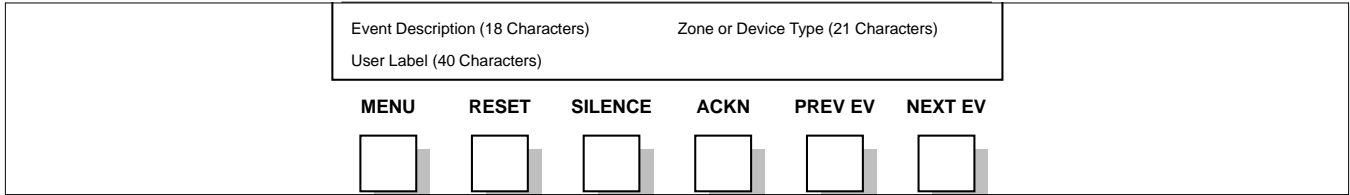
During Trouble, Off-normal and Alarm Conditions, the display changes to identify the condition and the zone or sensor affected. If the programmable zone or device label is used, the display will be in one of two possible formats depending on the length of the label.

If the programmable zone or analog device label is 20 characters or less (including spaces), the format will be:

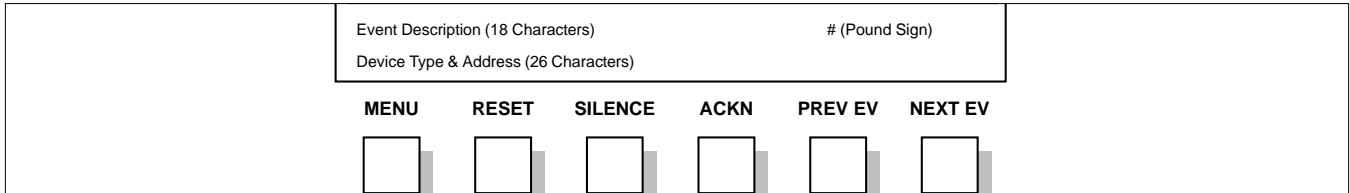


If the programmable zone or analog device label is more than 20 characters (up to 40 characters), the format will be comprised of two (2) displays, User and Service:

1st Display - User



2nd Display (invoked by pressing the # sign on the keypad) - Service



2.2 The “Pound (#) Sign” Key

Pressing the pound sign (#) on the keypad while in the first display will call up the second display. Pressing the pound sign (#) on the keypad while in the second display will call up the first display.

2.3 The Number Key (“1”) during Multiple Alarm Conditions

An initial alarm condition will be designated and shown as the “1st alarm”. Only the first alarm condition to occur will be so designated by the system. Subsequent alarm conditions will be displayed as they occur. The KDU will then scroll through the alarm conditions, changing once every 10 seconds to show each alarm event. At any point, pressing the number key “one” (1) on the keypad will bring the display back to the first alarm display. Scrolling of alarm displays then resumes from that point.

2.4 The Asterisk (*) Key

At any point and within any level of display, the KDU can be reverted to its normal condition message by pressing the asterisk (*) key on the display, (assuming the system is in normal condition at the time).

3.0 LEDs and Audible Sounder

The KDU has four LEDs and an audible sounder to provide visual and audible indications of alarm, off-normal and trouble conditions.

The audible sounder is enabled when Jumper **W2** on the KDU is installed and is disabled when Jumper **W2** is removed. If the KDU is located in the the same cabinet as a Power Supply Unit (PSU), Jumper **W2** may be removed since the power supply has its own audible sounder.

Note: Jumper **W2** must be installed to enable the audible sounder on any remote KDU.

The LEDs and audible sounder operate as follows:

The “ALARM” LED lights and the sounder sounds steadily when the system is in an alarm condition. The sounder will be silenced by pressing the “ACKNOWLEDGE switch. The LED will extinguish when the system is restored to normal.

The “SUPERVISORY” LED lights and the sounder sounds steadily when the system is in a supervisory off-normal condition. Again the sounder will be silenced by the “ACKNOWLEDGE” switch.

Note: A supervisory condition applies to the monitoring of the building sprinkler system by the fire alarm control panel. If any valve has been shut off, or any sprinkler supervisory switch is in an off-normal condition, a “Supervisory” condition will be displayed on the KDU, and the “SUPERVISORY” LED will light.

The “SYSTEM TROUBLE” LED lights and the sounder sounds steadily if a trouble condition occurs in the system. The sounder may be silenced by pressing the “ACKNOWLEDGE switch.

Note: it is possible to program a trouble reminder that will resound the audible sounder 1 to 180 minutes after a trouble condition has been acknowledged. This process will be repeated at the set time interval until the trouble condition has been restored.

The SYSTEM SILENCE LED will light when the system's notification appliance circuits are silenced by the "SILENCE" switch after an alarm.

4.0 Switches

There are six switches on the KDU in addition to a numeric keypad. They are:

RESET/LAMP TEST Switch - This switch serves two functions depending upon how long it is pressed. If the RESET/LAMP TEST switch is held for less than 5 seconds, it performs a lamp test of all four LEDs on the KDU, exercises every pixel of the display and sounds the audible sounder on the KDU (if Jumper **W2** is installed). If the switch is held down for more than 5 seconds, it will perform a system reset.

CAUTION: If the fire alarm panel goes into an alarm condition, evacuate the building. **DO NOT** reset the system until instructed by the proper authorities.

SILENCE Switch - This switch silences the notification appliances (bells, horns, strobes, etc.) after an alarm. This switch "toggles on" and "toggles off" which means that, if the switch is pressed once to turn off the appliances, pressing it again will turn them back on. Also, if a new alarm condition occurs when the system is already in alarm and has been previously silenced, the appliances will sound again. The SYSTEM SILENCE LED on the KDU (and also on the SCU and the DIU) will light when the notification appliance circuits are silenced.

NOTE: If the system contains a sprinkler system waterflow switch, the warning "waterflow, silence inhibit" message may appear. If this occurs, the notification appliances cannot be silenced.

It is possible to program a silence inhibit time interval into the system. This will allow you to disable the SILENCE switch for the duration of the selected interval. This interval can be set from 1 to 120 minutes in one minute steps. After this time interval is over, the SILENCE switch will operate normally.

It is also possible to program notification appliance circuits so they cannot be silenced. A typical example would be circuits that are controlling strobe lights. Circuits that are programmed as non-silenceable are not affected by the SILENCE switch.

NOTE: If Jumper **W9** located on the System Control Unit (SCU) is installed, the group acknowledge feature of the system is enabled. This feature allows the ACKNOWLEDGE switches on both the SCU and the KDU to acknowledge up to 10 events at a time.

ACKNOWLEDGE Switch - This switch is used to silence the internal sounder during an alarm, supervisory off-normal condition and trouble condition. Subsequent events will resound the audible sounder.

PREVIOUS EVENT Switch - The 7200 Series control panel can store up to 500 events in memory. Use of the PREVIOUS EVENT switch allows viewing of this event log. Press the switch once for every event to scroll backward through the log. When the end of the log has been reached, the KDU will display the message "No More Events".

NEXT EVENT Switch - This key operates in a fashion similar to the previous event switch only it scrolls forward through the event log. Once again, the message "No More Events" will appear on the KDU when the end of the log is reached.

NOTE: When the system is in Alarm or a Supervisory Off-Normal condition, event log scrolling cannot be performed.

MENU Switch - This switch allows access to the display showing the four option areas available through the KDU. These option areas are described briefly below with further explanation elsewhere in this manual:

- **WALK** - This option is used to initiate audible (Walk A) or silent (Walk S) walk test, fire drill (Drill) or fire drill (Drillst) with battery standby.
- **SENSR** - This option is used on 7200 Series equipped with Analog Loop Units (ALUs) that are supporting ASD-I, ASD-P and ATD analog sensors. Items under this option are read (sensor sensitivity), set (sensor sensitivity), comp. (compensate sensors), test (sensors) and init. (initialize sensors).
- **I/O** - This option is used to turn on/ turn off various system outputs or enable/disable analog devices on ALU signaling line circuits.
- **SYSTM** - This option is used to set the system's clock, read the voltage and current from the system's power supplies, print out the system's event log, change the system's passwords, perform a "hard" reset of the system (which clears the system's event log), or perform a system autoconfiguration.

5.0 Operation Modes

It is possible to configure the KDU to operate in one of three modes. These are:

NOTE: The MENU switch does not operate when the system is in an alarm condition.

1. FULL MENU MODE - In this mode the KDUs MENU key is enabled to allow full access to all the features available on the KDU by using the MENU key. The rotary address switch **SW1** must be set to any position other than zero, and resistor **R1** must be installed. KDUs are shipped this way from the factory.

2. LIMITED FUNCTION MODE - A KDU in this mode will allow the use of only the RESET/LAMP TEST, SILENCE, and ACKNOWLEDGE keys. The MENU key is disabled. Again, the rotary address switch **SW1** must be set to any position other than zero, but resistor **R1** must be removed.

3. PASSIVE DISPLAY MODE - A KDU in this configuration will provide a display only. None of the switches are operative. In this case, the rotary address switch **SW1** must be set to zero and resistor **R1** removed. A KDU operating in this mode will not be supervised.

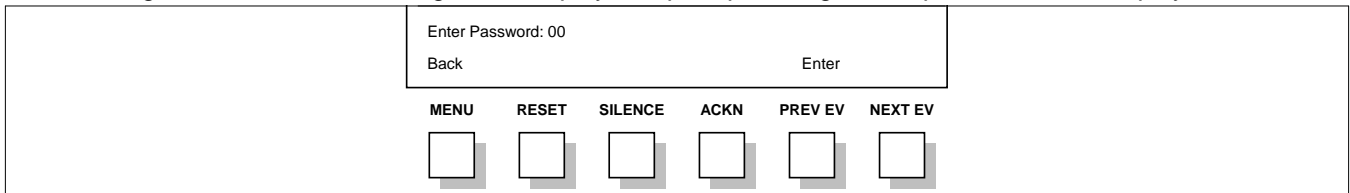
6.0 Passwords

The options accessible through the MENU switch are password protected, requiring that a two-digit password be entered into the KDU before it will allow access to the various option displays. The factory default passwords are:

Level 1= 11
Level 2= 22
Level 3= 33
Level 4= 44

Factory default means that the passwords are factory preset-set at these values. It is possible, to change these passwords to custom settings at the installation site, for example, changing the Level 4 password from 44 to 78 or to some other value.

Pressing the MENU switch changes the display to a prompt asking for the password. The display reads:



The numeric keypad is used to enter the password. To enter the password, press the "NEXT EVENT" key underneath the word "ENTER" on the display. At this point, a display asking you to select an option appears. These options will be described later in this manual.

7.0 Secondary Functions

Notice that the word “Back” appears above the MENU key and the word “Enter” appears above the next event key when the MENU key is pressed. These designate the new functions these keys assume when the MENU key is pressed. The “Back” function allows you to step back from the current display to the previous display when the MENU key is pressed. The “Enter” function allows you to enter the information typed into the KDU or select an option displayed on the KDU display when you press the “NEXT EVENT” key.

All through the menu system, the switches beneath the display will have different functions depending on the screen being displayed. To select the desired function, press the switch on the KDU directly below that function.

8.0 Entry Time-out

If a key is not pressed within 60 seconds, while in the Menu, the KDU will automatically time out and cancel the current display, returning the display to its normal state. This also indicates that the access gained by entering the password has been canceled as well. Re-entering the Menu will then require re-entering the password.

9.0 Walk Test

The 7200 Series allows two methods of Walk Test to functionally test the smoke sensors, pull stations, etc. without causing an alarm or any programmed activation functions.

9.1 Audible Walk Test

An Audible Walk Test will cause the system’s notification appliance circuits programmed to respond to walk test to pulse four (4) times when a zone or analog sensor is placed into alarm. When supervisory devices are placed off-normal, the notification appliance circuits programmed to respond to walk test will pulse three (3) times.

After each response, the system will automatically reset itself and be ready to receive another test (be sure to manually restore pull stations). Placing a trouble condition on a zone or removing a sensor will cause the system notification appliance circuits to pulse twice.

9.2 Silent Walk Test

A Silent Walk Test will not pulse any notification appliance circuits. Therefore, a printer should be connected to the System Control Unit’s (SCU) RS-232 port to record walk test events. By this means, a permanent record of this test is created for later inspection.

NOTE: All Walk Test results are printed via the RS-232 port on the SCU.

9.3 Performing a Walk Test

- 1) Press the MENU key.
- 2) Type in the Level 2 password on the numeric keypad (22 is the factory default).
- 3) Press the NEXT EVENT key to “Enter” the password (Notice the word “Enter” appears above this key on the alpha-numeric display).
- 4) Press the RESET/LAMP TEST key to select the walk option (notice the word “Walk” appears above this key).
- 5) Press the RESET/LAMP TEST key again for an audible (Walk A) walk test or press the SILENCE key for a silent (Walk S) walk test. Observe the two-digit display on the System Control Unit (SCU) change to a pair of parentheses [] and the KDU display indicate Walk Test, audible or silent. The system will also enter into a trouble condition.
- 6) Press the ACKNOWLEDGE key on either the KDU or SCU to silence the audible sounder.

IMPORTANT NOTE: At this point, it is necessary to select the circuit to be walk tested by moving its DISCONNECT switch to the “Disconnect” position (i.e. to the right). If the circuit is NOT so selected (by being disconnected) and a device on that circuit is activated, the system will go into alarm. In this way, devices can continue to monitor the building for alarms while selected circuits are walk tested.

- 7) Place a device on the selected (disconnected) circuit into alarm. If the audible walk test has been selected, listen for three (3) or four (4) pulses from the notification appliances. The printer connected to the system RS-232 port will record the walk test events.
- 8) If desired, a device on the selected (disconnected) zone or analog signaling line circuit can be placed into trouble. For example, a smoke sensor can be removed from its base. In audible walk test, the system will respond with two (2) pulses from the notification appliances.
- 9) Repeat Steps 7 and 8 for each device to be walk tested.
- 10) To exit a walk test, either press the RESET/LAMP TEST key and reset the system or repeat Steps 1 through 5 (in effect toggling off the walk test), and then restore the CIRCUIT DISCONNECT switch to its normal position.

NOTE: The system has a programmable time-out feature that cancels walk test if an event does not occur within a specified time limit. The factory default for walk test time-out is 60 minutes. The system, however, will be in trouble due to the disconnected circuit(s).

10.0 Fire Drill

The 7200 Series fire alarm control panel provides two different types of fire drill (Drill): fire drill alone or fire drill with a standby battery test (Drilltst).

When the system is placed into fire drill, all notification appliance circuits will activate their associated notification appliances (horns, bells, strobes, etc.)

Fire drill with standby battery test is the same as above with the additional feature of operating the system from the standby battery to test the batteries' ability to sustain the load of a system alarm.

NOTE: If batteries are disconnected, a "Drilltst" will activate the signals from the PSU power..

10.1 How to perform a Fire Drill

- 1) Press the MENU key.
- 2) Type in the Level 2 password on the numeric keypad (22 is the factory default).
- 3) Enter the Level 2 password by pressing the NEXT EVENT key (notice the word "Enter" appears above this key on the alpha-numeric display).
- 4) Press the RESET/LAMP TEST key on the KDU to select the walk option (notice the word "Walk" appears above this key).
- 5) Press the ACKNOWLEDGE key for fire drill (Drill) or press the PREVIOUS EVENT key for fire drill with standby battery (Drilltst) test. The system will now enter a fire drill and activate the notification appliance circuits programmed to respond to this drill.
The two-digit display on the System Control Unit (SCU) will change to the letters "DR" and the KDU will display the message "Fire Drill" if fire drill was selected or "Batt Test" if fire drill with battery test was selected. If the Battery Test option was selected, the green DC POWER LED on the Power Supply Unit will extinguish, signifying that the system has been transferred to standby battery power.
At any time during a fire drill, the notification appliance circuits programmed to be silenceable may be silenced via the SILENCE switch.
- 6) Press the acknowledge key on either the KDU or SCU to silence the resulting trouble condition.
- 7) To exit fire drill, either reset the system or repeat Steps 1 through 5.

NOTE: If a fire drill with standby battery (Drilltst) test is selected and the notification appliance circuits are energized for a sufficiently long time, the system may go into a high rate charge condition after the drill is finished. Once the batteries have been recharged by the Power Supply Unit this condition will clear itself.

11.0 Analog Sensors and Options

These options are for use with the analog addressable sensors: ASD-P (photoelectric) and ASD-I (ionization), which are connected to the signaling line circuit of an Analog Loop Unit (ALU). These sensors have the ability to compensate for any drift from their programmed sensitivity due to the build up of dust. For example, consider an analog photoelectric sensor (ASD-P) programmed with a daytime sensitivity setting of 2.5% and a nighttime setting of 2.0% (Sensor sensitivity is expressed as a percentage of the obscuration of light per foot). A lower percentage value means it takes less obscuration from smoke to alarm the sensor, i.e. the lower the percentage value, the more sensitive the sensor is to smoke. So if the photoelectric sensor sees an obscuration of 2.5% or greater during the day due to smoke, it will go into alarm. During the night, the sensitivity is automatically changed to the lower 2.0% setting (increasing its sensitivity).

The lower daytime setting makes the sensor less sensitive to any normal daytime activities within the building such as cigarette smoke, dust stirred up by foot traffic, etc. Since many buildings are unoccupied at night, such conditions are absent. Increasing a sensor's sensitivity at this time adds an extra measure of protection to the site.

Over the course of time, dust, oily films, dirt, etc. can accumulate inside the sensor causing it to gradually become more sensitive and prone to false alarms. The analog sensor continuously reports its current sensitivity to the control panel. The panel then compares the sensor's present sensitivity with the sensitivity setting programmed for that sensor when the system was initially commissioned. If the two are different, the system will adjust for this drift and restore the sensor back to its original setting.

This feature has limits and the sensor can eventually drift so far away from its sensitivity setting that the system can no longer compensate and the sensor's operation is impaired. Before this condition is reached however, the system will report the sensor as "dirty" and cause a trouble condition.

If the sensor is cleaned or replaced, the system will return to normal after initialization. If no action is taken, the drift may continue until the point is reached when the system will report the sensor as "very dirty". In this case, the resulting trouble condition cannot be acknowledged and the system will continue to sound its trouble sounder and activate its trouble outputs until the sensor is cleaned or replaced.

There are five functions on the KDU that pertain specifically to analog sensors. These are:

- 1. Read** - This function allows the sensitivity settings of an initialized sensor to be viewed.
- 2. Set** - This function allows the sensitivity settings to be changed to different settings.
- 3. Compensate** - This function performs a drift compensation on the selected sensor.

NOTE: The "Compensate" feature is in addition to the system's automatic performance of drift compensation

- 4. Test** - This function conducts a test of the selected sensor on a pass/fail basis

NOTE: The test function is in addition to the automatic testing of all analog sensors performed by the system with each sensor being tested every six hours

- 5. Initialize** - This function "forces" the initialization of drift compensation system-wide, i.e. causes drift compensation to begin. This is done automatically by the system upon commissioning but it can take up to a week for the system to initialize every sensor. Sensitivity of a detector cannot be displayed until initialization has occurred.

(Photoelectric analog sensors produced after the first quarter of 1995, have an added feature known as "high resolution". This enables an ASD-P to be programmed to a wider range of sensitivity settings than was formerly available.)

In addition, FCP-7200 Version 4.1 can program sensors to generate multi-level indications, an "alert" condition and an "action" condition, prior to setting off an alarm.

As smoke begins to accumulate, the sensor will report this gradual increase to the the control panel every time it is polled. Two levels of sensitivity below the level that would cause the sensor to go into alarm can be designated as "Alert" or "Action".

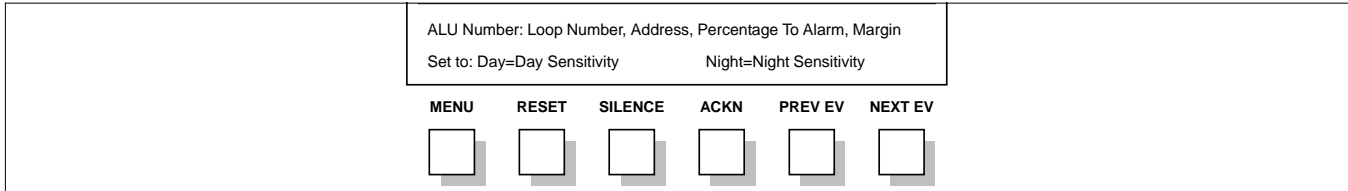
When the lowest level of sensitivity is reached, the sensor will be reported as being in an "Alert" condition which will place the system in trouble. When the next level is reached, the sensor will enter the "Action" condition. Outputs can be programmed to activate upon an "Action" condition to serve as a pre-alarm signal. Finally, if smoke continues to accumulate within the sensor, the alarm threshold will be reached, alarming the sensor and creating a system alarm.

Multi-level operation replaces the usual Day/Night sensitivity features.

12.0 Read

The “Read” function enables the operator to view the present sensitivity settings of analog smoke sensors and gives an indication, expressed in the form of a “margin” number, of how much a sensor has needed to compensate for drift away from its originally set sensitivity. The display can assume one of two formats depending upon whether the system is programmed to provide high resolution sensors with multi-level indications.

12.1 Display as seen for sensors not programmed for multi-level indications



12.11 ALU Number - The address of the ALU to which the sensor selected for reading is connected as set by its rotary address switch. There can be as many as 15 ALUs (maximum 5 per PSU; numbered 1-9 and lettered a-f (where a=10, b=11, etc.) in a system.

12.12 Loop Number- The signaling line circuit number to which the selected sensor is connected. Each ALU has two circuits.

12.13 Address - The address of the particular sensor being read. Sensors can be set to Addresses 1-99.

12.14 Percentage to Alarm - A measurement of smoke level within the sensor at the moment of reading. This value is inverse to the sensitivity setting that is currently active (Day or Night).

For example, the following table illustrates this relationship for a sensor whose sensitivity is currently set at 2% per foot obscuration:

| | |
|--|----------------------|
| 2.00% to alarm = 0.00% obscuration/foot seen by the sensor | |
| 1.75% to alarm = 0.25% | “ |
| 1.50% to alarm = 0.50% | “ |
| 1.25% to alarm = 0.75% | “ |
| 1.00% to alarm = 1.00% | “ |
| 0.75% to alarm = 1.25% | “ |
| 0.50% to alarm = 1.50% | “ |
| 0.25% to alarm = 1.75% | “ |
| 0.00% to alarm = 2.00% | Sensor now in alarm! |

12.15 Margin - A measurement of how much the sensor has had to compensate for any drift away from its programmed setting. A margin number of 10 would indicate that the sensor has never had to compensate, and indicates a perfectly clean sensor. This number will decrease every time a drift compensation occurs so a margin number of 8 would mean the sensor has possibly accumulated a small amount of dust and has compensated for it. A margin number of 6 would indicate a further compensation and so on. This will continue until the margin number reaches 0 at which point the sensor will be reported as “dirty” and will cause a system trouble condition. If the margin number drops to negative values (-1, -2), the sensor will be reported as “very dirty” and the resulting trouble condition cannot be acknowledged. The sensor will have to be cleaned or replaced to restore the panel to normal.

12.16 Day - The sensitivity setting in effect during daylight hours as defined in the system program.

12.17 Night -The sensitivity setting in effect during night time hours as defined in the system program (night sensitivity is usually set to a higher, i.e. more sensitive, setting than day sensitivity).

12.2 Display as seen for sensors with multi-level indications

| | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| ALU Number: Loop Number, Address, Percentage to Alarm, Margin | | | | | |
| Set to: Alm=Alarm % Level Actn=Action % Level Alrt=Alert % Level | | | | | |
| MENU | RESET | SILENCE | ACKN | PREV EV | NEXT EV |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

12.21 ALU Number - The address of the ALU to which the sensor selected for reading is connected as set by its address switch. There can be as many as 15 ALUs in a system, (maximum of 5 ALUs per PSU. The ALUs are numbered 1-9 and lettered a-f (where a=10, b=11, etc.).

12.22 Loop Number - The signaling line circuit number to which the selected sensor is connected. Each ALU has two circuits.

12.23 Address - The address of the particular sensor being read. Sensors can be set to addresses 1-99.

12.24 Percentage to Alarm - A measurement of obscuration seen by the sensor at the moment of reading. This value is inverse to the sensitivity setting of the sensor. Consult Table 1 which illustrates this relationship.

12.25 Margin - A measurement of how much the sensor has had to compensate for any drift away from its programmed setting. A margin number of 10, the highest value possible, would indicate that the sensor has never had to compensate. The margin number will decrease every time a drift compensation occurs. If the margin number reaches 0, the sensor will be reported as “dirty” and a system trouble will occur. If the margin number for a sensor is allowed to descend into negative values (-1, -2), the sensor will be reported as “very dirty” and the resulting trouble condition cannot be acknowledged. The sensor will have to be cleaned or replaced to restore the system to normal.

12.26 Alm - This is setting of the percent per foot obscuration seen by the sensor at which an alarm condition will be initiated.

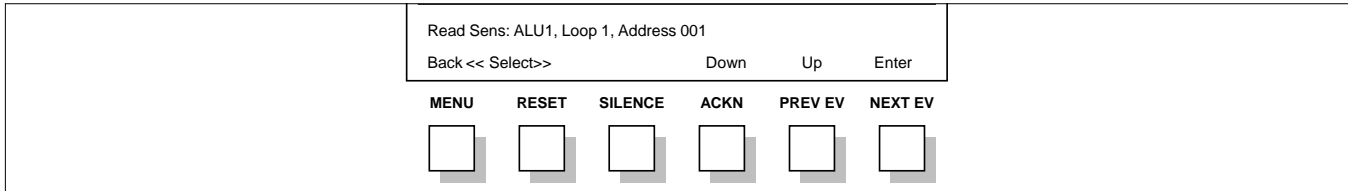
12.27 Actn - This is the setting of the percent per foot obscuration seen by the sensor at which an “Action” condition will be initiated. The system can be programmed to activate outputs (audible/visual indications and/or building control functions) upon an Action condition to serve as a pre-alarm signal, (a warning that the sensor is close to going into alarm). The sensitivity setting for an Action condition is always lower (more sensitive) than that for an alarm.

12.28 Alrt - This is the setting of the percent per foot obscuration seen by the sensor at which an “Alert” condition will be initiated. The Alert condition indicates that the sensor is seeing some obscuration and the situation may evolve into an alarm. An Alert condition will be shown on the KDU display and the system will enter a trouble condition. The sensitivity setting for an Alert condition is always lower (more sensitive) than that for an Action or an alarm.

NOTE: If an attempt to read the sensitivity of an analog sensor results in a message declaring that the sensor is not initialized, the “init.” function in the sensor option menu can be used to initialize the sensor so it can be subsequently read. See “How to initialize a sensor” for details. A sensor may not be initialized because the system was recently powered up or the sensor was recently replaced or added.

12.3 How to read the sensitivity setting of a sensor

- 1) Press the MENU key.
- 2) Type in the level 2 password on the keypad (22 is the factory default).
- 3) Press the NEXT EVENT key to enter the password (notice the word "ENTER" appears above this key on the display).
- 4) Press the SILENCE key to select the "Sensr" (Sensor) options menu (notice the letters "Sensr" appears above this key on the display).
- 5) Press the RESET/LAMP TEST key on the KDU to select the "Read" option (notice the word "Read" appears above this key on the display).
- 6) At this point, the following display should be seen:



NOTE: The KDU retains a memory of the last entry made in this option. The actual display may vary.

- 7) Select the ALU number to which the sensor is connected. Notice the cursor that appears over the ALU number when the display is initially opened. Pressing the UP function that appears over the PREVIOUS EVENT key will scroll upwards through the ALU numbers. There can be as many as 15 ALUs in a 7200 system, (Maximum of 5 ALUs per PSU); ALUs 1-9 and a-f (10-15) as assigned by the ALUs address switch. Pressing the "DOWN" function that appears over the ACKNOWLEDGE key will scroll downwards through the ALU numbers.

NOTE: If an invalid ALU number is entered (i.e. no ALU addressed to that number), the message "No such unit is configured" will appear on the display when the set command is entered.

- 8) Enter the signaling line circuit number of the sensor to be read. Use the ">>" function that appears above the SILENCE key to move the cursor to the right so that it is over the circuit number. (Pressing the "<<" over the RESET/LAMP TEST key would move the cursor back to the left). Type in the circuit number via the keypad.
- 9) Enter the address of the sensor to be read. Use the ">>" function to move the cursor to the right so that it appears over the "Address" entry field. Type in the address of the sensor via the keypad.
- 10) Press the "NEXT EVENT" key to "ENTER" the read command for the selected sensor.

If an invalid address is entered (i.e. no sensor is addressed to that number), the error message "X,XXX has no device configured" will appear on the display.

NOTE: If an address is entered that corresponds to an analog thermal sensor (ATD), the KDU will display the error message "X,XXX is not a readable sensor".

Special Feature: when entering this field, the KDU will default to the last entry made under this function. If zero (0) is pressed for the first digit, the word ALL will appear on the screen. This allows for the reading of all readable sensors on the selected circuit of the selected ALU. A printer must be connected to the SCUs RS-232 port to record the information since only the first sensor on the circuit will be displayed on the KDU.

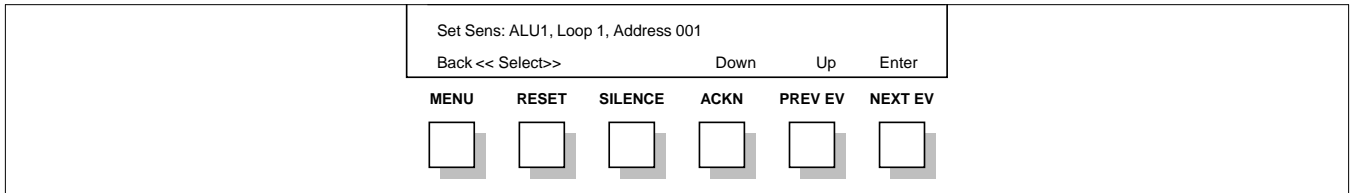
13.0 Setting Analog Sensor Sensitivity

Using the SET SENSITIVITY function of the KDU allows the operator to change the sensitivity of an analog smoke sensor, making it less sensitive or more sensitive in its detection of smoke. The sensitivity settings available are:

| Ion (ASD-I) | Photo (ASD-P) w/o Hi-res capability | Photo with Hi-res capability |
|-------------|-------------------------------------|------------------------------|
| 3.0 % (low) | — | 3.0% (low) |
| 2.5% | — | 2.5% |
| 2.0% | Low | 2.0% |
| 1.75% | Medium | 1.75% |
| 1.5% | Normal | 1.5% |
| 1.25% | High | 1.25% |
| 1.0% (high) | — | 1.0% (high) |

13.1 How to set the sensitivity of a sensor

- 1) Press the MENU key.
- 2) Type in the Level 2 password on the numeric keypad (22 is the factory default).
- 3) Press the NEXT EVENT key to enter the password (notice the word "ENTER" appears above this key on the display).
- 4) Press the SILENCE key to select the Sensr (Sensor) options menu (notice the letters "Sensr" appear above this key on the display).
- 5) Press the SILENCE switch on the KDU to select the Set option (notice the word "Read" appears above this key on the display).
- 6) At this point, the following display should be seen:

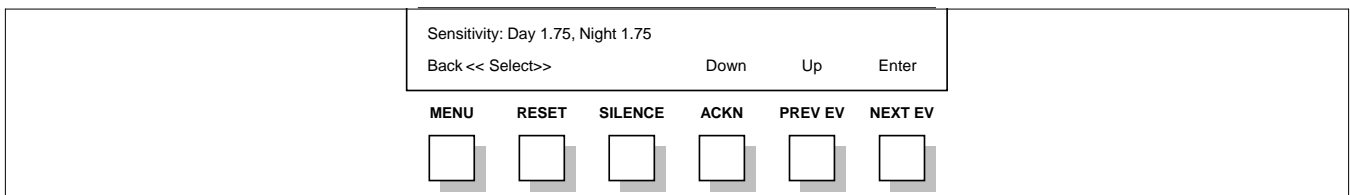


NOTE: The KDU retains a memory of the last entry made in this option. The actual display may vary.

- 7) Select the ALU number to which the sensor is connected. Notice the flashing cursor that appears over the ALU number when the display is initially opened. Pressing the "UP" function that appears over the PREVIOUS EVENT key will scroll upwards through the ALU numbers. There can be as many as 15 ALUs (Maximum of 5 ALUs per power supply in a 7200 Series system; ALUs 1-9 and a-f (10-15) as addressed by the ALUs rotary switch. Pressing the DOWN function that appears over the ACKNOWLEDGE switch will scroll downwards through the ALU numbers.

NOTE: If an invalid ALU number is entered (i.e. no ALU addressed to that number), the message "No such unit is configured" will appear on the display when the set command is entered.

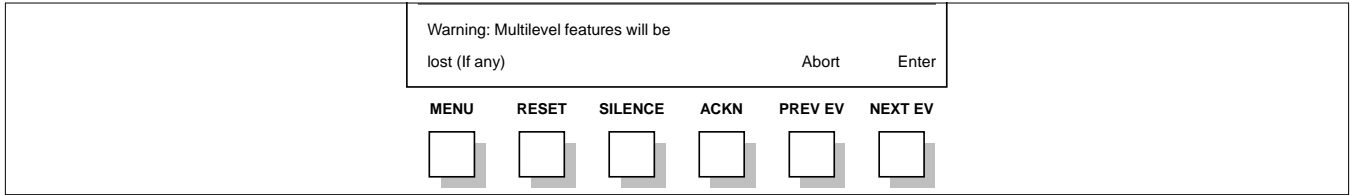
- 8) Enter the signaling line circuit number to which the sensor to be set is connected. Use the ">>" function that appears above the SILENCE key to move the blinking cursor to the right so that it is over the circuit number. (Pressing the "<<" over the RESET/LAMP TEST key would move the cursor back to the left). Type in the circuit number via the keypad.
- 9) Enter the address of the sensor. Use the ">>" function to move the blinking cursor to the right so that it appears over the "Address" entry field. Type in the sensor address via the keypad.
- 10) Press the "NEXT EVENT" key to "ENTER" the information generated by Steps 7-9 into the KDU.
- 11) At this point, the following display should be seen:



NOTE: This display always defaults to day and night sensitivity settings of 1.75% which may not be the actual settings of the sensor selected. Use the Read function to determine the present sensitivity settings of the sensor.

- 12) Select either the Day or Night sensitivity by moving the cursor over the desired field. Use the ">>" function seen over the ACKNOWLEDGE key to move the cursor to the right. It can be moved back to the left by using the "<<" function that appears over the RESET/LAMP TEST key.
- 13) Once the cursor is positioned over the correct field, use the "DOWN" function over the ACKNOWLEDGE key to lower (make LESS sensitive) the sensitivity of the sensor. Conversely, use the "UP" function over the PREVIOUS EVENT key to raise (make MORE sensitive) the sensitivity of the selected sensor.

14) Press the “NEXT EVENT” key to enter the sensitivity change(s) for the selected sensor. The display will now show the following screen:

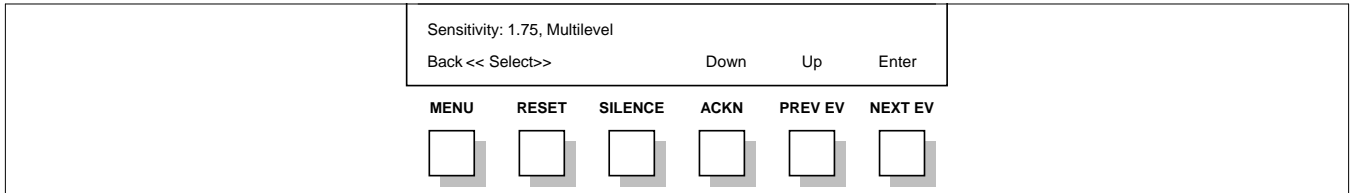


15) If the selected sensor has multilevel operation, this feature will be lost if the sensitivity setting(s) are changed through the KDU. If this is not desired, press the “PREVIOUS EVENT” key under the word “Abort” to cancel this entry.

16) Press the “NEXT EVENT” key under the word “ENTER” to execute the sensitivity setting change(s). Multilevel operation for this sensor will no longer be in effect. The sensor will possess Day/Night sensitivity settings only. To program a sensor for Multilevel operation, perform Steps 1-11 to select the desired sensor.

17) Position the cursor over the Night sensitivity setting field by using the “>>” function above the ACKNOWLEDGE key.

18) Use the “UP” function by pressing the PREVIOUS EVENT key until the following display appears on the KDU:



19) Bring the cursor back to the left so that it is positioned over the 1.75 sensitivity setting by pressing the RESET/LAMP TEST key. (Notice that “<<” appears over this key on the display.)

20) Once the cursor is positioned over this field, use the “DOWN” function over the ACKNOWLEDGE key to lower (make less sensitive) the sensitivity of the selected sensor. Conversely, use the “UP” function over the PREVIOUS EVENT key to raise (Make more sensitive) the sensitivity of the selected sensor. Notice the word “ENTER” appears above this key on the display.

21) Press the NEXT EVENT key to enter the sensitivity change(s) for the selected sensor. Notice the word “ENTER” appears above this key on the display.

22) A warning will be displayed alerting the operator that Day/Night operation will be overridden for this sensor. If this is not desired, abort the entry by pressing the PREVIOUS EVENT key. Otherwise, press the NEXT EVENT key to execute the entry.

The settings that can be obtained for Action and Alert multilevel operations depend on the level of day sensitivity chosen. The settings are as follows:

| Day Sensitivity | Action | Alert! |
|-----------------|--------|--------|
| 1.00% | 0.80% | 0.50% |
| 1.25% | 1.00% | 0.60% |
| 1.50% | 1.25% | 0.80% |
| 1.75% | 1.50% | 0.90% |
| 2.00% | 1.50% | 1.00% |
| 2.50% | 2.00% | 1.25% |
| 3.00% | 2.50% | 1.50% |

NOTE: If a unit address is selected that does not actually have an address, the KDU display will show the error message “No such unit is configured”.

NOTE: If a sensitivity setting entry is attempted for an address occupied by an Analog Thermal sensor (ATD), the KDU will display the error message “Illegal sensitivity specified”.

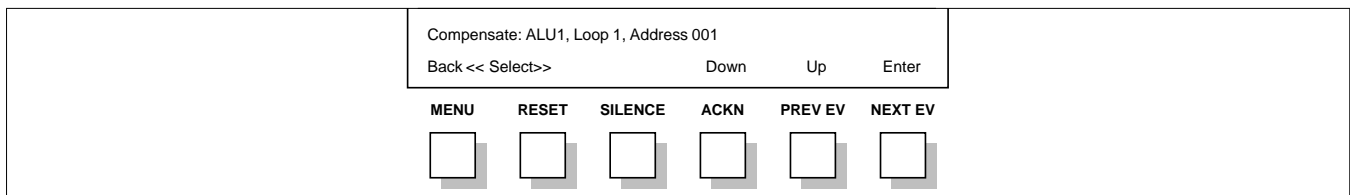
NOTE: Although it is possible to invoke the “All” feature by pressing 0 (zero) on the numeric keypad when the cursor is over the individual address field, this is not a valid entry for this function. The KDU will display the error message “Illegal sensitivity specified”.

14.0 Compensation

The compensation (Comp.) sensor option allows the operator to manually select an individual analog photoelectronic (ASD-P) or ionization (ASD-I) sensor and “correct” any drift away from its programmed sensitivity setting due to the build-up of dust or other small particles within its sensing chamber. This feature is in addition to the automatic drift compensation of all analog smoke sensors performed by the system. This automatic process compensates each sensor once a week.

14.1 How to compensate a sensor

- 1) Press the MENU key.
- 2) Type in the level 2 password on the numeric keypad (22 is the factory default).
- 3) Press the NEXT EVENT key to enter the password (notice the word “ENTER” appears above this key on the display).
- 4) Press the SILENCE key to select the Sensr (sensor) options menu (notice the letters “SENSR” appear above this key on the display).
- 5) Press the ACKNOWLEDGE key on the KDU to select the Comp. option (notice the letters “COMP.” appear above this key on the display).
- 6) At this point, the following display should be seen:



NOTE: The KDU retains a memory of the last entry made in this option. The actual display may vary.

- 7) Select the ALU number to which the sensor is connected. Notice the cursor that appears over the ALU number when the display is initially opened. Pressing the “UP” function that appears over the PREVIOUS EVENT key will scroll upwards through the ALU numbers. There can be as many as 15 ALUs (Maximum of 5 ALUs per power supply). In a system, ALUs 1-9 and ALUs a-f (10-15) as addressed by the ALUs rotary switch. Pressing the “DOWN” function that appears over the ACKNOWLEDGE key will scroll downwards through the ALU numbers.

NOTE: If an invalid ALU number is entered (i.e. no ALU addressed to that number), the message “No such unit is configured” will appear on the display.

- 8) Enter the circuit number to which the sensor is connected. Use the “>>” function that appears above the silence key to move the blinking cursor to the right so that it is over the circuit number. (Pressing the “<<” over the RESET/LAMP TEST key would move the cursor back to the left). Type in the circuit number on the keypad.
- 9) Enter the address of the sensor. Use the “>>” function to move the blinking cursor to the right so that it appears over the “ones” space of the Address entry field. Type in the address of the sensor on the keypad.
- 10) Press the “NEXT EVENT” key to “ENTER” the compensate command for the selected sensor. Notice the word “ENTER” appears above the key on the display.

If an invalid address is entered (i.e. no sensor is addressed to that number) or the “All” option is tried, the error message “Test me first” will appear on the display.

NOTE: If an address is entered that corresponds to an analog thermal sensor (ATD), the KDU will display the error message “X,XXX is not a readable sensor”.

15.0 Testing an Analog Sensor

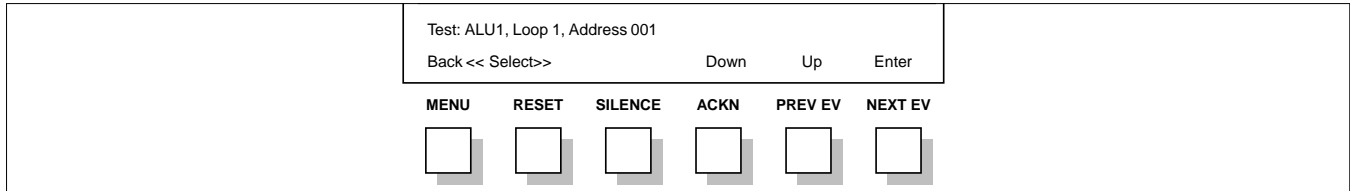
The sensor test option allows the operator to manually select an individual analog photoelectronic (ASD-P), ionization (ASD-I) or thermal (ATD) sensor and perform a functional test of its sensing chamber. This feature is in addition to the automatic testing of all analog smoke sensors performed by the 7200 Series system. This automatic process tests each sensor three times every 24 hour period. The test will yield either a Pass or Fail result.

15.1 How to test a sensor

- 1) Press the MENU key.
- 2) Type in the Level 2 password on the numeric keypad (22 is the factory default).
- 3) Press the NEXT EVENT key to enter the password (notice the word “ENTER” appears above this key on the display).
- 4) Press the SILENCE key to select the Sensr (sensor) options menu (notice the letters “Sensr” appear above this key on the display).
- 5) Press the PREVIOUS EVENT key on the KDU to select the Test option (notice the word “Test” appears above this key on the display).

NOTE: The KDU retains a memory of the last entry made in this option. The actual display may vary.

- 6) At this point, the following display should be seen:



- 7) Select the ALU number to which the sensor is connected. Notice the cursor that appears over the ALU number when the display is initially opened. Pressing the “UP” function that appears over the PREVIOUS EVENT key will scroll upwards through the ALU numbers. There can be as many as 15 ALUs in a system, (Maximum of 5 ALUs per PSU). ALUs 1-9 and a-f (10-15) as addressed by the ALUs rotary switch. Pressing the “DOWN” function that appears over the ACKNOWLEDGE key will scroll downwards through the ALU numbers.

NOTE: If an invalid ALU number is entered (i.e. no ALU addressed to that number), the message “No such unit is configured” will appear on the display.

- 8) Enter the circuit number to which the sensor is connected. Use the “>>” function that appears above the SILENCE key to move the cursor to the right so that it is over the circuit number. (Pressing the “<<” over the RESET/LAMP TEST key would move the cursor back to the left). Type in the circuit number on the numeric keypad.
- 9) Enter the address of the sensor to be tested. Use the “>>” function to move the cursor to the right so that it appears over the “ones” space of the Address entry field. Type in the address of the sensor on the keypad.
- 10) Press the “NEXT EVENT” key to “ENTER” the compensate command for the selected sensor.
If an invalid address is entered (i.e. no sensor is addressed to that number), the error message “Error — can’t test” will appear on the KDU display.

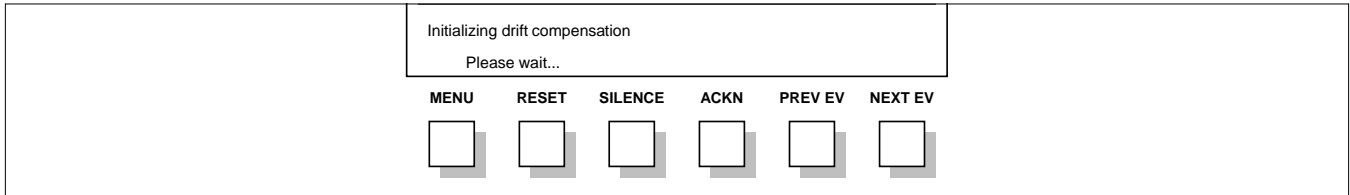
16.0 Initializing Drift Compensation

The initialization option allows the operator to manually inaugurate the drift compensation feature that permits analog sensors to retain their programmed sensitivity settings. This feature is in addition to the automatic initialization of drift compensation performed by the system.

16.1 How to initialize a sensor

- 1) Press the MENU key.
- 2) Type in the level 2 password on the numeric keypad (22 is the factory default).
- 3) Press the NEXT EVENT key to enter the password (notice the word “ENTER” appears above this key on the display).
- 4) Press the SILENCE key again to select the Sensr (sensor) options menu (notice the letters “Sensr” appear above this key on the display).
- 5) Press the NEXT EVENT key on the KDU to select the “Init.” (Initialize) option (notice the letters “Init.” appears above this key on the display).

6) At this point, the following display should be seen:



This process will take a few minutes. Once completed, the KDU will revert to its normal condition display if no other active events are present on the system.

17.0 The Input/Output Options Menu

This menu grants access to the following four functions:

Output On - Manually activates selected system outputs.

Output Off- Manually de-activates selected system outputs that were previously activated by the "Output On" function.

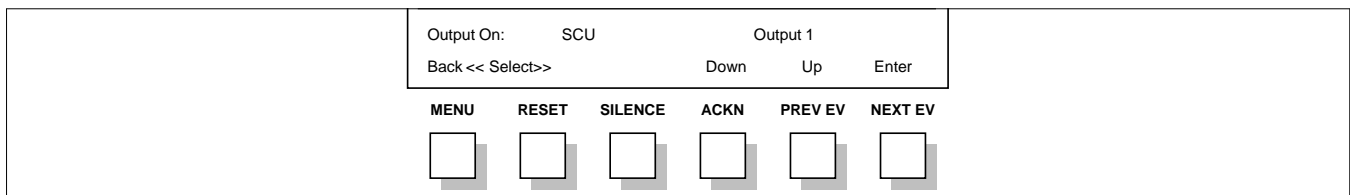
Disable - Manually disconnects selected analog addressable input and/or output devices on ALU signaling line

circuits. If input devices are disabled, they will not create an alarm. If output devices are disabled, they will not activate in response to an alarm. Devices so disabled will be reported as disconnected and will place the system into a trouble condition.

Enable - Manually reconnects selected analog addressable input and/or output devices that were previously disabled.

17.1 How to turn an Output On

- 1) Press the MENU key.
- 2) Type in the level 2 password on the numeric keypad (22 is the factory default).
- 3) Press the NEXT EVENT key to enter the password (notice the word "ENTER" appears above this key on the display).
- 4) Press the ACKNOWLEDGE switch to select the I/O (Input/Output) options menu (notice the letters "I/O" appear above this key on the display).
- 5) Press the RESET/LAMP TEST key on the KDU to select the Output On option (notice the words "OutOn" appear above this key on the display).
- 6) At this point, the following display should be seen:



NOTE: The KDU retains a memory of the last entry made in this option. The actual display may vary.

7) Notice the cursor positioned over the module type entry field. Use the “UP” function by pressing the PREVIOUS EVENT key to scroll through the module type list. Press the ACKNOWLEDGE key to scroll back through the list (notice the word “Down” appears over this key on the display). These module types and their outputs are:

| | |
|------------------------------------|--|
| System Control Unit (SCU) | Notification Appliance Circuit 1 (Output 1) Notification Appliance Circuit 2 (Output 2) |
| Quad Relay Unit (QRU) | Relays 1 through 4 |
| Dual Signal Unit (DSU) | Notification Appliance Circuit 1 (Output 1) Notification Appliance Circuit 2 (Output 2) |
| High Current Relay Unit (HRU) | Relays 1 through 4 |
| Remote Annunciator Unit (RAU) | Annunciator Outputs 1 through 32 |
| Analog Loop Unit (ALU) | Addressable Output Module (AOM) addresses 1 - 99 (Addresses 101 through 199) |
| Distributed Intelligent Unit (DIU) | Notification Appliance Circuit 1 (Output 1) Notification Appliance Circuit 2 (Output 2) |

8) Select the module number where the output to be activated is located. Press the SILENCE key to move the blinking cursor over the module address entry field (notice “>>” appears above this key on the display). Pressing the “UP” function that appears over the PREVIOUS EVENT key will scroll upwards through the module numbers. There can be as many as 15 of each type of module in a system, Addresses 1-9 and a-f (10-15) as addressed by the module rotary switch. Pressing the “DOWN” function that appears over the ACKNOWLEDGE key will scroll downwards through the module numbers.

NOTE: There can only be one SCU in a 7200 Series system.

9) Press the Silence key (“>>” function) to move the cursor over the output number entry field. Type in the output number on the keypad.

10) Press the NEXT EVENT key to enter the command (notice the word “ENTER” appears above this key on the display). The output has now been activated.

17.2 How to turn an Output Off

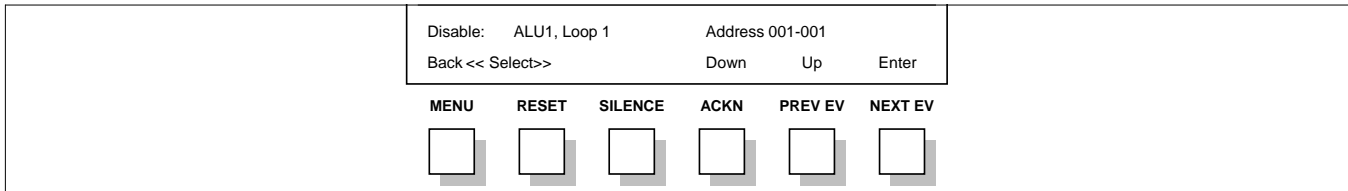
- 1) Press the menu key.
- 2) Type in the level 2 password on the keypad (22 is the factory default).
- 3) Press the NEXT EVENT key to enter the password (notice the word “ENTER” appears above this key on the display).
- 4) Press the ACKNOWLEDGE switch to select the I/O (Input/Output) options menu (notice the letters “I/O” appear above this key on the display).
- 5) Press the SILENCE key on the KDU to select the Output Off option (notice the words “OutOff” appear above this key on the display).
- 6) Repeat Steps 7 through 10 as described under the Output On section.

NOTE: The KDU has the ability to remember the entries from an immediately preceding command. If that command was to disable the same analog device(s) that is are now being enabled, it should be possible to perform Steps 1 through 5 as described above and then press the NEXT EVENT key to enter the Enable command.

NOTE: To turn off all outputs turned on by the “Output On” function, perform a system reset.

17.3 How to disable an analog input or output

- 1) Press the MENU key.
- 2) Type in the level 2 password on the numeric keypad (22 is the factory default).
- 3) Press the NEXT EVENT key to enter the password (notice the word "ENTER" appears above this key on the display).
- 4) Press the ACKNOWLEDGE key to select the I/O (Input/Output) options menu (notice the letters "I/O" appear above this key on the display).
- 5) Press the PREVIOUS EVENT key on the KDU to select the "Dsabl" (Disable) option (notice the letters "Dsabl" appear above this key on the display).
- 6) At this point, the following display should be seen:



NOTE: The KDU retains a memory of the last entry made in this option. The actual display may vary.

- 7) Select the ALU number to which the analog device to be disabled is connected. Notice the cursor that appears over the ALU number when the display is initially opened. Pressing the "UP" function that appears over the PREVIOUS EVENT key will scroll upwards through the ALU numbers. There can be as many as 15 ALUs in a 7200 system, ALUs 1-9 and ALUs a-f (10-15) as addressed by the ALUs' rotary switch. Pressing the "Down" function that appears over the ACKNOWLEDGE key will scroll downwards through the ALU numbers.

NOTE: If an invalid ALU number is entered (i.e. no ALU addressed to that number), the message "No such unit is configured" will appear on the display.

- 8) Enter the circuit number to which the analog device is connected. Use the ">>" function that appears above the SILENCE key to move the cursor to the right so that it is over the circuit number. (Pressing the "<<" over the RESET/LAMP TEST key would move the cursor back to the left). Type in the circuit number on the keypad.

- 9) Enter the address of the analog device or the beginning address of a group of analog devices to be disabled. Use the ">>" function to move the blinking cursor to the right so that it appears over the "ones" space of the Address entry field that appears to the left of the hyphen. Type in the address of the analog device on the keypad.

- 10) To enter the last address of a group of analog devices to be disabled, use the ">>" function to move the cursor to the right so that it appears over the "ones" space of the Address entry field that appears to the right of the hyphen. Type in the address of the analog device on the keypad.

- 11) Press the "NEXT EVENT" key to "ENTER" the disable command for the selected analog device or group of analog devices.

- 12) The KDU display will now show any disabled analog device as "Disconnected". The system will indicate a trouble condition on the System Control Unit (SCU), KDU and the specific circuit(s) on the Analog Loop Unit (ALU) to which the device(s) are connected.

17.4 How to enable an analog input or output

- 1) Press the MENU key.
- 2) Type in the Level 2 password on the numeric keypad (22 is the factory default).
- 3) Press the NEXT EVENT key to enter the password (notice the word "ENTER" appears above this key on the display).
- 4) Press the ACKNOWLEDGE key to select the I/O (Input/Output) options menu (notice the letters "I/O" appear above this key on the display).
- 5) Press the NEXT EVENT key on the KDU to select the "Enabl" (Enable) option (notice the letters "Enabl" appear above this key on the display).
- 6) Repeat Steps 7 through 10 as described under the Disable Section 17.3.

NOTE: The KDU has the ability to remember the entries from an immediately preceding command. If that command was to disable the same analog device(s) that are now being enabled, it should be possible to perform Steps 1 through 5 as described above and then press the NEXT EVENT key to enter the Enable command.

18.0 The System Option Menu

The System Option menu grants access to the following system functions:

Time - Allows the operator to set the hour, minute, month, day and year on the real-time clock.

Volts - Reads the voltage level and current draw of the system's power supplies and standby batteries.

Log - Prints out the event log to a serial printer attached to the System Control Unit's (SCU) RS-232 port.

Password - Allows the passwords for the four system access levels to be modified to different settings.

Reset - Performs a "hard" reset of the system. This type of reset is different from the normal reset done by pressing the RESET key on the SCU, KDU or DIU in that it erases the system's event log.

Auto-configuration A special function typically used upon the initial commissioning of a system.

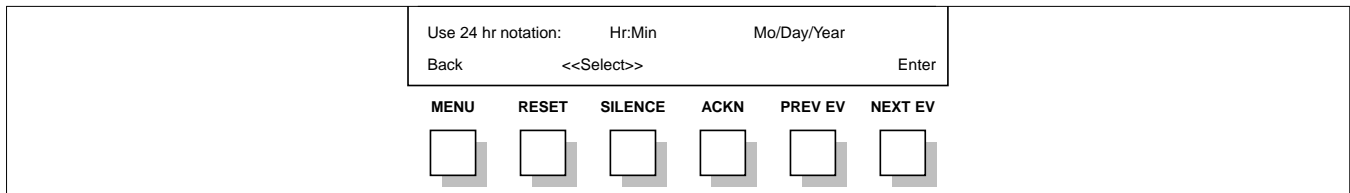
This process allows the SCU to establish communication with the various modules connected to its FCINET[®] bus and sets up a general alarm default program where an activation of any input device

(smoke sensors, pull stations, heat sensors, etc.) will activate all output devices (bells, horns, strobes, etc.)

NOTE: If the system has had its program downloaded from a computer using the 7200 Field Configuration Program (FCP-7200), the auto-configuration function will not be accessible from the KDU. Downloading a program from a computer sends a command that locks out panel access to functions that require a Level 3 or 4 password.

18.1 Setting the Real-time Clock

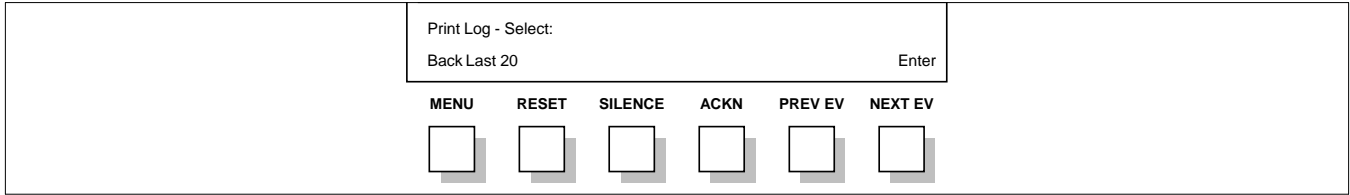
- 1) Press the MENU key.
- 2) Type in the Level 2 password on the numeric keypad (22 is the factory default).
- 3) Press the NEXT EVENT key to enter the password (notice the word "Enter" appears above this key on the display).
- 4) Press the PREVIOUS EVENT key to select the System (System) options menu (notice the letters "System" appear above this key on the display).
- 5) Press the RESET/LAMP TEST key to select the Time option (notice the word "Time" appears above this key on the display).
- 6) At this point, the following display should be seen:



- 7) Notice the cursor in the Hour entry field. Type in the hour on the numeric keypad using military style 24 hour notation (e.g. 1:00 PM would be entered as 13, 11:00 PM as 23, 12:00 AM as 00, etc.)
- 8) Use the ">>" function that appears over the SILENCE key to move the cursor to the right so that it appears over the Minute entry field. (Pressing the "<<" over the RESET/LAMP TEST key would move the cursor back to the left). Type in the minute on the keypad.
- 9) Use the ">>" function over the SILENCE key again to move the cursor over the Month entry field and type in the month on the keypad.
- 10) Use the ">>" function over the SILENCE key again to move the cursor over the Date entry field and type in the date on the keypad.
- 11) Use the ">>" function over the SILENCE key one more time to move the cursor over the Year entry field and type in the last two digits of the year on the keypad.
- 12) Press the NEXT EVENT key to "ENTER" the new time setting into the system.
- 13) The display will now revert to the System Options menu. If no further options are required at this time, press the Asterisk key (*) on the keypad to restore the display to normal or wait for the display to automatically restore itself (30 seconds).

NOTE: If an invalid entry is made (e.g. the number 13 in the Month entry field, number 24 in the hour entry field, number 60 in the minute entry field, etc.), the KDU will not accept the error. Upon pressing the NEXT EVENT key to enter the new time setting, the display will automatically recall the cursor to the entry field that contains the error starting from the left-most field (Hour) and proceeding to the right (Year).

- 4) Press the PREVIOUS EVENT key to select the System (System) options menu (notice the letters "System" appear above this key on the display).
- 5) Press the ACKNOWLEDGE key to select the Log option (notice the word "Log" appears above this key on the display).
- 6) At this point, the following display should be seen:



- 7) Press the RESET/LAMP TEST key to produce a printout of the last 20 events in the Event Log.
- 8) Press the SILENCE key to produce a printout of the entire Event Log.
- 9) The display will now revert to the System Options menu. If no further options are required at this time, press the Asterisk key (*) on the keypad to restore the display to its normal condition or wait for the display to automatically restore itself (30 seconds).

18.4 How to change Passwords

Use of this function allows the operator to change the passwords needed to gain access to the system. There are four levels of access, each requiring its own password.

- 1) Press the MENU key.
- 2) If the Level 1 password is going to be changed, enter the current Level 1 password to gain Level 1 access (11 is the factory default).
If the Level 1 & 2 password is going to be changed, enter the current Level 2 password to gain Level 2 access

(22 is the factory default).

If the Level 1, 2 & 3 password is going to be changed, enter the current Level 3 password to gain Level 3 access (33 is the factory default).

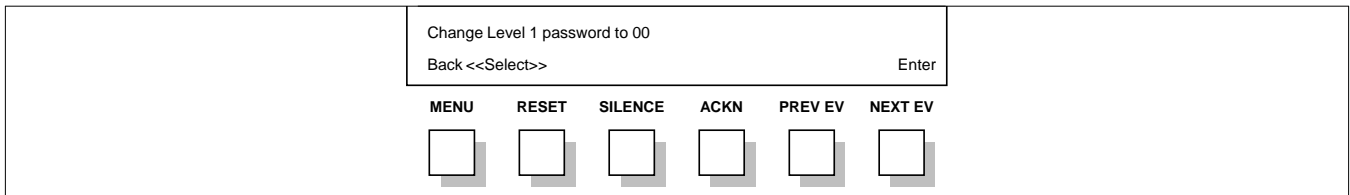
If the Level 1, 2, 3 & 4 password is going to be changed, enter the current Level 4 password to gain Level 4 access (44 is the factory default).

3) Press the NEXT EVENT key to enter the password (notice the word "ENTER" appears above this key on the display).

4) Press the PREVIOUS EVENT key to select the "System" (System) options menu (notice the letters "System" appear above this key on the display).

5) Press the PREVIOUS EVENT key to select the "Passwd" (Password) option (notice the letters "Passwd" appear above this key on the display).

6) At this point, the following display should be seen:



7) Notice the cursor that appears over the "1" in the level entry field. Type in the level of the password to be changed.

8) Use the ">>" function that appears over the SILENCE key to move the cursor over to the right so that it is over the password number. (Pressing the "<<" over the RESET/LAMP TEST key would move the cursor back to the left). Type in the new password on the keypad.

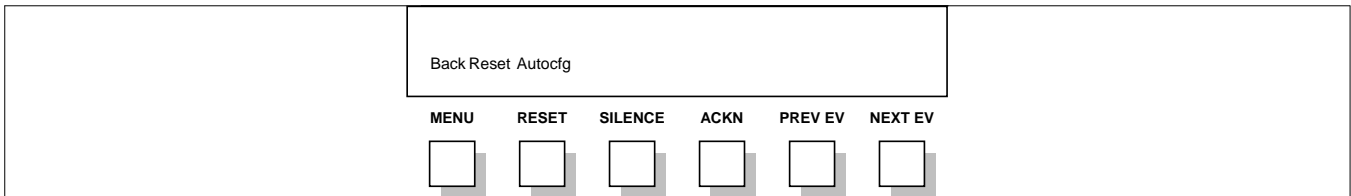
9) Press the NEXT EVENT key to "ENTER" the new password.

10) The display will now revert to the System Options menu. If no further options are required at this time, press the Asterisk key (*) on the keypad to restore the display to its normal condition or simply wait for it to automatically restore itself (30 seconds).

18.5 How to perform a “Hard Reset”

Use of this function will reset the system while erasing any record of past events from the Event Log. Typically, it is appropriate to clear a system’s event log after the semi-annual test of the system (be sure to print the log first to acquire a permanent record of the test) or after work has been done to the system that might have caused loggable events (troubles, alarms, supervisory off-normal conditions, ground faults, breaks in the field wiring, etc.).

- 1) Press the MENU key.
- 2) Type in the Level 2 password on the keypad (22 is the factory default).
- 3) Press the NEXT EVENT key to enter the password (notice the word “ENTER” appears above this key on the display).
- 4) Press the PREVIOUS EVENT key to select the System (System) options menu (notice the letters “Systm” appear above this key on the display).
- 5) Press the NEXT EVENT key to select the “More” option (notice the word “More” appears above this key on the display).
- 6) At this point, the following display should be seen:



7) Press the RESET/LAMP TEST key to select the “Reset” option (notice the word “Reset” appears above this key on the display).

8) A warning message will now appear alerting the operator that proceeding with this function will clear the system’s event log. Press the MENU key to back out of this window to the previous display if a hard reset is not desired (notice the “Back” appears above this key) or hit the Asterisk (*) key on the numeric keypad to restore the KDU to its normal condition.

OR

9) Press the NEXT EVENT key to enter the Reset function (notice the word “ENTER” appears above this key on the display).

18.6 Autoconfiguration

This manual does not include a detailed discussion of autoconfiguration. This function would override any special programming the system may have with a general alarm default setting which may be inappropriate for the system’s particular application. Therefore:

It is recommended that operators not attempt autoconfigurations of their 7200 Series system themselves but request assistance from their local FCI distributor.

