

Addendum

HART Communication with the FlexSonic® Acoustic Detector



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HART Communication with the FlexSonic® Acoustic Detector



Digital communication with the FlexSonic® Acoustic Detector allows the operator to monitor the status of the detector, determine factory settings, adjust field settings, and initiate field tests. This addendum provides guidance for establishing HART communication, and describes the HART menu structure when using the acoustic detector with a HART Handheld Communicator, a PC, or other process interface device that supports DDL.



NOTE

A minimum level of understanding with regard to the operation and navigation of the HART Communicator is required. Refer to the instruction manual supplied with the HART Communicator for basic operating instructions.

IMPORTANT WIRING NOTE

The HART Communicator does not measure loop current directly, but instead reads a voltage signal across a resistance (250-600 ohms) in the loop. The recommended connection point is across the input impedance of the signal receiver (PLC), which is a nominal 250 ohms. See Figure 1. If testing/programming on a bench, a 250 ohm load resistor must be used. See Figure 2.

INTERCONNECTING THE HART COMMUNICATOR WITH THE ACOUSTIC DETECTOR

The HART Communicator can connect to the acoustic detector at any wiring termination point in the analog output signal loop. Connect the HART communicator in parallel with the analog signal or load resistor. The HART connections are non-polarized.

Switch on the HART Communicator. If a device is found, the HART Communicator displays the Main menu. If no device is found, check the connections and verify the presence of a minimum of 250 ohms load resistance in series in the loop.

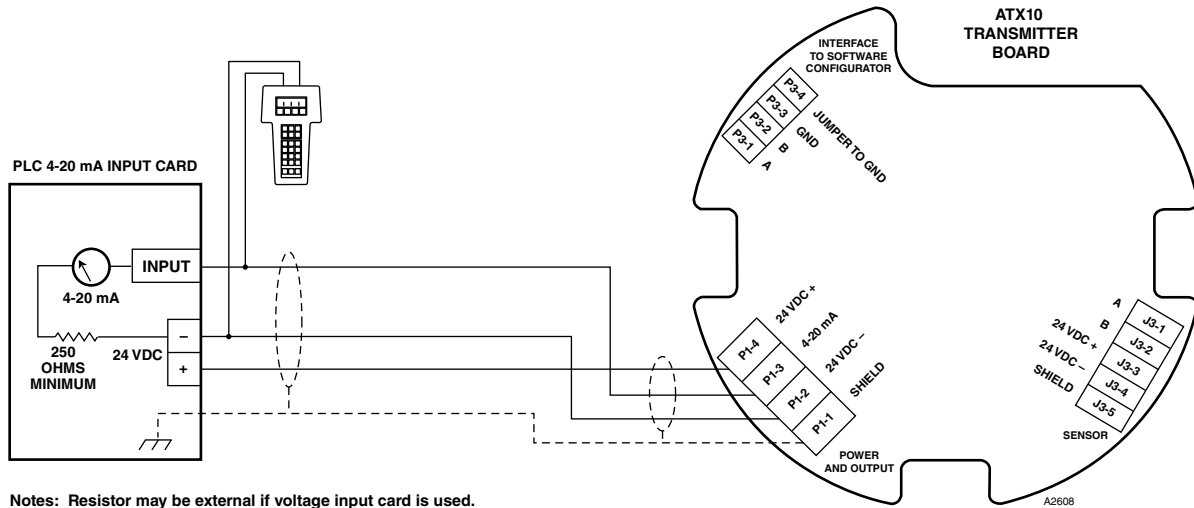


Figure 1—ATX10 Transmitter Wired to PLC

Note: Minimum input impedance for proper HART operation = 250 ohms.
Maximum loop impedance including input impedance of PLC = 600 ohms.

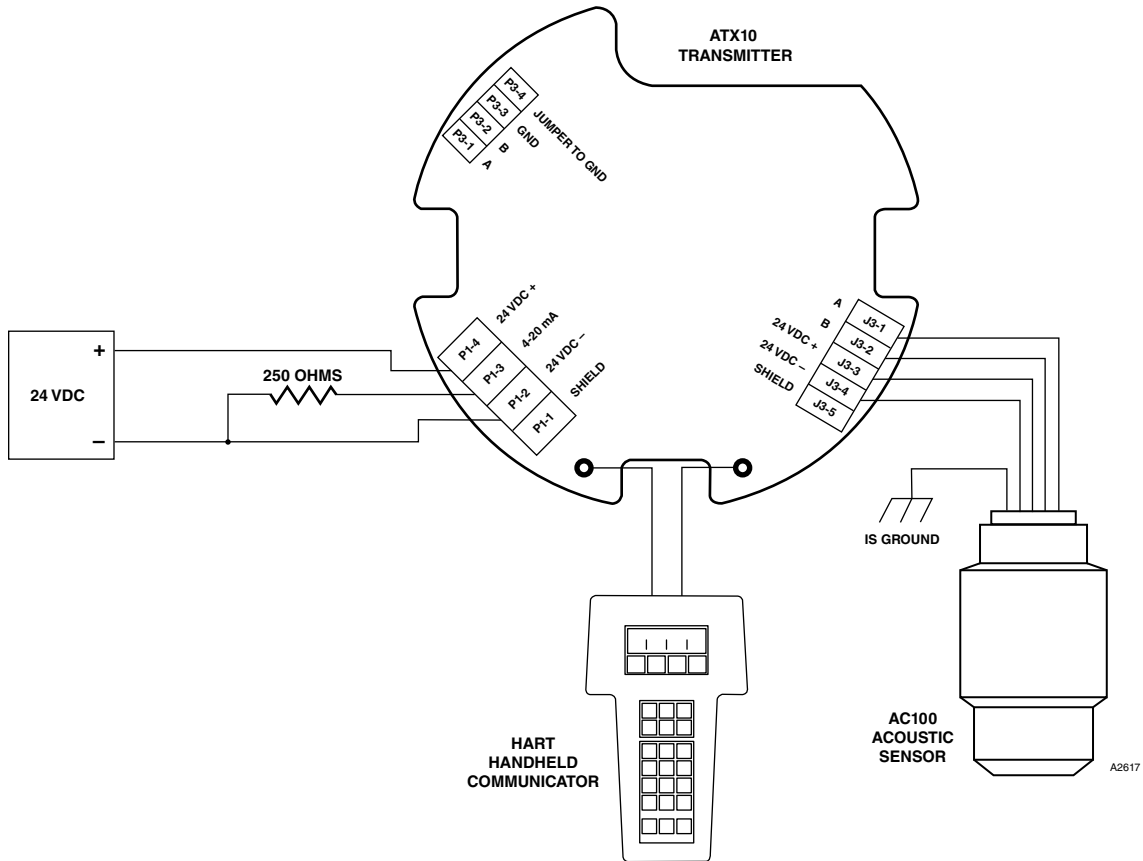


Figure 2—Wiring the Acoustic Detector for Benchtop Testing/Programming Using HART Protocol

HART DEVICE DESCRIPTION LANGUAGE

The HART protocol incorporates a concept called the Device Description Language (DDL) that enables all suppliers of HART instruments to define and document their products in a single consistent format. This format is readable by handheld communicators, PCs and other process interface devices that support DDL. DDL enables full interoperability of devices, regardless of manufacturer, allowing full functionality from any HART device.

In the event that your Communicator does not establish communications with the FlexSonic Acoustic Detector, ensure that the appropriate DDLs for the Acoustic Detector have been programmed into your Communicator. To review the DDLs programmed into your HART Communicator:

1. From the Main menu, access the Offline menu.
2. From the Offline menu, select New Configuration to access the list of device descriptions programmed into the HART Communicator.
3. Select Det-Tronics and review the list of models to determine if the ATX10 DDLs are installed in your Communicator.

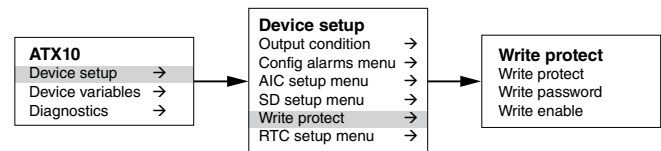
If the ATX10 DDLs have not been programmed into the HART Communicator, you must use the generic interface built into your HART Communicator.

The HART Communication Foundation manages a library of Manufacturer Device Descriptions, which are distributed to programming sites for inclusion in master devices. A complete listing of the HCF DD Library is available for download in manufacturer and device type sequence at hartcomm.org.

PASSWORD PROTECTION

The ATX10 allows the use of a password for restricting changes to configuration parameters and limiting access to safety critical commands.

To enable/disable the Write Protect feature, navigate to the Write Protect screen.



Select WRITE PROTECT to turn the Write Protect feature on.

Select WRITE ENABLE to turn the Write Protect feature off.

Select WRITE PASSWORD to enter a new password.

The default password is 1*****.

IMPORTANT

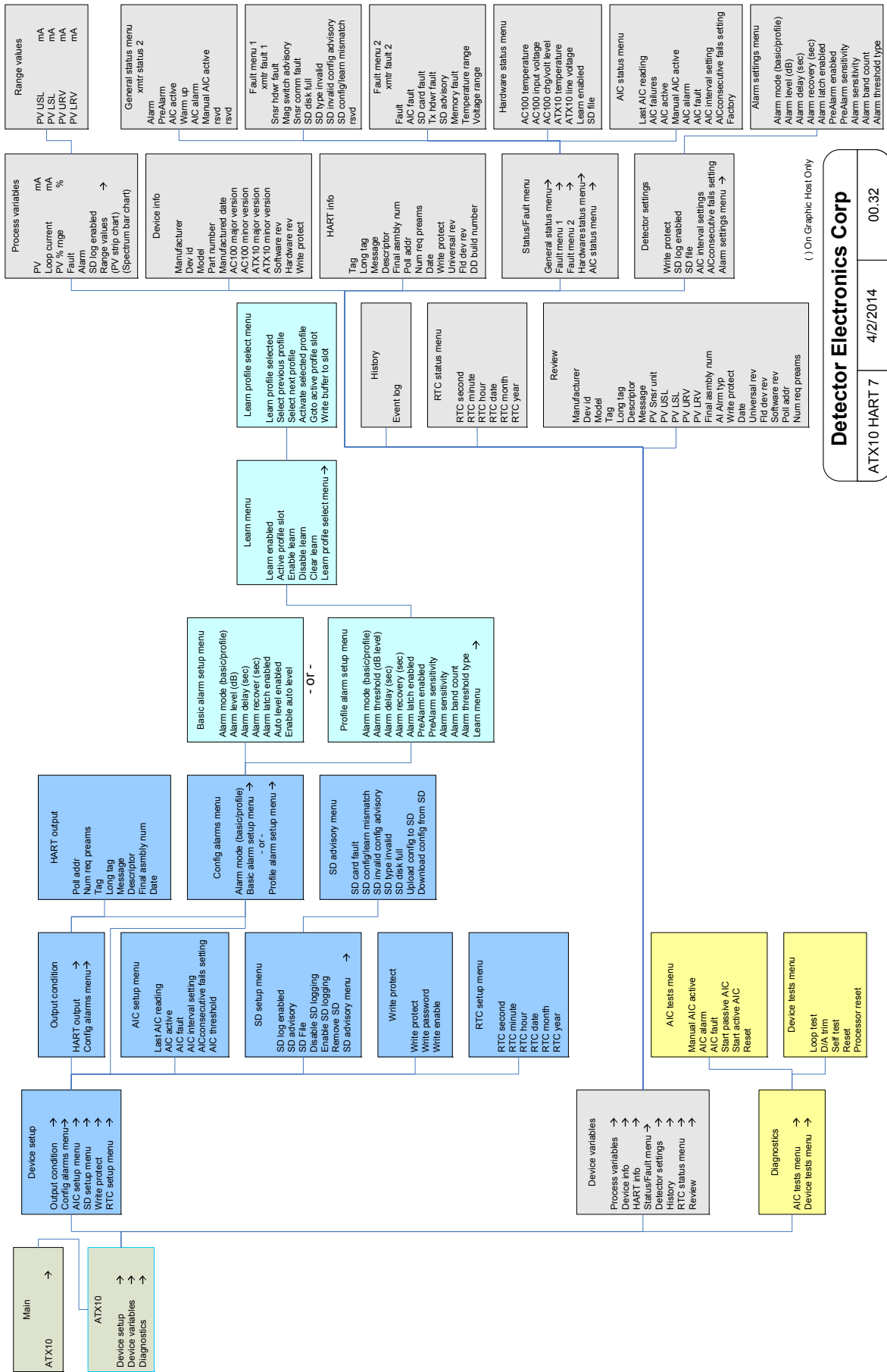
Take care not to lose the password. Future changes cannot be made without a password.

DETECTOR WIRING

Refer to the FlexSonic instruction manual (form number 95-8657) for complete instructions regarding detector installation and wiring.

MENU HELP

Status menus only allow the user to view the data. The Setup menus allow the user to both view and edit the data.

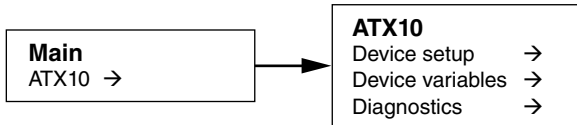


ATX10 MAIN MENU

When HART communication is established, the first menu displayed is the ATX10 Main menu. From here, navigate to the ATX10 Menu:

ATX10 MENU

This is the top level menu.



Device Setup

This menu contains several submenus which allow the setting of parameters to configure the device and modify its operation.

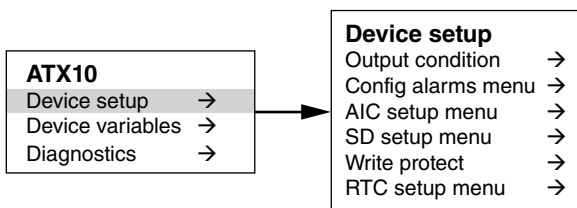
Device Variables

This menu provides access to various information regarding the specific device.

Diagnostics

This menu provides status and fault information, as well as troubleshooting capabilities.

DEVICE SETUP



Output Condition

Detector alarm and HART configuration.

Config alarms menu

Menu for selecting Basic or Profile mode, and access to alarm configuration menus.

AIC setup menu

Refer to sub-menu.

SD Setup menu

Refer to sub-menu.

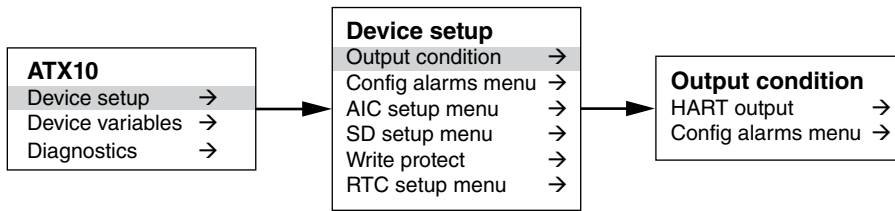
Write protect

This menu item is used to navigate to the write protect menu.

RTC setup menu

Menu for setting the real time clock.

OUTPUT CONDITION

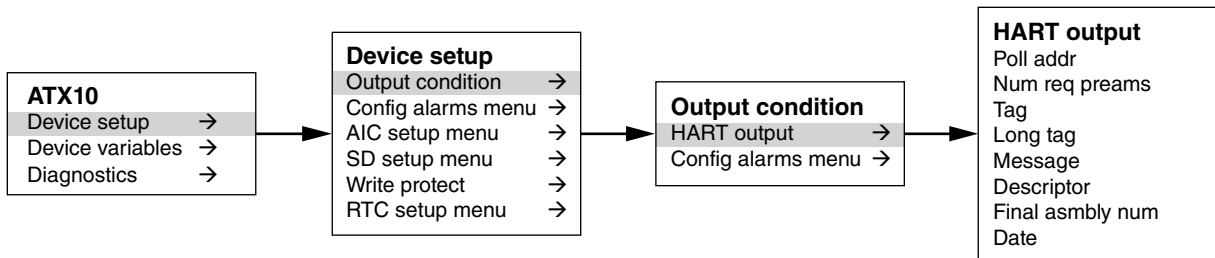


HART Output Refer to sub-menu.

Config Alarms Menu Refer to sub-menu.

HART OUTPUT

Menu for checking HART settings.



Poll Addr Address used by the host to identify a field device.

Num Req Preams Number of Request Preambles.

Tag Text that is associated with the field device installation. This text can be used by the operator in any way.

Long Tag Text that is associated with the field device installation. This text can be used by the operator in any way.

Message Text associated with the field device that can be used by the operator in any way.

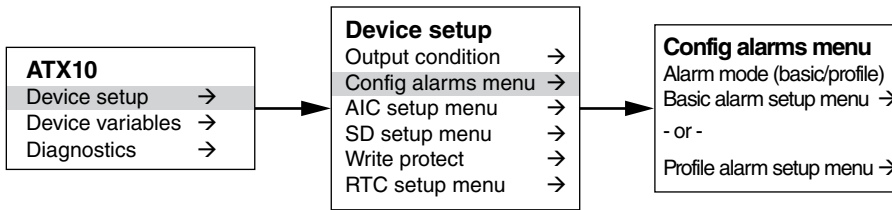
Descriptor Text associated with the field device that can be used by the operator in any way.

Final Assy Number A number that is used for identification purposes, and is associated with the overall field device.

Date Any date chosen by the operator to be used for any purpose.

CONFIG ALARMS MENU

Menus for configuring alarm settings for the device.



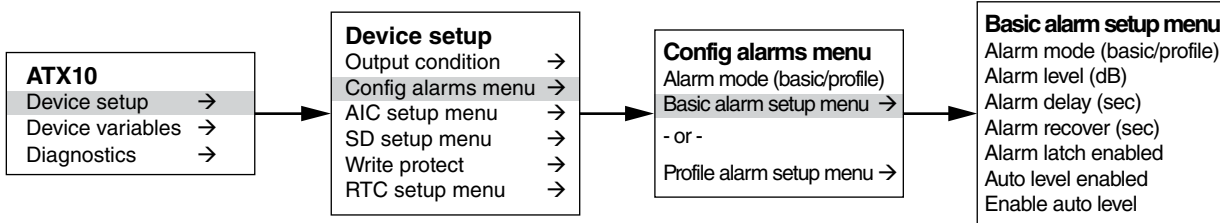
Alarm Mode (basic/profile) Displays and permits changes to the alarm mode. Possible settings include “BASIC” or “PROFILE.”

Basic alarm setup menu Refer to sub-menu.

Profile alarm setup menu Refer to sub-menu.

BASIC ALARM SETUP MENU

Menu containing settings relevant only to BASIC alarm mode.



Alarm Mode (basic/profile) Displays and permits changes to the alarm mode. Possible settings include “BASIC” or “PROFILE.”

Alarm Level (dB) This setting specifies the threshold (in dB) where bands are considered for alarm should they exceed that level.

Alarm Delay (sec) This setting specifies the delay time, in seconds, that elapses from the moment the alarm criteria are met, until the alarm is annunciated.

Alarm Recover This setting specifies the time (in seconds) that elapses from the moment the alarm declared criteria are no longer met until the alarm is cleared.

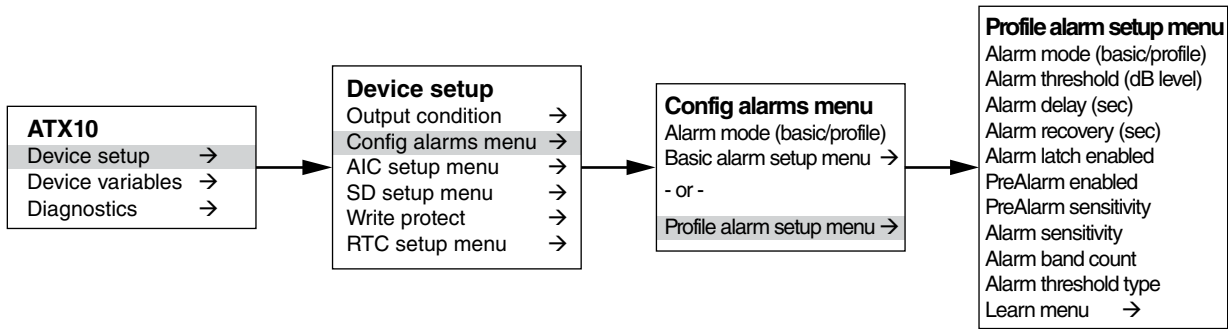
Alarm Latch Enabled When latching is enabled, alarms remain annunciated until the MASTER RESET command is sent, or the reset magnetic switch is tripped.

Auto level enabled Displays ‘Y’ if an autolevel is in process.

Enable auto level This command starts an autolevel process to dynamically choose the Basic mode level.

PROFILE ALARM SETUP MENU

Menu containing settings relevant only to PROFILE alarm mode.



Alarm Mode (basic/profile) Displays and permits changes to the alarm mode. Possible settings include “BASIC” or “PROFILE.”

Alarm Threshold (dB level) This setting specifies a single alarm threshold (in dB) for all frequency bands. This is applicable only when Alarm Threshold is set to LEVEL. When Alarm Threshold is set to LEARN, each band has its own alarm threshold based on the learned profile.

Alarm Delay (sec) This setting specifies the delay time, in seconds, that elapses from the moment the alarm criteria are met, until the alarm is annunciated.

Alarm Recover (sec) This setting specifies the time (in seconds) that elapses from the moment the alarm declared criteria are no longer met until the alarm is cleared.

Alarm Latch Enabled When latching is enabled, alarms remain annunciated until the MASTER RESET command is sent, or the reset magnetic switch is tripped.

PreAlarm Enabled Select ‘Y’ to enable the prealarm feature. This allows a second sensitivity to be set for an alternate alarm annunciation.

PreAlarm Sensitivity An offset that is subtracted from the alarm threshold in each band to generate a prealarm with higher sensitivity than the standard alarm. All the alarm threshold settings and alarm parameters apply to prealarm, but greater sensitivity is realized by adjusting the threshold level or profile with this setting.

Alarm Sensitivity An offset (in dB) that is added to the level or learn threshold for each band. A larger setting reduces the sensitivity of the detector to alarms.

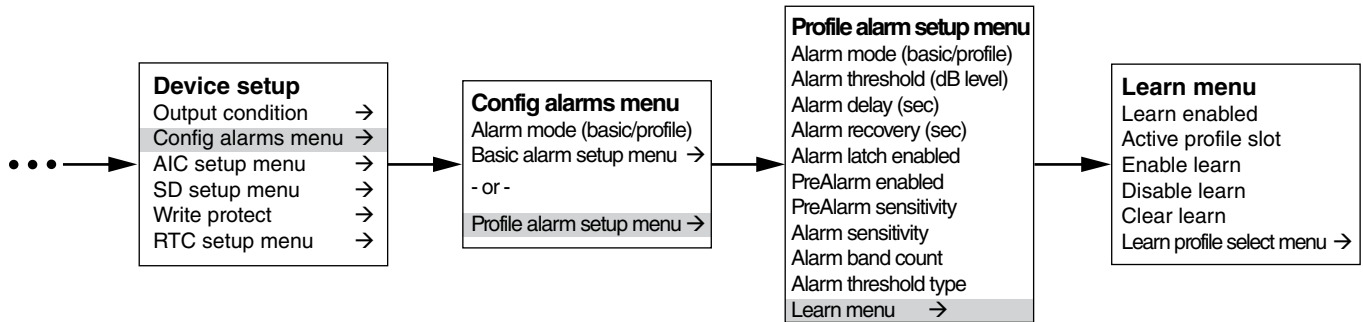
Alarm Band Count The number of bands that must exceed the alarm threshold to declare an alarm.

Alarm Threshold Type The type of alarm threshold being used (LEVEL/LEARN). LEVEL is a single dB value alarm threshold across the alarm range, while LEARN is a dynamic alarm threshold with varying dB levels across the alarm range based on the learned acoustic profile.

Learn Menu Refer to sub-menu.

LEARN MENU

This menu allows the management of the learn functionality and saving and selecting of recorded profiles.



Learn Enabled

Read Only. 'Y' Signifies the Learn feature is enabled and a profile is being acquired and updated as the RECORDED profile.

Active Profile Slot

Identifies the memory slot (0-9) of the profile actively being used to calculate the alarm threshold in profile mode.

Enable Learn

This command enables the learn feature and begins updating the RECORDED profile.

Disable Learn

This command disables the learn feature, terminating updates to the RECORDED profile.

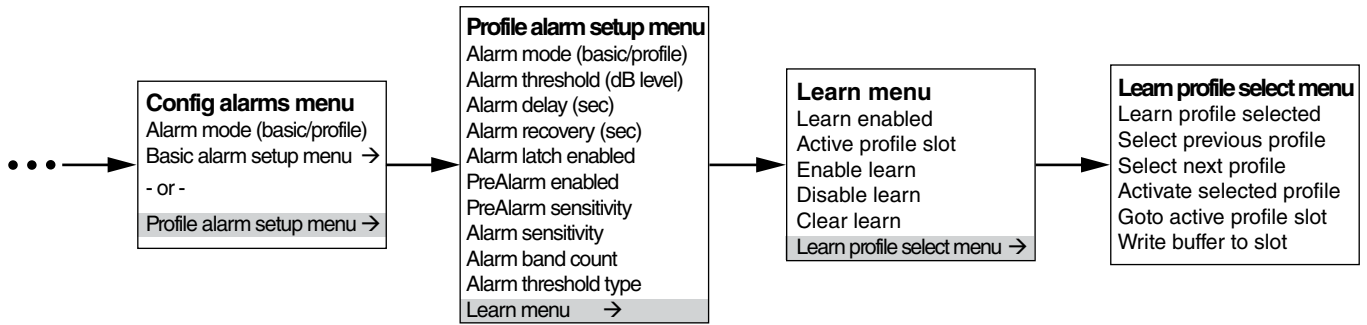
Clear Learn

This command empties the RECORDED profile, resetting all bands to the minimum values.

Learn Profile Select Menu

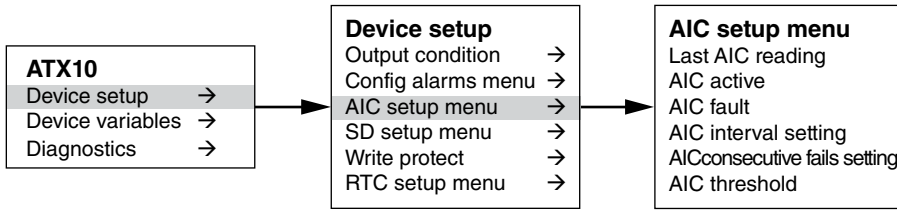
Refer to sub-menu.

LEARN PROFILE SELECT MENU



- Learn Profile Selected** The alarm profile in the current memory slot has been selected.
- Select Previous Profile** Navigate to the previous profile in memory.
- Select Next Profile** Navigate to the next profile in memory.
- Activate Selected Profile** Use the profile in the currently selected memory slot to calculate the alarm threshold.
- Goto Active Profile Slot** Navigate to the memory slot of the currently active alarm profile.
- Write Buffer to Slot** Write the RECORDED profile in buffer to the currently selected memory slot.

AIC SETUP MENU



Last AIC Reading

The numeric level returned by the AIC at the last check, acquired by measuring the amplitude of the microphone response to the emitter.

AIC Active

Indicates “Y” if an AIC is currently in progress.

AIC Fault

Indicates “Y” if the AIC has failed, indicating the microphone or emitter are degraded.

AIC Interval Setting

The number of minutes elapsed until an AIC is performed automatically.

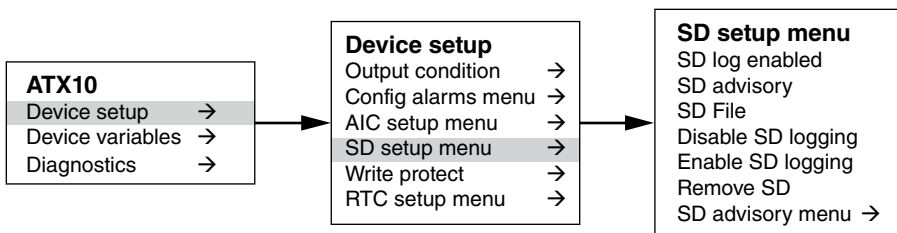
AIC Consecutive Fails Setting

The number of consecutive failures of the AIC permitted before an AI Fault is annunciated.

AIC Threshold

The AI READING calibrated at the factory, to which the AIC measurement is compared.

SD SETUP MENU



SD Log Enabled

Displays ‘Y’ if Real Time Data is being written to the SD Memory Module.

SD Advisory

‘Y’ signifies that intervention is needed for an issue with the SD Memory Module.

SD File

The file name to which Real Time Data is being logged on the SD Memory Module.

Disable SD Logging

This command disables the SD Memory Module and annunciation of SD ADVISORY on the 4-20 mA and LED outputs.

Enable SD Logging

This command re-enables the SD Memory Module if it has been disabled.

Remove SD

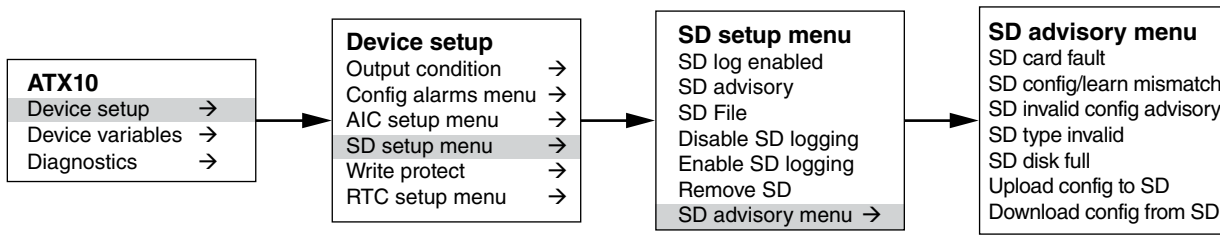
This command temporarily halts the SD Memory Module so it can be removed safely. It is advisable to wait until SD LOGGING changes to ‘N’ before replacing the SD card.

SD Advisory Menu

Refer to sub-menu.

SD ADVISORY MENU

This menu provides a breakdown of the type of SD ADVISORY and provides commands for various intervention options.



SD Card Fault

SD card is out-of-sync with the ATX10 on-board flash.

SD Config/Learn Mismatch

Indicates that the CONFIG and PROFILE data do not match the contents of the ATX10.

SD Invalid Config Advisory

Indicates that the CONFIG and PROFILE data are corrupt or partially missing. This prevents the ability to select DOWNLOAD CONFIG, but UPLOAD CONFIG may be used to establish new CONFIG and PROFILE data from the contents of the ATX10.

SD Type Invalid

Indicates that the microSD card in the SD Memory Module may not meet manufacturer specifications.

SD Disk Full

The SD disk is full. The ATX10 was unable to prevent the SD disk from reaching capacity. There is an error in the SD card and SD logging has stopped.

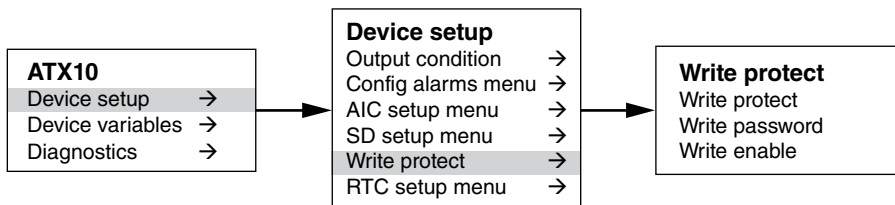
Upload Config to SD

This command uploads the contents of the ATX10 to the SD Memory Module, replacing the CONFIG and PROFILE data files.

Download Config from SD

This command downloads the contents of the SD Memory Module to the ATX10, changing the configuration and saved profile data in use by the device.

WRITE PROTECT



Write Protect

This indicates whether variables can be written to the device, or whether commands that cause these actions to be performed in the device can or cannot occur.

Write Password

The password is used to validate the command to enable or disable writes in the device. (The factory default password is: 1*****. Once the password has been changed, the default password is no longer valid.)

CAUTION

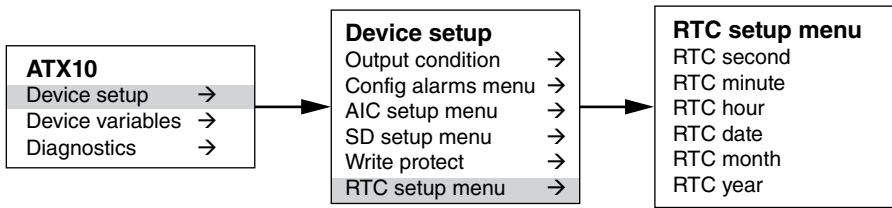
Always record the new password. If the password is forgotten, the device must be returned to the factory for re-programming.

Write enable

With Write Protect "On", variables cannot be written to the device and commands that cause actions to be performed in the device cannot occur.

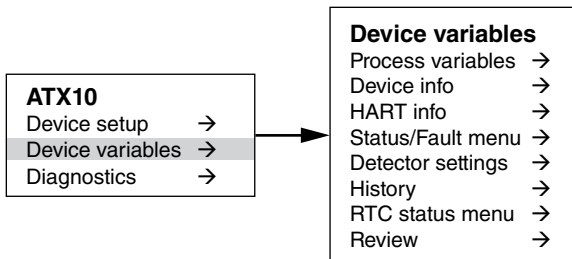
RTC SETUP MENU

This menu allows setting of the real time clock date and time. Note that the RTC must be set properly for the SD Memory Module to function as expected, and to provide accurate time stamps to the ATX10 onboard event logging.



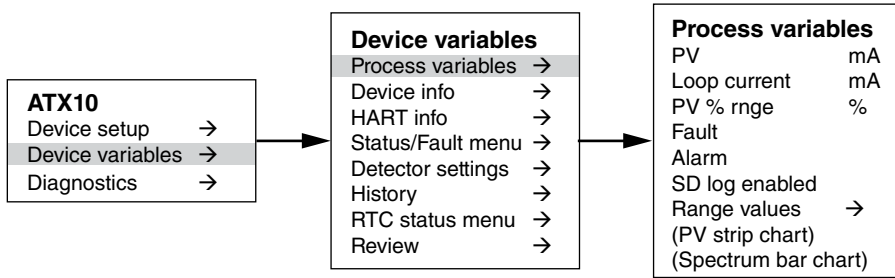
RTC Second	0 to 59
RTC Minute	0 to 59
RTC Hour	0 to 23
RTC Date	1 to 31
RTC Month	1 to 12
RTC Year	0 to 99

DEVICE VARIABLES



Process Variables	Refer to sub-menu.
Device Info	Identification information specific to the device.
HART Info	HART Specific Variables.
Status/Fault Menu	Current operating status and/or diagnostic information.
Detector Settings	Device settings relating to SD operation, AIC and alarm parameters.
History	Access to event data logs.
RTC Status Menu	Read only menu for viewing the real time clock.
Review	Displays a list of variables that are defined in the device.

PROCESS VARIABLES



PV Process variable.

Loop Current Value of the primary variable being measured.

PV % Rnge Percent of Range. The variable that tracks the Digital Value representation with respect to the range defined by the Lower Range Value and Upper Range Value, for normal operating modes. The units of this variable are always in percent.

Fault Indicates “Y” if a fault condition exists.

Alarm Indicates “Y” if the device is in alarm status.

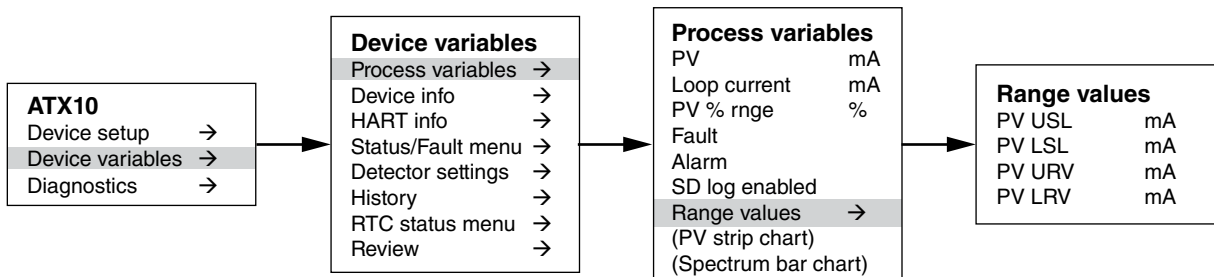
SD Log Enabled Event logging to the SD card is enabled.

Range Values Operational endpoints of the analog value being measured.

(PV Strip Chart) Displays the primary variable as a strip chart.

(Spectrum Bar Chart) Displays the acoustic spectral data as a bar graph.

RANGE VALUES



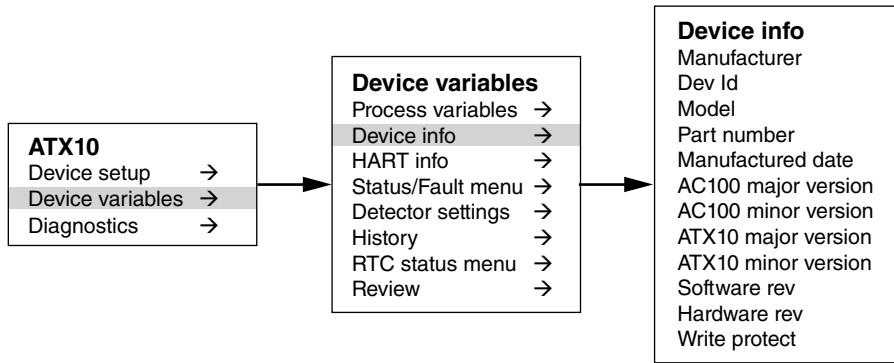
PV USL The upper sensor limit value defines the maximum usable value for the upper range of the sensor.

PV LSL The lower sensor limit value defines the minimum usable value for the lower range of the sensor.

PV URV Upper range value.

PV LRV Lower range value.

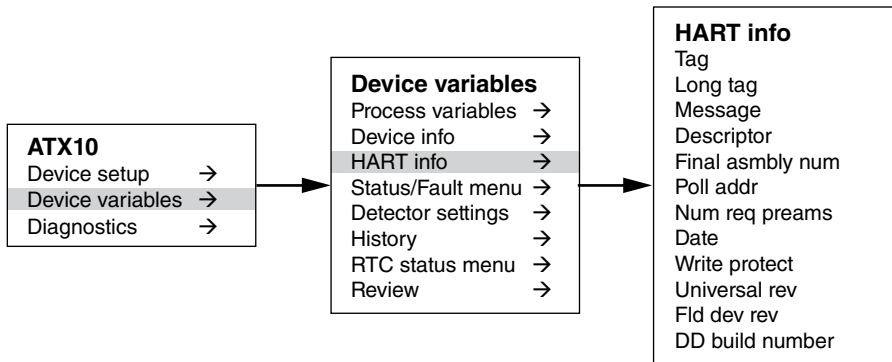
DEVICE INFO



Manufacturer	Det-Tronics
Dev id	A number used to identify a unique field device.
Model	ATX10
Part Number	Manufacturer's part number for this device.
Manufactured Date	Date of manufacture shown as XX/XX/XX (month/day/year).
AC100 Major Version	First two digits in AC100 Version format XX.XX
AC100 Minor Version	Last two digits in AC100 Version format XX. XX
ATX10 Major Version	First two digits in ATX10 Version format XX.XX
ATX10 Minor Version	Last two digits in ATX10 Version format XX. XX
Software Rev	Revision of Device Software in Hexadecimal format.
Hardware Rev	Revision of Device Hardware in Hexadecimal format.
Write Protect	This indicates whether variables can be written to the device, or whether commands that cause these actions to be performed in the device can or cannot occur.

HART INFO

This menu allows editing of the following functions:



Tag

Text that is associated with the field device installation. This text can be used by the operator in any way.

Long Tag

Text that is associated with the field device installation. This text can be used by the operator in any way.

Message

Text associated with the field device that can be used by the operator in any way.

Descriptor

Text associated with the field device that can be used by the operator in any way.

Final Assembly num

A number that is used for identification purposes, and is associated with the overall field device.

Poll Addr

Address used by the host device to identify a field device.

Num Req Preams

HART specific synchronization messages.

Date

Any date chosen by the operator to be used for any purpose.

Write Protect

This indicates whether variables can be written to the device, or whether commands that cause these actions to be performed in the device can or cannot occur.

Universal Rev

HART universal revision.

Fld Dev Rev

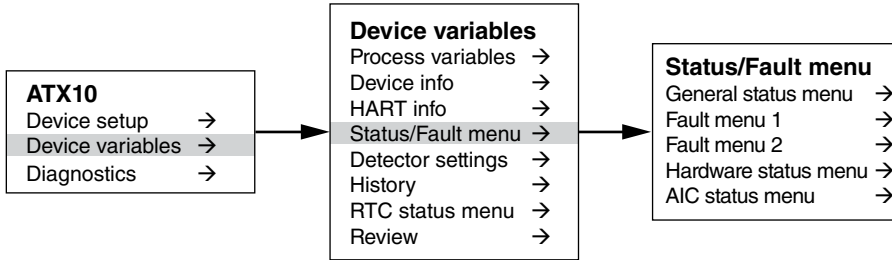
HART field device revision.

DD Build Number

Indicates the internal version number of the DD.

STATUS/FAULT MENU

This menu (read only) provides access to status/fault information about the detector.



General Status Menu

Refer to sub-menu.

Fault Menu 1

Refer to sub-menu.

Fault Menu 2

Refer to sub-menu.

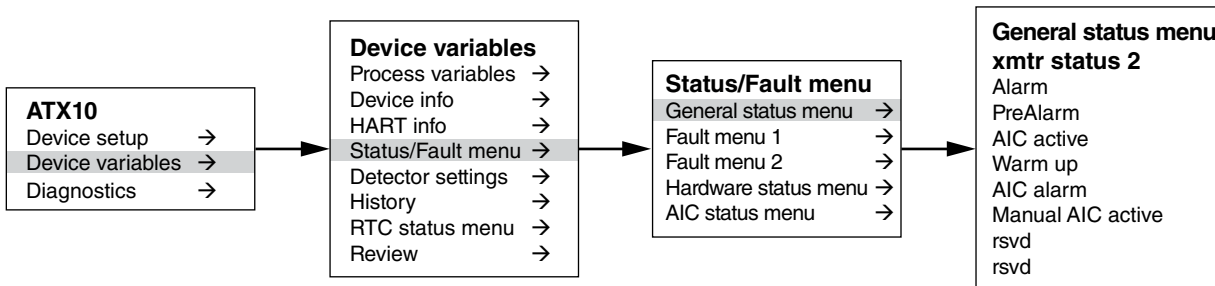
Hardware Status Menu

Provides voltage and temperature as well as other hardware related information.

AIC Status Menu

Provides information regarding the AIC function of the device.

GENERAL STATUS MENU



Alarm

Indicates "Y" if the device is in alarm status.

PreAlarm

Indicates "Y" if pre-alarm is enabled, and the device is in pre-alarm status.

AIC Active

Indicates "Y" if an AIC is currently in progress.

Warm Up

Device is in the power-up (initialization) time delay mode.

AIC Alarm

Indicates "Y" if the device is in AIC alarm status.

Manual AIC Active

Indicates "Y" if a manual AIC is currently in progress.

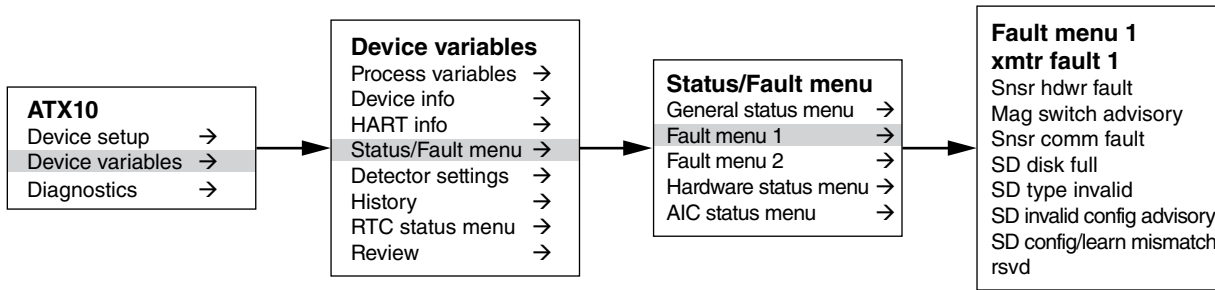
Rsvd

Reserved for future use.

Rsvd

Reserved for future use.

FAULT MENU 1



Snsr Hdwr Fault

Indicates a hardware fault on the AC100 Sensor.

Mag Switch Advisory

The magnetic switch for initiation of a manual AIC (located on the ATX10 faceplate) is stuck on.

Snsr Comm Fault

Communication loss between ATX10 and AC100.

SD Disk Full

The SD disk is full. The ATX10 was unable to prevent the SD disk from reaching capacity. There is an error in the SD card and SD logging has stopped.

SD Type Invalid

Indicates that the microSD card in the SD Memory Module may not meet manufacturer specifications.

SD Invalid Config Advisory

Indicates that the CONFIG and PROFILE data are corrupt or partially missing. This prevents the ability to select DOWNLOAD CONFIG, but UPLOAD CONFIG may be used to establish new CONFIG and PROFILE data from the contents of the ATX10.

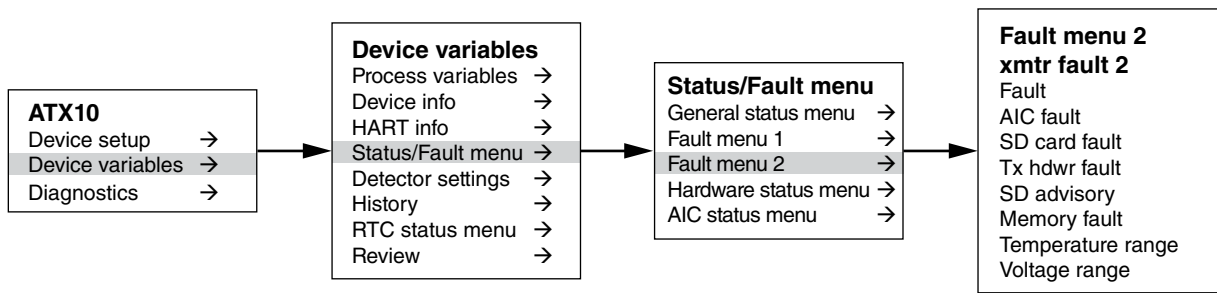
SD Config/Learn Mismatch

Indicates that the CONFIG and PROFILE data do not match the contents of the ATX10.

Rsvd

Reserved for future use.

FAULT MENU 2



Fault

Indicates “Y” if a fault condition exists.

AIC Fault

Indicates “Y” if the AIC has failed, indicating the microphone or emitter are degraded.

SD Card Fault

SD card is out-of-sync with the ATX10 on-board flash.

Tx Hwtr Fault

Indicates a hardware fault on the ATX10 Transmitter.

SD Advisory

Indicates “Y” if the SD Memory Module has an issue that requires intervention.

Memory Fault

Indicates “Y” if there is a corruption with Flash Memory.

Temperature Range

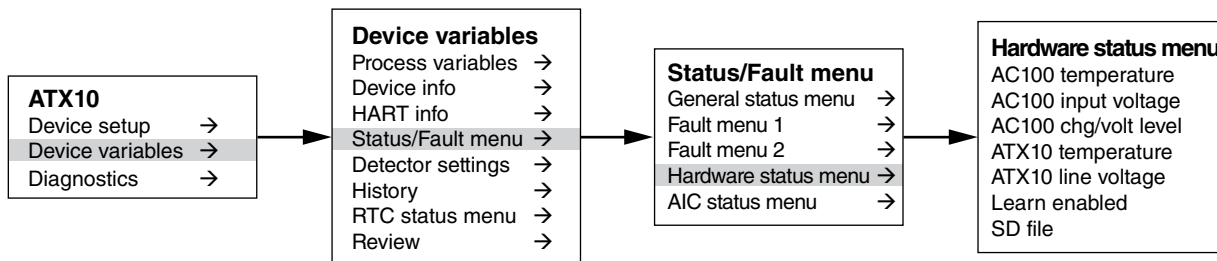
Detector operating temperature is out of tolerance.

Voltage Range

Detector operating voltage is out of tolerance.

HARDWARE STATUS MENU

This menu shows measurements taken at the device to monitor its operation.



AC100 Temperature

The temperature of the AC100 in degrees C.

AC100 Input Voltage

Operating voltage at the input to the AC100.

AC100 Chg/Volt Level

The preamplifier bias voltage.

ATX10 Temperature

The temperature of the ATX10 in degrees C.

ATX10 Line Voltage

Operating voltage at the input to the ATX10.

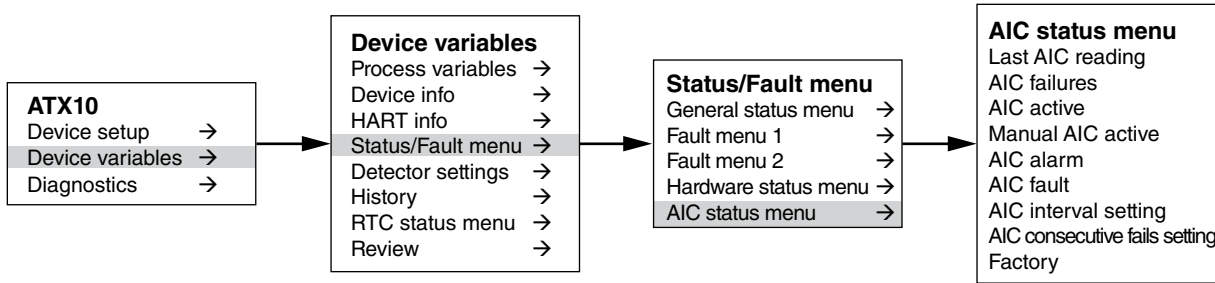
Learn Enabled

Indicates whether the Learn function is active.

SD File

The file name to which Real Time Data is being logged on the SD Memory Module.

AIC STATUS MENU



Last AIC Reading

The numeric level returned by the AIC at the last check, acquired by measuring the amplitude of the microphone response to the emitter.

AIC Failures

The number of consecutive failures of the AIC check that have occurred. If this number exceeds the AIC Consecutive Fails Setting, then an AI Fault is annunciated.

AIC Active

Indicates “Y” if an AIC is currently in progress.

Manual AIC Active

Indicates “Y” if a manual AIC is currently in progress.

AIC Alarm

Indicates “Y” if the device is in AIC alarm status.

AIC Fault

Indicates “Y” if the AIC has failed, indicating the microphone or emitter are degraded.

AIC Interval Setting

The number of minutes elapsed until an AIC is performed automatically.

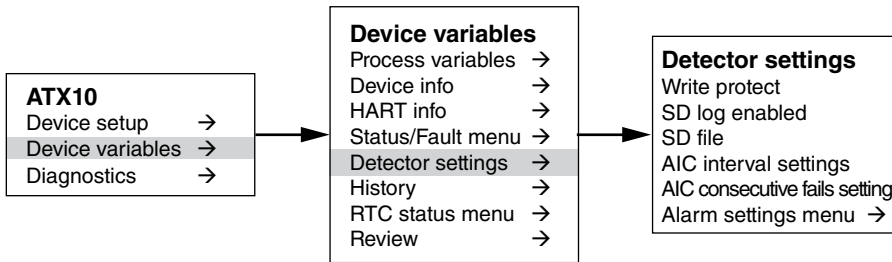
AIC Consecutive Fails Setting

The number of consecutive failures of the AIC permitted before an AI Fault is annunciated.

Factory

The AI READING calibrated at the factory, to which the AIC measurement is compared.

DETECTOR SETTINGS



Write Protect

This indicates whether variables can be written to the device, or whether commands that cause these actions to be performed in the device can or cannot occur.

SD Log Enabled

Event logging to the SD card is enabled.

SD File

The file name to which Real Time Data is being logged on the SD Memory Module.

AIC Interval Setting

The number of minutes elapsed until an AIC is performed automatically.

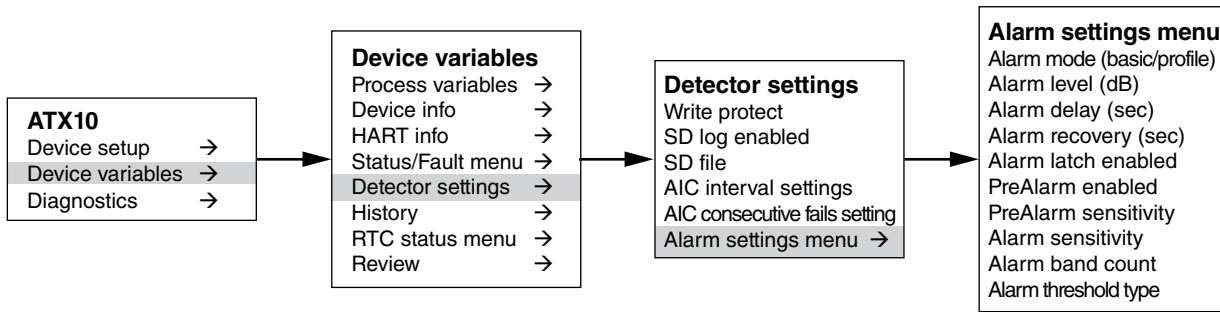
AIC Consecutive Fails Setting

The number of consecutive failures of the AIC permitted before an AI Fault is annunciated.

Alarm Settings Menu

Indicates the currently set alarm parameters.

ALARM SETTINGS MENU



Alarm Mode (Basic/Profile) Displays and permits changes to the alarm mode. Possible settings include “BASIC” or “PROFILE.”

Alarm Level (dB) This setting specifies the threshold (in dB) where bands are considered for alarm should they exceed that level.

Alarm Delay (sec) This setting specifies the delay time, in seconds, that elapses from the moment the alarm criteria are met, until the alarm is annunciated.

Alarm Recovery (sec) This setting specifies the time (in seconds) that elapses from the moment the alarm declared criteria are no longer met until the alarm is cleared.

Alarm Latch Enabled When latching is enabled, alarms remain annunciated until the MASTER RESET command is sent, or the reset magnetic switch is tripped.

PreAlarm Enabled ‘Y’ indicates the prealarm feature is enabled. This allows a second sensitivity to be set for an alternate alarm annunciation.

PreAlarm Sensitivity An offset that is subtracted from the alarm threshold in each band to generate a prealarm with higher sensitivity than the standard alarm. All the alarm threshold settings and alarm parameters apply to prealarm, but greater sensitivity is realized by adjusting the threshold level or profile with this setting.

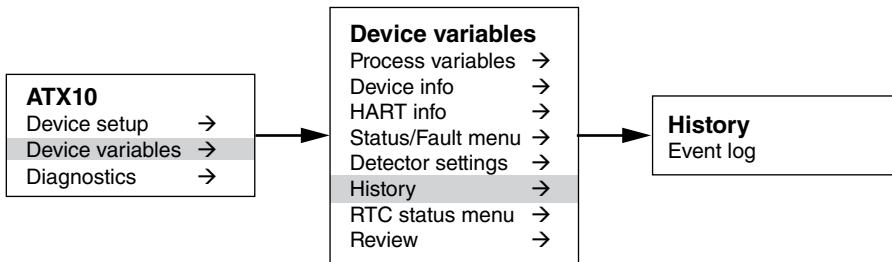
Alarm Sensitivity An offset (in dB) that is added to the level or learn threshold for each band. A larger setting reduces the sensitivity of the detector to alarms.

Alarm Band Count The number of bands that must exceed the alarm threshold to declare an alarm.

Alarm Threshold Type The type of alarm threshold being used (LEVEL/LEARN). LEVEL is a single dB value alarm threshold across the alarm range, while LEARN is a dynamic alarm threshold with varying dB levels across the alarm range based on the learned acoustic profile.

HISTORY

This menu provides historical information about the detector in a format suitable for the limited on board flash memory on the ATX10. When the log is full, the oldest event is overwritten. The most recent event is displayed first.

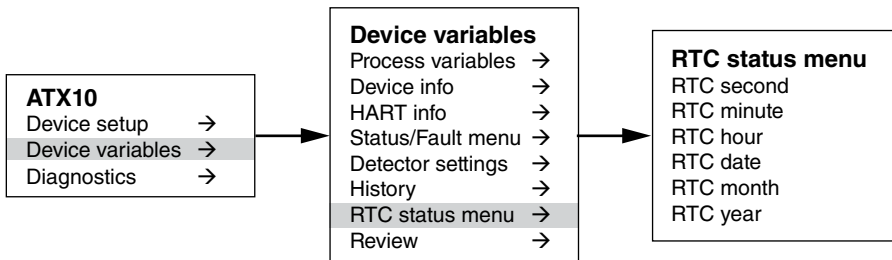


Event Log

Select to scroll through the event logs, containing Alarm, Fault, and Configuration Logs with time, date, and temperature stamp.

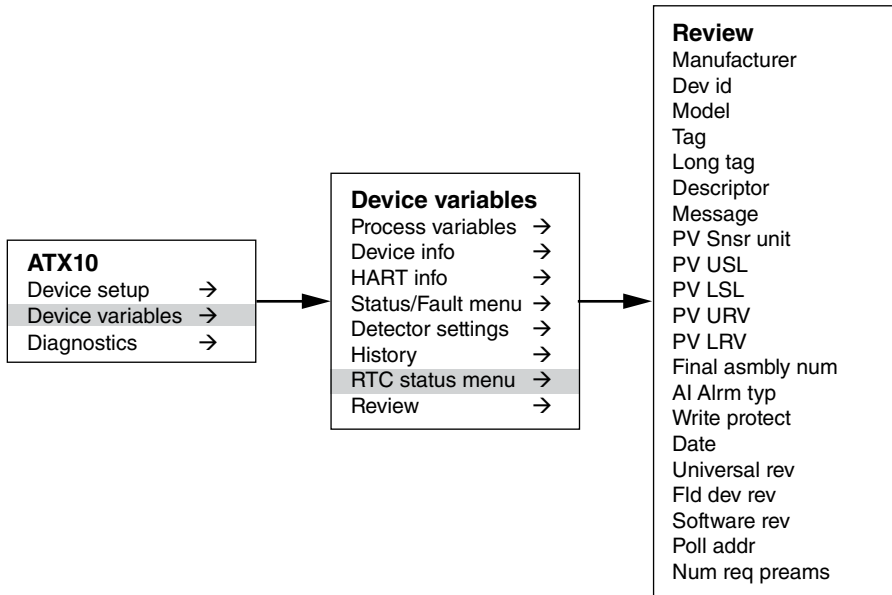
RTC STATUS MENU

Read only menu for viewing the real time clock.



RTC Second	0 to 59
RTC Minute	0 to 59
RTC Hour	0 to 23
RTC Date	1 to 31
RTC Month	1 to 12
RTC Year	0 to 99

REVIEW



Manufacturer

Det-Tronics

Dev id

A number used to identify a unique field device.

Model

ATX10

Tag

Text that is associated with the field device installation. This text can be used by the operator in any way.

Long Tag

Text that is associated with the field device installation. This text can be used by the operator in any way.

Descriptor

Text associated with the field device that can be used by the operator in any way.

Message

Text associated with the field device that can be used by the operator in any way.

PV snsr Unit

ATX10

PV USL

The upper sensor limit value defines the maximum usable value for the upper range of the sensor.

PV LSL

The lower sensor limit value defines the minimum usable value for the lower range of the sensor.

PV URV

Upper range value.

Pv LRV

Lower range value.

Final Assmby Num

A number that is used for identification purposes, and is associated with the overall field device.

AI Alarm Type

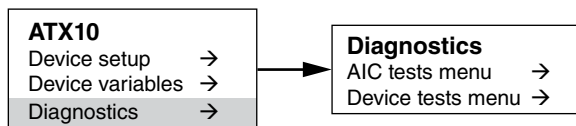
HART variable, not used by ATX10.

Write Protect

This indicates whether variables can be written to the device, or whether commands that cause these actions to be performed in the device can or cannot occur.

Date	Any date chosen by the operator to be used for any purpose.
Universal Rev	HART universal revision.
Fld Dev Rev	HART field device revision.
Software Rev	HART device software revision.
Poll Addr	Address used by the host to identify a field device.
Num Req Preams	Number of Request Preambles.

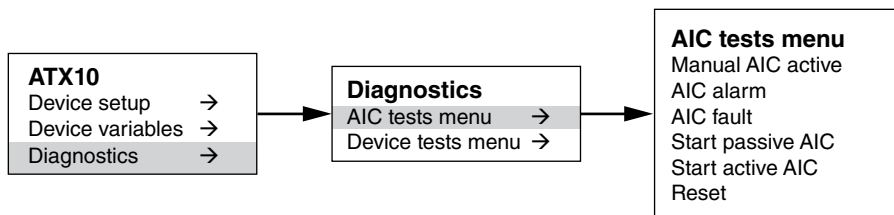
DIAGNOSTICS



AIC Tests Menu Refer to sub-menu.

Device Tests Menu Refer to sub-menu.

AIC TESTS MENU



Manual AIC Active Indicates “Y” if a manual AIC is currently in progress.

AIC Alarm Indicates “Y” if the device is in AIC alarm status.

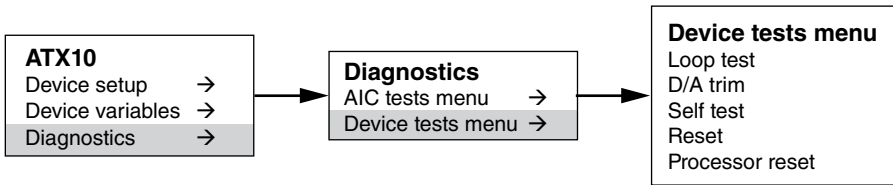
AIC Fault Indicates “Y” if the AIC has failed, indicating the microphone or emitter are degraded.

Start Passive AIC A PASSIVE AI test command starts an AIC manually. This AI test runs much like the regularly scheduled automatic AI. Regardless of the pass/fail status of the test, the 4-20 mA output does not change state.

Start Active AIC An ACTIVE AI test command starts an AIC manually. This AI check annunciates its result on the 4-20 mA output. Alarm (20 mA) is annunciates in the event of a passing test to also provide the capability to check the propagation of the alarm signal. Regardless of the alarm latching setting, this output is latched until it is cleared via a Reset command or the reset magnetic switch.

Reset This command clears all latched alarms and faults.

DEVICE TESTS MENU



Loop Test

This test allows the operator to manually set the analog signal output (4-20 mA) to a fixed user defined value.

D/A Trim

This function allows adjustment of the 4-20 mA output calibration.

Self Test

Internal tests are performed and any detected problems are reported.

Reset

This command clears all latched alarms and faults.

Processor Reset

This function re-initializes the microprocessor and resets the operating software,



95-8698



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Leak Detector



X3301 Multispectrum
IR Flame Detector



PointWatch Eclipse® IR
Combustible Gas Detector



FlexVu® Universal Display
with GT3000 Toxic Gas Detector



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Corporate Office
6901 West 110th Street
Minneapolis, MN 55438 USA
www.det-tronics.com

Phone: 952.946.6491
Toll-free: 800.765.3473
Fax: 952.829.8750
det-tronics@det-tronics.com

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