8.10 PC UTILITY LOADING INSTRUCTIONS

An AMS vendor designed for vending food meets or exceeds standards for Health and Safety (H&S), and H&S software must be used. A vendor not designed for H&S may have H&S software installed but it will not meet H&S requirements.

These instructions are for loading of Sensit II software into the vendor, configuring the vendor software as required, and/or downloading of selected history files.

The configuration settings can be saved in a file for configuring the vendor again at a later time, or for uploading the same configurations to other vendors.

8.10.1 Requirements
The basic application requirements are:

1. An IBM compatible PC (a lap-top or similar PC) operating on Windows 98 or higher.
2. 32MB RAM (64 recommended).
3. VGA monitor or better.
4. CD-ROM drive.
5. DB9 Serial port, or USB adapter.
6. CD from AMS containing the most current version of P/N 3302, AMS Sensit II Utility and the most current vendor software for your application.
7. P/N 20786, Harness, Chip Programming (See Figure 6.1).

8.10.2 Installation
Install software onto the PC as follows:

1. Turn on the PC.
2. Use the "Add/Remove Programs" feature in Control Panel to remove any previous versions of the Sensit II Utility.
3. Place the AMS Software CD in the CD drive.
4. If the CD-ROM does not start automatically, choose START, then RUN, then type D:\setup.exe (where D is the name of your CD-ROM drive).
5. Follow the on-screen instructions of the installation guide.
6. After installation, the AMS software may be left on the PC. Store the CD as a backup.

8.10.3 Startup
After loading of software into the PC, start up in the following order:

1. Connect the cable connector to the PC serial port (leave the ¼" plug unplugged at this time, see Figure 6.1).
2. Turn on the PC
3. Turn on the vendor.
4. To open the program, double-click on the desktop icon placed there during installation.
5. After the program has opened (and the vendor is running), plug the ¼" plug into the jack on the side of the control board in the vendor.
6. Further choices are described below.

8.10.4 Toolbar
The AMS Utility tool bar is located in the upper left hand of the screen

FILE: Provides typical Windows-type options such as NEW, OPEN, SAVE, PRINTER/SETUP, and EXIT.

COMM: Use to select what type of task to perform using the AMS Utility software:

RECEIVE CONFIGURATON is used to download settings from a vendor to save for future use.
SEND CONFIGURATION is used to upload new settings to a vendor.
RECEIVE DATA LOGS is used to retrieve four data logs (Power, Door, Temperature, and Cooling).
Collected data will be displayed in the Data Logs block.
NOTE The cooling log must be active for 30 minutes before cooling data is available.

RECEIVE AUDIT is used to collect standard information. Collected data will be displayed in the Audit Data block.

SEND FLASH is used to update the software used by the vendor control board (electronic transfer of the software eliminates the need to replace chips)

RECEIVE FLASH is used to download the software used by the vendor control board for other uses (electronic transfer of the software eliminates handling chips).

TOOLS: Primarily used during the initial startup to determine if the serial cable is connected to the correct COMM port. You may also un-synchronize the settings clock with the internal clock in your computer, but this is normally enabled.

8.10.5 Program Screens

The AMS Utility programs are located in a column on the left side of the screen.

PRODUCT INFO: This screen allows selections and entries to be made at an individual product level.

SELECTION ID: Identifies the tray and column.

PRODUCT NAME: This feature is not available through the vendor keypad. Up to a 16 digit entry in this field will be briefly shown on the display when this selection is made on the vendor. An example entry may be "Ice Cold" when a soda has been selected.

PRICE: The maximum price is $199.95 for US applications (or 3999 base units if referencing the scale factor). It should be a multiple of the lowest denomination coin used, but if not, the control will round up to the next highest price that can be represented exactly.

DELAY SALE is enabled here for each product. This must be turned on and in the SETTINGS screen an enable box checked and the delay time specified in order for Delay sales to occur.

DELAYED STOP can be set for up to one second, in 0.1 second intervals, allowing a vend motor to continue running after the product has been dispensed.

SETTINGS: This screen provides for turning some features on and off and for entering messages and data:

GENERAL VEND: These options are more fully explained elsewhere in the manual. Please note these features:

NO-CHEAT and HOLD LOST CREDIT are enabled by default. The PRIZE box default is zero. If your vendor is so equipped, turn on the PRODUCT SENSOR using the ENABLE box.

LANGUAGE: Service mode will be displayed in the primary language only. Customer messages will scroll the primary language first, followed by the secondary.

MISCELLANEOUS: The chiller temperature setpoint (when the chiller will run) is adjusted here.

NOTE: AMS recommends an H&S setpoint of 40° for vendors which are vending perishable food.

MACHINE S/N The customer may enter any desired serial number in 'Machine S/N'. Checking the 'Use for changer SN' box will make the coin mechanism serial number match the machine.

DELAY SALES: Must also be enabled and the time delay entered here in order to delay sales for the items selected at the Product Info screen.

CLOCK/CALENDAR: If not current, reset the time and day/month/year.

ENERGYSENSIT: Settings for the power savings program for refrigeration and lighting may be made here, and the two programs turned on and off.

NOTE: Setting the chiller setpoint to 40°F enables H&S and will disable the refrigeration power saving selection. The lighting power saving feature is not affected.

USER MESSAGE: may be up to 50 characters, including lower case and additional punctuation marks not available through the keypad.

BLOCKING: This screen displays four periods during the day when sales will be disabled (Note that Sales Blocking and Delay Sales are used for different purposes). For each period select the start time, end time and day of the week. Then select any number of tray and column combinations to block in that period. The default is all selections are blocked.

TRAY: This screen provides a way to "link" motors for space-to-sales applications.

MASTER/LINKED: Check 'Master' for the left-most selection, and 'Linked' for as many as desired directly to the right of the Master. Linked selections are vended sequentially for better product rotation. Whatever price is set for the Master will be used for any linked motors.

HOME SWITCH: Enable the Home Switch for the older Gum & Mint trays that use a switched vend motor. If the vendor is equipped with 1.5" helix trays, these should be disabled.

VALUEVEND: This screen displays response time (default of 30 seconds), two product selections in each of 10 groups, and a total price. In any group, change the price then select any product button to display the assignment chart. Select the two products to be grouped for that price. Select APPLY to enter this group into the ValuVend program and return to the first screen to allow making additional selections.

DATA LOGS: The screen is used to view and print the four logs (Power, Door, Temperature, and Cooling). In order to view the first three, select Comm|Receive Data Logs at the ToolBar. Print a log by right-clicking anywhere in the data, then select 'Print Log'.

AUDIT DATA: This screen displays the standard information stored in the controller. To access this data, select Comm|Receive Audit. Accessing this information will reset the resetable counters, and will register in the EA_ field, which is a history of reads.

8.10.6 Software Operation
To upload to the vendor:
1. Go through all the screens and configure all settings and entries as desired.
2. Save the completed configurations.
3. Select SEND FLASH.
4. A message will come up on the screen asking "Would you like to preserve current configuration?" Selecting "YES" will maintain all the pricing, messages, ect. currently on the vendor. Selecting "NO" will upload the new configuration data to the vendor. The upload will start automatically.
5. In a few minutes the upload will be complete.

8.10.7 Shutdown
After loading of software into the PC or the vendor, configuring the vendor software as required, or downloading of selected history files, shut down in the following order:
1. Save the configuration file for future use.
2. Unplug the cable from the vendor control board.
3. Unplug the vendor.
4. The AMS Sensit II Utility may be left on the PC as convenient.
5. Change to other programs or shut off the PC as desired.

NOTE: Different or special configuration files can be made up and saved for future use.

NOTE: The method of startup and shutdown can be modified to allow changing the software and configuration in multiple vendors.
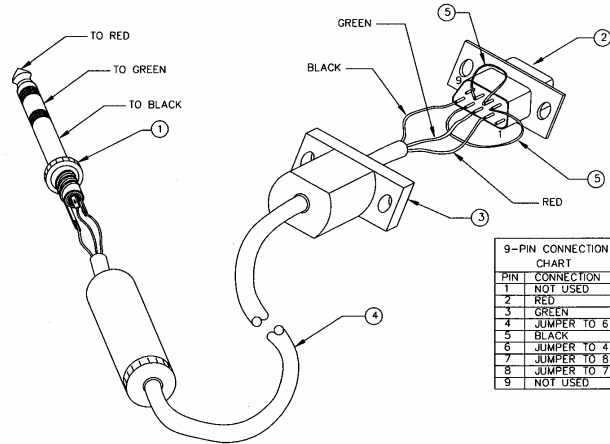
8.10.8 Errors
This software has been tested on Windows platforms from 98se to XP. However, should errors occur, the lower left corner displays the current error and can help eliminate problems.

"BOOT LOAD 1.22" is displayed when the vendor is powered up while connected to the PC running this software. Disconnect power to the vendor, unplug the cable and restart the vendor.

"UNEXPECTED APPLICATION RUNTIME ERROR…DESCRIPTION: PORT ALREADY OPEN" occurs when this software is started while connected to the vendor, the cable is connected to the wrong serial port, or the PC is looking in the wrong place. Go to Tools|Preferences|Comm Settings and select a different port. Then restart.

"NO RESPONSE TO ENQ" occurs when there is no connection at one end of the cable. Usually this occurs when the plug is not pressed fully into the jack, there is a bad connection within the plug, there is a broken wire in the cable, or the cable is connected to the wrong serial port.

NOTES:
1. USE HARNESS BETWEEN DEX JACK ON CONTROL BOARD AND PC.
2. THE HARNESS IS NOT REQUIRED TO BE SHEILDED.
3. USE ROSIN-CORE SOLDER FOR SOLDER JOINTS.

9-PIN CONNECTION CHART	
PIN	CONNECTION
1	NOT USED
2	RED
3	GREEN
4	JUMPER TO 6
5	BLACK
6	JUMPER TO 4
7	JUMPER TO 8
8	JUMPER TO 7
9	NOT USED

INDEX	PART DESCRIPTION	QTY	SOURCE SUGGESTION *
1	1/4" 3-CONDUCTOR PHONE PLUG	1	RADIO SHACK 274-1546 (SHIELDED) OR RADIO SHACK 274-139 (NON-SHIELDED)
2	9-PIN "D" FEMALE CONNECTOR	1	RADIO SHACK 276-1538 (SOLDER)
3	9-PIN "D" CONNECTOR HOOD	1	RADIO SHACK 276-1508 (METAL) OR RADIO SHACK 276-1539 (NON-SHIELDED)
4	3-CONDUCTOR SHEILDED CABLE, 6 ft.	1	BELDEN M 9534 CMG 4C24 (UL) E108998 (SHIELDED) OR PHILATHANE ES-243-10 (COILED ELECTRONIC CABLE, SHIELDED)
5	24 Ga. INSULATED HOOKUP WIRE, 1.5"	2	HOOKUP/BREADBOARD WIRE
* ANY SIMILAR PART OR SOURCE MAY BE USED.			

DRAWING BASED ON 20786, HARNESS, CHIP PROGRAMMING

Figure 8.4 Harness, Chip Programming