

## Intelli-Pass™ User's Guide

Featuring enhanced biometric security  
with two-factor authentication, providing  
the perfect blend of security and simplicity.



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### Federal Communications Commission and Industry Canada Radio Frequency Interference Statements

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

## Instrucciones de Seguridad (Normas Oficiales Mexicanas Electrical Safety Statement)

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc.
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
10. El equipo eléctrico debe ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser conectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
12. Precaución debe ser tomada de tal manera que la tierra física y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las líneas de energía.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objetos líquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
  - A: El cable de poder o el contacto ha sido dañado; u
  - B: Objetos han caído o líquido ha sido derramado dentro del aparato; o
  - C: El aparato ha sido expuesto a la lluvia; o
  - D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
  - E: El aparato ha sido tirado o su cubierta ha sido dañada.

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# Chapter 1: Specifications

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## 1. Specifications

**Battery Backup Time:** 8 hours

**Encryption:** Proprietary algorithm (head-unit-to-controller communications)

**User Controls:** 12-digit keypad, LCD menu

**Power:** Input: 100–240 VAC, 50–60 Hz;  
Output: 18.5 VDC, 3.5 amps, 65 watts

**Size:** Control Unit: 10.5"H x 10.3"W x 4"D (26.7 x 26.2 x 10.2 cm);  
Head Unit: 5.8"H x 7.5"W x 2.4"D (14.6 x 19.1 x 6 cm)

## 2. Overview

### 2.1 Introduction

The Intelli-Pass gives you a complete, secure door-access system. Use it to protect your doors from unauthorized access, notify you when a door is propped open, and get out of the building fast in case of a fire. It works with magnetic locks and electric strike locks to provide fail-safe or fail-secure door lock operation. A fail-safe lock requires power to keep it locked. A fail-secure lock stays locked even without power, but requires power to open it from the outside.

The following Intelli-Pass models are available:

- SAC510NA (networked, requires management software)
- SAC510SA (standalone)
- SAC530NA (triad, includes a card reader, requires management software)

The Intelli-Pass consists of two components: a head unit and a control unit. The head unit has two parts (a front section and a back section), and mounts on a wall next to the door you want to control. You can place the control unit above a false ceiling, or way out of general reach, since you will not need to access it once you install the Intelli-Pass system. This user's guide describes how to install the Intelli-Pass and how to set up user access to the door.

### 2.2 What's Included

Your package should include the following items. If anything is missing or damaged, please contact Black Box Technical Support at 724-746-5500.

- Head unit (2 pieces)
- Control unit
- Installation template and screws
- Black Box® 20' patch cord (for SAC510NA and SAC530NA)
- 18.5-VDC power supply
- U.S. power cord
- Installation Guide (printed)
- User's Guide, software manual, and PC software on CD-ROM

### 3. Software Setup

#### 3.1 Factory Default for Accessing Menus

On a new unit, all fingerprint indexes are unused. When you power on a new unit, it will immediately go to the setup menu. The menu consists of a number of options that you can select or turn on/off, and requires you to enter numeric values using the keypad. The initial setup of each Intelli-Pass unit is very simple and should only take a couple of minutes.

#### 3.2 Setting Up the System

The current value for the selected option appears with square brackets around it. For example, if you select the YES option, the display shows the square brackets [YES=1].

When the choice for a selected menu item is either on or off, press the 0 key to turn off the option and go to the next step. Press 1 to turn on the option and go to the next step.

Press # to proceed to the next menu item without changing the current value for the selected option. For example, if the square brackets are around the YES option [YES=1] and if you press #, the selected option will be set as "YES."

Some menu items ask you to select from different options. Press the 0 key to cycle to the next option within that choice of selections. Press the 0 key on the last option in the selection group to return back to the first menu option within the selection. Press 1 to choose the displayed option for the selection group, and the menu will proceed to the next menu item.

At any time in the setup menu, you can press \* to return to a previous option.

When you need to enter a numeric value, the current value is displayed, and the prompt message gives the number of digits you must enter. Enter the new value, or press # to keep the current value. If you make a mistake while entering numbers, press \* to go back to the start of the line. If you press \* at the start of a line, the system goes back to the previous menu option.

Some numeric values have a limited range. If you try to enter a single-digit value outside the range, it will be ignored. If you try to enter a multidigit number outside the range, an "OUT OF RANGE" message will be displayed once you enter digits, and the cursor will return to the start of the line.

#### 3.3 Initial Setup

When the unit is powered-up, you should see the following on the Head Unit's LCD:

##### LCD CONTRAST

(0-9):[0] #=DONE

Using the keypad on the head unit enter a value 0 through 9 to set your preferred contrast for the LCD display. You will see the contrast change as each value is selected. If the chosen contrast is not correct, try a different value until you have the desired contrast.

Once you have the desired contrast, press the # key.

The next screen on the head unit LCD will be:

<Blank Line>

##### ENTER PASSWORD

Enter a 16-digit numeric password. This is used for the code-hopping encryption that operates between the head unit and control unit and also between the control unit and PC software.

*NOTE: This same password must also be entered into the management software, so please make a record of the password before entering it.*

After you enter the 16th digit, the Head Unit will display the entered password on the top line of the LCD and display [#]=DONE on the bottom line. The cursor will move to the # character to allow you to review the password. If you are certain that the password has been entered correctly press the # key. If you want to change the password, use the \* key as a backspace to delete the password entered.

*NOTE: This value cannot be re-entered. This is a one-time only process.*

The next stage is to optionally enroll two managers onto the unit for testing purposes. The following messages will be displayed on the head unit LCD:

### **ENROLL MANAGERS?**

**YES=1 NO=0**

We recommend that you enroll the two managers at the head unit for testing purposes. If you choose not to enroll managers via the head unit at this point, the unit will need to be networked and users enrolled onto the unit via the Intelli-Pass Management Software.

If you have reached this stage following a firmware upgrade and wish to preserve the existing enrolled users, we recommend that you choose NO. If you select NO, this completes the setup procedure.

If you choose "YES," the following will be displayed.

### **ENROLL MANAGERS**

<1 second delay>

### **NEW MANAGER**

**ENTER ID:0001**

<1 second delay>

### **PLACE FINGER**

**KEY 1 WHEN READY**

Once the finger is placed on the scanner, make sure that the finger is flat and straight, then press 1 on the head unit keypad.

After about one second the head unit will display:

**PRINT STORED**

**REMOVE FINGER**

Remove the finger from the fingerprint scanner.

The head unit will then display:

**PLACE FINGER**

**ON SCANNER**

Place the same finger on the scanner to verify the enrollment.

The head unit will then display:

**PRINT VERIFIED**

**REMOVE FINGER**

<1 second delay>

### **NEW MANAGER**

**ENTER ID:0002**

<1 second delay>

## Chapter 3: Software Setup

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### PLACE FINGER

#### KEY 1 WHEN READY

Once the finger is placed on the scanner, make sure that the finger is flat and straight, then press 1 on the head unit keypad.

*NOTE: You should either use a different finger or preferably a different person for the second enrolled finger.*

After about one second, the head unit will display:

### PRINT STORED

#### REMOVE FINGER

Remove the finger from the fingerprint scanner.

The head unit will then display:

### PLACE FINGER

#### ON SCANNER

Place the same finger on the scanner to verify the enrollment.

The head unit will then display:

### PRINT VERIFIED

#### REMOVE FINGER

<1 second delay>

### SETUP COMPLETE

<1 second delay>

01/01/01 00:00

### ENTER ID: \_

The initial setup is now complete!

*NOTE: The date and time will be incorrect. These are set via the PC-based management software.*

The first enrolled finger is at Index 0001 and the second enrolled finger at Index 0002.

The unit can be tested by entering the PIN on the head unit keypad and placing the correct finger on the fingerprint scanner.

The head unit LCD will display:

### ACCESS GRANTED

### 3.4 Using the Unit to Gain Access

All the Intelli-Pass Units are configurable as to which credentials are enabled or disabled.

The SAC510NA and SAC510SA have two credentials, a PIN and fingerprint.

The SAC530NA also has a PIN and fingerprint, plus it has the RFID credential.

Which credentials (PIN, fingerprint, and card) are enabled will determine what is displayed on the LCD. Credentials are always requested in the same order. The order is:

PIN

RFID Card/Token

Fingerprint

The LCD will show a message requesting the first enabled credential will.

If the first enabled credential is PIN, the LCD will display:

**07/04/10 2:00PM**

**ENTER ID: [     ]**

If the first enabled credential is RFID, the LCD will display:

**07/04/10 2:00PM**

**PRESENT CARD**

If the first enabled credential is fingerprint, the LCD will display:

**07/04/10 2:00PM**

**PLACE FINGER**

Enter or present the first credential, then follow the instructions on the LCD, presenting each credential as it's requested.

### 3.5 Correct Use of RFID Card/Token

The RFID card/token should be held up to the head unit in the position shown below.

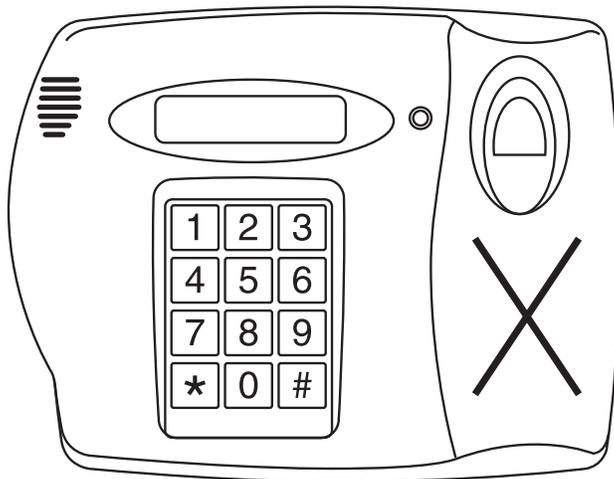


Figure 3-1. Positioning the RFID Card/Token on the head unit.

### 3.6 Correct Use of Fingerprint

Correct placement of the fingerprint is important. Following these simple steps will ensure that you have a very high success rate when attempting fingerprint verification or identification.

Place your finger in the opening.

*NOTE: Do not slide your finger along the fingerprint scanner.*

Place your finger down onto the center of the fingerprint scanner. Do not press down hard, only apply a slight amount of pressure.

### 3.7 Successful Access

Once all credentials have been presented, a successful verification or identification will be indicated by:

**07/04/10 2:00PM**

**ACCESS GRANTED**

and displayed on the LCD. The status LED on the head unit will turn green and the door will be released.

### 3.8 Error Responses

If the credentials are not verified, you will receive one of the following error responses:

**INVALID ID**—No user is enrolled at the index specified by the PIN entered.

**RFID CARD INVALID**—No user is enrolled at the index specified by the RFID card presented.

**RFID CARD NOT FOUND**—No RFID card/token was detected.

**RFID CARD NOT IDENTIFIED**—An RFID card was found but could not be identified.

**ACCESS DENIED**—The fingerprint could not be verified.

**OUTSIDE VALID TIME CODE**—All the credentials were verified, but the user is attempting to gain access outside his/her permitted times.

**FINGER NOT FOUND**—No finger was detected on the scanner.

**NO FINGER TEMPLATE FOUND**—A user exists at the index specified, however no finger templates have been uploaded to the unit for that user.

The status LED on the head unit will turn red.

### 3.9 Entering the Menu after Initial Setup

Other than at initial setup, the menus can be accessed by any enrolled manager in the following way:

Press and release the **# key**.

Present the first enabled credential, PIN, RFID card/token or fingerprint.

Present each additional credential as requested.

The SAC510NA has a comprehensive series of on-board menus. The entire range of menu options that is available on the SAC510SA is also available on the SAC510NA.

To set the IP address of the SAC510NA unit, follow the steps in Section 4.8, Setting the IP Address Via the Menus.

### 4. Menu Overview

Diagrams of the menus are shown in Appendix A, Menu Maps.

The menus are very intuitive and easy to follow. If a menu item is asking for a value to be entered, it will show you the range of acceptable values.

If a decision needs to be made in the menus, 1=Yes and 0=No is the rule to follow. Again, this will be displayed on the unit's LCD.

If you see an item that is enclosed in [] (square parentheses), this indicates the currently selected setting. To retain the current setting, you can press the # key. For example if the YES option is selected the display would show the square brackets as such [YES=1].

If you need to go back to a previous menu item or backspace or exit a menu, use the \* key.

#### 4.1 Menu Layout

The menus are broken down into four top level menu categories:

User Menu—Add, Edit, and Delete users.

Operations Menu—Unit settings. Turn any feature on or off via this menu.

Time Menu—Set the unit's date and time. Create time codes.

Network Menu—Set the unit's network settings.

#### 4.2 Adding a User Via the Menus

*NOTE: Before you add users, if you will want to restrict the permitted times a user will have access, you first need to go into the time menu and set up time codes.*

After you enter the menus, you will see the following displayed on the head unit's LCD:

##### User Menu?

Yes=1 No=0

Press the 1 (one) key. You will now see the following displayed:

Add User

Enter ID [     ]

Enter a 4-digit PIN to be assigned to the new user.

Follow the instructions on the LCD to enroll the user's first fingerprint.

Select the user type:

Manager=1

Super User=2

User=3

“Managers” and “Super Users” have access to the unit's menus. “Users” don't have access to the menus.

*NOTE: Most people will be enrolled as users.*

Follow the instructions to enroll additional fingerprints for the user.

*NOTE: We recommend that you enroll at least one finger from each hand.*

## Chapter 4: Menu Overview

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Follow the instructions to enroll up to two duress fingers. If a user is forced to place their finger on a unit to open a door, they can use a duress finger to trigger an alert that they are entering under duress. For SAC510NA, the alerts will get sent to the Intelli-Pass software. For all units, there is an alarm relay that is activated following a duress entry. The contacts of the alarm relay can be connected to any third-party system, to send notification of the alarm.

Specify the two-digit time code (00–99) to apply to the user. The time codes are set up via the time menu.

Choose to save the user when prompted.

### 4.3 Editing a User Via the Menus

Editing a user is almost identical to adding a user.

**User Menu?**

**Yes=1 No=0**

Press the 1 (one) key until you see the following displayed:

**Add User**

**Enter ID [    ]**

Press the 0 (zero) key until you see the following displayed:

**Edit User**

**Enter ID [    ]**

Press the 1 (one) key. Follow the instructions on the LCD to edit the user.

### 4.4 Deleting a User Via the Menus

After you enter the menus, you will see the following displayed on the head unit's LCD:

**User Menu?**

**Yes=1 No=0**

Press the 1 (one) key until you see the following displayed:

**Add User**

**Enter ID [    ]**

Press the 0 (zero) key until you see the following displayed:

**Delete User**

**Enter ID [    ]**

Enter a four-digit PIN of the user to be deleted.

The user is now deleted.

### 4.5 Unit Configuration

Any settings that are specific to the unit can be set via the operations menu.

**User Menu?**

**Yes=1 No=0**

Press the 0 (zero) key. You will see the following displayed:

**Operations Menu?**

**Yes=1 No=0**

Press the 1 (one) key. Follow the instructions to set the various options for the unit:

**LCD Contrast (0–9)**—Use the number keys 0 through 9 to change the LCD contrast. As you press a key, you will see the contrast change. Press the # key when you are happy with the setting.

**Enter Delay? (1–9 SEC)**—Use the number keys 1 through 9 to change the entry delay. The entry delay is the number of seconds the doors will open for following a successful access.

**Exit Delay? (1–9 SEC)**—Use the number keys 1 through 9 to change the exit delay. The exit delay is the number of seconds the doors will open for after a Request To Exit (RTE) button is pressed.

**Propped Door Alarm**— Press 1 to turn this feature ON or 0 to turn this feature OFF. The propped door delay requires door contacts to be installed. If this feature is turned ON, you will be prompted to enter the Propped Door Delay next.

**Propped Door Delay (1–99 MIN)**—Use the number keys entering values 1 through 99 to change the delay period. This is the number of minutes the door can be propped open before creating an alarm.

**Security Level? (1–3)**—Use the number keys 1 through 3 to change the security level. Level 2 is the default level. Level 1 is most tolerant to different finger placement. Level 3 is the most secure and will require most accurate finger placement on the fingerprint scanner.

**Set Credentials**—The default credentials for all units are PIN and fingerprint enabled. The SAC530NA also has an RFID reader incorporated into the unit. RFID is turned OFF by default. Select 1 to change which credentials are enabled, select 0 to retain the current settings.

If you chose to modify the credential settings, you will be prompted to turn on or off each of the three credentials. Press 1 to enable a credential or 0 to disable it.

Press 1 when prompted to save the new configuration data.

### 4.6 Setting the Unit's Real-time Clock Via the Menus

After you enter the menus, you will see the following displayed on the head unit's LCD:

**User Menu?**

**Yes=1 No=0**

Press the 0 (zero) key until you see the following displayed:

**Time Menu?**

**Yes=1 No=0**

Press the 1 (one) key. You will now see the following displayed:

**Set Time & Date?**

**Yes=1 No=0**

Press the 1 (one) key.

Enter the time and date as requested.

Choose to save the new time and date when prompted.

### 4.7 Creating Time Codes Via the Menus

After you enter the menus, you will see the following displayed on the head unit's LCD:

**User Menu?**

**Yes=1 No=0**

Press the 0 (zero) key until you see the following displayed:

**Time Menu?**

## Chapter 4: Menu Overview

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Yes=1 No=0

Press the 0 (zero) key. You will now see the following displayed:

**Set Time Codes?**

Yes=1 No=0

Press the 1 (one) key. You will now see the following displayed:

**Enter Time Code:**

**(01–99):** \_\_\_\_\_

Enter the time code number you want to create or edit; valid entries are 01 through 99.

You will then be prompted to enter the first time code for Sunday.

**1st Time Code:**

**SUN: HH:MM-HH:MM**

Each day allows for up to two non-contiguous blocks of time to be entered for each day. If only a single block of time is required for a given day, leave the second time code set to 00:00-00:00.

*NOTE: Times are entered using 24-hour clock format.*

*NOTE: You can use the # key to step through any section without making changes.*

### **Example 1—Single block of time for a given day**

If you want to allow access between the hours of 9:00 a.m. to 5:00 p.m., enter data as follows:

**1st Time Code:**

**SUN: 09:00-17:00**

**2nd Time Code:**

**SUN: 00:00-00:00**

### **Example 2—Two blocks of time for a given day**

If you have cleaning crews who are allowed access only between the hours of 6:00 a.m. to 8:00 a.m. and 8:00 p.m. to 10:00 p.m., enter data as follows:

**1st Time Code:**

**SUN: 06:00-08:00**

**2nd Time Code:**

**SUN: 20:00-22:00**

After entering the times for Sunday you will be prompted with the following:

**Make MON Same?**

Yes=1 No=0

If you want Monday to have the same times as Sunday press 1. If you want to enter different times for Monday press 0. If you press 0, enter the times for Monday. Next, if you choose 1 you will be asked if you want Tuesday to have the same time as Monday. This process repeats until you have completed the access times through Saturday.

Once all time have been entered, you will be prompted:

**Save Time Code?**

Yes=1 No=0

Press the 1 (one) key to save the time code.

### 4.8 Setting the IP Address Via the Menu

After you enter the menus, you will see the following displayed on the head unit's LCD:

**User Menu?**

Yes=1 No=0

Press the 0 (zero) key until you see the following displayed:

**Network Menu?**

Yes=1 No=0

Press the 1 (one) key. You will now see the following displayed:

**Network Config?**

Yes=1 No=0

Press the 1 (one) key. You will now see the following displayed:

**Use DHCP?**

Yes=1 No=0

If you have a DHCP on your network that will automatically assign the unit an IP address, select 1. The unit will then wait for up to one minute for the IP address to be assigned.

If you do not have a DHCP server, or would like to specify a static IP address, select 0. You will be prompted to enter the IP address, subnet mask and default gateway:

**Enter IP Address**

---:---:---:---

*NOTE: Each section of the address must be entered as a three-digit number, for example, to enter 10.0.0.1 you need to enter 010.000.000.001.*

Once you have entered the IP address, subnet mask, and default gateway, you will see the following:

**Save Settings?**

Yes=1 No=0

Click 1 to save the IP settings.

Appendix A. Menu Maps

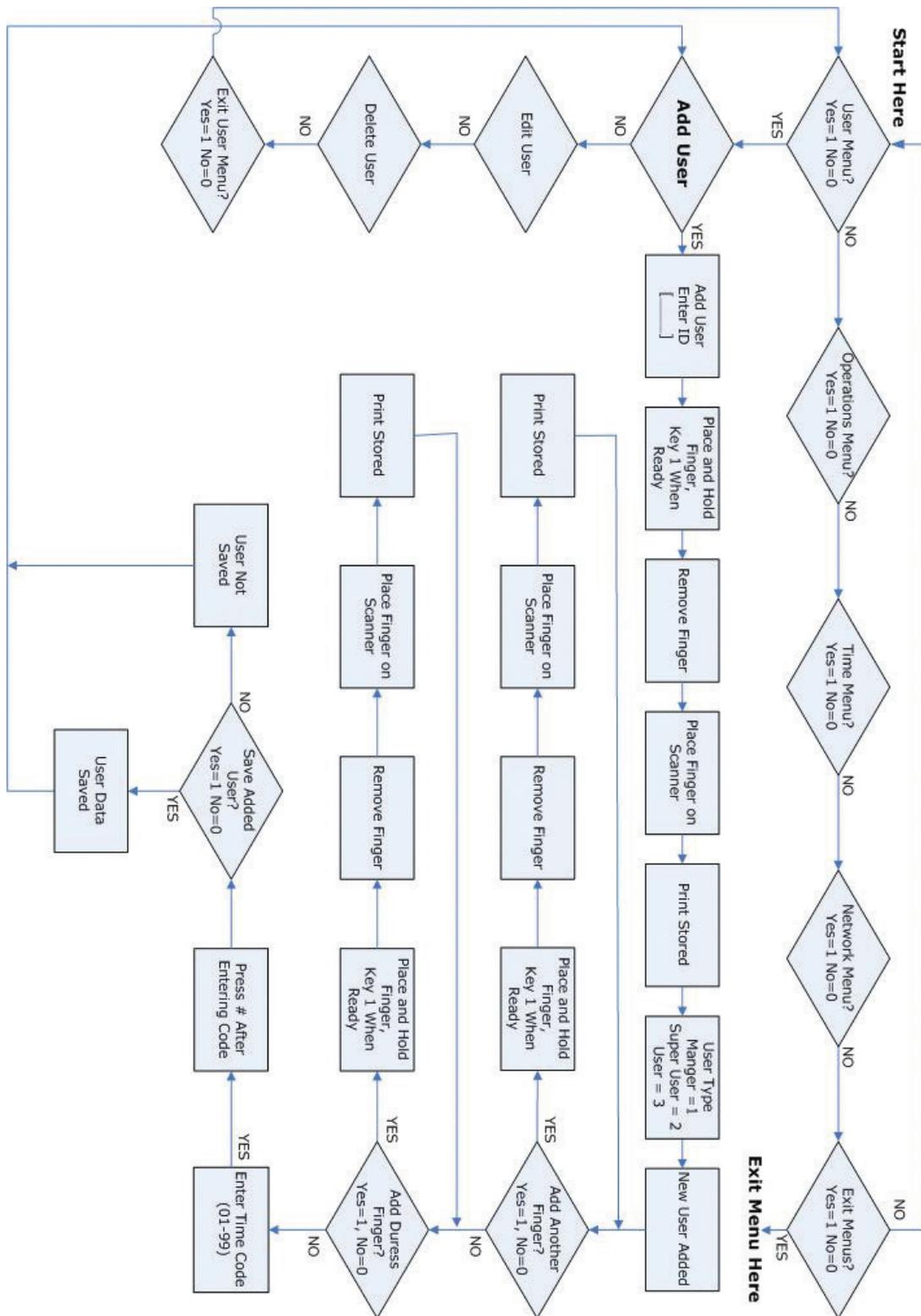


Figure A-1. Add User Menu.

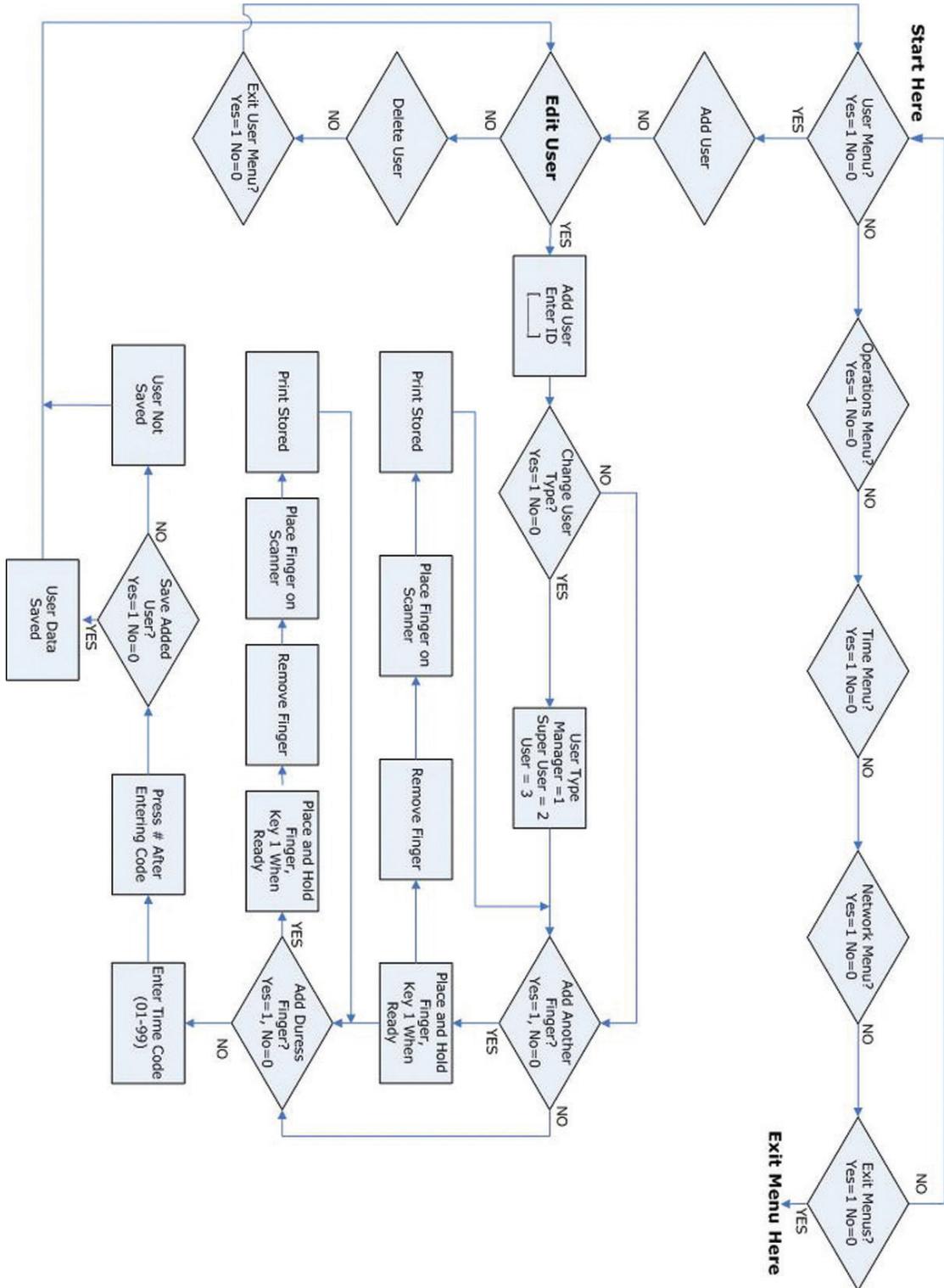


Figure A-2. Edit User Menu.

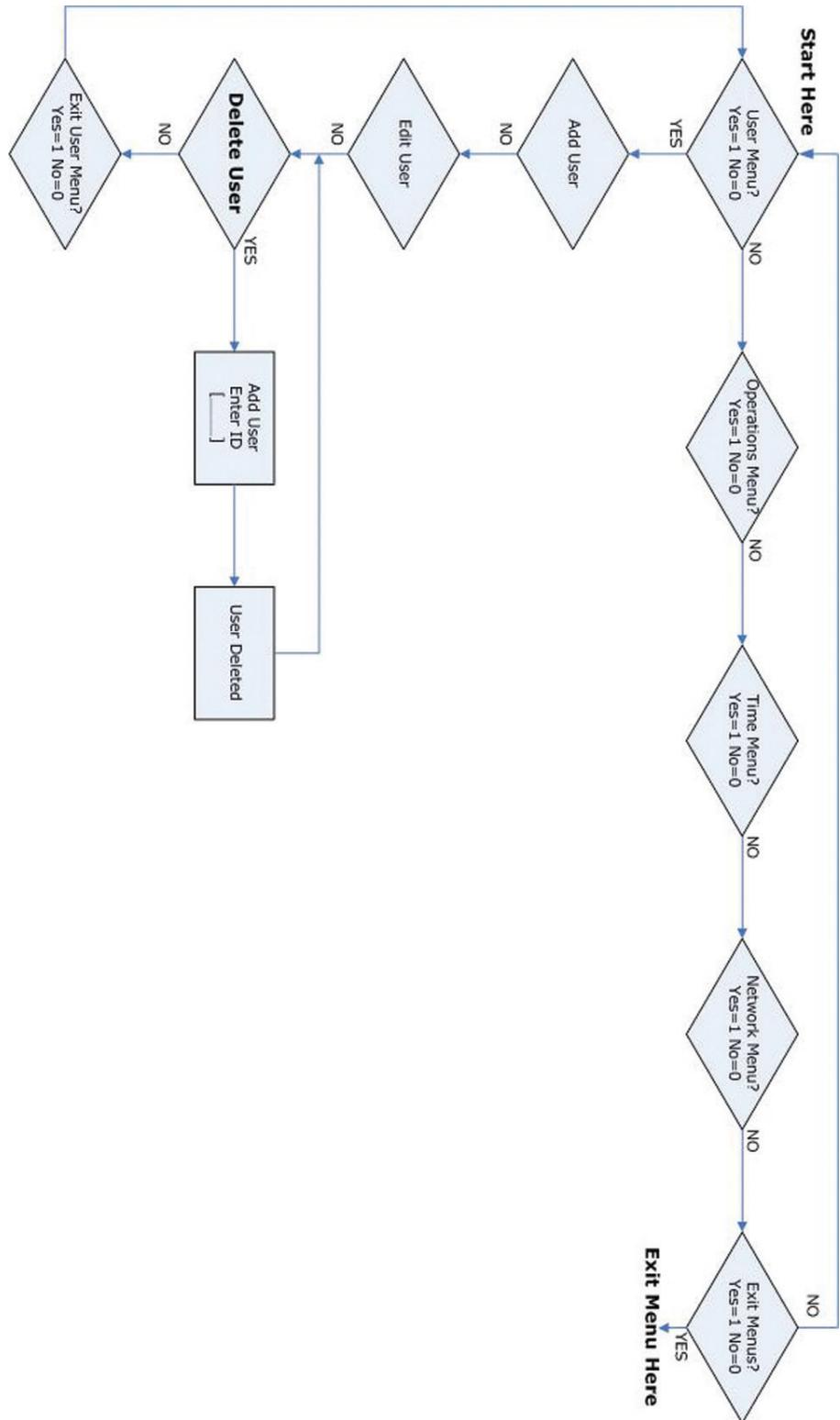


Figure A-3. Delete User Menu.

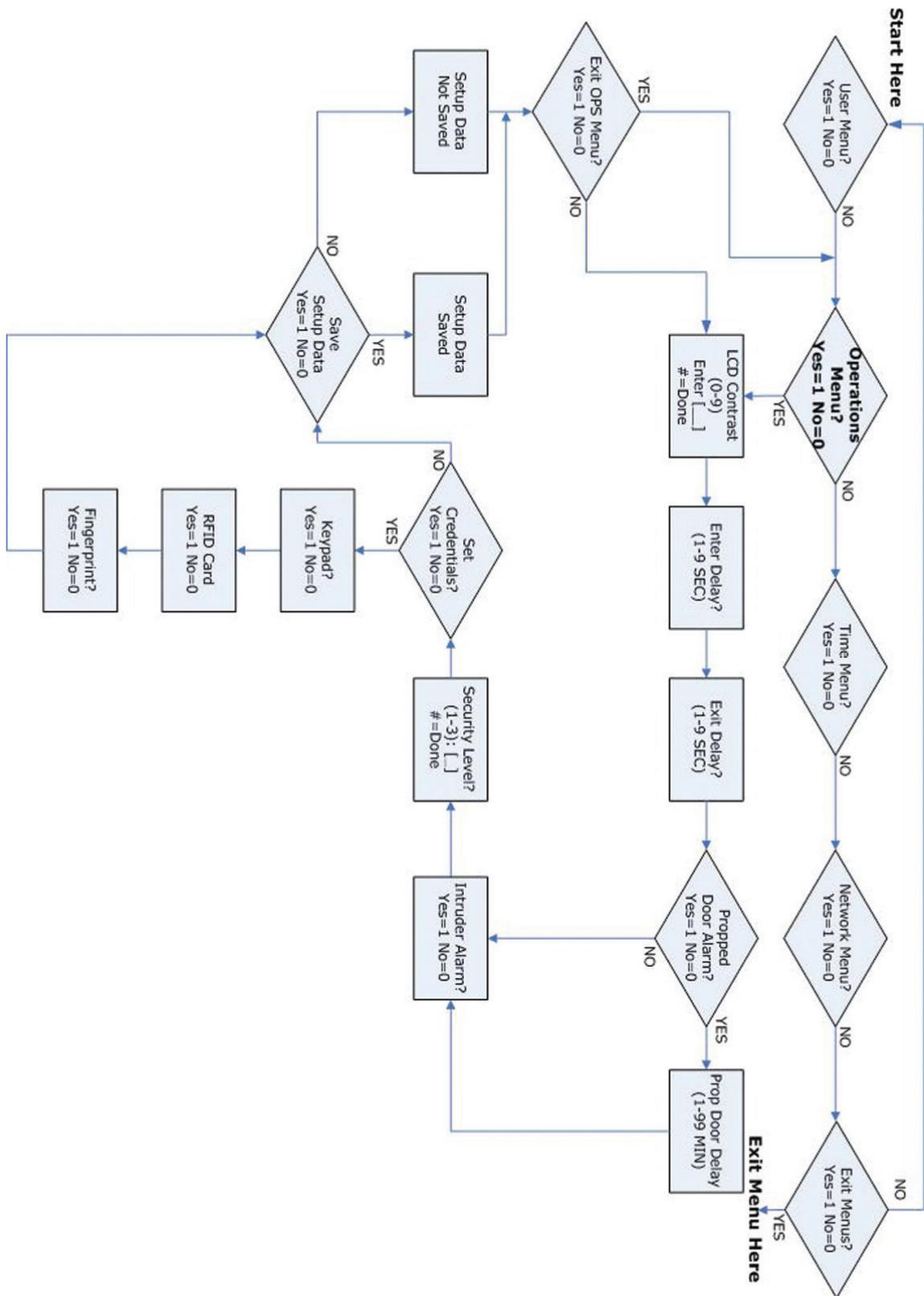


Figure A-4. Operation Menu.

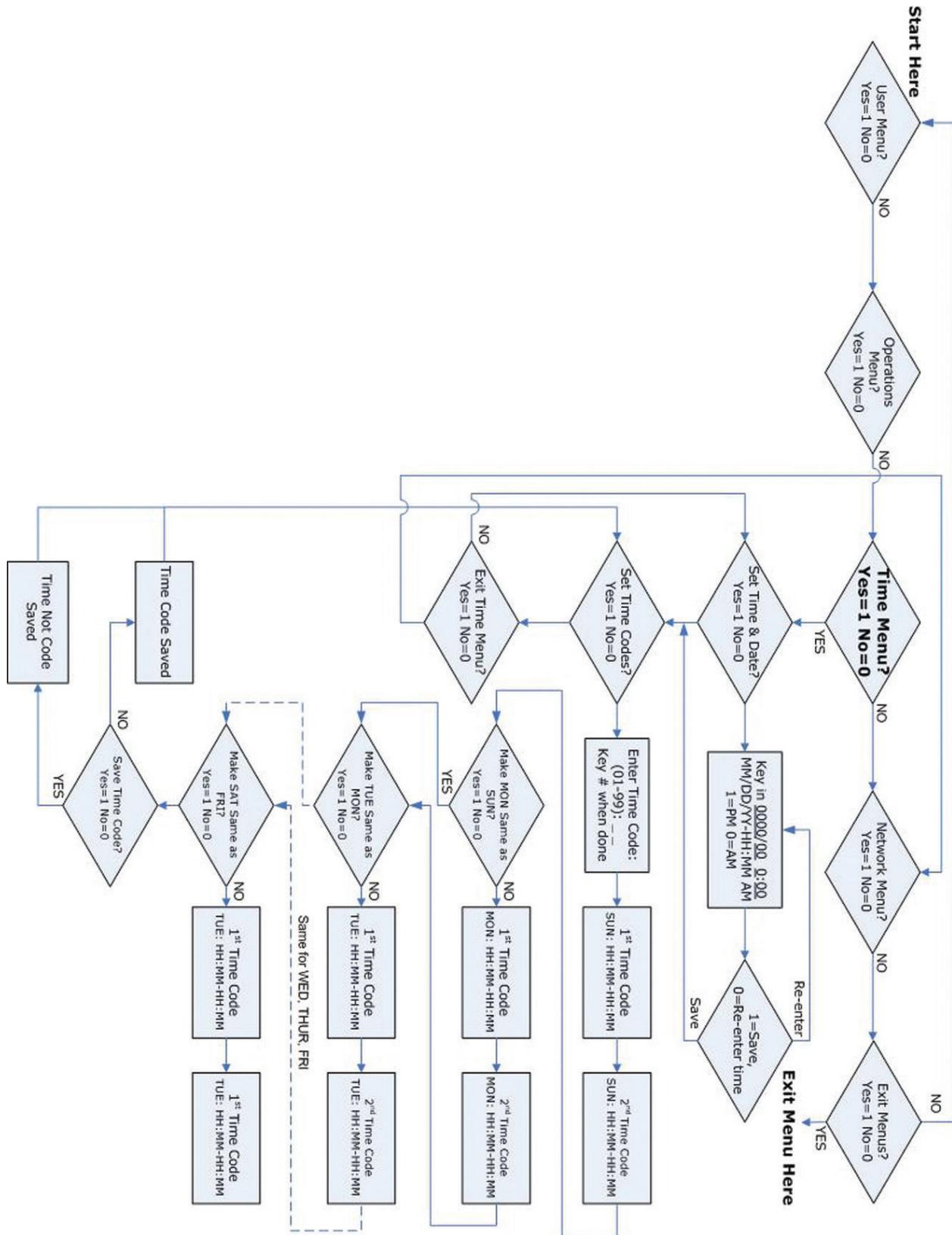


Figure A-5. Time Menu.

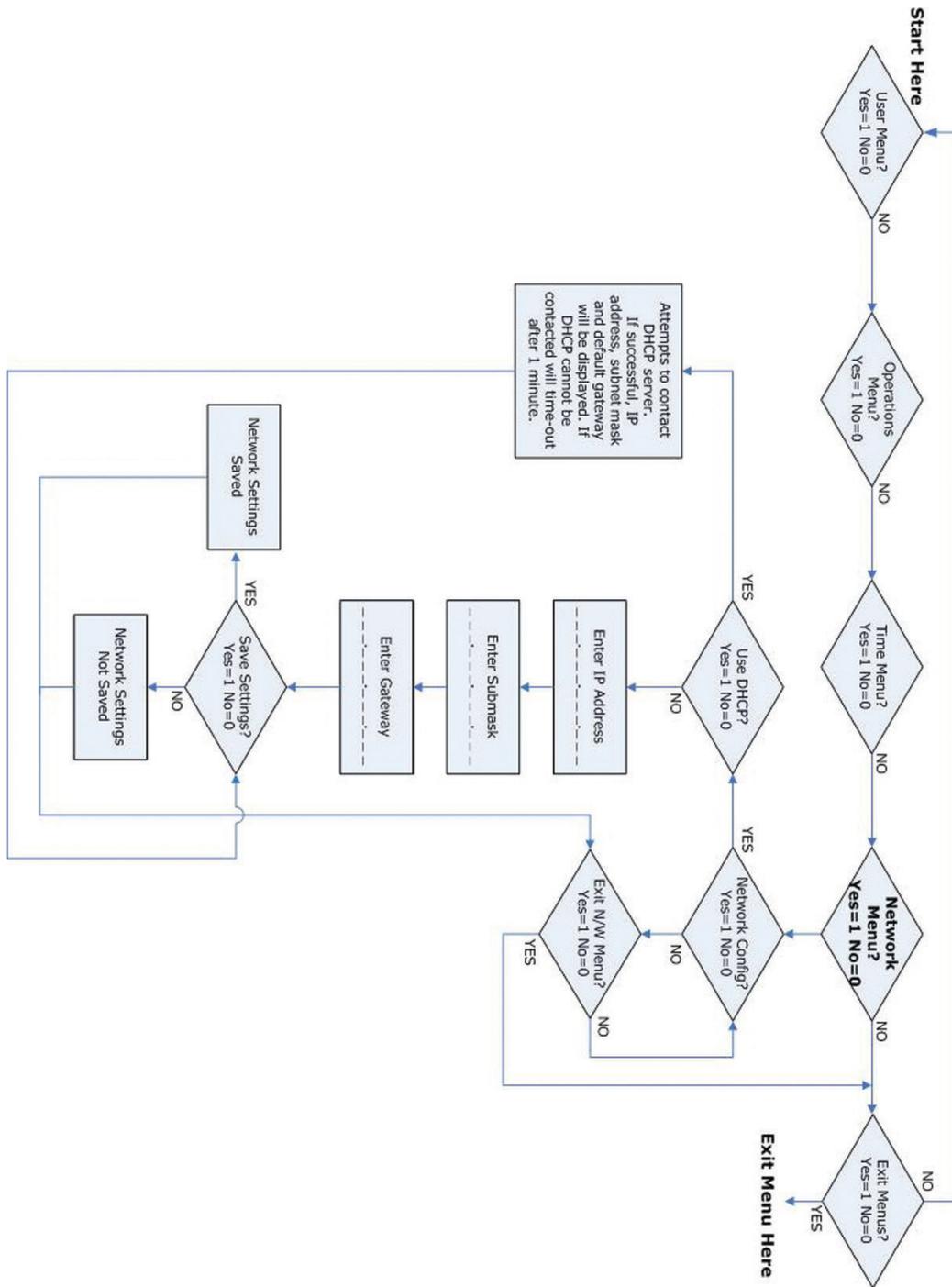


Figure A-6. Network Menu.

# Appendix B: Troubleshooting

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## Appendix B. Troubleshooting

### B.1 Problems/Solutions

#### B.1.1 Head Unit Problems

**Problem:** The following message is displayed on the Head Unit LCD:

**BASE STATUS:**

**CANNOT CONNECT**

**Solution:** There is a communication problem between the head unit and control unit. The most common cause of this is a cabling problem. Check the cable that connects the head and control units together. Ensure the cable is wired "straight-through," that is, Terminal A on the head unit is connected to Terminal A on the control unit, Terminal B is connected to Terminal B, etc.

**Problem:** The following message is displayed on the head unit LCD:

**CONFIG STATUS:**

**FAILED**

**Solution:** Power the unit down and back up. If after powering the unit back up, the same message is displayed, contact Black Box Technical Support at 724-746-5500 or [info@blackbox.com](mailto:info@blackbox.com).

**Problem:** The following message is displayed on the head unit LCD:

**SCANNER STATUS:**

**INIT. FAILED**

followed by

**SCANNER STATUS:**

**'#' TO CONTINUE**

**Solution:** There is a problem with the head unit microcontroller communicating with the fingerprint scanner. It's possible that the cable inside the head unit that connects the main PCB to the fingerprint scanner was disturbed during installation. The cable should be attached to the connector located at the bottom left of the main PCB inside the head unit and is labeled "Sensor." Power the unit down and check this cable is properly seated at both ends.

If after powering the unit back up, the same message is displayed, contact Black Box Technical Support at 724-746-5500 or [info@blackbox.com](mailto:info@blackbox.com).

**Problem:** The following message is displayed on the head unit LCD:

**FLASH STATUS:**

**FAILED**

**Solution:** Power the unit down and back up. If after powering the unit back up, the same message is displayed, contact Black Box Technical Support at 724-746-5500 or [info@blackbox.com](mailto:info@blackbox.com).

**Problem:** The following message is displayed on the Head Unit LCD:

**RFID STATUS:**

**INIT. FAILED**

**Solution:** If you have purchased a unit that only has a fingerprint scanner and keypad installed, with no RFID module, this message is normal.

If you have purchased a unit with RFID, there is a problem with the head unit microcontroller communicating with the RFID module. It's possible that the cable inside the head unit that connects the main PCB to the RFID module was disturbed during installation. The cable should be attached to the connector located at the left edge of the main PCB inside the head unit and is labeled "RFID". Power the unit down and check this cable is properly seated at both ends.

If after powering the unit back up, the same message is displayed, contact Black Box Technical Support at 724-746-5500 or [info@blackbox.com](mailto:info@blackbox.com).

**Problem:** When the unit is powered up for the first time, the LCD display is blank.

**Solution:** Try pressing 0 (zero) on the Head Unit keypad. The contrast may have been set very low, making the characters invisible.

**Problem:** The control unit powers up but the head unit does not.

**Solution:** There may be a wiring problem between the head unit and control unit. Check the cable that connects the head and control units. Make sure that the cable is wired "straight-through," that is, Terminal A on the head unit is connected to Terminal A on the control unit, Terminal B is connected to Terminal B, etc. The two wires that supply power are Terminals A and B.

There is a fuse between the control unit and head unit. The fuse may have blown. Remove the fuse from the fuse holder, located on the main PCB inside the control unit. The fuse is labeled "HEAD 1A-FAST." Check the fuse with an ohmmeter to see if it has blown. Replace the fuse with a 1-Amp Fast Blow Fuse if necessary.

If neither of these solutions solves the problem, contact Black Box Technical Support at 724-746-5500 or [info@blackbox.com](mailto:info@blackbox.com).

### B.1.2 Control Unit Problems

**Problem:** The control unit does not power up.

**Solution:** The external power supply may be bad. Using a voltmeter, check the input voltage on terminals V- and V+ on the POWER connector in the control unit. If you are not seeing the specified voltage output of the power supply, the power supply needs to be replaced.

If the input voltage is correct, the input fuse may have blown. Remove the fuse from the fuse holder, located on the main PCB inside the control unit. The fuse is labeled "BASE 2A-SLO BLO". Check the fuse with a ohmmeter to see if it has blown. Replace the fuse with a 2-Amp Slow Blow Fuse if necessary.

## Appendix B: Troubleshooting

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**Problem:** When you power up the control unit you hear a constant clicking sound from a relay inside the control unit.

**Solution:** Immediately power down the control unit and check that the battery cables have not been reversed. The positive side of the battery (RED in color) should be connected to the B+ terminal on the POWER connector. The negative side of the battery (BLACK in color) should be connected to the B- terminal on the POWER connector.

If the battery is wired incorrectly, correct the problem and power up the control unit again. Depending on how long the unit was powered up with the battery cables being reversed, permanent damage may have occurred to the control unit and/or battery. If the control unit will not power up, even after changing the input fuse, contact Black Box Technical Support at 724-746-5500 or [info@blackbox.com](mailto:info@blackbox.com).

**Problem:** When you power up the control unit, you hear the buzzer sound for one second, the buzzer turns off and then immediately turns back on and stays on.

**Solution:** One of three conditions can cause this:

1. The tamper circuit on the head unit is open. This can be because the switch inside the head unit isn't properly closed, or because there is a wiring problem between the control unit and the head unit.

Check that the head unit is correctly screwed together.

Check that the switch lever on the PCB inside the head unit (labeled SW1) isn't damaged.

Check that the cable connecting the head unit to the control unit isn't interfering with the switch lever.

There may be a wiring problem between the head unit and control unit. Check the cable that connects the head and control units together. Ensure the cable is wired "straight-through," that is, Terminal A on the head unit is connected to Terminal A on the control unit, Terminal B is connected to Terminal B, etc. The two wires that are used for the tamper circuit are Terminals G and H.

2. The door sensor circuit is open.

Refer to the door sensor section of the Installation Guide.

Make sure that the jumpers are set correctly, according to the type of sensor being used.

If a door sensor is not being used, ensure that the door sensor inputs (labeled OPEN and GND) on the DOOR connector are connected together (refer to Installation Guide).

3. The Normally Closed Fire Circuit is open.

Refer to the Fire Panel Integration section of the Installation Guide. If a normally closed fire circuit is not being used, make sure that the terminals labeled GND and NC on the FIRE connector are connected together.

**Problem:** When you power up the control unit, you hear the door relay click open and stay open.

**Solution:** The jumper on the control unit PCB is set incorrectly or is missing. Refer to the Door Sensor section of the Installation Guide for correct configuration of the jumper.

**Problem:** Following the initialization sequence, where the status LED (labeled STATUS) turns green for one second, then toggles between yellow and green several times, then the status LED turns yellow and stays yellow.

**Solution:** The Control Unit logs are corrupt and must be wiped clean. Contact Black Box Technical Support at 724-746-5500 or [info@blackbox.com](mailto:info@blackbox.com).

**Problem:** After entering a password on the head unit, as described in the Initial Setup section of this manual, the status LED turns red and stays red.

**Solution:** The head unit is attempting to send a password to the control unit, when the control unit already has a password. The microprocessor in both the head unit and control unit need to be replaced. Contact Black Box Technical Support at 724-746-5500 or [info@blackbox.com](mailto:info@blackbox.com).

**Problem:** The status LED turns red for up to 1 minute then returns back to green.

**Solution:** A "Clear All Logs" command has been issued to the unit via the network software. This is a normal operation and no user intervention is required.

### B.2 Contacting Black Box

If you determine that your Intelli-Pass is malfunctioning, do not attempt to alter or repair the unit. It contains no user-serviceable parts. Contact Black Box Technical Support at 724-746-5500 or [info@blackbox.com](mailto:info@blackbox.com).

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- the nature and duration of the problem.
- when the problem occurs.
- the components involved in the problem.
- any particular application that, when used, appears to create the problem or make it worse.

### B.3 Shipping and Packaging

If you need to transport or ship your Intelli-Pass:

- Package it carefully. We recommend that you use the original container.
- If you are returning the unit, make sure you include everything you received with it. Before you ship for return or repair, contact Black Box to get a Return Authorization (RA) number.

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