Fairbanks Access Solutions

Model: AN Series powered by Titan Technology

© 2019 by Fairbanks Scales, Inc.

51441

Rev. 1   07/19

Amendment Record

Fairbanks Access Solutions

Model: AN-Series powered by Titan Technology

Document 51441

Manufactured by Fairbanks Scales Inc.

821 Locust

Kansas City, Missouri 64106

Created	07/2019	
Revision 1	07/2019	Released Manual

Disclaimer

Every effort has been made to provide complete and accurate information in this manual. However, although this manual may include a specifically identified warranty notice for the product, Fairbanks Scales makes no representations or warranties with respect to the contents of this manual, and reserves the right to make changes to this manual without notice when and as improvements are made.

It is the responsibility of the requesting party to develop, maintain, install, and connect networking devices and general network connectivity as it applies to the originating party's network. No warranty or guarantee, expressed or implied, concerning the network, its design, its installation, or operational characteristics has been offered by Fairbanks Scales. Fairbanks Scales shall not be liable for any loss, damage, cost of repairs, incidental or consequential damages of any kind, whether or not based on express or implied warranty, contract, negligence, or strict liability arising in connection with the design, development, installation, or use of an intended network.

Trademarks

All other product names mentioned herein are used for identification purpose only and may be trademarks and/or registered trademarks of their respective companies.

Table of Contents

Section 1: General Information

1.1. Scope Of This Manual

This manual details the **Fairbanks Access Solutions (FBAS)** terminal, **Generation 3**. The manual provides a list of all recommended access Terminal hardware and detailed software installation instructions.

Key changes in the **FBAS, GENERATION 3**:

- **PCB placement** (mainly the controller and Titan board (SBC)).

- Quieter heater

- Site wiring moved to the inside of the enclosure, with changes to easy to access DIN rail power supplies.

NOTE: *Untrained personnel should not attempt to make any adjustments not specified in these instructions.*

1.2. Terminal Description

The **FBAS terminal** is intended as a complete unattended system and used exclusively with Fairbanks Scales MatreX weighing application. The complete configuration allows for driver lookup, prompting and capture of transactional data to capture on the driver ticket or later report viewing.

- Additional features can be added by accessorizing the traffic flow.

The **FBAS terminal** is designed for a wide variety of site applications, including entry gate, capturing truck weights, turning on remote relays for traffic and permissive switching.

- All I/O is controlled by the Access Software running on the terminal.

- Multiple remote I/O options can be installed and includes 2 inputs and 2 (12 VDC) outputs native to the communications board.

1.2.1. Standard Features

- Various Mounting Options
- Audio and Visual operator instruction
- Ease of Maintenance
- Several Prompt Options at Transaction
- Unattended Site Usage allow verified or unknown customer
- Traffic Control Ready
- Expandable IO

- 6.5" Diagonal 640*480 Color LED
- Thermal Receipt Printer
- (4) Ethernet Ports
- (3) RS232 Serial Ports
- (2) Dry Contact Inputs
- (2) 12 VDC Outputs
- 16 Button Keypad including 0-9 keys and list selector similar to ATM style system.

1.3. Accessories

PART NO.	DESCRIPTION
09150013	Short Range Reader KIT includes new pre-drilled front cover.
10-4002-009	Long Range Reader (Requires power and cabling, see part #**22282**)
36733	Magnetic Card Reader KIT
36734	IO Node KIT
11310077	Full Navigation Traffic Sign (includes STOP, FORWARD, BACK) for positioning.
09160006	Photo-Eye set for positioning traffic.
32802	12 VDC Relay (Requires **30263**)
30262	24 VAC Relay (Requires **30263**)
30263	Relay Socket Interchangeable for (**32802**, **30262**)

1.4. Terminal Components

Each **FBAS, GENERATION 3** consists of the base components listed below, not including interconnecting cabling. See **Parts** section for a complete list of parts, including cabling.

1	Power Assembly (see parts list)	6	Heater (16235)
2	IO Node (32432)	7	Surge Protection (23143)
3	Communication Viper Controller (**04580040**)	8	Thermal Printer (36286)
4	Titan V2 SBC (34229)	9	LED Display (34228) – behind plate
5	Backup Battery (33348)		
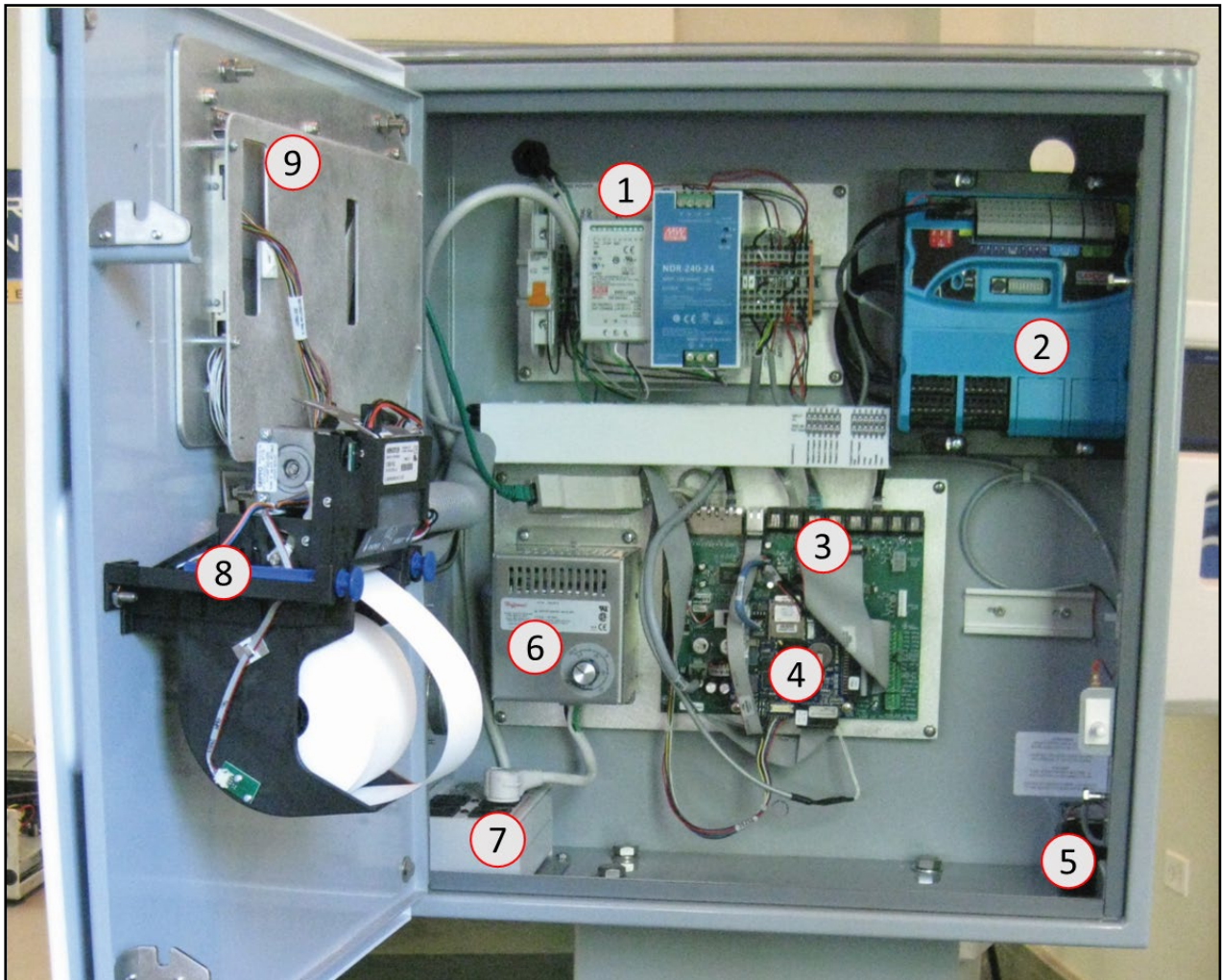
1.4.1. Power Assembly

The Power Assembly contains below parts (for full list review parts section)

1	15 amp breaker for incoming site wiring (120 VAC) (35298)
2	12 VDC power supply providing power to battery charging (35295)
3	24 VDC power supply providing power to Viper Controller Board (35289)
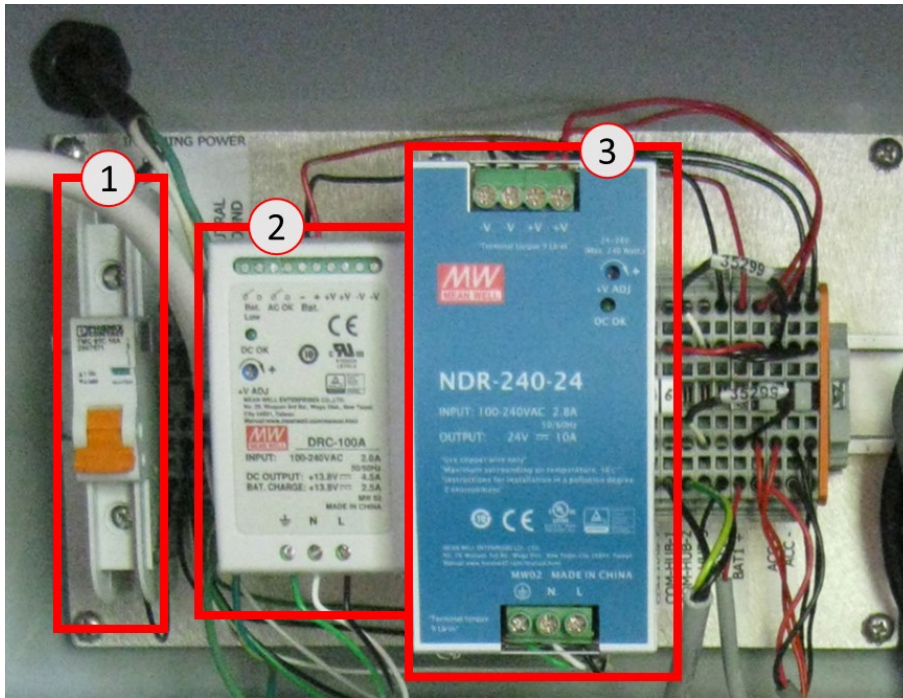
1.4.2. IO Node (32432)

The **IO NODE Assembly** provides 10 optional inputs and 10 outputs.

1	Inputs 1 - 10	4	IO Node Link and Data LED
2	IO Status	5	24 VDC Power
3	Outputs 1 -10	6	TCP/IP Port
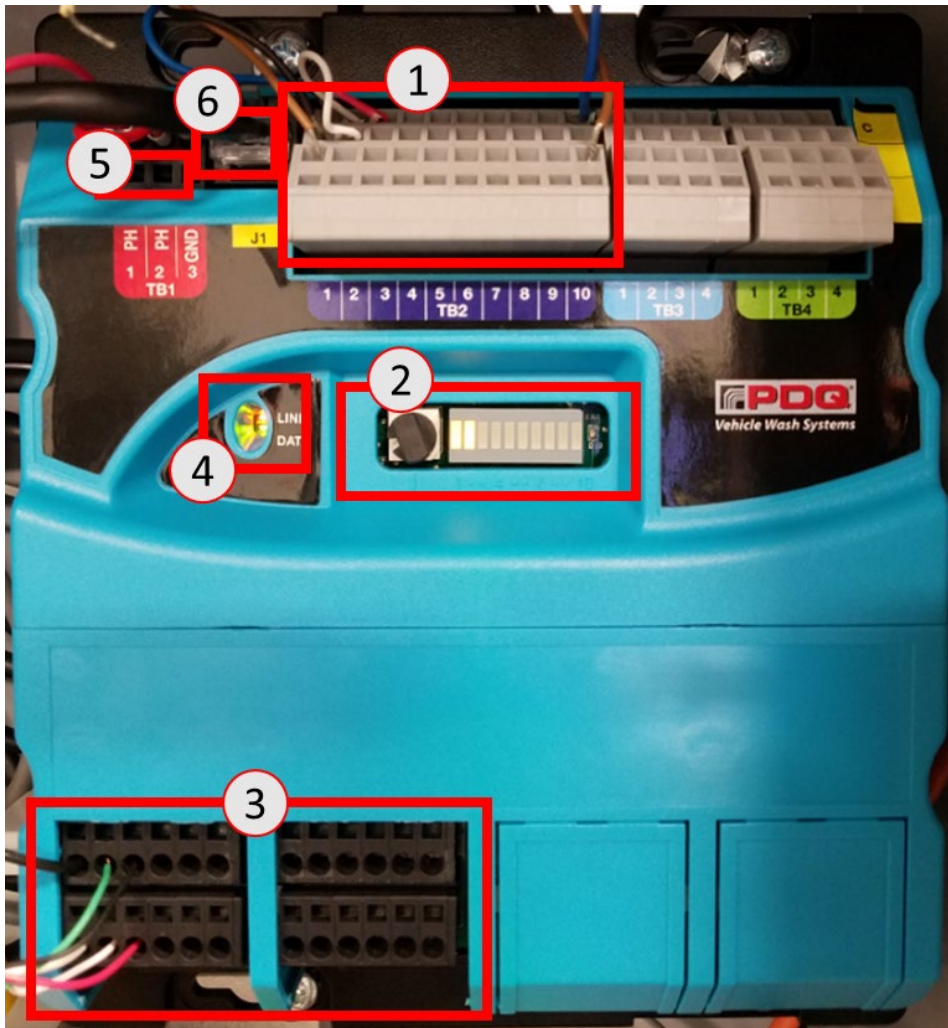
- Communication between the IO Node and main system is controlled via a simple network TCP/IP controller, with the addition of 24 VDC supplied power.

1.5. Technical Specifications

PARAMETER	SPECIFICATION
Model	FBAS GEN III
Multi-Platform Support	1 to 6 platforms, dependent on weight instrument capabilities. **NOTE**: the terminal requires a weighing instrument.
Units of Measure	Lb, Kg, custom unit conversions
Serial Input/ Output	Three (3) RS232 COM Ports
Storage	2 GB Industrial SD Card
Remote Zero Programming	Command accessible on supported weight instruments.

ENVIRONMENTAL	SPECIFICATION
Enclosure	NEMA 3
Operating Temperature	14°F to 104°F, (–10°C to 40°C).
Operating Humidity	NEMA 3 non-condensing, not suitable for wash-down conditions.

POWER REQUIREMENTS	SPECIFICATION
Incoming Voltage Requirement	100 VAC to 130 VAC, 50Hz\ 60Hz It is recommended to install a separate circuit from the circuit panel to the outlet used. There must not be more than 0.2VAC between AC neutral and ground
Ground Requirements	For proper performance, the ground should have no more than 3.0 Ω resistance to true earth ground.
Power Consumption	Less than (<) 40 watts
ETL Listed	UL STD 60950-1 CAN/CSA C 22.2 NO.60950-1-03
NTEP	CC# 06-041

1.6. Weighment Process Overview

Fairbanks Access Solutions system controls entrance/exit of vehicles hauling materials in/out of a facility. The Access Solutions system contains 1 or more Access Terminals and a data processing system (i.e. MatreX).

VEHICLE WEIGHING PROCESS ORDER

1. Vehicle drives onto a scale (provided by customer).

2. Vehicle is identified through 1 of 3 options:

    - Short/long range RFID reader

    - Card

    - A manual process where the customer enters a code or presses a button.

3. MatreX looks up vehicle information and sends it to the Access Terminal.

4. Vehicle is processed based on specific vehicle weighing process information (see Transaction Process Scenarios).

5. Access Terminal receives vehicle weight from scale indicator (provided by customer).

6. Weight data and customer responses are sent to MatreX.

7. If transaction is complete, customer receives a detailed scale ticket receipt.

SAMPLE TRANSACTION PROCESS SCENARIOS

Fairbanks Access Solutions processes vehicles in multiple ways through weight:

Processing by Weight

- Weigh In and Weigh Out: Truck weighs entering the facility and weighs exiting the facility, 2 weighments

- Weigh In w/ Stored Tare Weight: Truck weighs entering the facility then exits facility, 1 weighment

- Weight Out w/ Stored Tare Weight: Truck enters facility then weighs exiting facility, 1 weighment

- Multiple Weighs: Mixed load vehicles are weighed multiple times while at the facility

1.7. System Configurations

Fairbanks Access Solutions is configurable in multiple ways, all of which requires the MatreX database or Fastlane software to store and complete transactions. One license of MatreX software can support multiple terminals in any of the combinations below.

Each terminal requires at a minimum of 110 VAC, continuous RS232 scale output or continuous TCP/IP scale output. In dual terminal configurations, the weight output can be shared between terminals.

TYPICAL SCALE LAYOUTS:

1. *Single direction of traffic with a single scale and terminal.*

    - Traffic flow allows both inbound and outbound transaction to occur on the same scale.

Truck Scale

Inbound & Outbound Vehicles

Serial RS232 OR TCP/IP Scale Output
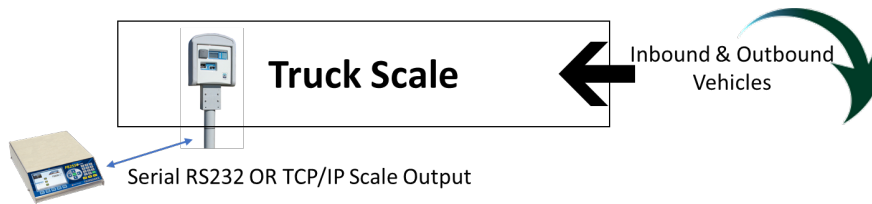
2. *Single direction of traffic with a single scale and terminal and stored tare weight.*

    - Vehicle has a stored tare weight, requiring only a single pass across scale.

Truck Scale

Outbound Only with stored Vehicle Weights

Serial RS232 OR TCP/IP Scale Output
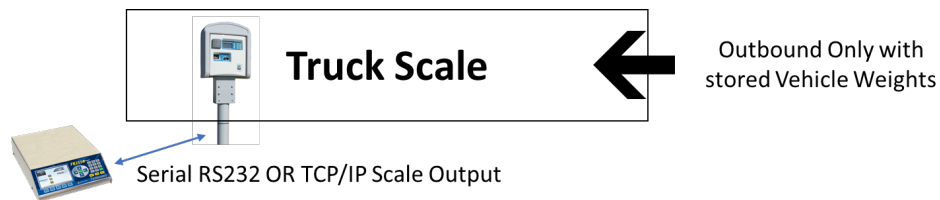
3. *Bi-directional traffic with a single scale and dual terminals.*

    - Each terminal is intended for either an inbound or outbound transaction.

TCP/IP scale received from opposite terminal.

Truck Scale

Bi-Directional Traffic

Serial RS232 OR TCP/IP Scale Output
TCP/IP scale output transmit to opposite terminal.
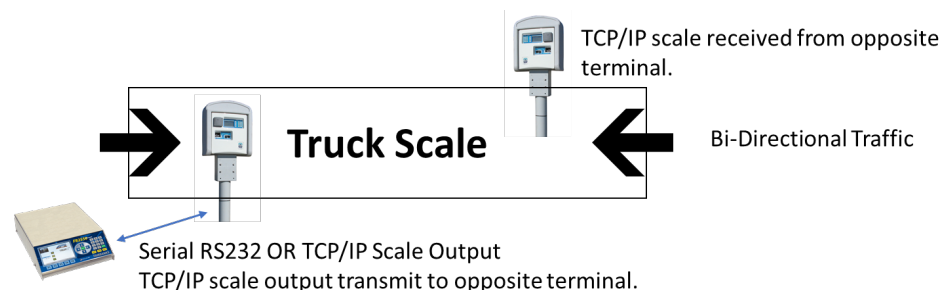
TYPICAL CONFIGURATION REQUIREMENTS FOR A SINGLE TERMINAL CONFIGURATION:

IO controlled Devices
Dry Contact Signals:
• Gates (output)
• Red/Green Light (output)
• Photo-Eye (positioning input)
• Loop Detector (positioning input)
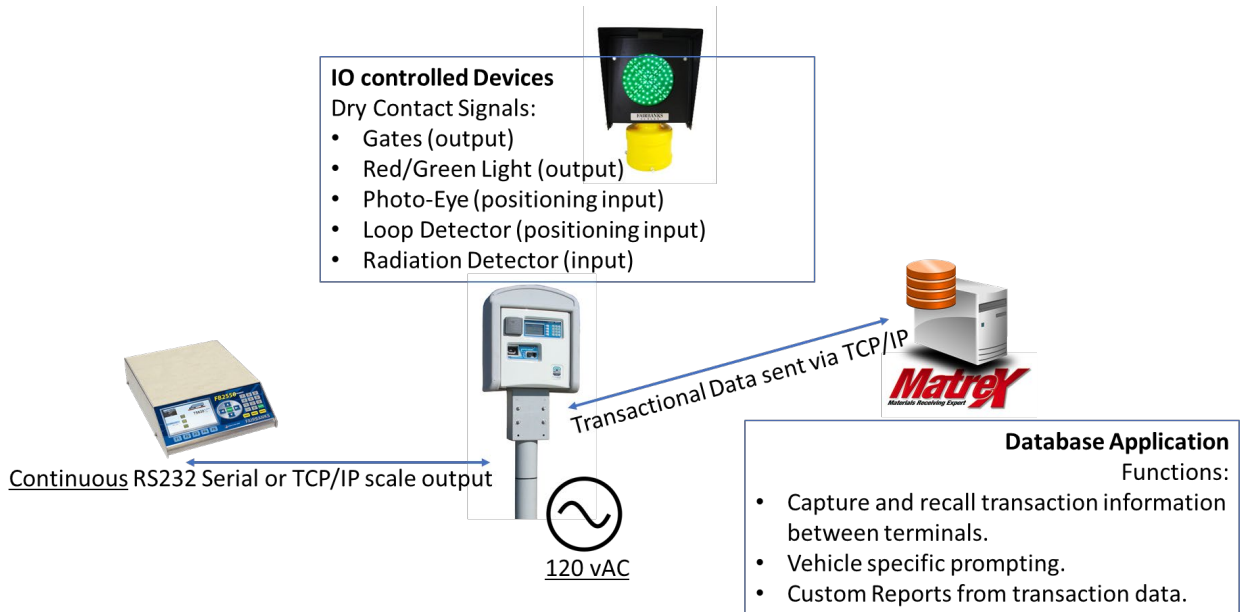• Radiation Detector (input)

Continuous RS232 Serial or TCP/IP scale output

Transactional Data sent via TCP/IP

120 vAC

Database Application
Functions:
• Capture and recall transaction information between terminals.
• Vehicle specific prompting.
• Custom Reports from transaction data.

• Terminal to Instrument	Cat5E if using Ethernet TCP/IP 3 Conductor cable for RS232
• Terminal to Database	Cat5E network cable
• Terminal to IO Control	2 conductor cable for Dry Contact and Relay Power

1.7.1. Access Network Interface Connections

SITE GATEWAY		
ACCESS	←CAT5 PATCH CABLE→ SITE GATEWAY ←CAT5 PATCH CABLE→	COMPUTER
COMPUTER		
ACCESS	CAT5 CROSSOVER CABLE →	COMPUTER
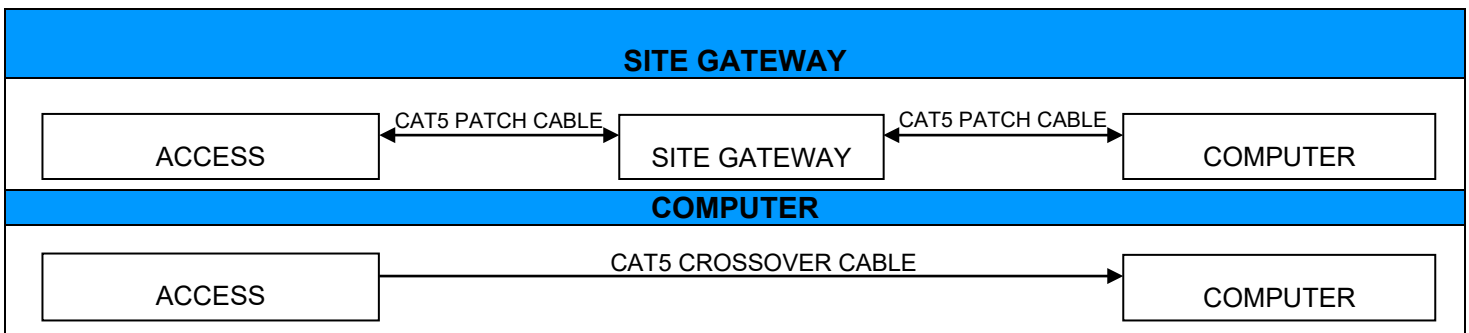
Access Interface Connections.

1.8. Software

*Access Software runs in the foreground as the main running application. This software is configured via a remote web browser.*

The software version is referenced on the web utility home page. As of this manual release the latest software is **1.09.21**. Software versions can be upgraded through 1 of 2 USB ports on the main communications board (see section that discusses this).

See section Updating Access Software for updating and backing up the Access Software.

1.8.1. Integrations

- Through solutions the FBAS system can support both SoftPak and Paradigm software.

- On a typical integration the system is accommodating an existing system.

- Knowing the expected behavior or Cycle of Operation is important to confirm desired behaviors, and to coexist with the existing software.
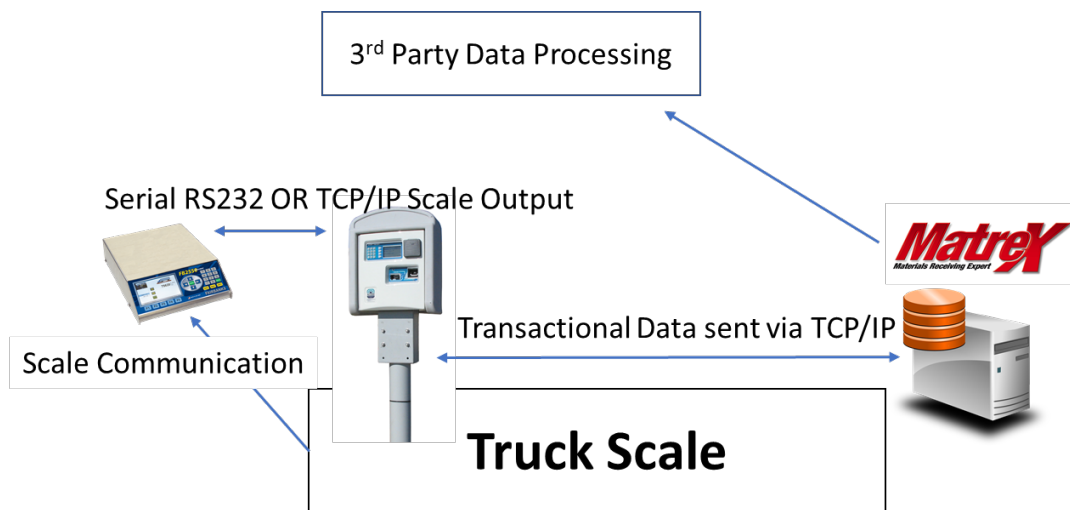
Section 2: COMPANY SERVICE INFORMATION

2.1. General Service Policy

Prior to installation, always verify that the equipment satisfies the customer's requirements as supplied, and as described in this manual.

- If the equipment cannot satisfy the application and the application cannot be modified to meet the design parameters of the equipment, **the installation should *NOT* be attempted.**

- Instructions within this manual apply to the instrument and its specific accessories. Installation procedures for printers and other peripherals are given in manuals specifically provided for those units. The instructions include a pre-installation checkout which must be performed either at the service center before the technician goes to the site, or at the site before he places the equipment in service.

- All electronic and mechanical calibrations and/or adjustments required to make this equipment perform to accuracy and operational specifications are considered to be part of the installation, and are included in the installation charge. **Only those charges which are incurred as a result of the equipment's inability to be adjusted or calibrated to performance specifications may be charged to warranty.**

- Absolutely no physical, electrical, or program modifications other than selection of standard options and accessories are to be made to this equipment. Electrical connections other than those specified may not be performed, and no physical alterations (mounting holes, etc.) are allowed and will immediately void warranty

All load cells, load cell cables, and all interconnecting cables used for the scale components **must be located a minimum of thirty-six inches (36") away** *from all single and multiple phase high energy circuits and electric current-carrying conductors.*

- This includes, but is not limited to **digital weight instruments, junction boxes, sectional controllers**, and **power supplies**.

- This includes any peripheral devices, such as **printers, remote displays, relay boxes, remote terminals, card readers**, and **auxiliary data entry devices**.

- Scale components themselves must also be at least **thirty-six inches (36") away** from other high energy components, including the following devices.
    - Any machinery with outputs of **120, 240**, or **480 volts AC**.
    - High voltage wiring runs and stations, AC power transformers, overhead or buried cables, electric distribution panels, electric motors, florescent and high intensity lighting which utilize ballast assemblies, electric heating equipment, traffic light wiring and power, and all relay boxes.

- Scale components are not designed to operate on internal combustion engine driven electric generators and other similar equipment.
    - This includes all digital weight Instruments and peripheral devices.

- Electric arc welding can severely damage scale components, such as digital weight Instruments, junction boxes, sectional controllers, power supplies, and load cells.
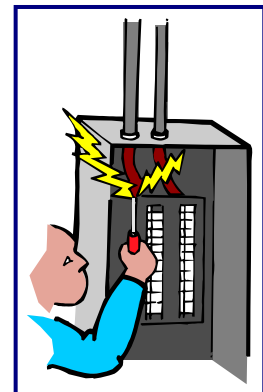
2.2. Users' Responsibilities

W A R N I N G !

Absolutely no physical, electrical or program modifications other than selection of standard options and accessories can be made by customers to this equipment

Repairs are performed by Fairbanks Scales Service Technicians and Authorized Distributor Personnel ONLY!

Failure to comply with this policy voids all implied and/or written warranties

✓ **All electronic and mechanical calibrations and/or adjustments required for making this equipment perform to accuracy and operational specifications should be performed by** *trained service personnel*.

✓ **Absolutely no physical, electrical or program modifications other than selection of standard options and accessories are to be made to this equipment.**

  – Electrical connections other than those specified may not be performed

  – Physical alterations, such as holes, etc., are not allowed.

Please call your local

FAIRBANKS SCALES REPRESENTATIVE

for any questions, problems, or comments.

SECTION 3: SECURITY, LOGINS & PASSWORDS

3.1. Levels of Security

The following describes all the security levels for accessing the FBAS. Most application changes can be made with the default owner account "Limited Account".

1. SECURITY TYPE MAINTENANCE

- **NO Terminal or Web Utility Access**
- **Default this is not an enabled state.**
- Used to quickly toggle mode to Maintenance Mode for service.
- Enter Service Code or Swipe Service Card access.
- Designed for terminal only access.

2. SECURITY TYPE ENTRANCE

- **NO Terminal or Web Utility Access**
- **Default this is not an enabled state.**
- Keypad Entry or Card.
- Tag or keypad entry used only to send pull forward/open gate command.
- No terminal or web utility access.

3. SECURITY TYPE STATUS USER

- **Default this is not an enabled state.**
- Service Code accessible from the terminal with full access.
- Web utility screens are the most restricted and used to verify status display of terminal and diagnostics.

4. SECURITY TYPE LIMITED USER*

- **Username: owner and Password: 12345**
- **DEFAULT USER**
- Service Code 12345 from the terminal
- Limits web utility screens to a subset of System Setup items and Diagnostics.

5. SECURITY TYPE SERVICE TECH

– **<u>Default this is not an enabled state.</u>**

– This is the second highest security level to Administrator.

– Items not allowed include User accounts, and previously supported Credit Card Reporting.

6. SECURITY TYPE ADMINISTRATOR

– This is the highest security level with access to all configurations and reports. If needed the Username and password is referenced in Service Manual.

– This account is only necessary for initial installation or modifying existing site configurations.

7. SERVICE ACCESS

– *All installation and programming responsibilities.*

SECTION 4:   GENERAL TERMINAL MAINTENANCE

4.1. Opening and Securing Access Entry Unit

Regardless of the options installed on your FBAS system, it will be necessary to regularly access the inside of the terminal (examples: change the printer paper.)

To open the unit, push up on bottom of security bar. This opens the fascia door. The keys and a key block device are in bottom of the terminal.

Lift up.
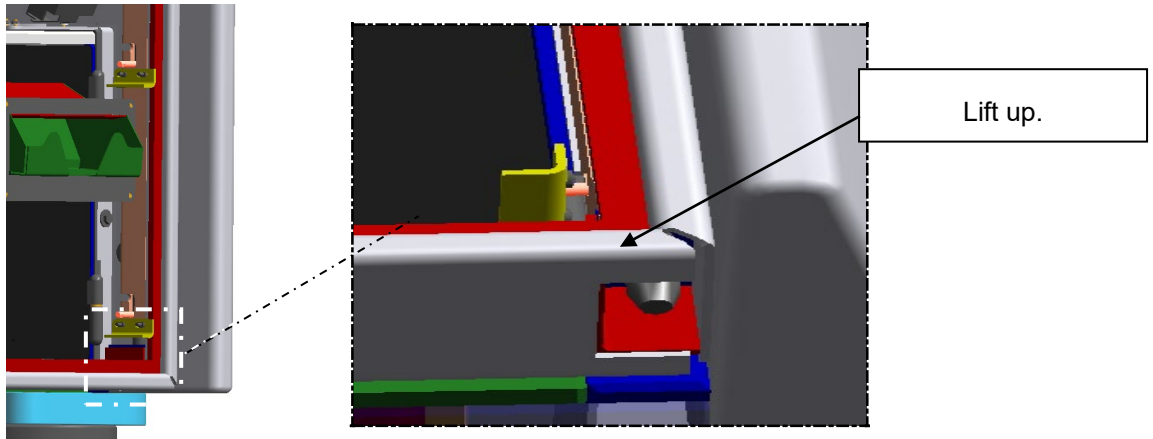
Secure Access Terminal

- To secure the Access Terminal, close the unit fascia door. Insert the key block locking device until it latches onto the security bar.

- Make note of the key tag # and have the customer record this, as well. This can be used to create a duplicate key if needed; reference appendix for further details.

The Access terminal comes with a padlock when inserted, locks and prevents opening the housing. For record keeping have the key tag # written down and stored.

If one or both keys are lost, the key tag# can be used to reorder keys for the exact lock.

Contact a local Fairbanks distributor or tech services at toll free 800-451-4581, press 2, press 1. (P/N 29997 with key tag# information).

4.2. Create Backup From USB Memory Stick

After successful installation and configuration of the site, it is good practice to back up the Access Terminal.

NOTE(S):

Using the navigation prompts will create a directory with the units' serial number then the data is stored inside it. This procedure allows multiple units to be backed up to a single USB jump drive. Restoration of files reflects on the serial number assigned to the unit.
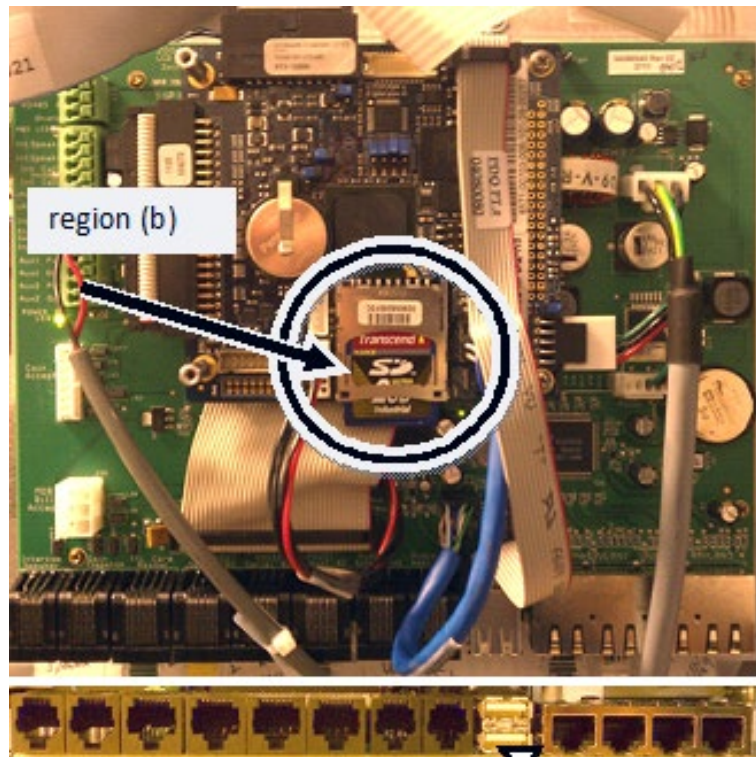

To perform a successful backup:

1. Place a USB drive in the USB connector on the communication board located in **region (a)**, then follow the screen prompts to backup files.

2. (**Optional**) If the Titan board requires replacement, remove the existing SD card **region (b)** and insert into the replaced board. If the SD card is undamaged, the version and configuration information will transfer over to the new board.

   If the SD card is damaged, a preloaded Titan card can be installed and updated using the USB drive.

3. Follow the navigation steps below from the "**Welcome**", location.

   From a successful power up, the first screen or state is the main state, "Welcome".

   Welcome >> Press *77* >> Press 12345 >> Press 2nd Key down >> Press 1ˢᵗ Key >> Press 7 >> Press 1 (for backup all data)
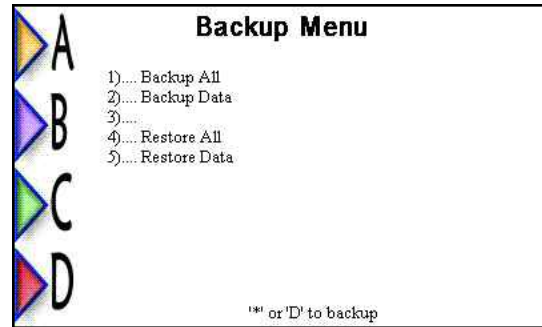
2.3. Create Backup from USB Memory Stick, Continued

4. Choose **Backup All** or **Backup Data**
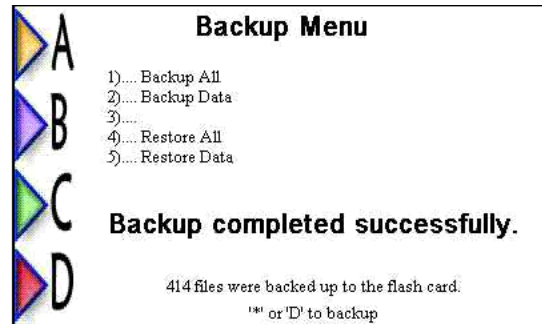
Backup All

All FBAS files copied from SD card to USB drive. Use this for a complete restore set.

Backup Data

Only the Data folder is copied to the USB drive. Contains only currently configured Terminal settings and log files.


Screen update after backup completed successfully. In the example Backup All was selected showing 414 files were backed up.

On successful backup, a folder will be either updated or created of AccessUnitBackups.

Each backup is based on the Serial Number configured to the terminal, so each terminal backup will generate a new folder with matching serial number on the USB drive.
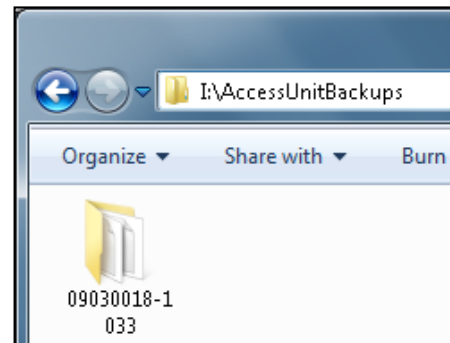
4.3. Restore from Backup Using USB Memory Stick

NOTE(S):

The USB memory sticks restore is only necessary if the SD card or software has been damaged. Otherwise all files pertaining to Access Terminal operations are contained on the SD card.

If the SD card and software is intact but a hardware replacement of the Titan board is necessary, then only move the existing SD card to the new board.

A successful restore requires the backup files to be stored in the AccessUnitBackups directory followed by the correct naming of the Serial Number.

With the USB memory stick inserted on the communications board, go to below navigation points.

Follow the navigation steps below from the "**Welcome**", location.

Verify the serial number on the unit is correct. If not, the restore will not correctly reference the backup.

To Verify the Serial Number:

1. Login to the service home screen: **Press *77*** >> **Press 12345** >>

2. Select **Setup**: Press **3rd arrow button**.

3. Set **Serial Number**: Press **2nd arrow button**.

4. View **Serial Number**, if correct **press '*'** otherwise modify and save.

5. Back out to the main Welcome Screen by continually pressing ***** till the Welcome Screen is seen.
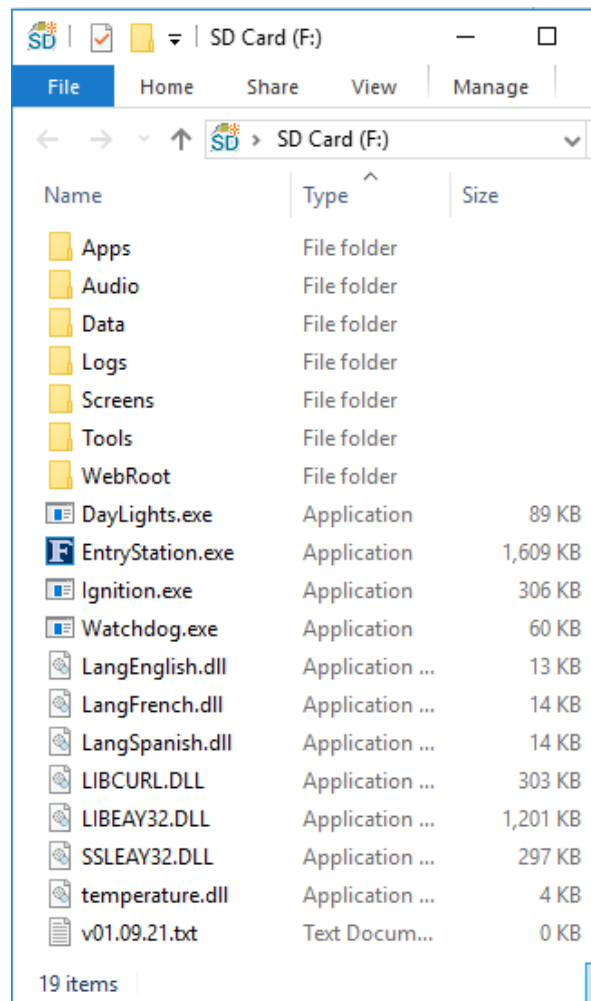
To Restore after Serial Number Confirmed:

1. Login to the service home screen: **Press *77*** >> **Press 12345** >>

2. Select Diagnostics: Press **2nd arrow button**

3. Tech Menu: Press **1st arrow button**

4. Backup Menu: Press **key 7**

5. Restore All: Press **key 4**

4.4. SD Card File Layout

To view the below files, a SD card reader is required. The purpose of the reader is to take a file update and place into the root (front directory, where no folders are above in file structure).

The below image shows the root folder directory, along with all required files and folders necessary to run the FBAS terminal application. The root is considered the base of the drive structure.

- If any files need to be replaced, it is necessary to replace them with clean copies of like versions.

- The version should be listed below as an empty text file.

- If multiple version files are present, it means that different software updates that have occurred from that version.

- The Data folder contains current settings and log files. Copying this file will help restore terminal specific settings.

Name	Type	Size
Apps	File folder	
Audio	File folder	
Data	File folder	
Logs	File folder	
Screens	File folder	
Tools	File folder	
WebRoot	File folder	
DayLights.exe	Application	89 KB
EntryStation.exe	Application	1,609 KB
Ignition.exe	Application	306 KB
Watchdog.exe	Application	60 KB
LangEnglish.dll	Application ...	13 KB
LangFrench.dll	Application ...	14 KB
LangSpanish.dll	Application ...	14 KB
LIBCURL.DLL	Application ...	303 KB
LIBEAY32.DLL	Application ...	1,201 KB
SSLEAY32.DLL	Application ...	297 KB
temperature.dll	Application ...	4 KB
v01.09.21.txt	Text Docum...	0 KB

19 items

4.5. Updating Access Software

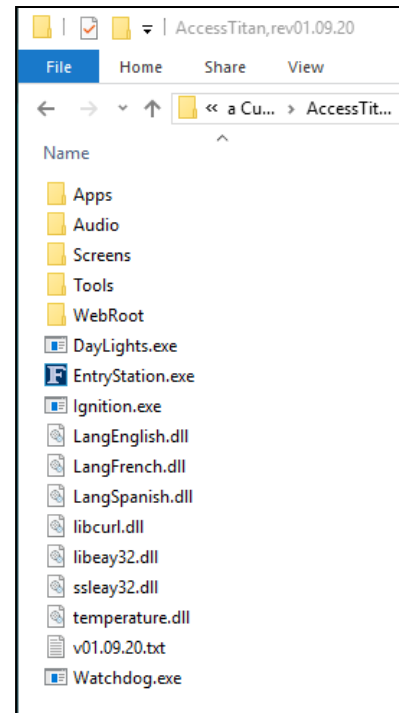Files can be updated using (3) possible methods.

- USB drive

- SD Card

- FTP.

Updates to the Access Software is distributed in a .zip format but may be renamed to allow sending through email. The standard file name conventions would be AccessTitan,rev01.XX.XX.zip.

Both the SD card and USB drive methods require placing the **extracted** files in the **root** or **top most** directory of the drive. If mounting either on a laptop, it will be the **first** view after opening the drive.

The side image shows an example of the **extracted** files of version 1.09.20. Make sure to place these files in the **specified** location per update method performed.

AccessTitan,rev01.09.20

File Home Share View

« a Cu... › AccessTit...

Name

- Apps
- Audio
- Screens
- Tools
- WebRoot
- DayLights.exe
- EntryStation.exe
- Ignition.exe
- LangEnglish.dll
- LangFrench.dll
- LangSpanish.dll
- libcurl.dll
- libeay32.dll
- ssleay32.dll
- temperature.dll
- v01.09.20.txt
- Watchdog.exe

4.5.1. To Update Using an SD Card

*Quick backup will be performed.

1. Provide a proper shutdown to the FBAS terminal.

    a. Proper shutdown entails a message on the main display stating System has shutdown. See: <u>Steps to Powerdown the Terminal</u> for detailed instructions.

    b. Physically remove power by turning off breaker located on back wall.

2. Locate SD card sleeve on Titan board and press inward to spring out.

3. Mount SD card on computer or external SD card reader.

4. With the drive mounted, locate the folder Data.

5. Select the Data folder and right-click to select copy.

6. Paste (Ctrl + V) this folder to a location on <u>your</u> hard drive (not the SD card)

    a. This will be the <u>current</u> backup of customer specific settings.

7. Extract the Software Update as described in <u>Updating Access Software</u> (above).

    a. From within the folder containing the files, Press Ctrl + A.

    b. All files should be selected

    c. Copy this folder (Ctrl + C)

8. **Open the SD card drive**, and from the **<u>root</u>** press Ctrl + V; this should paste from the clipboard.

9. Press Yes to "replace all" on File Replace request.

10. Properly remove the SD card from the PC when complete and place back in the FBAS terminal before powering back up.

11. A successful update should load back to the Welcome Screen.

12. Version checking can be done by

    a. Looking at the bottom right corner of the Welcome Screen.

   b. Pressing "?" from the Welcome Screen and selecting "System Info"

4.5.2. To Update Using an USB Thumb Drive

*Quick backup will be performed, selecting Data Only.

1. **Extract the Software Update** as described in <u>Updating Access Software</u>.

    a. From within the folder containing the files, select all the files (Press Ctrl + A). All files should be selected.

    b. Press Ctrl + C, to copy.

2. Place a clean **USB thumb drive into the computer**.

    a. Open the USB drive, press Ctrl + V to paste files to the root directory.

    The FBAS system looks at the top of the directory structure. Having a clean drive will eliminate any potential for unwanted files or folders.

3. Properly put the USB drive away.

4. Open the FBAS cabinet and **place the prepared USB thumb drive into 1 of 2 USB ports** on Communication Board* located on back wall.

5. Perform the quick backup procedure. *see section, <u>Updating Access Software</u> for full details.

    a. Diagnostics > Tech Menu > Backup Menu > Backup Data

6. Provide a **proper shutdown to the FBAS terminal**.

    a. Proper shutdown entails a message stating System has shutdown. You can turn power off now. See: <u>Steps to Powerdown the Terminal</u> for detailed instructions.

    b. Physically remove power by turning off breaker located on back wall.

7. Power the breaker back on with the USB drive still present. The screen should state updating the different files in the bottom center.

8. On completion, repeat step 6 to perform a clean shutdown.

9. Remove the USB drive.

10. Power the breaker back on again.

11. A successful update should load back to the Welcome Screen.

12. Version checking can be done by

    a. Looking at the bottom right corner of the Welcome Screen.

    b. Pressing "?" from the Welcome Screen and selecting "System Info"
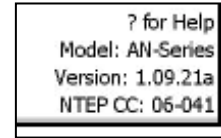

4.5.3. To Update Using a FTP Connection

*Quick backup will be performed.

1. Extract the Software Update as described in <u>Updating Access Software</u>

2. **Verify the FTP service is running** on the FBAS terminal. Logon to the FBAS terminal with the known IP address and logon using the admin user account.

3. Navigate to Diagnostics > System Management > Enable FTP service.

4. Launch the FTP application of choice and connect to the terminal using the already configured IP address. Once connected, logon as **Anonymous** and provide a random set of characters for a password.

5. The side image is from FTPWanderer.exe and shows the root of the FTP directory, as seen on initial connection.
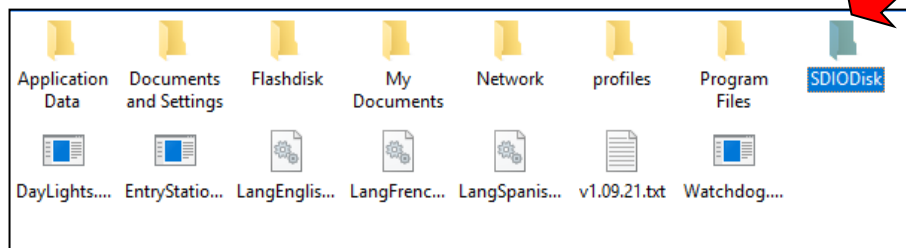
6. Open the **SDIODISK** as highlighted above.

7. Copy (Ctrl + C) the data directory to a local folder on your laptop.
   This is the quick backup procedure.

8. **Select all the extracted files and folders** as referenced in the main section and **drag and drop into the SDIODisk**. Select **YES** to confirm replace of files.

9. **Select a request system restart** from the web page.
   Select Diagnostics > Restart Tools > Request System Restart

10. **Log back on to the web utility** after the completed countdown. On the main Home Page, it should provide the updated software version.

    System Information
    Fairbanks Access Terminal
    Model AN-Series , Version 1.09.21
    NTEP Certification: 06-041

11. After the web page count down is complete, **verify a successful update log back on to the web utility** and should load back to the Welcome Screen.

4.6. Steps to Powerdown the Terminal

Powerdown instructions to be performed at the terminal.

- Shutting off the System is used for installing new hardware.

- Removing the SD Card for maintenance or software updates.

- Extended site outages where power needs to be completely removed.
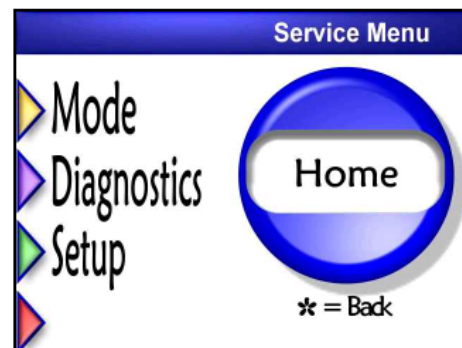
1. Start from Welcome Screen
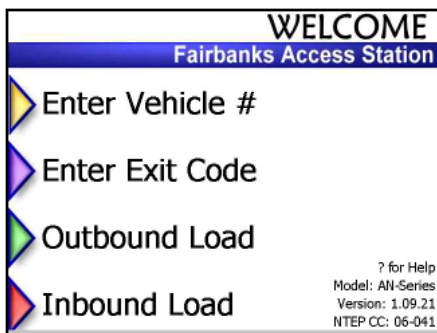
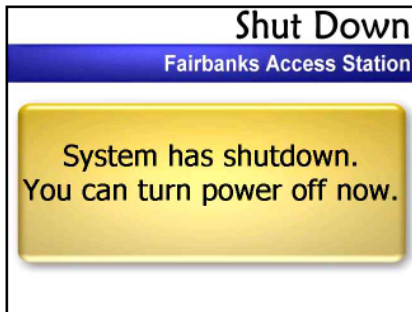2. Press *77*
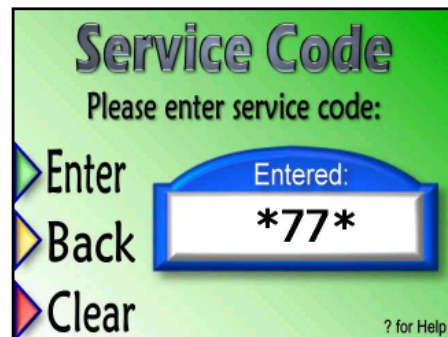
3. Enter User Code 12345

4. Select Diagnostics

5. Select Shutdown

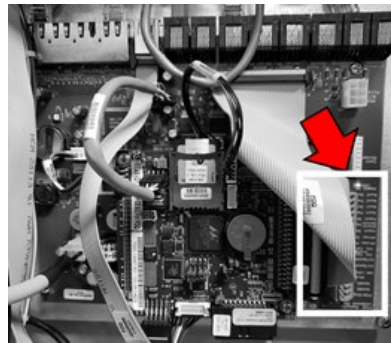6. Message system is shutting down

7. Message to turn off power

8. Turn off breaker in top left corner.

9. Locate D21 LED on controller board located on back wall. Power off terminal **AFTER t**he LED goes from a steady blink to a lapse of 5 seconds.

10. Resume power by turning breaker back on.

For extended maintenance cycles, locate and disconnect the power controller cable on the bottom left of the Controller PCB
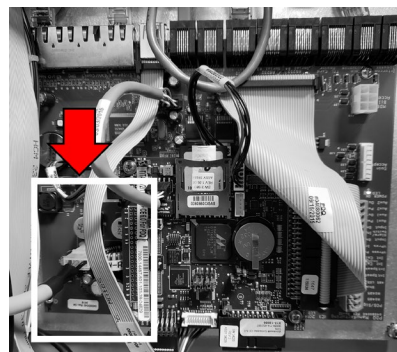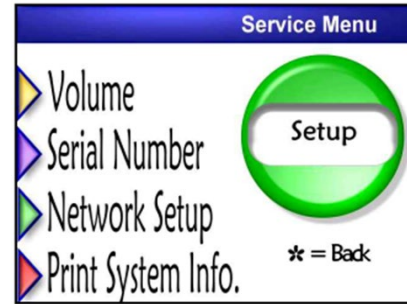
# 4.7. Replacing Paper in the Printer

STEPS TO CHANGING PAPER

The first item is placing the terminal into the Setup Mode, for maintenance.

1. To do this press ***77*** from the Welcome Screen

2. Enter the default User Code **12345**

3. Select **Setup**

4. The display should show **Setup**.

5. Remove the sticker from the paper roll and tear back the paper of any rough edges.

6. Lay the paper roll into the paper tray as shown in the illustration (right). The thermal sensitive surface should be outside or on top. A slight pulling up should easily unroll the paper counter clockwise.
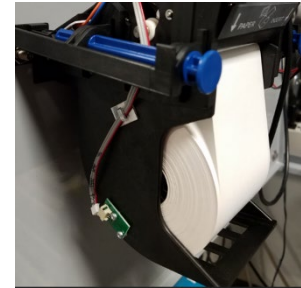
7. Insert the paper into the guide labeled **Insert Paper Here**.
After the sensor detects paper, it will automatically feed with excess exposed in the chute.

8. Tearing off the paper will show a successful test configuration page. To complete, follow **Step 6** to verify successful paper alignment.

9. Select option **Print System Info** from above.

    If paper is present it should print system specific information.

    • If aligned properly it should print normal text and font width. If so press * to go back to main Welcome Screen.

    • If not aligned it will shift to the left in smaller text. If so

        1. PRESS * once

        2. Select Diagnostics

        3. Select Reset Unit.

SECTION 5: ACCESS TERMINAL SCREENS DEFINED

This section shows navigational regions accessible as the default **owner** access account, along with the defining characters.

.

5.1. Home

Containing submenu items:

- Status Page
- Device Setup
- Reports Menu
- Diagnostics
- System Setup
- About

5.1.1. System Status Page

System Status Page displays Access Terminal information

Status Page

[Home]   [Show Preferences]

Ⓐ

WELCOME
Fairbanks Access Station

▶ Enter Vehicle #

▶ Enter Exit Code

▶ Outbound Load

? for Help
Model: AN-Series
Version: 1.09.21
▶ Inbound Load   NTEP CC: 06-041
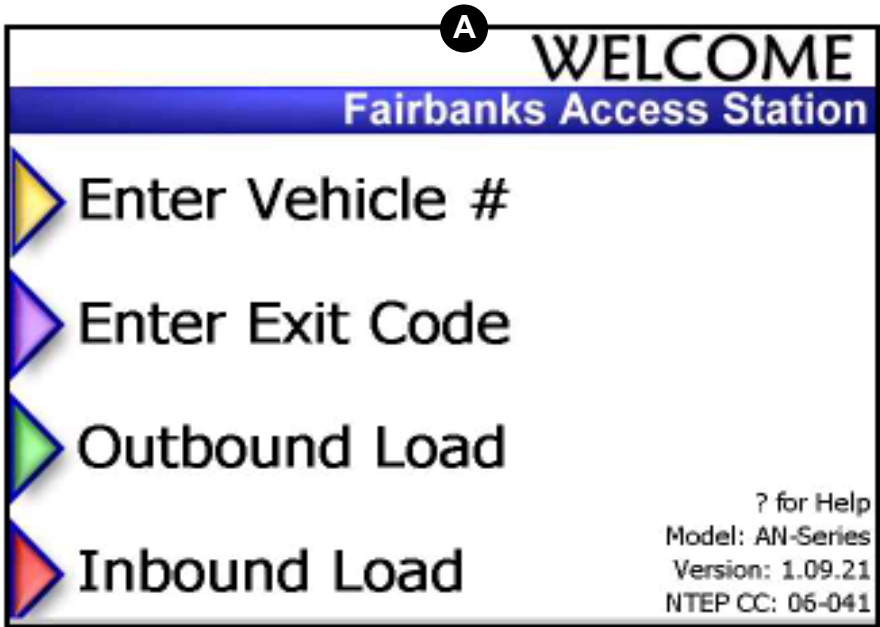
Ⓑ Scale: 200 lb Gross Valid

Ⓒ Status
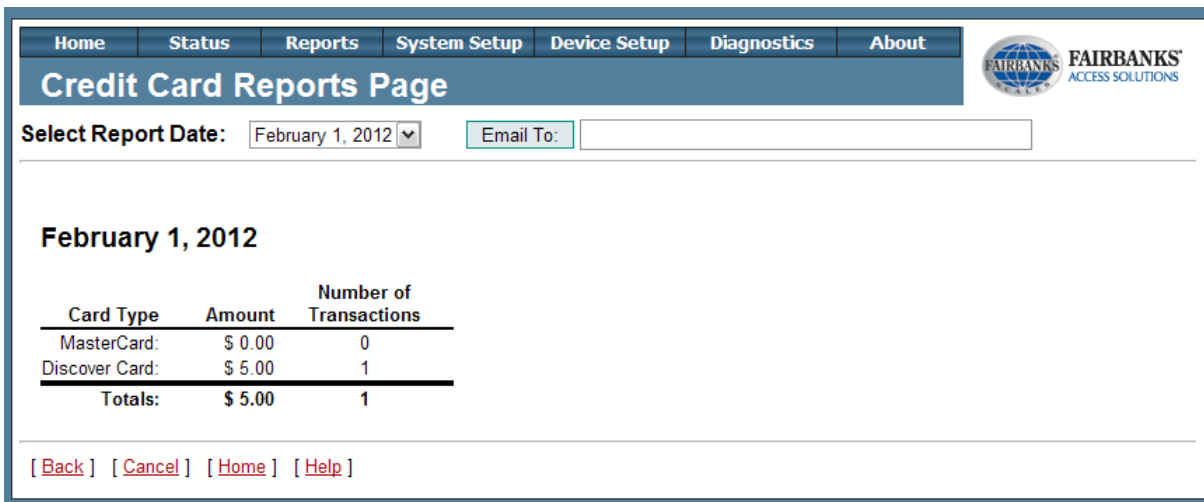April 16, 2019 1:07 PM
Screen File: WELCOME4
Unit Okay

Ⓐ Driver Screen "Welcome Screen", shown

Ⓑ Scale status shown when Scale Indicator is configured.

Ⓒ Status of Terminal: Unit Ok shown but can also be a starting place for troubleshooting errors.

5.1.2. Reports Page

The credit card report is a daily report that includes the number and type of credit card transactions that have occurred on individual terminals.

Home	Status	Reports	System Setup	Device Setup	Diagnostics	About

Reports Menu

Credit Card Reports

[Back]

Home	Status	Reports	System Setup	Device Setup	Diagnostics	About

Credit Card Reports Page

Select Report Date: February 1, 2012 ⌄   Email To:

February 1, 2012

Card Type	Amount	Number of Transactions
MasterCard:	$ 0.00	0
Discover Card:	$ 5.00	1
Totals:	**$ 5.00**	**1**

[Back]   [Cancel]   [Home]   [Help]

NOTE(S):

The Credit Card Reports page only reflects each individual Access terminals transactions. If there are multiple Access terminals, then a better practice is using the credit card reports from the credit card processing agent Authorize Net or running custom reports from MatreX.

5.1.3. System Setup Menu

The below page contains the System Setup menu of the FBAS unit. The subsection describes all of the contents currently on the Access Terminal software.

Home	Status	Reports

System Setup Menu

Date and Time Setup - Set the system date/time and time servers

Email Server Setup   - Setup and test email (SMTP) connectivity

Email Subscriptions - Setup and maintain email notifications

Hours of Operation   - Configure the hours of operation

Payment Setup   - Configure payment settings

Ticket Setup   - Customize the printed ticket

Timeouts Setup   - Setup various timeouts and delays

Units of Measure   - Setup units of measure (abbreviations, precision, etc)

[Back] [Home]

5.1.4. Diagnostics

The Diagnostics Menu contains viewing, event controlling, and certain command tools to the Access Terminal.

Home	Status	Repo

Diagnostics Menu

Audio Diagnostics	- Test various system and application sounds
Credit Card Logs	- View credit card proccessing logs
I/O Diagnostics	- View and control inputs and outpus
Keypad Control	- Remotely control terminal's keypad
Network Diagnostics	- View network information and Ping utility
Diagnostic Options	- Miscellaneious diagnostic options
Restart Tools	- Tools for restarting parts of the system
Screen Viewer	- Scrolls through the screen image files
System Logs	- View logs of important events and errors
Transaction Cache	- View and delete the transaction cache

[Back] [Home]

5.1.5. About Page

The About Page contains system information including: installed version, enabled features, and model/ software versions for various devices.

About Page

System Information

Apr 16, 2019   1:39 PM
FBAS Access (MatreX Client)
Model: AN-Series , Version: 1.09.21
Image Revision: Titan rev 3
NTEP Certification: 06-041
Serial #: 090300180942a
Copyright © 2019 Fairbanks Scales Inc. All rights reserved
821 Locust Kansas City, MO 64155

Configuration **Model:** Binary	version:	10916
Audio **Model:** Normal	version:	1.00
Screen **Model:** Color LCD	version:	640x480
Card Reader **Model:** None	version:	None
Comm Board **Model:** Titan	version:	51
Printer **Model:** Hengstler C56	version:	3.2.0
Display **Model:** FB 1600	version:	NA
Matrex **Model:** Matrex	version:	110
Scale **Model:** Generic	version:	1.2
Sign **Model:** Access	version:	1.0
Internal IO **Model:** PDQ Comm/Hub	version:	NA
Auxilary IO **Model:** PDQ IO Node	version:	1.0
Temperature **Model:** Comm Board	version:	NA

W3C XHTML 1.0   W3C CSS

System Resources

Physical Memory   (50.16% free)
Total: 35.68 MB
Used ■:   17.78 MB
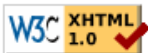Free ■:   17.90 MB

Virtual Memory   (99.86% free)
Total: 1024.00 MB
Used ■:   1.44 MB
Free ■:   1022.56 MB

Volatile Storage   (17.11% free)
Total: 8.45 MB
Used ■:   7.00 MB
Free ■:   1.45 MB

Internal Storage   (49.76% free)
Total: 14.40 MB
Used ■:   7.23 MB
Free ■:   7.16 MB

Internal Storage Card   (98.29% free)
Total: 1908.72 MB
Used ■:   32.69 MB
Free ■:   1876.03 MB

Removable Storage USB   (0.00% free)
Total: 0.00 MB
Used ■:   0.00 MB
Free ■:   0.00 MB

5.2. System Setup

The System Setup menu of the FBAS terminal controls the software specific settings. The subsection contains usage and definitions for site specific use.

System Setup Menu

Date and Time Setup	- Set the system date/time and time servers
Email Server Setup	- Setup and test email (SMTP) connectivity
Email Subscriptions	- Setup and maintain email notifications
Hours of Operation	- Configure the hours of operation
Payment Setup	- Configure payment settings
Ticket Setup	- Customize the printed ticket
Timeouts Setup	- Setup various timeouts and delays
Units of Measure	- Setup units of measure (abbreviations, precision, etc)

5.2.1. Date and Time Setup

Date and Time Setup Page allow for selecting the server name and IP address specific to the time zone.

The terminal uses the SNTP protocol to get time from the time servers.

The system will always try to use the first server in the list. If that one fails it will try the next in the list until one works or the list runs out.

If **the terminal is not keeping time correctly**, an internal time server may need to be added to the list. Contact the sites IT dept. to get the name or IP address of the time server and replace the first entry in the list.

Date and Time Setup Page

Date and Time Ⓐ

Current: 9-19-2011, 9:29 AM

Date (mm/dd/yy): 9 ▾ 19 ▾ 2011 ▾
Time (hh:mm): 9 AM ▾ 29 ▾
Time Zone: Central Standard Time ▾

Update Time Ⓑ

Current Time Drift: 0.2 seconds

[Update Time]

Time Servers Ⓒ

Server Name	IP Address	Port	Location	Status
nist1-ny.ustiming.org	64.90.182.55	123	New York City, NY	
nist1-pa.ustiming.org	206.246.122.250	123	Hatfield, PA	
nisttime.carsoncity.k12.mi.us	66.219.116.140	123	Carson City, Michigan	
time-c.timefreq.bldrdoc.gov	132.163.4.103	123	NIST, Boulder, Colorado	

[Show More]   [Set Defaults]   List of Internet Time Servers   [Test]

[Submit]

Ⓐ **Date and Time**

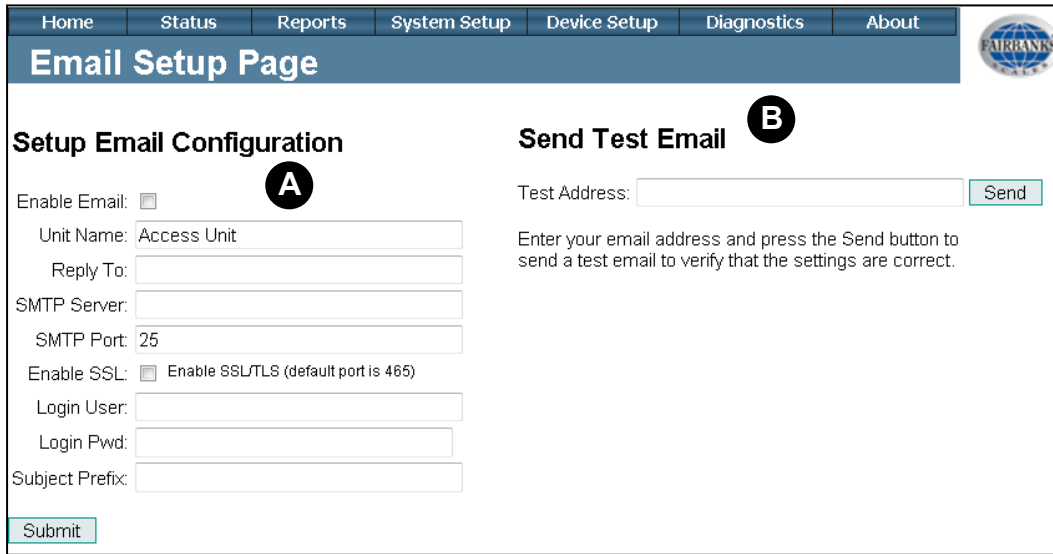- Set manually using the drop-down options: Current time, Set Date, Set Time, Set Time Zone.

Ⓑ **Time Servers**
- Server Name- required host name of NTP time server
- IP Address- if DNS isn't used then it is required, otherwise use for robustness
- Port- default NTP service is on 123
- Location- optional, describes location
- Status- after clicking Test it will show the state of the server test
- Show More- shows more time servers to choose from
- Set Default- sets the current time servers as the new default list
- Test- runs test against all time servers in list

Ⓒ **Update Time**

- Update time will correct any current time drift that may be in the status

5.2.2. Email Server Setup

A Email Configuration
- **Enable Email:** If checked unit sends status of unit dependent on subscription type.
- **Unit Name:** Unique name to identify the specific unit in email.
- **Reply To:** Recipients will send to this email if replying to email.
- **SMTP Server:** Email server address used for the unit to pass thru.
- **SMTP Port:** The default port is 25 but can be altered if necessary.
- **Subject Prefix:** Title of the email going to the sender

B Test Email

- **Test Address:** After successful configuration, test by sending to a test email address

- If the test email transmission is sent successfully, the following message appears:

Results: Sent email for 'Test Email'

- If the test email transmission fails, the following message appears:

Error: Failed to send email for 'Test Email'. Reason: Functions gethostbyname## or gethostbyaddr## failed.
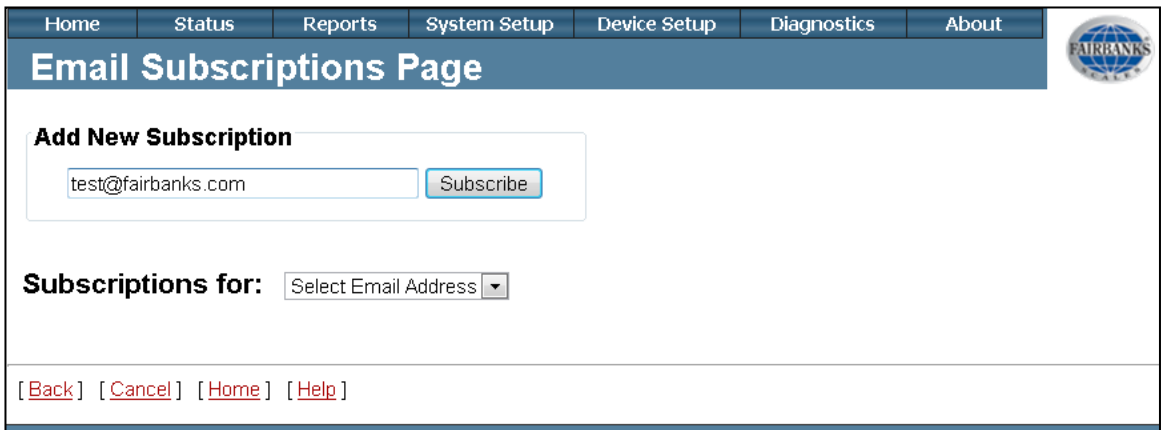
Possible causes to this specific error:

- Incorrect entry in SMTP server

- If SMTP server is by name, verify DNS is working under Network Setup Page
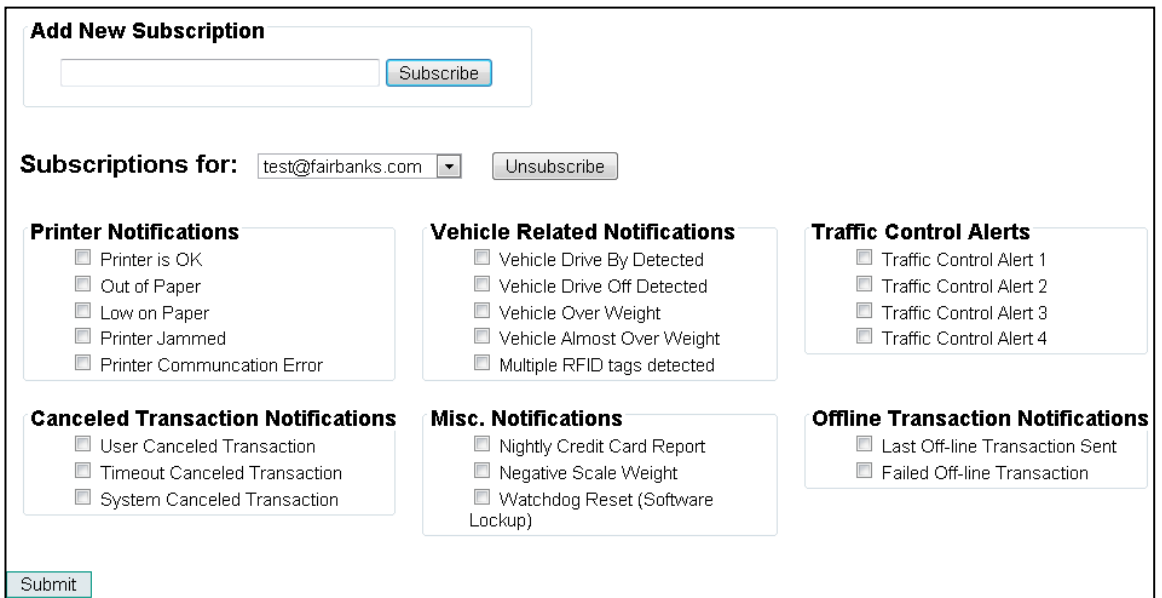
5.2.3. Email Subscriptions

Email Subscriptions provide a way for users to setup email notifications for various types of events that can occur at the terminal.

To add a new email subscription, first enter the email address, then click subscribe. Otherwise, select an existing email address from the list.

The following screen shows a list of notifications available to each subscriber.
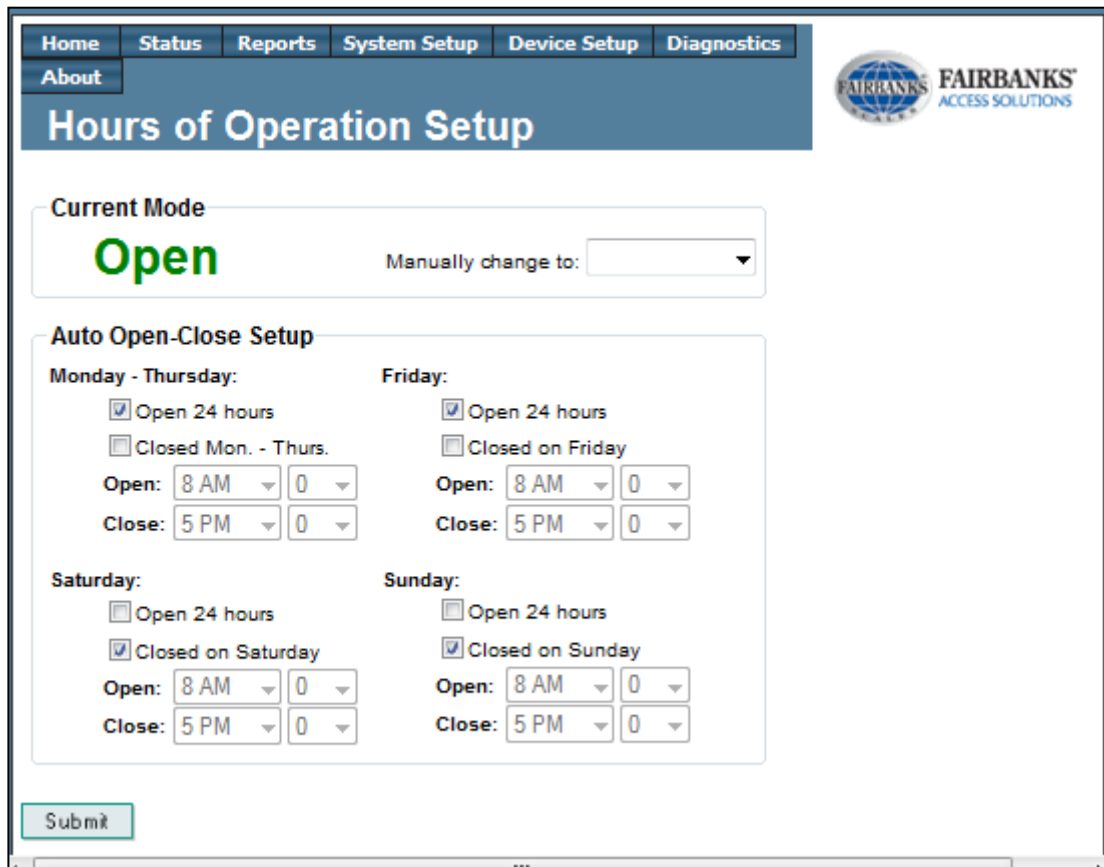
After selecting from the list of checkboxes, click on submit. To select from different subscribers, click on the drop down next to "Subscriptions for:"

5.2.4. Hours of Operation Setup

Hours of operation controls when the Access Terminal is available for transactions. Below are four options that can be toggled:

- **Open:** The terminal is always open and allows transactions. This is the default state.

- **Closed:** The terminal is always closed and does not allow transaction.

- **Maintenance:** The terminal is closed and any traffic gates (configured on Traffic Control page) are opened. No transactions are allowed.

- **Auto Open-Close**: When in this mode the terminal can automatically close each night and open each morning. When turned on, user may setup system to automatically close (not allow transactions) and open (always allow transactions).

5.2.5. Payment Setup

Payment Setup Page

Payment Options

Inclusive Minimum Fee: ☐
Fixed Rate Ranges are Min Fees: ☐
Enable Payment Diagnostics: ☐

- **Inclusive Minimum Fee:** Normally, any additional surcharges are added onto a minimum fee. If this option is enabled, the minimum fee is reduced to so that the additional surcharges, and the reduced minimum fee will equal the desired minimum fee.

- **Fixed Rate Ranges are Minimum Fees:** When this option is enabled, rate ranges that are have on a fixed rate, the fixed rate will be treated as a minimum fee.

- **Enable Payment Diagnostics:** This option should only be on when troubleshooting payment calculations.

5.2.6. Scale Ticket Setup

Scale Ticket Setup determines when a scale ticket prints and what information to contain.

Print Options

- **Print Account Ticket:** Controls when a scale ticket will be printed for vehicles that have an account in MatreX. Options are: **Never**, **Always**, and **On Completion (default)**. On Completion means that for a vehicle that weighs in and out, a scale ticket is only printed on the weigh out stage (when the transaction is completed).

- **Print Off-line Ticket:** Controls when a scale ticket will be printed for transactions that are off-line. Options are: **Never**, **Always (default)**, and **On Completion**. On Completion means that for a vehicle that weighs in and out, a scale ticket is only printed on the weigh out stage (when the transaction is completed).

- **Print Cash Ticket:** Controls when a scale ticket will be printed for transactions that were paid for in cash. Options are: **Never**, **Always (default)**, and **On Completion**. On Completion means that for a vehicle that weighs in and out, a scale ticket is only printed on the weigh out stage (when the transaction is completed).

3.2.9. Scale Ticket Setup, Continued

- **Print Credit Card Ticket:** Controls when a scale ticket will be printed for transactions that are paid for with a credit card. Options are **Never**, **Always (default)**, and **On Completion**. On Completion means that for a vehicle that weighs in and out, a scale ticket is only printed on the weigh out stage (when the transaction is completed).

- **Transaction / Ticket Number Label:** The user can customize the label used for the transaction or ticket number printed on the ticket. **The default value is Ticket #**.

- **Print Hauler:** If checked, the name of the hauler name (owner of the vehicle) will be printed on the scale ticket

- **Print Vehicle:** If checked, the vehicle ID will be printed on the scale ticket. This is the Vehicle ID in MatreX, not the ID that the driver used to start the transaction.

- **Print Selected Items:** If checked, the names of all the selected items from the prompts will be printed on the scale ticket.

- **Print Transfer ID:** The transfer ID is a number generated by the terminal based on the serial number and the current date/time.

- **Print CC Pre Auth Data:** When enabled, any pre-authentication data (amount, authorization code, transaction id) will be printed for credit card transactions. This only applies to the pre-authentication phase of the transactions (weigh in stage).

- **Print Signature Line:** When enabled, a line on the ticket will be printed to allow the driver to sign the ticket.

- **Print Rate Details:** When enabled, additional rate information for any selected item will be printed as well.

- **Print Net Weight in Both:** If enabled, the net weight will be printed in both units (pounds and tons or kilograms and metric tons).

3.2.9. Scale Ticket Setup, Continued

- **Print MatreX Units:** Requires additional setup on Units of Measure Setup, see section (3.2.13), and additional MatreX manual #51227.

  - Allows printing up to 4 custom units specific to a material type.

These units are user defined units of measure from MatreX. Be sure to setup the precision to use when printing values in these units.

The ID's for the units from MatreX will be needed.

The following settings are for MatreX units. The name and abbr. will come from MatreX, but the precision will not. Enter the ID number of the unit from MatreX and the desire precision.

	Unit ID	Precision
MatreX Unit ID 1:		0
MatreX Unit ID 2:		0
MatreX Unit ID 3:		0
MatreX Unit ID 4:		0

- **Ticket Header:** There is approximately 22 characters per line limit and allows for 4 lines. Each printed at the top of the scale ticket.

- **Ticket Footer:** There is approximately 22 characters per line limit and allows for 4 lines. Each printed at the bottom of the scale ticket.

- **Off-line Note**: Printed at the bottom (before the footer) of the scale ticket when the transaction was offline.

- **Refund Note**: Printed at the bottom (before the footer) of the scale ticket when a cash refund could not be given.

5.2.7. Timeout and Delay Setup

Timeouts Setup Page

Input Screen Timeouts

Enter Number:	2m
Item Selection:	2m
Payment Selection:	2m
Insert Card:	2m
Insert Money:	2m
Read Message:	30s
Empty Load:	2m
Empty Mixed Load:	2m
Confirm Weight:	2m
Prompt for Start of Transaction:	1m

Non-Input Screen Timeouts

Get Weight:	30s
Display Weight:	5s
Print Ticket:	10s
Take Ticket:	5s
Pull Forward:	5s
Cancel:	5s
Take Refund:	5s
Take Change:	5s

Long Range RFID Tag Detection

These two durations control how the system handles detecting the same long range RFID tag just after a transaction was completed successfully with that tag. See the help for complete details.

Ignore Last Long Range RFID Tag:	1m
Prompt for Transaction Start:	Off

Flow Meter Timeouts

Cancel Timeout:	Off
Done Pumping Timeout:	3s
Auto Complete Timeout:	15m

Input Screen Timeouts:

- **Enter Number**: Timeout value for states that enter numbers

- **Item Selection**: Timeout value for states that allow selection of information

- **Payment Selection**: Timeout value for the select payment screen (**Not Used**)

- **Insert Card**: Timeout value for states with account or (credit cards-**Not Used**)

- **Insert Money**: Timeout value for states that accept cash (**Not Used**)

- **Read Message**: Timeout value for messages displayed to customer

- **Empty Load**: Timeout value for empty load (tare weight) prompt

- **Empty Mixed Load**: Timeout value for empty mixed prompt

- **Confirm Weight**: Timeout value for confirm weight screen, 0 sets an indefinite amount of time up to 5min

- **Prompt for Start of Transaction**: Timeout value for the screen that prompts the driver if he wants to start another transaction. This screen is associated with detecting the last long-range RFID tag after a transaction was completed with that tag. See the Long-Range RFID Tag Detection section for more details

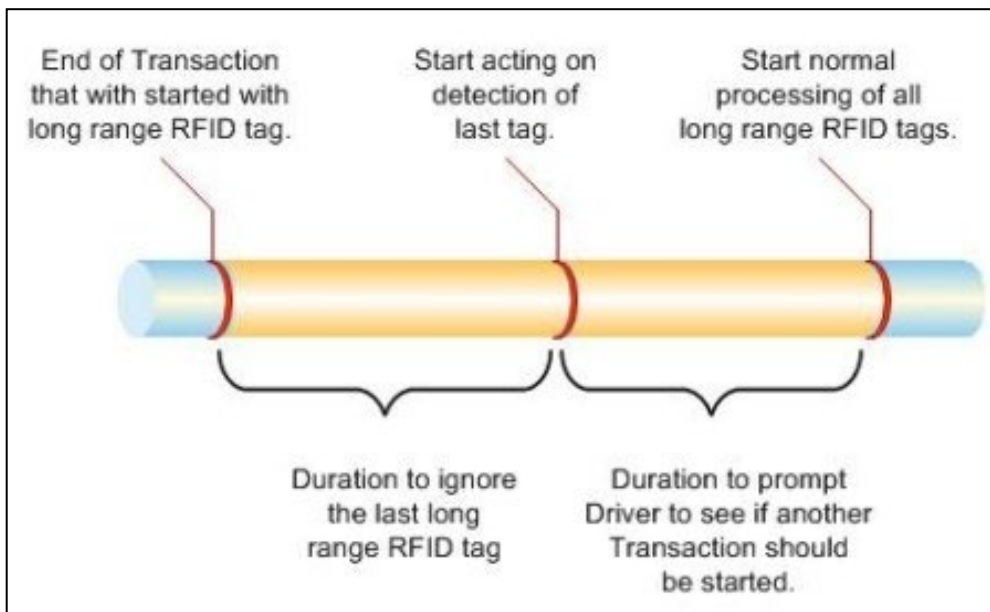# *3.2.13. Timeout and Delay Setup, Continued*

Non-Input Screen Timeouts

- **Get Weight**: Timeout for the get weight screen. Normally, as soon as the weight is read from the scale data, the system will advance to the next screen. This timeout will only be used if there is an issue with the scale data. The most often cause of delay is motion on the scale. There will be a message on the screen when motion is detected. To speed this process up, you can reduce the required readings setting in the Scale Setup page on the Device Setup menu. Confirm there is a motion status if the required reading is set to 1 (the default is 3).

- **Display Weight**: Timeout for the display weight screen. This timeout is only used when displaying the weight not confirming the weight.

- **Print Ticket**: Timeout for the printing scale ticket screen. This screen will advance to the next state once printed is completed. A longer timeout is only a safety net or for displaying an error.

- **Take Ticket**: Timeout for the take scale ticket screen. This screen can be skipped by setting the timeout to **Off**.

- **Pull Forward**: This timeout only applies if the Traffic Control feature is not enabled. If Traffic Control is enabled, this screen is displayed for as long as a vehicle is detected on the scale (detected by weight and possibly sensors if configured).

- **Cancel**: Timeout value for 'cancel' screen.

- **Take Refund**: Timeout value for 'take refund' screen.

- **Take Change**: Timeout value for 'take change' screen.

3.2.13. Timeout and Delay Setup, Continued

Long Range RFID Tag Detection

These settings control how the system handles detecting the same long-range RFID tag just after a transaction was completed successfully with that tag.

- **Ignore Last Long-Range RFID Tag**: Duration for which the system will ignore a long-range RFID tag that matches the long-range RFID tag that was used on the last transaction. This duration starts just after the transaction ends. See the timeline below. For example, when a vehicle with an RFID tag completes a transaction, the vehicle will start to drive off the scale. But while driving off, the RFID tag might still be read by the reader. In this case, the ID should be ignored, because the vehicle just completed its transaction. But if the vehicle remains on the scale for some time, that may indicate that the driver wishes to start the transaction again. This setting will determine the amount of time the system will ignore the same long-range RFID tag after the end of the transaction.

- **Prompt for Transaction Start**: Duration for which the system will prompt the driver if another transaction should be started. So, if the last long range RFID tag is detected again during this duration, the driver will have the option of starting a transaction. This duration starts after the duration of ignoring the tag ends.

End of Transaction that with started with long range RFID tag.

Start acting on detection of last tag.

Start normal processing of all long range RFID tags.

Duration to ignore the last long range RFID tag

Duration to prompt Driver to see if another Transaction should be started.

3.2.13. Timeout and Delay Setup, Continued

Flow Meter Timeouts

- **Cancel Timeout**: When the volume screen is displayed and no volume was recorded by the flow meter, the transaction will be canceled after this timeout expires. Default is OFF. Be sure to allow enough time for the driver to move the truck and connect hoses, if this option is ON.

- **Done Pumping Timeout**: Once flow is detected by the meter; the system will not allow the driver to complete the transaction if there is flow. Often at the end of pumping, the flow will go to zero and then start up again. This timeout will keep the system in this state for the configured number of seconds. Default is 15 seconds.

- **Auto Complete Timeout**: After the flow has stopped and the **Done Pumping Timeout** has expired, the driver can then complete the transaction. If the transaction is not completed, it will be automatically completed when this timeout expires. Default is None.

5.2.8. Units of Measure

This page configures the name, abbreviation, and precision of weight types.

The MatreX unit feature allows multiple custom units of measure to be used reflected upon the settings in MatreX.

The Unit ID is specific to the 'id' given from the MatreX web application.

Home	Status	Reports

Units of Measure Setup Page

Unit	Name	Abbr	Precision
Pound:	Pound	lb	2
Kilogram:	Kilogram	kg	2
Ton:	Ton	tn	2
MTon:	Metric Ton	mt	1
Gallon:	Gallon	gal	1
Liter:	Liter	l	0

The following settings are for MatreX units. The name and abbr. will come from MatreX, but the precision will not. Enter the ID number of the unit from MatreX and the desire precision.

	Unit ID	Precision
MatreX Unit ID 1:	52	3
MatreX Unit ID 2:	51	2
MatreX Unit ID 3:		0
MatreX Unit ID 4:		0

Submit

[Back] [Cancel] [Home] [Help]

5.3. Diagnostics Menu

The Diagnostics Menu contains viewing, event controlling, and certain command tools to the Access Terminal.

The following section contains the following pages:

- Audio Diagnostics
- Keybad Control
- Restart Tools
- System Management
- Credit Card Logs
- Network Tools
- Screen File Viewer
- Transaction Cache
- Inputs/Outputs
- Diagnostic Options
- System Logs

5.3.1. Audio Diagnostics

To test audio output on the Access Terminal, select any one of the labeled buttons on the Audio Diagnostics page to play on terminal.

Audio Diagnostics Page

Press the buttons to play the audio file   Note: Audio will be played on the Access unit.

asterisk.wav	AUTHORIZING.wav	PAYMENT METHOD 02.wav	WELCOME.W
close.wav	CANCELLED.wav	PLEASE WAIT.wav	ZERO.wav
critical.wav	INSERT MONEY 02.wav	PROCESSING.wav	AUTHORIZING
default.wav	CARD DETAIL.wav	PULL FORWARD.wav	AUTHORIZING
empty.wav	CASH DETAIL.wav	RE-ENTER CODE.wav	CANCELLED 0
exclam.wav	EIGHT.wav	PAYMENT METHOD 03.wav	CANCELLED 0
infbeg.wav	INSERT MONEY 03.wav	SELECT LANGUAGE.wav	CARD DETAIL 0
infend.wav	NINE 02.wav	SEVEN.wav	CARD DETAIL 0
infintr.wav	NINE 03.wav	SILENCE.wav	CASH DETAIL 0
menupop.wav	FIVE.wav	SIREN.wav	CASH DETAIL 0
menusel.wav	FOUR.wav	SIX.wav	EIGHT 02.w
openprog.wav	INSERT CARD.wav	Step3.wav	EIGHT 03.w
question.wav	ONE 02.wav	TAKE CHANGE.wav	FAILED 02.w
startup.wav	ONE 03.wav	TAKE RECEIPT.wav	FAILED 03.w
windmax.wav	INSERT MONEY.wav	THREE.wav	FAILED.wa
windmin.wav	NINE.wav	TWO.wav	FIVE 02.wa
	ONE.wav	PLEASE WAIT 02.wav	FIVE 03.wa

5.3.2. Credit Card Logs

This section displays credit card logs for the past 30 days. Every message to and response from the credit card process is logged.


```
Credit Card Logs Page

Select Log Date:   All logs        ▼      Email To:

02-20-2012

02-20-2012 10:51:03
Authorize and Capture for 3.00.
Transaction ID: 0
Authorization Code: 000000
Card Holder: ██████████
Card Number: **********
Card Type: Discover Card
Response: (TESTMODE) The market type is invalid
Details: The market type is invalid. The value submitted in x_market_type did not match the configured value.

02-20-2012 10:51:17
Void for 0.00.
Transaction ID: 0
Authorization Code: 000000
Card Holder: ██████████
Card Number: **********
Card Type: MasterCard
Response: (TESTMODE) The market type is invalid
Details: The market type is invalid. The value submitted in x_market_type did not match the configured value.
```

5.3.3. I/O Diagnostics

Section monitors and controls the IO of the system and any remote IO sources to troubleshoot IO.

SIMPLE MODE

IO Diagnostics Page

Current Status Local IO ▾ Ⓐ

Refresh every 1 ▾ seconds. Ⓑ

Temperature   **Outputs**
88° F   OFF : Output 1
Ⓒ
Inputs   OFF : Output 2
OFF : Input 1   OFF : Output 3
OFF : Input 2   OFF : Output 4
OFF : Input 3   OFF : Output 5
OFF : Input 4   OFF : Output 6
OFF : Vehicle Sensor OFF : Output 7
OFF : Spare Input   OFF : Output 8
OFF : Door Open   OFF : Output 9*
                     ON : Output 10*
                     OFF : Intercom Relay

Control Output States

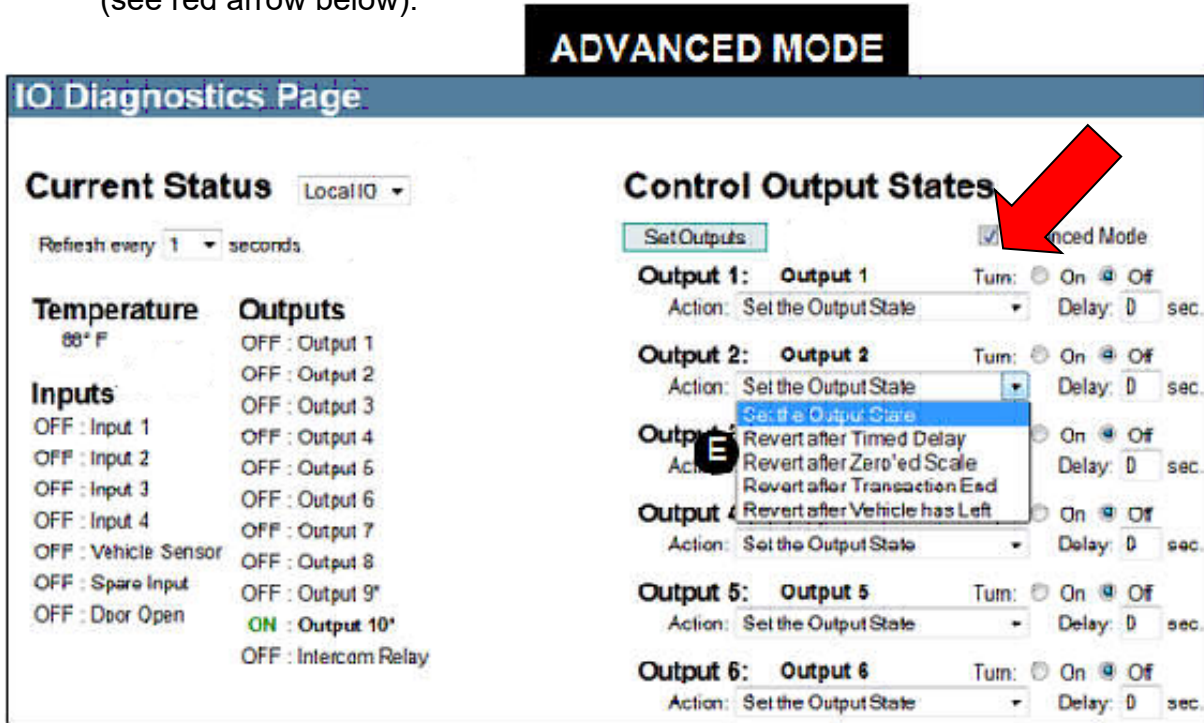Set Outputs Ⓓ   Ⓔ ☐ Advanced Mode

Output 1:   Output 1   Turn: ○ On ⦿ Off
Output 2:   Output 2   Turn: ○ On ⦿ Off
Output 3:   Output 3   Turn: ○ On ⦿ Off
Output 4:   Output 4   Turn: ○ On ⦿ Off
Output 5:   Output 5   Turn: ○ On ⦿ Off
Output 6:   Output 6   Turn: ○ On ⦿ Off
Output 7:   Output 7   Turn: ○ On ⦿ Off
Output 8:   Output 8   Turn: ○ On ⦿ Off
Output 9*:   Output 9   Turn: ○ On ⦿ Off
Output 10*: Output 10   Turn: ⦿ On ○ Off

* Outputs 9 & 10 are both controlled through output 9. These outputs are the Normally Closed and Normally Open outputs of an onboard relay. As a result, one of the two outputs will always be on and the other one will be off. For example, to turn on output 10 you must turn off output 9.

Ⓐ **Select the IO source to monitor** – This also applies to controlling the output states.

Ⓑ **Refresh Rate** – Set the refresh rate for the status

Ⓒ **Current Input/Output status** – Shows Refreshed list of i/o current status:

Ⓓ **Set Outputs** – Press this button to set the state of the outputs.

3.4.3. I/O Diagnostics, Continued

E **Advanced Mode**: – Behavior: This determines how the output will behave. It has the following settings. To activate, click the **Advanced Mode** checkbox (see red arrow below).

Advanced Mode Action options:

- **None** – Leave in *Set the Output State*. If this is selected, the output is not changed at all.

- **Timed Delay** (Simple Delay) - If this is selected, the output will be turned on or off and then switched back after the number of seconds specified by the delay.

- **Zeroed Scale** - If this is selected, the output will be turned on or off and then switched back after the scale has gone to zero. If there is a non- zero value in the delay, the switch back of the output will be delayed for that amount of time after the scale has gone to zero.

- **Transaction End** - If this is selected, the output will be turned on or off and then switched back after the transaction has ended. If there is a non- zero value in the delay, the switch back of the output will be delayed for that amount of time after the transaction has ended.

- **Vehicle has Left** - If this is selected, the output will be turned on or off and then switched back after the vehicle has left. If there is a non- zero value in the delay, the switch back of the output will be delayed for that amount of time after the vehicle has left.

3.4.3. I/O Diagnostics, Continued

Set the Output - If this is selected, the output will be turned on or off and will not be switched back. The delay setting is ignored.

- **Advanced Mode** – Delay: Number of seconds to delay the switching back of the output state.

5.3.4. Keypad Control

Keypad Buttons – The buttons on the page are laid out in the same fashion as the keypad. Just click on one of them to cause the key on the terminal to be pressed. This feature can be turned on/off on a per user basis. See User Setup.

Screen – By clicking the arrow next to **Refresh**, the screen may be set to refresh from every 1 to 10 seconds. The Show Scale and Show Ticket options, may be enable to show current scale gross weight and ticketing information. Occasionally, only a partial image or no image is retrieved at all. This is expected. It prevents issues at the terminal.
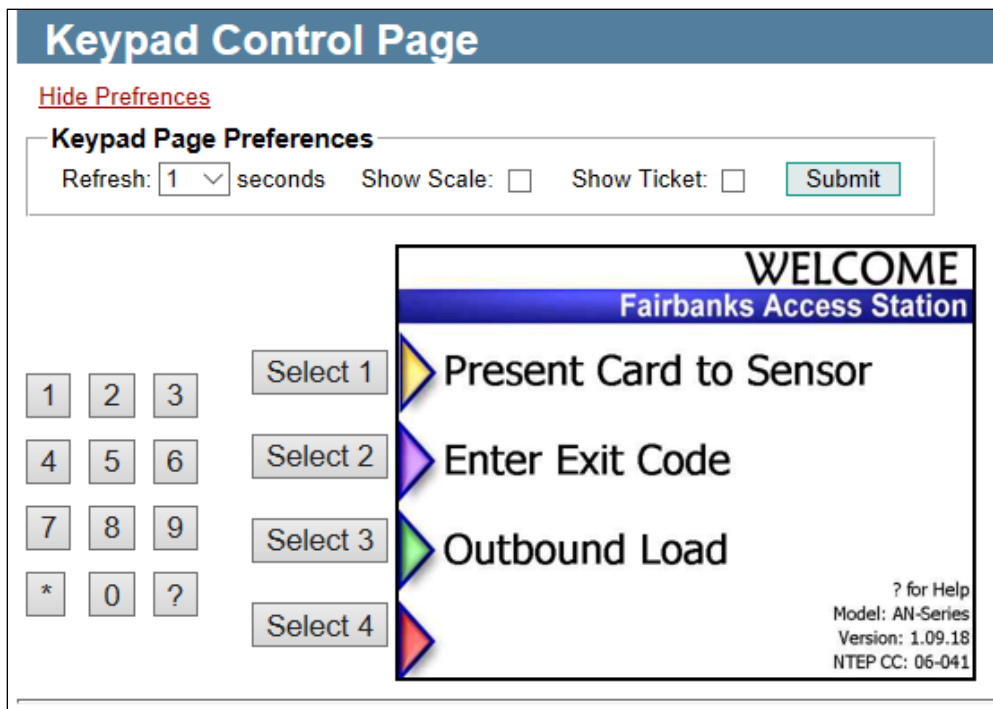
5.3.5. Network Diagnostics

Network Diagnostics contains network information including IP addresses and MAC ids and ability to ping an IP address (useful to determine proper system connections to network/ location of network failure).

Network Diagnostics Page

Ping: [   ] [Ping] Enter an IP address, host name, or HTTP address to ping.

Network Information

Adapter:	ENDS4ISA1
Description:	Crystal LAN(tm) CS8920 Ethernet Adapter
Adapter Type:	Ethernet
MAC Address:	00:50:C2:17:FE:7F
Auto Config:	disabled and not active
Host Name:	Access1033
Domain Name:	
IP Address 1:	206.220.166.35
Subnet Mask 1:	255.255.255.0
Gateway:	206.220.166.1
DNS Address:	10.10.210.5
DNS Address:	10.10.210.6
DHCP:	disabled
WINS:	disabled
Node Type:	Hybrid
ARP Proxy:	disabled
Routing:	disabled
DNS:	disabled

TCP/IP Statistics (since last reset)

Time out Algorithm:	Van Jacobson's Algorithm
Min time out:	300 msec
Max time out:	240000 msec
Max Connections:	Unlimited
Active opens:	2
Passive opens:	17
Failed attempts:	0
Established connections:	1
Connection resets:	1
Segments received:	1131
Segments transmitted:	1338
Segments retransmitted:	0
Incoming errors:	0
Outgoing resets:	757
Cumulative connections:	7

5.3.6. Diagnostics Options

This screen contains a quick toggle to the existing diagnostics locations to verify if a diagnostic option is enabled.

NOTE: diagnostic modes can slow processes to an unmanageable level which is reserved for extensive site monitoring and initial fine tuning when setting up the site.

Extra System Diagnostics – Enable or disable diagnostics for specific system features.

Extra Device Diagnostics – Enable or disable diagnostics for specific devices.

Misc Options – Cycle Demo Scale – check to cycle weight every second.

Toggle Output –

Auto-Reset Features – Enable the auto reset feature. This can be useful if the system is locking up or behaviors strangely after it has been running for a while. Often a reset will clear the issue, but it needs to be done periodically. This feature will do that automatically.

- o Auto-*Reset Day:* Set the day of the week to rest the terminal or select a daily reset. Usually once a week is often enough.

- o Auto-*Reset Time:* Set the time of the day to rest the terminal.

5.3.7. Restart Page

This page contains access to restart the web server the FBAS unit runs off, request reset of the server or to force reset when necessary.

Restart Tools Page

Restart Web Server

Restart the web server and reload ISAPI dlls from Flash.

* This may help to resolve errors when accessing other portions of the web interface.
* This is also used when loading new web interface files instead of restarting the entire system.

Request System Restart

Request the terminal to shutdown and restart.

* This is the safest way to reset the system remotely.
* This is also used when loading new software system from the service menus.

Force System Reset

Force the terminal to reset. This will skip the normal shutdown process.

* If the request system restart does not work, try this option.
* **Only use this option as a last resort. Data loss may occur!!.**

5.3.8. Screen File Viewer

This page allows a slide show of all the picture files contained and loaded on the Access Terminal software on the unit.

Screen Viewer Page

Screen Image

Screen File: /screens/WELCOME3.jpg

Begining   Previous   Next   End

/screens/TARE WEIGHT OVERDUE 03.jpg
/screens/TARE WEIGHT OVERDUE.jpg
/screens/USER.jpg
/screens/WAIT ON SCALE 02.jpg
/screens/WAIT ON SCALE 03.jpg
/screens/WAIT ON SCALE.jpg
/screens/WEIGH ONLY PROMPT 02.jpg
/screens/WEIGH ONLY PROMPT 03.jpg
/screens/WEIGH ONLY PROMPT.jpg
/screens/WELCOME3 02.jpg
/screens/WELCOME3 03.jpg
/screens/WELCOME3.jpg
/screens/WELCOME4 02.jpg
/screens/WELCOME4 03.jpg
/screens/WELCOME4.jpg
/screens/WITHDRAW CARD 02.jpg
/screens/WITHDRAW CARD 03.jpg
/screens/WITHDRAW CARD.jpg

5.3.9. System Logs

```
System Logs Page

Select Log Date:    February 18, 2010   ▼      Email To:

02-18-2010
Feb 18, 2010 11:14:08 AM - System shutting down for restart.
Feb 18, 2010 11:14:41 AM - System started
Feb 18, 2010 11:59:12 AM - System shutting down for restart.
Feb 18, 2010 11:59:46 AM - System started
```

Date Selection: Select the date of the log file to view.

Email To: Email the log file as the body of an email to someone.

Common Log Entries

- System started - This is written to the log when the system starts up.

- System shutting down for restart. - System is shutting down due to a reset.

- System shutting down. - System is simply shutting down.

- Initiating auto reset - This is written to the log when the system resets itself due to the enabling of the auto reset feature.

Error Log Entries

- The following is a list of error log entries and a brief description of each:

- Critically Low Memory (X.X MB), Initiating reset. - System memory (RAM) is low and the system is going to restart. Typically after restarting, more memory will be available.

- Watchdog timer (YY s) exceeded timeout (XX s) - Signifies that the system did not check in with the watch dog with in the specified amount of time.

- Network error occurred during query account. - This is written to the log when there is a general network error when trying to authorize a transaction.

AN Series

Fairbanks Access Solutions

Document 51441