Introduction

Purpose

This manual describes the parameters for the setup of the ADDS 4000 terminal and the printer switch settings for the Okidata® 184/186 printer when connected to a Gasboy Series 1000, Series 900 TopKAT™, Cash Flow Network (CFN), or an "A" Fuel Management System. This document is not intended to be a complete reference for the Boundless terminal. The parameter screens shown are the latest available. However, interim software changes by the Boundless terminal may result in minor variations.

Review the documentation section on the Boundless website (http://www.boundless.com) for clarifications.

Table of Contents

Required Reading

Before performing this installation, the installer must read, understand, and follow this manual. Failure to do so may adversely affect the operation of the equipment.

Required Tools

The following tools are required for the installation of the ADDS 4000 Terminal and Okidata printer.

- Phillips® screwdriver
- Straight blade screwdriver

Parts List

The following table lists the parts required for this installation.

Description	Part Number	Quantity
Display Terminal, Boundless Technologies	M07339B001	1

Related Documents

The following table lists the documents relevant to the installation of the ADDS 4000 terminal and Okidata printer.

Document Number	Description	GOLD Library
C01665	CFN Series SCII & Islander II Start-Up Manual	Gasboy Fuel Management Products
C08921	Series 1000 Startup Manual	Gasboy Fuel Management Products
C35963	CFN Islander II Installation Manual	Gasboy Fuel Management Products
MDE-4344	Series 1000 Fuel Management System Installation Manual	Gasboy Fuel Management Products
MDE-4319	TopKAT Installation Manual	Gasboy Fuel Management Products

Warranty

For information on warranty, refer to MDE-4255 Gasboy's Warranty Policy Statement. If you have any warranty-related questions, contact Gasboy's Warranty Department at its Greensboro location.

Important Safety Information

This section introduces the hazards and safety precautions associated with installing, inspecting, maintaining or servicing this product. Before performing any task on this product, read this safety information and the applicable sections in this manual, where additional hazards and safety precautions for your task will be found. Fire, explosion, electrical shock or pressure release could occur and cause death or serious injury if these safe service procedures are not followed.

Preliminary Precautions
You are working in a potentially dangerous environment of flammable fuels, vapors, and high voltage or pressures. Only trained or authorized individuals knowledgeable in the related procedures should install, inspect, maintain or service this equipment.

Emergency Total Electrical Shut-Off
The first and most important information you must know is how to stop all fuel flow to the pump and island. Locate the switch or circuit breakers that shut-off all power to all fueling equipment, dispensing devices, and submerged turbine pumps (STPs).

⚠ WARNING

The EMERGENCY STOP, ALL STOP, and PUMP STOP buttons at the cashier's station WILL NOT shut off electrical power to the pump/dispenser.

This means that even if you activate these stops, fuel may continue to flow uncontrolled.

You must use the TOTAL ELECTRICAL SHUT-OFF in the case of an emergency and not only these cashier station "stops."

Total Electrical Shut-Off Before Access
Any procedure requiring access to electrical components or the electronics of the dispenser requires total electrical shut-off of that unit. Know the function and location of this switch or circuit breaker before inspecting, installing, maintaining, or servicing Gasboy equipment.

Evacuation, Barricading and Shut-Off
Any procedures requiring accessing the pump/dispenser or STPs requires the following three actions:

- An evacuation of all unauthorized persons and vehicles using safety tape, cones or barricades to the effected units.
- A total electrical shut-off of that unit.

Read the Manual
Read, understand and follow this manual and any other labels or related materials supplied with this equipment. If you do not understand a procedure, call a Gasboy Authorized Service Contractor or call the Gasboy Service Center at 1-800-444-5529. It is imperative to your safety and the safety of others to understand the procedures before beginning work.

Follow the Regulations
There is applicable information in NFPA 30A; *Automotive and Marine Service Code*, NFPA 70; *National Electrical Code (NEC)*, OSHA regulations and federal, state, and local codes which must be followed. Failure to install, inspect, maintain or service this equipment in accordance with these codes, regulations and standards may lead to legal citations with penalties or affect the safe use and operation of the equipment.

Replacement Parts
Use only genuine Gasboy replacement parts and retrofit kits on your pump/dispenser. Using parts other than genuine Gasboy replacement parts could create a safety hazard and violate local regulations.

Safety Symbols and Warning Words

This section provides important information about warning symbols and boxes.

Alert Symbol

This safety alert symbol is used in this manual and on warning labels to alert you to a precaution which must be followed to prevent potential personal safety hazards. Obey safety directives that follow this symbol to avoid possible injury or death.

Signal Words
These signal words used in this manual and on warning labels tell you the seriousness of particular safety hazards. The precautions that follow must be followed to prevent death, injury or damage to the equipment

DANGER - This signal word is used to alert you to a hazard to unsafe practice which will result in death or serious injury

WARNING - This alerts you to a hazard or unsafe practice that could result in death or serious injury.

CAUTION with Alert symbol - This signal word designates a hazard or unsafe practice which may result in minor injury.

CAUTION without Alert symbol - When used by itself, CAUTION designates a hazard or unsafe practice which may result in property or equipment damage.

Working With Fuels and Electrical Energy

Prevent Explosions and Fires
Fuels and their vapors will become explosive if ignited. Spilled or leaking fuels cause vapors. Even filling customer tanks will cause explosive vapors in the vicinity of dispenser or island.

No Open Flames

Open flames from matches, lighters, welding torches or other sources can ignite fuels and their vapors.

No Sparks - No Smoking 

Sparks from starting vehicles, starting or using power tools, burning cigarettes, cigars or pipes can also ignite fuels and their vapors. Static electricity, including an electrostatic charge on your body, can cause a spark sufficient to ignite fuels and their vapors. After getting out of a vehicle, touch the metal of your vehicle to discharge any electrostatic charge before you approach the dispenser island.

Working Alone

It is highly recommended that someone who is capable of rendering first aid be present during servicing. Be familiar with Cardiopulmonary Resuscitation (CPR) methods if you are working with or around high voltages. This information is available from the American Red Cross. Always advise the station personnel about where you will be working, and caution them not to activate power while you are working on the equipment. Use the OSHA tag out and lock out procedures. If you are not familiar with this requirement, refer to information in the service manual and OSHA documentation.

Working With Electricity Safely

Be sure to use safe and established practices in working with electrical devices. Poorly wired devices may cause a fire, explosion or electrical shock. Be sure grounding connections are properly made. Make sure that sealing devices and compounds are in place. Be sure not to pinch wires when replacing covers. Follow OSHA Lock-Out and Tag-Out requirements. Station employees and service contractors need to understand and comply with this program completely to ensure safety while the equipment is down.

Hazardous Materials

Some materials present inside electronic enclosures may present a health hazard if not handled correctly. Be sure to clean hands after handling equipment. Do not place any equipment in mouth.

⚠ WARNING

This area contains a chemical known to the State of California to cause cancer.

⚠ WARNING

This area contains a chemical known to the State of California to cause birth defects or other reproductive harm.

IMPORTANT: Oxygen may be needed at scene if gasoline has been ingested or inhaled. Seek medical advice immediately.

Emergency First Aid

Informing Emergency Personnel

Compile the following information and inform emergency personnel:

- Location of accident (for example, address, front/back of building, and so on).
- Nature of accident (for example, possible heart attack, run over by car, burns, and so on).
- Age of victim (for example, baby, teenager, middle-age, elderly).
- Whether or not victim has received first aid (for example, stopped bleeding by pressure, and so on).
- Whether or not a victim has vomited (for example, if swallowed or inhaled something, and so on).

⚠ WARNING

Gasoline ingested may cause unconsciousness and burns to internal organs.
Do not induce vomiting.
Keep airway open.
Oxygen may be needed at scene.
Seek medical advice immediately.

⚠ WARNING

Gasoline inhaled may cause unconsciousness and burns to lips, mouth and lungs.
Keep airway open.
Seek medical advice immediately.

⚠ WARNING

Gasoline spilled in eyes may cause burns to eye tissue.
Irrigate eyes with water for approximately 15 minutes.
Seek medical advice immediately

⚠ WARNING

Gasoline spilled on skin may cause burns.
Wash area thoroughly with clear/water.
Seek medical advice immediately.

IMPORTANT: Oxygen may be needed at scene if gasoline has been ingested or inhaled. Seek medical advice immediately.

Lockout/Tagout

Lockout/Tagout covers servicing and maintenance of machines and equipment in which the unexpected energization or start up of the machine(s) or equipment or release of stored energy could cause injury to employees or personnel. Lockout/Tagout applies to all mechanical, hydraulic, chemical or other energy, but does not cover electrical hazards. Reference Subpart S of 29 CFR Part 1910 - Electrical Hazards, 29 CFR Part 1910.333 contains specific Lockout/Tagout provision for electrical hazards.

Installation of the ADDS 4000 Terminal and Okidata Printer

ADDS 4000 Terminal Setup

Install and complete the setup of the ADDS 4000 terminal as specified in the manufacturer's setup instructions. Then, enter the Setup mode and change the parameters available on the screens. This enables the terminal to function properly with both the Okidata printer and your Gasboy Fuel Management System.

When setting up the terminal, use the following keys as required:

Key	Function
SHIFT and SysRq	Used together to enter the Setup mode.
Up/Down Arrows	Used to move to a menu item.
Left/Right Arrows or SPACE	Used to select values for a parameter.
ENTER or SHIFT and ENTER	Used to move to the next or previous screen.
First letter of section name	Used to select a specific screen.
F1 to F11	Used to select a specific screen.
E and then Y	Used to save current values and exit the Setup mode.
E and then SPACE	Used to exit the Setup mode without saving the operation.

Note: In the procedure that follows, the setup parameter values shown in bold are critical and must be configured as shown in this document. All other parameters can be configured as per the user's preference or left at their default value.

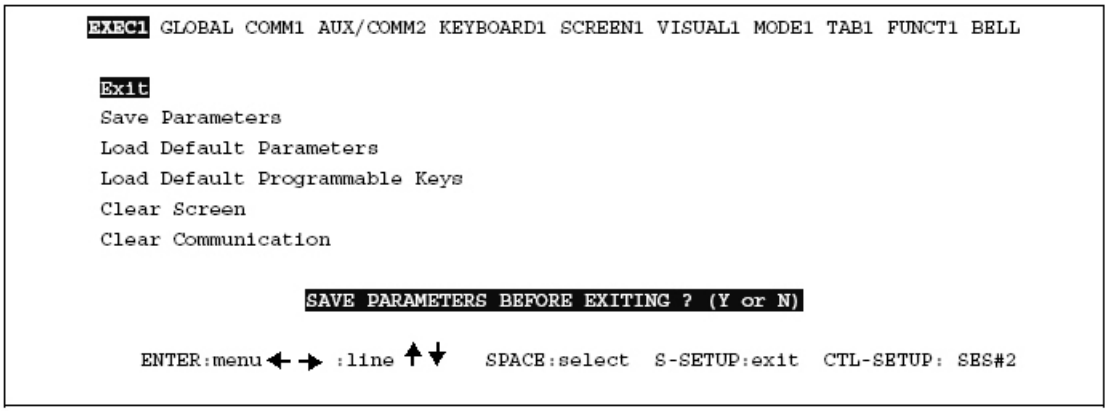
To install the ADDS 4000 Terminal Setup, proceed as follows:

1. Press **CAPS LOCK** to activate the caps lock feature. CAPS appears in the upper left hand corner of the status line.

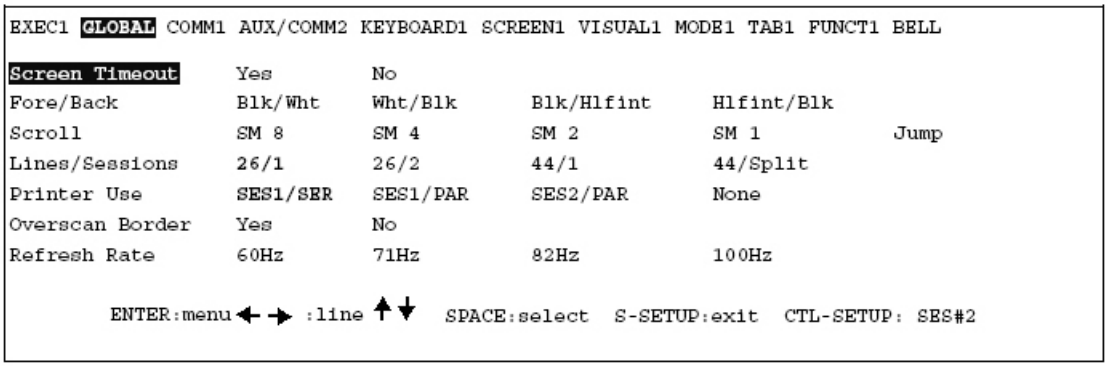
2. Press **SHIFT** and **SysRqEnter** to enter the Setup mode.
   *Note: Ensure that you do not press **CTRL** and **SysRq** as the terminal control will switch to Aux Host. On being switched to Aux Host, press **CTRL** and **SysRq** to return to the Main Host and display the EXEC1 menu.*

IMPORTANT INFORMATION

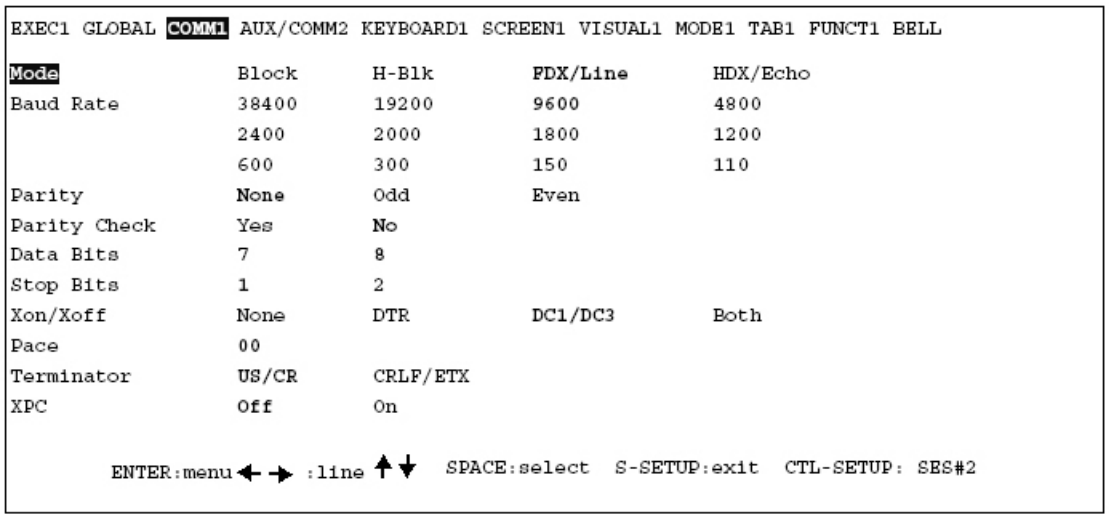
Before you begin to change parameters, ensure that you change parameters for the correct Host. The menu names along the top of the screen will display “1” at the end (except for AUX/COMM2). If the display shows “2” at the end of each name, press **CTRL** and **SysRq** to select the Main Host configuration.



3 Press **F2** or **ENTER**. The GLOBAL menu setup screen appears.

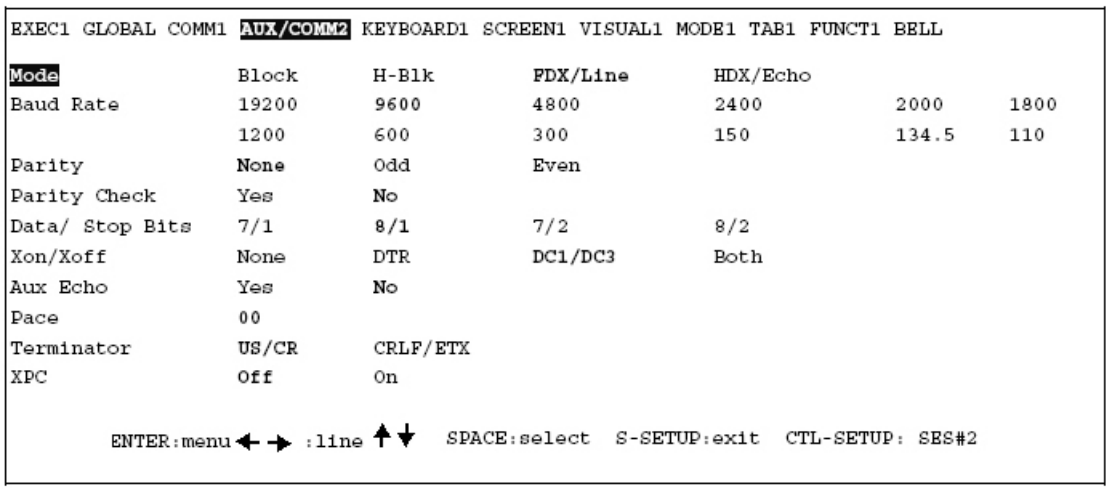


4 Press **F3** or **ENTER**. The COMM1 menu setup screen appears.

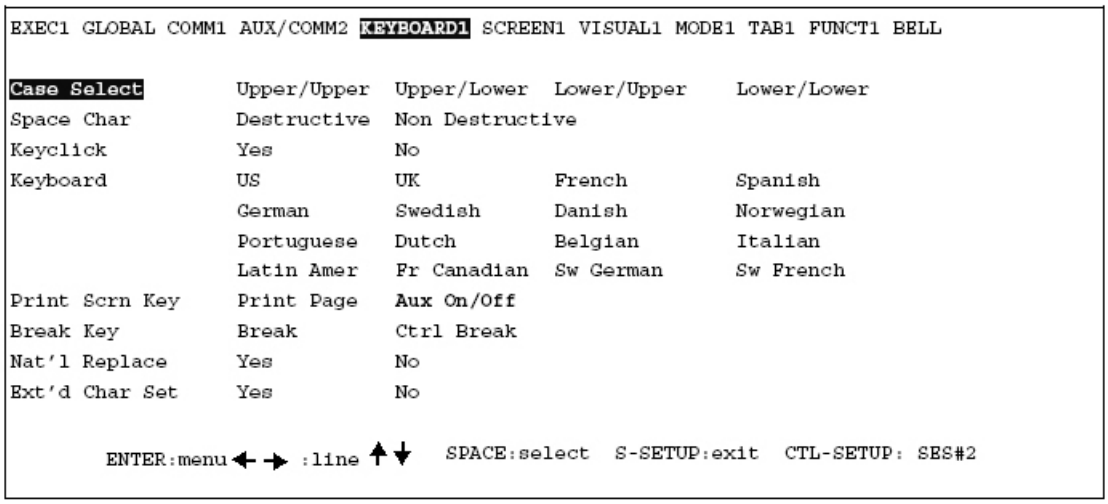


Note: The Series 1000 software prior to version 8.1, FleetKey software prior to version 2.1, and "A" System software does not support XON/XOFF protocol. In these cases, set the COMM1-XON/XOFF and AUX/COMM2-XON/XOFF parameters to None, the COMM1-Baud Rate parameter to 1200, and AUX/COMM2-Baud Rate parameter to 9600. For "A" Systems, set the COMM1-Data Bits to 7, Parity Check to Even, and Stop Bits to 2.

5 Press **F4** or **ENTER**. The AUX/COMM2 menu setup screen appears.



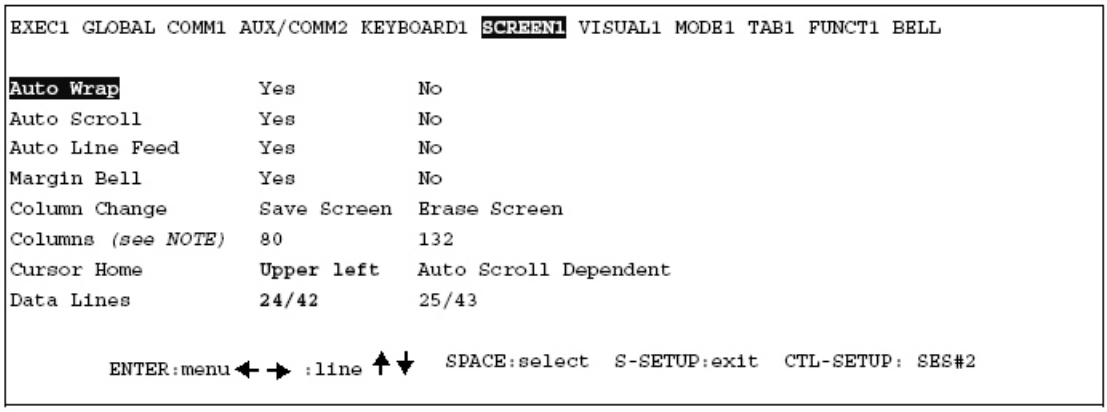
6 Press **F5** or **ENTER**. The KEYBOARD1 menu setup screen appears.



7 Set the Print Scrn Key parameter as specified below. Ensure that you use the correct parameter setting for your software version.

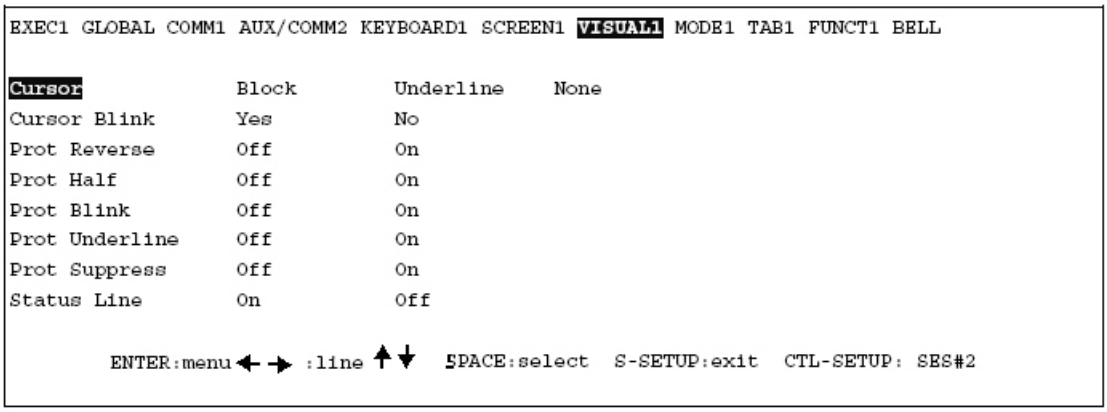
- If you have Site Controller I, Site Controller II below version 1.0F, Series 1000, TopKAT or "A" System, set the Print Scrn Key parameter to Aux On/Off. With the Aux On/Off value, press **PRINT SCREEN** to toggle on the Print mode. With the Print mode on, the Okidata printer acts as a logger and also prints all the operations performed in the Command mode. To temporarily suspend the output to the printer, press **PRINT SCREEN**. Press **PRINT SCREEN** again to resume the output to the printer.
  *Note: After the terminal is reset (power turned off and on), press **PRINT SCREEN** to place the terminal in the Auto Print mode. Failure to do so will result in the data not being printed on the printer.*
- If you have Site Controller II version 1.0F or above, you may set the Print Scrn Key parameter to Aux On/Off and configure the DIRECT PRINTOUT CHANNEL in SYS_PAR to AUX-0. This parameter combination sends the printout directly to the Okidata logger and is not seen on the Cathode Ray Tube (CRT) screen. Any commands performed at the CRT are not logged unless either the output is directed to the logger (using >log with the command) or you press **PRINT SCREEN** to toggle the output to the logger.
  Note: If the Okidata printer is connected directly to Site Controller II, configure the DIRECT PRINTOUT CHANNEL in SYS_PAR to the port that is connected to the printer and refer to C01918 Site Controller II Installation Manual for information regarding connections (RS-232).

8 Press **F6** or **ENTER**. The SCREEN1 menu setup screen appears.

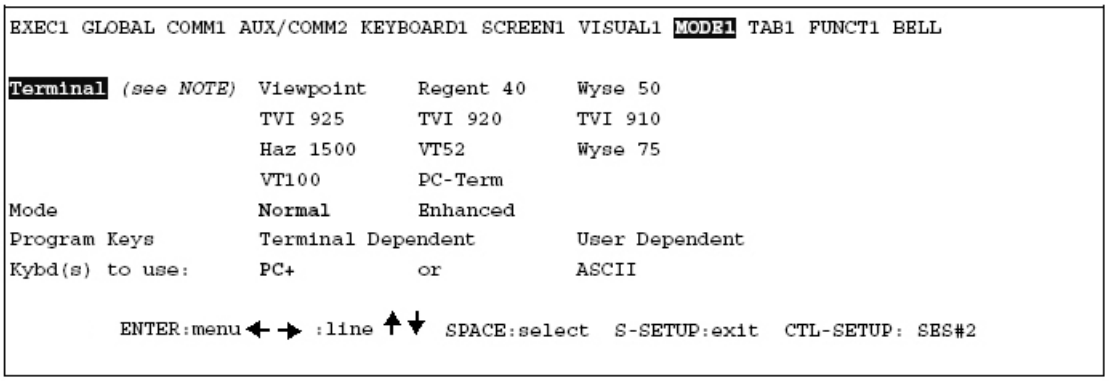


Note: The Columns setting of 132 may be changed to 80, if desired. However, this may cause the transactions displayed on the screen (and on the Okidata printer) to wrap, hindering readability.

9 Press **F7** or **ENTER**. The VISUAL1 menu setup screen appears.



10 Press **F8** or **ENTER**. The MODE1 menu setup screen appears.



Note: The Terminal parameter is set to Wyse 50 for Series 1000, FleetKey, TopKAT, and "A" systems and to VT52 for CFN Series systems.

11 Press **E** and then **Y** to exit the Setup Mode and save the changes.

Okidata 184/186 Setup

To prepare the Okidata printer for operation with the ADDS 4000 terminal and your Gasboy Fuel Management System, perform the following steps. Install and complete the setup of the printer as specified in the manufacturer's setup instructions. Then, set up the switches as follows:

SW1-1 to SW1-8

SW1	SET	Function
SW1-1	ON	Parity: Odd
SW1-2	ON	Parity: Without
SW1-3	ON	Data bits: 8
SW1-4	OFF	Protocol: XON/XOFF (Series 1000 V8.1 or higher, FleetKey V2.1 or higher, CFN, or TopKAT)
	ON	Protocol: Ready/Busy (Series 1000 versions prior to V8.1, FleetKey versions prior to V2.1, and "A" Systems)
SW1-5	ON	Test select: Circuit
SW1-6	ON	Mode select: Print
SW1-7	ON	Busy line selection: DTR - Pin 20
SW1-8	ON	Busy line selection: DTR - Pin 20

SW2-1 to SW2-3

Baud Rate	SW2-1	SW2-2	SW2-3
9600	OFF	ON	ON
2400	OFF	OFF	ON
1200	ON	ON	OFF
300	ON	OFF	OFF

Note: Any change made to the baud rate must also be changed on the Aux Baud parameter on the Boundless Terminal Communications setup screen

SW2-4 to SW2-8

SW2	SET	Function
SW2-4	ON	DSR output signal: Active
SW2-5	ON	Buffer threshold: 32 bytes
SW2-6	OFF	Busy signal timing: 1 sec (min.)
SW2-7	ON	DTR signal: Space after power on
SW2-8	OFF	Not used

To install the Okidata printer, proceed as follows:

1. Press **SELECT** to turn the printer offline. The SELECT light will go off.
2. Position the print head at the top of the paper and press **TOF SET**.
3. Press **SELECT** to put the printer back online. The SELECT light will turn on.
4. Press **MODE** until the light next to the HSD is lit.
5. Press **PITCH** until the light next to 17 is lit.
   Note: Pitch may be set to a lower number (resulting in larger print) if transactions are less than 80 characters.

© 2007 GASBOY
7300 West Friendly Avenue · Post Office Box 22087
Greensboro, North Carolina 27420
Phone 1-800-444-5529 · http://www.gasboy.com · Printed in the U.S.A.
MDE-4604 ADDS 4000 Terminal and Okidata® Printer Installation Instructions · February 2007