

# VSSI-Pro



Video Serial ATM Interface  
Version 12.05

## OPERATIONS MANUAL



CCTV PRODUCTS WORLDWIDE



**CAUTION!**  
**RISK OF ELECTRICAL SHOCK!**  
**DO NOT OPEN!**



**CAUTION! TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.**

**WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE!**

**WARNING!**

THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTIONS MANUAL, MAY CAUSE INTERFERENCE TO RADIO COMMUNICATIONS. IT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A COMPUTING DEVICE PURSUANT TO SUBPART J OF PART 15 FCC RULES, WHICH ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST SUCH INTERFERENCE WHEN 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 REQUIRED TO CORRECT THE INTERFERENCE.

**Copyright (c) 1993, 1994, 1995, 1998**  
**TransAmerican International,**

# VSSI-Pro MANUAL CONTENTS

VSSI-PRO ATM INTERFACE FEATURES.....	4
CONNECTING YOUR VSSI-PRO.....	6
CABLE AND CONNECTION.....	7
SERIAL INPUT.....	8
A FEW WORDS ABOUT PROGRAMMING.....	9
USER FRONT PANEL CONTROLS.....	10
PROGRAMMING - GETTING STARTED.....	11
MAIN MENU.....	11
ATM SELECT.....	12
SCREEN SETUP.....	13
TEXT DISPLAY.....	17
ONSCREEN TITLE.....	15
COMMUNICATION.....	20
EXCEPTION REPORTS/OVERVIEW.....	24
EXCEPTION PROGRAMMING.....	25
EXCEPTION STRING.....	29
NEGATIVE EXCEPTIONS.....	30
ALARM OUTPUTS.....	33
TRIGGERED TEXT PROGRAMMING.....	37
TEST/DEMO MODE.....	38
DOWN/UP LOAD.....	43
DATA DUMP CONNECTIONS.....	47
PROBLEM SOLVING GUIDE.....	48
COMMONLY ASKED QUESTIONS REGARDING-.....	50
TRIPORT AND ADAPTER CABLE.....	51
HARD ALARM OUTPUT.....	52
VSSI-PRO MENU SUMMARY.....	53
VSSI-PRO MANUAL INDEX.....	55
EXCEPTION RECORDING.....	57

# THE VSSI-PRO'S SPECIAL FEATURES

---

**The VSSI-Pro is an upgrade from the VSSI+. It maintains all the previous features plus some major enhancements including:**

- Easy Menu driven Setup and Programming
- Programmable on screen time/date display. The on-board real time clock can run in stand-alone mode, or locked to ATM time/date mode.
- Auto/Manual Network Configuring
  - SDLC
  - BISYNC
  - ASYNC
  - Custom
- Automatic Poll/Select Address Configuring
- Negative Exceptions (Removes Unwanted Data from View)
- Alarm Input for CARD Reader—CARD IN (CRTS Trigger Text option)
- Serial Printer Output of all data or Exceptions
- Allows Transaction Data to be sent to:
  - Computers
  - Phone Line Transmission System
  - Digital Storage
- 2 Fully Programmable Hard Wire Alarm Outputs.
- Powerful Data Filtering Algorithms
- 24 Field Programmable Exceptions with Numeric Range
- Operators & Exception String to provide Greater than, Less than, Equal to Exceptions, in between or out of the numeric range.
- On-screen Flagging of Exceptions with Asterisk or Reverse Text
- On-screen Titrer up to 20 Characters

- 10 Character Sizes
- Gray Scale and Border Selection from front panel
- Built-in Test Mode
- Built-in ATM Demo
- Upload/Download Programming to a PC or another VSSI-Pro
- Programmable Time-Stamp on Exception Output. If turned on, each output line will be preceded by the current time/date.
- Universal time/date format. The time display can be set to either 12 or 24 hour format. The date display can be set to MM/DD/YY, DD/MM/YY or YY/MM/DD.
- 100 lines Exception History Buffer. More than 100 lines of Exceptions and Time Stamp are buffered in the battery-backed SRAM
- The buffered exceptions can be reviewed and printed at anytime.
- 16 Triggered Text associated with 16 alarms. Each triggered text can be 40 characters long and can contain any ASCII values. When an alarm is triggered by any source, the associated
- Triggered Text is displayed and output, if enabled respectively.
- Larger data buffers for input/output to accommodate newer, faster ATM networks.
- 2 built-in Alarm Outputs.
- Programmable Delay Screen Blanking
- Your Choice of 1 to 9 lines displayed on-screen

# CONNECTING YOUR VSSI-Pro

---

---

The VSSI-Pro will overlay the characters on any input video source. The video input can be virtually any baseband or composite video source. The VSSI-Pro will accept NTSC, RS-170, RS-330, CCIR, PAL, or SECAM video formats.

The VSSI-Pro connects to the ATM machine between the ATM itself and its modem using the AVE Triport 2CH-ATM. This triport has male and female DB-25 connectors back to back. From the side of the triport extends a cable with a DB-9 connector which plugs into the VSSI-Pro port labeled **RS-232 Serial Input**.

The triport connection can be made while the ATM is on-line as long as you do so within 3 seconds. If you take longer than this the ATM may go off-line, but if this happens wait approximately 5 minutes and the ATM will return on-line automatically.

**Note: Prolonged periods of time with the ATM disconnected from the Network will require a service technician to bring the ATM back on-line.**

## ATM to VSSI-Pro Installation

Locate the connector on the ATM's modem and loosen the 2 retaining screws, then quickly plug in the appropriate DB-25 connector of the triport into the modem. Next plug the modem cable into the other DB-25 connector of the triport, and plug the DB-9 connector into the VSSI-Pro.

**Note: Make sure no one is operating the ATM when you disconnect the DB-25 connector.**

## VSSI-Pro Video Connections

The Video input to the VSSI-Pro is a standard BNC connector, terminated at 75 ohm.

**IMPORTANT: The input video level must be 1V P-P. If this level is not maintained within +/- 20%, the VSSI-Pro will have difficulty locking the character display over the input video source. If the display is jumpy or tears this is a common symptom of input video level that is too high or too low.**

After completing the interface installation, connect the video input source to the video input BNC on the rear of the VSSI-Pro. The BNC video output goes out to the video system (VCR, Quad, switcher, Multiplexer, or monitor).

# VSSI-Pro CONNECTIONS

---

---



The video output from the VSSI-Pro is 1V P-P into a 75 ohm load or unterminated load. Most monitors or televisions with direct video inputs are terminated with a 75 ohm load.

Included with the VSSI-Pro is a 9 VDC @ 300mA UL/CSA power supply which must be plugged into the POWER Input on the VSSI-Pro's rear panel.

Cable and Connection: Pin-out of the DB-9 connector on the VSSI-Pro

PIN NUMBER	FUNCTION	DIRECTION
1	alarm out 1	open drain
2	Ch 1 receive data	to VSSI-Pro
3	transmit data	from VSSI-Pro
4	Ch 2 RX clock	to VSSI-Pro
5	ground	
6	Ch 2 receive data	to VSSI-Pro
7	Ch 1 RX clock	to VSSI Pro
8	CTS for RS-232 output or RTS trigger in (option)	to VSSI Pro
9	alarm out 2	open drain

This interface uses ATM-2CH Tri-Port cable to tap the communication between the ATM machine and modem.  
(See Pin-out, below.)

DB-9 male (VSSI-Pro)	DB-25 Triport
2.....	2
4.....	17
5.....	7
6.....	3
7.....	15
with data out option	DB-9 (male or female)
3.....	2
5.....	5

To interface with a camera port, the following cable should be used.  
 Cable between ATM Camera Interface and VSSI-Pro.

Camera Interface DB-25 (male)	DB-9 (male)
2.....	3
3.....	6
7.....	5

## EXTERNAL ALARM OUTPUTS

You will be able to tie your exceptions to two open collector hard alarm outputs. You have to physically add wires to the DB-9 connector which plugs into the rear of the VSSI-Pro. Pin 1 on the DB-9 is Alarm 1, and Pin 9 is alarm 2, Pin 5 is ground for both alarm outputs. Be sure to observe polarity and do not exceed the 12V, 20mA rating of these alarm outputs.

## SERIAL INPUT

The VSSI-Pro accepts serial data via the DB-9 female connector located at the rear.

PIN#	VSSI-Pro
1.....	ALARM TRIGGER 1
2.....	RXDB
3.....	TXD
4.....	RXCA
5.....	GND
6.....	RXDA
7.....	RXCB
8.....	RTS (Optional)
9.....	ALARM TRIGGER2

# PROGRAMMING

---

---

## A FEW WORDS ABOUT PROGRAMMING

The VSSI-Pro is programmed by pressing and releasing specific combinations of the four front panel push-buttons. Via these four simple buttons, all of the powerful programming features of the VSSI-Pro Text Inserter are available to you. A video source and a monitor must be connected in order for you to see the programming menus.

The following sections provide detailed programming instructions.



These four buttons access all the programming features of the VSSI-Pro!

## USER FRONT PANEL CONTROLS

Front panel controls are provided to allow simple changing of the display's vertical and horizontal position and the gray scale or border. This eliminates the need of the user to enter the main menu, and the risk of inadvertently changing important programming settings.

# FRONT CONTROL PANEL

---

## Changing the Grayscale



- 1) Press and hold the "Down" Button
- 2) Press and Release the "Reset" Button
- 3) Release the "Down" Button
- 4) Press "Down" or "Up" to select the Grayscale
- 5) When choice is made, press and release the "Reset" Button.

## Horizontal Position



- 1) Press and hold the "Up" Button
- 2) Press and Release the "Reset" Button
- 3) Release the "Up" Button
- 4) Press "Down" or "Up" to move the text block
- 5) When choice is made, press and release the "Reset" Button.

## Vertical Position



- 1) Press and hold the "Set" Button
- 2) Press and Release the "Reset" Button
- 3) Release the "Set" Button
- 4) Press "Down" or "Up" to move the text block
- 5) When choice is made, press and release the "Reset" Button.

# PROGRAMMING - GETTING STARTED

---

---

After you have completed the installation of the VSSI-Pro and any additional interfaces and cabling, follow the power-up sequence as described in the installation instructions for your specific device. Make sure that you have a video signal present from the camera that the VSSI-Pro is using. If all of this was successful, you will be presented with the following message on the video monitor screen:

## SET UP.....

If this message does not appear go to the Problem Solving Guide on page 48. If at any time after the successful installation and programming of the VSSI-Pro, you see the message "COMM PORT TIMEOUT," this means no data has been received for at least 30 seconds. This message will disappear as soon as the VSSI-Pro receives data again.

## MAIN MENU

To access the main menu of the VSSI-Pro, **simultaneously** hold down the "DOWN" & "UP" buttons and press & release the "RESET" button and then release the "DOWN" & "UP" buttons. This will take you to the main programming menu. To navigate through this menu, use the "DOWN" & "UP" buttons to position the arrow in front of the desired function and then press "SET" to access that section. Use "DOWN" and "UP" again to select or change settings for a particular item in a menu, then press "SET" again to return to the menu.

If a sub menu has an "EXIT" entry always go there and press "SET". Pressing "RESET" at the main menu exits you from the programming mode.

## MAIN PROGRAMMING MENU:

- ATM SELECT
- SCREEN SETUP
- TEXT DISPLAY
- COMMUNICATION
- EXCEPTION REPORT
- ALARM OUTPUTS
- TEST/DEMO MODE
- DWN/UP LOAD SETUP
- HELP

# ATM SELECT

---

The following is a detailed description of the Menu selections and the programming capabilities of the VSSI-Pro. It will bring up a submenu consisting of the following ATM configurations, from which to choose the appropriate format for your machine:

- SDLC, with a submenu of:
  - SDLC format i
  - sdlc format ii
  - SDLC FORMAT III
  - SDLC FORMAT IV
  - CAT ELF
  - EXIT
- BISYNC, with a submenu of:
  - BISYNC format i
  - EXIT
- ASYNC, with a submenu of:
  - ASYNC FORMAT I
  - EXIT
- CAMERA PORT, with a submenu of:
  - FUJITSU 4000/6000
  - FUJITSU 7000
  - IBM 4700
  - IBM PICTURE TEXT
  - NCR 5000
  - EXIT
- CUSTOM, with a submenu of :
  - Custom 1
  - EXIT

**NOTE: CUSTOM will have a submenu: CUSTOM 1,2,3,4 which are customized formats for specific banks. CAT ELF is a custom format for Citibank machines.**

Knowledge of the appropriate format to choose at this time would have been obtained before your purchase of the VSSI-Pro. But if you are unsure, you can simply try each format until you find the right one for your machine. To select a format, press "UP" or "DOWN" to move the arrow; place it beside SDLC FORMAT I, and press "SET" on the VSSI-Pro; an asterisk appears to indicate your selection. Next, place the arrow beside EXIT and press "SET" to exit to the main menu by pressing RESET. The words SET UP and the accompanying dots should appear. Within 1 to 3 minutes the dots should seem to move and the word COMPLETED will appear. If this does not hap-

pen, reenter the main menu and try another format. When the right format is chosen, the message SET UP COMPLETED will display. Return to the main menu and continue programming.

## **SCREEN SETUP**

Place the arrow cursor in front of SCREEN SET UP and press and release SET. You will be presented with the following submenu:

CHARACTER SIZE  
BORDER/GRAY SCALE  
HORIZONTAL POS  
VERTICAL POS  
CLOCK  
ONSCREEN TITLER  
EXIT

### **CHARACTER SIZE**

To change the size of the characters on the screen, position the arrow cursor in front of CHARACTER SIZE and press and release SET. Use the UP and DOWN buttons to cycle through the selections. There are 10 character sizes to choose from. The character block is 9 lines (x) 20 characters for a total of 180 characters displayed on screen. However, choosing a larger display size may not display all characters on screen. If the screen skews during this setup mode, this is normal. Large characters off screen will affect most monitors this way.

### **BORDER/GRAY SCALE**

To change the display borders and /or the gray scale of the text on screen, position the arrow cursor in front of BORDER GRAY SCALE press and release SET. Cycle through the selection by pressing the UP or DOWN buttons. There are 10 settings to choose from. Make you selection and press SET to return to the submenu.

### **HORIZONTAL POSITION**

To change the horizontal position of the inserted text on-screen, position the arrow in front of HORIZONTAL POS and press SET. Press the UP or DOWN buttons to move the text to the desired position

## VERTICAL POSITION

To change the vertical position of the inserted text on-screen, position the arrow in front of VERTICAL POS and press SET. Press the UP or DOWN buttons to move the text to the desired position.

## CLOCK (Time /Date) Programming

To program the clock's functions, set the SCREEN SETUP/CLOCK entry, the following menu appears on screen.

T/D DISPLAY	ON/OFF
TIME FMT	12 HOUR/24 HOUR
DATE FMT MM/ DD/YY	DD/MM/YY YY/MM/DD
SET TIME DATE	
RESET TIME DATE	
T/D LOCKING	ON/OFF
EXIT	

- The first entry - T/D display is to turn the TIME/DATE display ON or OFF.
- The second entry - TIME FMT selects either 12 or 24 hour display with AM/PM.
- The third entry DATE/FMT chooses one of the three available formats.
- The fourth entry SET TIME/DATE sets the clock manually.
- The fifth entry RESET TIME /DATE resets the clock to the default value.
- The sixth entry T/D LOCKING turns the time/date locking on/off. If the T/D Locking is turned on, make sure that the time format selected is the same as the ATM time/date format.

## More on TIME/DATE locking

If the T/D LOCKING is turned on, the VSSI-Pro will monitor the incoming data string. If it finds a valid time and date in one or two consecutive lines, it will set the clock to whatever time/date it finds. A valid time has the following formats:

hh:mm, hh:mm:ss  
hh:mmAM, hh:mm:ssAM  
hh:mmPM, hh:mm:ssPM

where hh is a number between 0 and 12 (24 if either AM or PM present).

A valid date has the same format as for date display and has either '/' or '-' as separator.

## ON SCREEN TITLER

Place the arrow in front of “ONSCREEN TITLER” and press and release “SET”. You will be presented with the following submenu.

**TITLER**  
**TITLE**  
**EXIT**

### TITLER

CHOICES - ON or OFF

To change the status of the on-screen titler, position the arrow in front of “TITLER” and press “SET”. The arrow will start flashing; this means you can now change whether the titler is displayed or not displayed, by pressing either the “UP” or “DOWN” button. This will toggle between the “ON” and “OFF” selection.

Once you have made your selection and it is displayed, press the UP and DOWN keys simultaneously to return the arrow to the non-flashing mode to continue.

### TITLE

The VSSI-Pro gives you the option of a 20 Character display for easy ATM identification in addition to the actual ATM transaction data.

To create a title, position the arrow in front of “TITLE” and press and release “SET”. You will see a row of 20 boxes and the first box will be flashing.

To change the character in the first position, press the “UP” or “DOWN” buttons to cycle through the alphanumeric selections from the following list of available characters:

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
`0123456789\*-+.,:!='!?!&][

The solid white box is used for a blank space. Make your selection and press and release “SET”. This will advance to the next block. Repeat until you have entered the desired title.

When finished, simultaneously press and release the “DOWN” & “UP” buttons to enter your title into memory.

The white boxes will disappear and your title will be displayed as it will appear on screen. To return to the submenu and continue programming place

the arrow in front of EXIT, press and release "SET".

**Note: Remember, enabling the TITLE will limit text insertions to 8 lines maximum.**

## EXIT

Place the arrow in front of the "EXIT" and press "SET" to return to the main menu.

## TEXT DISPLAY

---

---

This menu will give you more control over the actual text block formatting and its appearance on the screen. Position the arrow in front of "TEXT DISPLAY" and press and release "SET". You will be presented with the following submenu:

SCREEN BLANK  
DISPLAY LINES  
TRUNCATE  
LINE COMPRESS  
LEFT JUSTIFIED  
SCROLL DELAY  
DISPLAY  
EXIT

## SCREEN BLANK

This is the amount of time that the VSSI-Pro text display will remain on-screen after a transaction before blanking itself off (not the video picture, just the ATM transaction data) until the next transaction. The choices are (in seconds): **NONE, 6, 12, 20, 30, 60, 120, 180, 300**

To change the "SCREEN BLANK" setting, place the arrow in front of SCREEN BLANK and press "SET". The arrow will begin flashing. Now, by pressing the "UP" or "DOWN" buttons, you can cycle through the selections. Press and release "SET" when the desired time is displayed. The arrow stops flashing and you may continue programming.

**NOTE: Choosing "NONE" means No Blanking. The VSSI-Pro will display the last transaction until a new transaction is performed.**

## DISPLAY LINES

You have the choice of how many lines of text to display on-screen for register transactions. The choices are **-1 THROUGH 9**.

To change the "DISPLAY LINES" setting, place the arrow in front of DISPLAY LINES and press "SET". The arrow will begin flashing. Now, by pressing the

“UP” or “DOWN” buttons, you can cycle through the selections. Press “SET” when the desired number is displayed. The arrow stops flashing and you may continue programming.

**NOTE: All ATM transaction data will scroll up regardless of the number of lines you choose to display on-screen and the more lines you display on-screen, the greater the amount of time that the transaction data will take to be recorded. However, some applications may limit the number of lines and the size of the on-screen display. Note: If you are using an on-screen title, it will occupy Line 1, leaving 8 lines for the text insertion.**

## **TRUNCATE**

Truncate can be either “ON” or “OFF”. If TRUNCATE is ON, then all text over 20 characters on a single line will be chopped off. If TRUNCATE is “OFF” then text will be wrapped to the next line. –Position the arrow in front of TRUNCATE and press and release “SET;” the arrow will start flashing. Cycle between ON & OFF by pressing either the “UP” or “DOWN” buttons. After making your choice and it is displayed, press and release “SET.” The arrow will stop flashing and you can continue programming your VSSI-Pro.

## **LINE COMPRESS**

**NOTE: Set your Exceptions first, before enabling this feature.**

The VSSI-Pro automatically compresses the spaces in a line first as it reaches 20 characters. With LINE COMPRESS “ON” the VSSI-Pro will additionally remove multiple spaces and vowels from the text to further compress the display as necessary.

To make this selection, position the arrow in front of “LINE COMPRESS” and press and release “SET”, the arrow will start flashing. Cycle through “ON” or “OFF” by pressing either the “UP” or “DOWN” buttons, and press and release “SET” when your choice is displayed, the arrow will stop flashing, and you can continue programming.

## **LEFT JUSTIFIED**

When “LEFT JUSTIFIED” is on, the VSSI-Pro will start each line of text with no leading spaces from the left margin of the text display block.

## **SCROLL DELAY**

Scroll delay ensures that lines of text remain on screen a minimum of .5 seconds. This is especially useful with ATMs that run at a high Baud Rate or Time-lapse VCR’s in extended record modes, switch-

ers, or multiplexers. Sometimes, the ATM can produce characters so quickly that they can scroll up too fast on the screen to be recorded. When "SCROLL DELAY" is "ON", the VSSI-Pro slows down this data feed just enough to insure that each line of text is recorded.

The choices for "SCROLL DELAY" are either "ON" or "OFF". To make this selection, position the arrow in front of "SCROLL DELAY" and press and release "SET", the arrow will start flashing. Cycle through "ON" or "OFF" by pressing either the "UP" or "DOWN" buttons, then press and release "SET" when your choice is displayed, the arrow will stop flashing, and you can continue programming.

## **DISPLAY**

You have the choice to globally turn on or off the complete VSSI-Pro text insertion function. This means no data will be visible on the monitor if you select "DISPLAY" off. However, if you select the "DISPLAY" off, you can still command each exception independently to either display on-screen or not, through its program setup menu under "EXCEPTION REPORTS". You may also choose to enable an alarm output to occur during an exception while not displaying the exception data through its program setup in the "ALARM OUTPUTS" menu..With the display "OFF" the VSSI-Pro will still perform all functions as programmed, for example, exception reporting will still function, but the information will not appear on screen unless programmed to do so in the "EXCEPTIONS REPORT" menu.

## **EXIT**

Place the arrow here and press and release "SET" to return to the Main Menu.

# **COMMUNICATION**

---

---

When you choose your format in the ATM SELECT menu, it automatically formats the VSSI-Pro to the appropriate settings needed to communicate with the ATM; therefore it may not be necessary for you to enter this menu at all. But there may be times when you will need to amend these settings for specific applications or testing purposes.

If you want to amend the settings for the chosen format, place the arrow in front of "COMMUNICATION" and press "SET". This will bring up the following submenu:

**PORT 1**  
**PORT A & B**  
**EXIT**

# PORT 1

---

---

With the arrow beside PORT 1, press "SET." This will bring up another submenu, as shown below:

RX BAUDRATE  
TX BAUDRATE  
parity  
data bits  
handshake  
auto linefeed  
EXIT

## RX BAUD RATE

Choices: AUTO, 150, 300, 600, 1200, 2400, 4800, 9600, 14.4K, 19.2K, 28.8K, 38.4K.

To set the Baud Rate for your particular device, place the arrow in front of "RX Baud Rate" and press and release "SET". The arrow will start flashing. You can now use the "UP" or "DOWN" buttons to make your selection. When your selection appears, press "SET", the arrow stops flashing and you can proceed to the next menu item for programming.

## TX BAUD RATE

Choices: AUTO, 150, 300, 600, 1200, 2400, 4800, 9600, 14.4K, 19.2K, 28.8K, 38.4K. The default is 2400.

**This feature allows you to set the transmit baudrate to a separate device if you are looping the data back out of the VSSI-Pro.**

To set the TX Baud Rate for your particular device, place the arrow in front of "TX BAUDRATE" and press and release "SET". The arrow will start flashing. You can now use the "UP" or "DOWN" buttons to make your selection. When your selection appears, press "SET", the arrow stops flashing and you can proceed to the next menu item for programming.

## PARITY

Choices: NONE, ODD, EVEN

Place the arrow in front of "PARITY" and press and release "SET". The arrow will start flashing. You can now use the "UP" and "DOWN" arrows to make

your selection. When your selection appears, press "SET", the arrow stops flashing and you can proceed to the next menu item for programming.

## **DATA BITS**

Choices: 7 or 8

If you select 7 Data Bits, you must select "ODD" or "EVEN" parity in the PARITY menu. Place the arrow in front of "DATA BITS" and press and release "SET". The arrow will start flashing. You can now use the "UP" & "DOWN" arrows to make your selection. When your selection appears, press "SET", the arrow stops flashing and you can proceed to the next menu item for programming.

## **HANDSHAKE**

Choices: ON, OFF

Handshaking is an electrical signal that tells the Computer that the VSSI-Pro is ready to receive data. Handshaking may not be necessary and/or may be connected to an outgoing signal from the Computer since the VSSI-Pro does not require it. The VSSI-Pro's Handshaking signal is always present.

Handshaking guarantees that the internal buffer is not over run or that text is not lost. Most AVE interfaces do not support this function. Place the arrow in front of "HANDSHAKING" and press and release "SET". The arrow will start flashing. You can now use the "UP" & "DOWN" arrows to make your selection. When your selection appears, press "SET", the arrow stops flashing and you can proceed to the next menu item for programming.

## **AUTO LINEFEED**

Choices: ON, OFF

AUTO LINEFEED makes the VSSI-Pro send out CR/LF or CR after each line. The default for this function is ON, but if you would like to disable it then place the arrow in front of "AUTO LINEFEED" and press and release "SET". The arrow will start flashing. You can now use the "UP" & "DOWN" arrows to make your selection. When your selection appears, press "SET", the arrow stops flashing and you can proceed to the next menu item for programming.

## **EXIT**

Place the arrow here and press "SET" to return to the previous submenu.

# PORT A & B

---

---

Again, there is probably no need for you to access this menu, as it should be used for testing purposes only. You should rely on the setting chosen in ATM SELECT, but we will provide a brief overview of this menu. With the arrow beside PORT A & B, press "SET" and you will see the following submenu:

- ASYNCR
- BISYNCR
- SDLC
- EXIT

With the arrow beside ASYNCR, again press and release "SET" and another submenu will appear:

- ADDRESS SET UP
- Baud rate
- parity
- data bits
- EXIT

Beside each item in this submenu, and in the submenus for BISYNCR and SDLC, will be the settings for these formats, one of which you chose in the ATM SELECT submenu. The Address settings are ANY or 0 through 254. BAUD RATE choices may be from 1200 to115200; PARITY choices are None, Even, & Odd. DATA BITS can be 7 or 8. Do not change these settings except for specific applications or for troubleshooting purposes.

With the arrow beside BISYNCR, press "SET" to view the following submenu:

- ADDRESS SET UP
- DATA ENCODE
- data coding ASCII
- exit

DATA ENCODE choices are NRZ, NRZI, or NRZID.

DATA CODING - choices are ASCII or EBCDIC

Now place the arrow beside SDLC and press "SET" and the following submenu will appear:

- ADDRESS SET UP
- DATA ENCODE
- BAUD RATE
- exit

**NOTE: Added to DATA ENCODE in this submenu is the choice of AUTO. Otherwise the settings available are the same as in the BISYNCR or ASYNCR**

*menus.*

## **EXIT**

Selecting EXIT returns you to the main menu.

# **EXCEPTION REPORTS**

---

## **Overview**

The Exception Report gives you the option to assign an on-screen flag, trigger an alarming device, or send data to another serial device on any questionable transaction that you have preprogrammed into the VSSI-Pro. The VSSI-Pro will allow programming of up to 24 separate exceptions. These exceptions can be any transaction that you determine to be "exceptional" or questionable.

You may even set ranges for some exceptions. For example: All transactions over \$100; between \$8.00 and \$25.00; or lower than .10 and greater than \$10.00; by a specific customer, or whatever transactions you need to watch "exceptionally" close.

## **ON-SCREEN FLAGS**

You have several options for programming your Exception Report. The first option typically has all programmed exceptions display a flashing asterisk in the upper right corner of the on-screen display. This ON-SCREEN FLAG is controlled through the "ALARM OUTPUTS" menu. You assign a corresponding Alarm to an Exception and set the parameters for the FLAG in this menu. You do this by choosing "DISPLAY" for the corresponding Exception No. and selecting "ON". With this option, all questionable transactions (exceptions) will be "flagged" with the flashing asterisk. You can then review these exceptions by putting your VCR in play and pressing the FF button. This will give you a fast scan of the tape and you can go into normal play when you see the flashing asterisk and view that transaction in real time or slow play or frame by frame, depending on the type of playback options of your particular VCR.

## **HARD ALARM OUTPUT**

The VSSI-Pro allows you to program exceptions to trigger external alarming devices such as Time-Lapse VCR's, Quads, Enunciators, LED's etc. Using the Alarm Output you can have your time-lapse VCR record only exceptions, or have an alarming Quad go to full screen on an exception, or even trigger a buzzer to alert you that an exception has occurred.

## PRINTER OUTPUT

There may be situations where you do not want tellers or other employees to know what triggers an exception. In this case, the VSSI-Pro provides a separate output that will send data to a remotely located serial printer. If you turn the on-screen display off and the output on and you have a remote serial printer hooked up to the VSSI-Pro, then, whenever an exception is reported, it is sent out to the serial printer only. The printer will give you a hard copy printout of the questionable transaction with the time and date. With this hard copy printout of the exception report, you can then review the tape by going directly to that exception's time.

The serial printer output of the VSSI-Pro can be programmed to send out the entire transaction. The output can be connected to other equipment such as computers, phone line transmissions, or digital storage devices for later retrieval.

## Programming Your Exception Report

---

---

From the main programming menu, place the arrow in front of "EXCEPTION REPORT" and press and release "SET". This will take you to the Exception Reports' menu.

### EXCEPTION REPORT MENU

When the Exception Report entry is selected from main menu, the following submenu will appear.

EXCEPTION HISTORY	
SET EXCEPTION	
OUTPUT	ON/OFF
TIME STAMP	OFF/ON
EXIT	

### EXCEPTION HISTORY

Selecting this item brings out another submenu.

TOTAL EXCEPTS	nnn
VIEW EXCEPTIONS	
OUTPUT EXCEPTIONS	
CLEAR HISTORY	
EXIT	

Where *nnn* is a 3 digit number that shows the total exceptions kept in the Exception History Buffer.

Select 'VIEW EXCEPTIONS' to display buffered exceptions on the screen, starting with the oldest exception in the buffer. Once in the exception displaying screen, pressing DOWN or UP keys scrolls to next screen. Press SET key to return to main menu.

Select 'OUTPUT EXCEPTIONS' to have the buffered exceptions sent out for printing.

Select 'CLEAR HISTORY' to clear all the buffered exceptions and reset the TOTAL EXCEPTIONS Counter.

Selecting 'EXIT' brings you back to the Exception Report main menu.

On this main menu: Select 'SET EXCEPTIONS' to bring you to the EXCEPTION setup menu.

Select 'OUTPUT' to turn the data output On/Off globally.

Select 'TIME STAMP' to turn the time stamp ON/Off. When TIME STAMP is on, all output lines are preceded by the current time/date.

## **SET EXCEPTION**

### **EXCEPTION NO.**

Choices: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, and 24.

To select the Exception No. that you wish to program, place the arrow in front of "EXCEPTION NO." and press and release "SET". The arrow will start flashing. Use the "UP" & "DOWN" buttons to sequence through the choices. Make your selection and press and release "SET". The arrow will stop flashing and you may continue to the next menu item.

**Note: 2 Exception Strings, Nos. 23 & 24, are preprogrammed for inning and ending transactions and with DISPLAY OFF. The display messages for these two exceptions are "TRANSACTION BEGIN" and "TRANSACTION END," which means that when a transaction starts, an on-screen alarm is triggered and the "TRANSACTION BEGIN" message will be sent out, but not displayed, and the same will occur at the end of a transaction. You can display either of these messages by turning DISPLAY for these numbers ON.**

## DISPLAY

Choices: ON or OFF

This "DISPLAY" item lets you control whether or not a particular exception is displayed on the video monitor or not. If you do not turn it on the Exceptions display here, you will not have the on-screen flag and consequently, no record of the exception when it occurs.

To make your selection, place the arrow in front of "DISPLAY" and press and release "SET". The arrow will start flashing. Use the "UP" or "DOWN" buttons to toggle between "ON" or "OFF".

Make your selection and press and release "SET", the arrow will stop flashing and you may continue to the next menu item.

**Application Note: If the display of the Exception is turned off here, the exception data will actually be erased from the screen. This feature can be used to generate what we refer to as "negative exceptions", allowing the removal of unwanted text from the screen. See "Negative Exceptions" on page 30.**

## OUTPUT

The OUTPUT controls the RS-232 data from the VSSI-Pro. Typically this is sent to a remote Serial Printer to provide a hard copy of the Exceptions with time and date generated by the remote printer. This data can also be sent out to a computer with the appropriate software and give you the ability to analyze the data. You could use an auto answer modem and have the data sent to a central office or even to your home. The Serial Device must have the same Baud Rate, Parity and Data Bits as the VSSI-Pro (Port 1) in order for it to receive the data from the VSSI-Pro.

The Pin out from the VSSI-Pro DB-9 connector is: **PIN 3, Transmit Data, and PIN 5, Ground.**

To make your selection, place the arrow in front of "OUTPUT" and press and release "SET". Use the "UP" and "DOWN" buttons to toggle between "ON" or "OFF". Display your selection and press and release "SET". The arrow will stop flashing and you may continue to the next menu item.

**PROGRAMMING NOTE: The following sections define the Exception String, the Operator and the Range. The Exception String is programmed first, then the Range is defined and finally the Operator is selected. The VSSI-Pro looks at the Exception String first, and if there is data that matches, it**

then checks to see if a range has been defined.

## EXCEPTION STRING

The VSSI-Pro compares the data that is printed to video to the data entered in the Exception String. The Exception String can also be used without a defined range. An example of this would be to assign the word "DEPOSIT" as an exception. Because the VSSI-Pro will only be looking for this Exception String, no range is needed.

However, the Exception string "DEPOSIT" could be further defined by assigning a Range. For example, all DEPOSITS over \$100.00.

You can also define a "Global" exception to flag all negative transactions. An example of this would be the following exception to flag any transaction that contains a "-" or negative sign.

## WILDCARD

The WILDCARD symbol " • ", a centered dot, excepts on any data in that position.

## PROGRAMMING THE "EXCEPTION STRING":

Place the arrow in front of "EXCEPTION STRING" and press and release "SET". The first position of the 20 character exception will become active by flashing. Program in your exception string.

**NOTE: Remember to enter your Exception string based on the way the data prints to video, including spaces! AND Remember "SET" advances to the next position. Pressing "DOWN" and "UP" at the same time enters the string into memory and returns to the submenu for further programming.**

**TIP: If you make a mistake and need to erase a character, pressing the UP and SET at the same time will change the character back to a blank space.**

## NEGATIVE EXCEPTIONS

You can remove unwanted text from the screen using your VSSI-Pro. The VSSI-Pro displays data in a text block 9 lines by 20 characters wide for a total of 180 characters. To remove unwanted messages from the register data you must first determine how the unwanted message prints to video. For example: A typical message which scrolls on the customer display or appears on the video monitor:

**WELCOME TO BANK OF AMERICA.**

To remove this message we will use a technique referred to as **“Negative Exceptions.”**

In the EXCEPTION REPORT submenu Exception 1 is defaulted to “NO SALE.” Go to Exception #2 (or the next available exception). Turn its DISPLAY off. Go to the EXCEPTION STRING and enter the words “WELCOME TO BANK OF A ” exactly as they appeared on the screen, including spaces. **(Note: Only 20 characters are allowed in each exception string, including blank spaces.)**

Now every time the VSSI-Pro “sees” a line of text that includes this text string (a line is defined as text between CR), it will not display them, because the exceptions display has been turned off.

## **OPERATOR**

Although “OPERATOR” comes after “RANGE” in the submenu sequence we will discuss it first because the “OPERATOR” determines the behavior of the “RANGE”. Think of the OPERATOR in mathematical terms. Setting the correct range and specifying IN or OUT will make the OPERATOR perform Greater Than, Less Than, Equal To, IN the Range, or OUT of the RANGE calculations.

With the VSSI-Pro, you can define ranges for your Exceptions and have the VSSI-Pro alarm when an Exception falls within the range’s parameters or outside the range of the two numbers. The choices are: IN, OUT, and NONE.

The Operator, Range and Exception String allow you to define very specific parameters for your Exception Report. The possibilities are virtually endless.

## **DEFINING THE OPERATOR**

To make your selection, place the arrow in front of “OPERATOR” and press and release the “SET” button. The arrow will start flashing. Use the “UP” and “DOWN” buttons to make your selection. When your selection is displayed, press and release the “SET” button. The arrow will stop flashing and you may continue to the next menu item.

## **RANGE**

The range defines the limits of the operator. These are numeric only. The range has two separate fields that are separated by a double-sided arrow. This format must be followed.

## **NAVIGATING THE RANGE AND THE EXCEPTION STRING**

Before you define your range, we need to explain how to navigate through the Range and Exception String using the front panel switches. You will notice

when you place the arrow in front of "RANGE" and press and release the "SET" button, the first "0" in the "Range" starts to flash. This means it is active and ready for programming. To change the value of this character, use the "UP" or "DOWN" buttons to move between 0-9. To move to the next block, press and release the "SET" button. This will advance the active block to the next block immediately to the left. This is how you move through the "RANGE" field.

While you are on an active block, pressing the "UP" and "SET" buttons simultaneously will return that block back to a blank, which is designated by a solid white box. You can follow this format to program your "RANGE". When you have finished and wish to set this range into the VSSI-Pro memory, simultaneously press and release the "UP" and "DOWN" buttons. You can also use this if you make a mistake and want to start over, since there is no back-space feature.

## **DEFINING THE RANGE**

To define the range for the selected Exception, place the arrow in front of "RANGE" and press and release "SET". This will make the first position in the range field active. Follow the procedure outlined in the previous few paragraphs to enter your range.

## **EXITING THE RANGE FIELD**

When you are ready to exit and continue on, simultaneously press and release the "UP" and "DOWN" buttons. This will set the range in the VSSI-Pro memory and exit you back to the Exception Report Sub-Menu.

### **PROGRAMMING REMINDER**

**Use "UP" and "SET" together to erase an entry. Use "UP" and "DOWN" together to set the Range or Exception String into the VSSI-Pro memory and return to the menu.**

## **EXIT**

Place the arrow here and press and release "SET" to return to the EXCEPTION REPORTING submenu.

---

---

## **ALARM OUTPUTS**

**NOTE: The VSSI-Pro will give you two hard alarm outputs to trigger other devices such as alarming VCR's, QUADS, enunciators, LED's, etc..**

To access menu, place the arrow in front "ALARM OUTPUTS" of and press and release "SET". You will be presented with the following submenu:

ALARM NO.  
ALARM TRIG  
NORMAL STATE  
ALM DURATION  
FLAG TYPE  
FLG DURATION  
RTS TRIGGERED TEXT  
EXIT

The ALARM OUTPUTS menu controls not only the formatting of the external alarms, but also the formatting of the on-screen flags assigned to individual exceptions.

## **ALARM NO.**

There are 1-16 choices. You have the ability to tie Alarm 1 and Alarm 2 to any of the programmed exceptions to trigger an external device.

To select the alarm number that you want to program, place the arrow in front of "ALARM NO." and press and release "SET". The arrow will start flashing. By using the "UP" & "DOWN" buttons, toggle through and make your selection. When you have made your selection, press and release "SET." The arrow will become solid and you may continue programming your VSSI-Pro.

## **ALARM TRIGGER (ALM TRIG)**

An ALARM TRIGGER is the source of activity programmed to activate a certain alarm. The Alarm Trigger tells the VSSI-Pro what exception is used to trigger the alarming device or the on-screen flag.

The choices are:

**Exceptions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, & 24:** (alarms when data is received that matches what you have set in these exception strings).

**Exceptions 1-12:** alarms when data is received that matches any data set in Exception 1-12.

**Exceptions 13-24:** alarms when data is received that matches any data set in Exception 13-24.

**Exceptions 1-24:** alarms when data is received that matches any data set in Exception.

**RTS:** External alarm input. The VSSI-Pro has 1 alarm input. A contact closure to ground on this input (pin 5 is ground) will trigger this alarm. Coupled with the RTS Triggered text, you can now display a 40 character message from an external alarm input.

**None:** Sends no alarming data.

**NOTE: In order for you to program an exception to trigger an external alarm number 1 or 2, you must add wires to the DB-9 connector on the VSSI. The Alarm Output employs an open collector transistor to activate the external alarms.**

Pin 1 on the DB-9 is Alarm 1, and Pin 9 is Alarm 2. Pin 5 on the DB-9 is ground.

To select the Alarm Trigger that you want to program, place the arrow in front of "ALM TRG" and press and release "SET". The arrow will start flashing. By using the "UP" & "DOWN" buttons, toggle through and make your selection. When you have made your selection, press and release "SET", the arrow will become solid and you may continue programming your VSSI-Pro.

## **NORMAL STATE**

There are two choices: NO (Normally Open) or NC (Normal Closed). These selections determine whether the alarm outputs will act as a normally open switch or a normally closed switch.

To select the Normal State that you want to program, place the arrow in front of "NORMAL STATE" and press and release "SET". The arrow will start flashing. By using the "DOWN" & "UP" buttons, toggle through and make your selection. When you have made your selection, press and release "SET", the arrow will become solid and you may continue programming your VSSI-Pro.

## **ALARM DURATION**

This is the amount of time in seconds that the alarm will remain activated once it is triggered. The selections for alarm duration are: PULSE, **6, 12, 20, 30, 60, 120, 180, and 300 seconds.** (PULSE sends a 200mS alarm pulse to the alarm device.)

To select the amount of time in seconds that you want to program the alarm duration, place the arrow in front of "ALM DURATION" and press and release "SET". The arrow will start flashing. By using the "DOWN" & "UP" buttons, toggle through and make your selection. When you have made your selection, press and release "SET", the arrow will become solid and you may continue programming your VSSI-Pro.

## **FLAG TYPE (FLASH \* )**

This feature allows you to insert a visual alarm flag on each exception that you program to aid in the review of the video tape. This flag can appear as an asterisk “\*” , a flashing asterisk, reverse text, or flashing reverse text.

To make your selection place the arrow in front of “ FLAG TYPE” and press and release “SET”. The arrow will start flashing . By using the “DOWN” or “UP” buttons, toggle between the choices and make your selection. When you have made your selection, press and release SET, the arrow will become solid and you may continue programming your VSSI-Pro.

## **FLG DURATION**

This is the amount of time in seconds that the on-screen FLAG, either the Asterisk or the Reverse mode, will remain activated once it is triggered.

NOTE: Flag duration is independent of the EX option Alarm Duration. Flag Duration is the amount of time the ON-Screen flag will remain on after activation while Alarm Duration (available only with the EX option installed) is the amount of time that the HARDWIRE Alarm outputs remain activated after it is triggered.

The selections for “FLG DURATION” are: 6, 12, 30, 60, 120, 180, and 300 seconds.

To select the amount of time in seconds that you want to program for the flag duration, place the arrow in front of “FLG DURATION” and press and release “SET”. The arrow will start flashing. By using the “DOWN” & “UP” buttons, toggle through and make your selection. After you have made your selection, press and release “SET”, the arrow will become solid and you may continue programming your VSSI-Pro.

## **TRIGGERED TEXT**

Triggered Text is a data string that associates with one of the 16 alarms. When the alarm is triggered by a source, the associated string is sent out and/or displayed if enabled respectively. Each Triggered Text can contain up to 40 printable ASCII data. If non-printable data (control code) is included, each control code occupies 3 printable spaces. Therefore only 13 control codes maximum can be programmed in one Triggered Text.

# TRIGGERED TEXT PROGRAMMING

---

---

To program the Triggered Text, go to the ALARM OUTPUTS submenu. Select desired ALARM NO, then go to TRIGGERED TEXT submenu.

DISPLAY TEXT	OFF	OFF/ON
OUTPUT TEXT	OFF	OFF/ON
SET TRIGGERED TEXT		
EXIT		

**DISPLAY TEXT**                      **ON/OFF**

**OUTPUT TEXT**                      **ON/OFF**

The DISPLAY and OUTPUT TEXT menu entries are self explanatory. Select the third entry to program the TRIGGERED TEXT. When this entry is selected, the currently programmed Triggered Text is displayed at the lower part of the screen, and the text is entered from here.

To enter a control code, first, put an up-arrow, then put two digits HEX code e.g. to put A (HEX code 01H), program in 01.

## RTS TRIGGERED TEXT (ALARM INPUT)

RTS can be used as an alarm input to trigger a corresponding programmed alarm. You can select RTS as a triggering source of any of the 16 alarms.

## EXIT

Selecting EXIT will return you to the main menu of the VSSI-Pro.

# TEST/DEMO MODE

---

---

The TEST/DEMO MODE provides you with several ways to test the VSSI-Pro and show its capabilities as an ATM interface. There is no actual programming in this menu that you need to do now, or settings that you would change. You will probably only run the tests for troubleshooting purposes, and the demos would be helpful for demonstrating the VSSI-Pro to a customer without actually having to access an ATM.

**Note: The figures used in the Test Display settings are for example only. The settings for your ATM will depend on the format chosen in the ATM SELECT Menu.**

To access this section, place the arrow in front of "TEST/DEMO MODE" and press and release "SET." You will be presented with the following submenu:

PORT 1 TEST  
PORT A TEST  
PORT B TEST  
ATM DEMO  
VERSION ID  
LOGO  
EXIT

## **PORT 1 TEST**

Port 1 is the serial data from pins 2 & 3 of the DB-9, which send data from the VSSI-Pro to a printer. Place the arrow in front of "PORT 1 TEST" and press and release "SET". This will take you to the following PORT 1 TEST submenu:

RECEIVE (RX) TEST  
TRANSMIT (TX) TEST  
RX/TX TEST  
BAUD RATE SCAN  
EXIT

## **RECEIVE (RX) TEST**

This checks if the VSSI-Pro is receiving data from the ATM serial interface. To proceed with this test, place the arrow in front of "RECEIVE (RX) TEST" and press and release "SET". You will be presented with the following display (example only):

RX BAUD RATE: AUTO  
TX BAUD RATE: 2400  
PARITY: NONE  
DATA BIT: 8  
HANDSHAKING: ON  
RECEIVING ON/OFF

**NOTE: In any of these tests, you can pause the data scrolling by holding down either the "UP" or "DOWN" buttons.**

The VSSI-Pro is now waiting for data from the ATM. Enter a transaction. If the

VSSI-Pro is receiving data, it will appear in three separate lines, scrolling from right to left across the bottom of the on-screen display. The first line is the transaction information. The second and third represent the HEX equivalent of the data in the first line.

- 0 Data
- 3 HEX MS nibble
- 0 HEX LS nibble

If you perform this test and do not receive any data, then check all connections to the VSSI-Pro.

## **TRANSMIT (TX) TEST**

In the TRANSMIT TEST, the VSSI-Pro sends a predefined ASCII pattern to further test the hardware connections of the system. To proceed with this test, place the arrow in front of "TRANSMIT" (TX) TEST", press and release "SET". You will be presented with the following display. (Example only.)

```
RX BAUD RATE: AUTO
TX BAUD RATE: 2400
PARITY:      NONE
DATA BIT:           8
HANDSHAKING: ON/OFF
TRANSMITTING: BAUD RATE DETECTION
```

## **RX/TX TEST**

In the RX/TX TEST, the VSSI-Pro echoes whatever it receives to further test the hardware connections of the system. To proceed with the test, place the arrow in front of "RX/TX TEST" and press and release "SET". You will be presented with the following display (Example only).

```
RX BAUD RATE: AUTO
TX BAUD RATE: 2400
PARITY:      NONE
DATA BIT:           8
HANDSHAKING: ON/OFF
ECHOING
```

## **BAUD RATE SCAN**

There may be times when the Baud Rate cannot be detected on start-up. In the BAUD RATE SCAN test, you can scan for the Baud Rate of your interface.

To proceed with this test, place the arrow in front of "BAUD RATE SCAN" and press and release "SET". You will be presented with the following display (example only):

RX BAUD RATE: AUTO  
TX BAUD RATE: 2400  
PARITY: NONE  
DATA BIT: 8  
HANDSHAKING: OFF  
BAUDRATE SCAN  
BAUD RATE DETECTION

Enter a transaction and the VSSI-Pro will scan for the Baud Rate and display it where "AUTO" is on the menu. To return to the submenu, press and release "SET".

## **EXIT**

Select "EXIT" to return to the "TEST/DEMO" submenu.

## **PORT A TEST**

Accessing this menu item will give you the following categories:

receive test (RX TEST)  
transmit test (TX test)  
rx/tx test  
dump data  
EXIT

Both, Ports A & B examine data from the ATM Interface. For troubleshooting purposes you may at some point need to do a data dump. Use this submenu to instigate the procedure, but first you have to make the proper connections and run preliminary tests before the data dump can occur. For now we will provide a brief overview of these menus. For information on a data dump procedure see page 47.

## **Receive (RX) Test**

With the arrow beside RECEIVE TEST press "SET" to access statistics on the following items:

PROTOCOL  
data encode  
receiving

here are the current communication settings for your ATM, and under RECEIVING will scroll the data being received from the ATM.

# **TRANSMIT TEST**

## **RX/TX TEST**

Both, **TRANSMIT TEST** and **RX/TX TEST** are nonfunctional at this time.

## **Data dump**

After accessing this item you will see the following submenu:

- PROTOCOL
- DATA ENCODE
- dumping data

## **EXIT**

# **PORT B TEST**

The submenu items for PORT B are the same as for PORT A. The only difference is that PORT A is the data from the modem to the ATM, and PORT B is the data from the ATM to the modem.

## **ATM DEMO**

This demonstrates the VSSI Pro's use as an Automatic Teller Machine Interface. To access this demonstration, place the arrow in front of ATM DEMO and press and release "SET". The demo will start after a few seconds. To exit this demo, press and release "RESET." This will take you out of the programming menu entirely though, and you will have to press "UP" and "DOWN" simultaneously, then press "RESET"

## **VERSION IDENTIFICATION**

This menu identifies the current VSSI-Pro version and revision number.

## **LOGO**

This demo displays the AVE logo cycling through several sizes.

To access this demonstration, place the arrow in front of LOGO and press and release "SET". The demo will start, but again, you will have to reenter the main menu if you want to continue viewing your programming options.

## **EXIT**

Selecting EXIT returns you to the main menu.

# DOWN/UP LOAD

---

---

This feature lets you UPLOAD or DOWNLOAD data between VSSI Pro's or a VSSI-Pro and a PC. This feature is especially helpful on multi-interface installations. You can program one VSSI-Pro and Download the data to another VSSI-Pro with the DOWN/UP load feature and a data transfer cable.

The cable is made up of two male DB-9 connectors and the pin out is:

## DOWN/UP LOAD DATA CABLE

PIN 2-----	PIN 3
PIN 3-----	PIN 2
PIN 5-----	PIN 5

## DOWN/UP LOADING VSSI-Pro TO VSSI-Pro

To insure that the data upload or download is accomplished, you need to access the programming menu, so each VSSI-Pro needs a video input and a monitor. The optimum way to perform DOWN/UP LOADS would be to have a system set up with two separate cameras and monitors and the programmed VSSI-Pro with the data cable attached. This would allow you to program one VSSI-Pro on site and bring the programmed VSSI-Pro back to the office and program additional VSSI-Pro's quickly. We realize this may not always be possible, and that there may be a need for field programming. The only problem with field Down/Up loading is the need to access the programming menu of each VSSI-Pro. The use of a portable monitor and the following diagram will let you perform the Down/Upload in the field. For this, you will need a short BNC to BNC cable approximately a foot long, the data cable and a monitor that can be used next to the VSSI-Pro. Follow the cable hookup on page 45.

The programmed VSSI-Pro will UPLOAD data to the unprogrammed VSSI-Pro. In the configuration above, you can get the programming menus from both VSSI-Pro's on the screen at the same time. Let's use the front panel shortcut to position the text block from the programmed VSSI-Pro on the left side of the screen.

To do this, press and hold down the "UP" button, then press and release "RESET" and release "UP". Now, by using the "UP" and "DOWN" buttons, you can move the display side to side on the screen. Move the text block as far to the left as you can and press "RESET" to exit.

Now let's move the display to the top of the screen. Hold down the "SET"

button and press and release "RESET", then release "SET". Now the "UP" and "DOWN" buttons will move the display up and down on the screen. Move the display to the top of the screen. When you have it in the correct position, press "RESET" to exit.

Now go to the other VSSI-Pro, this time follow the same instructions except we want this display on the right side of the screen. After you have both displays positioned properly, we need to bring up both programming menus.

Lets bring up the PROGRAMMED VSSI-Pro first. To do this, simultaneously press and hold "UP" and "DOWN" and press and release "RESET", then release "UP" and "DOWN". This will bring up the main menu and it should be on the left half of the screen. Now go to the other VSSI-Pro and do the same thing. You should now have both programming menus side by side.

NOTE: Depending on the size of the monitor you are using, these two menus may overlap, but should not be a problem.

To proceed with the DOWNLOAD/UPLOAD, we will configure the UNPROGRAMMED VSSI-Pro first. To do this, place the arrow in front of "DWN/UPLOAD SETUP" on the main menu on the right side of the screen. Press and release "SET". This will take you to the following submenu:

DOWNLOAD SETUP  
UPLOAD SETUP  
EXIT

## HELP

A helpful reference of key terms used in programming your VSSI-Pro.

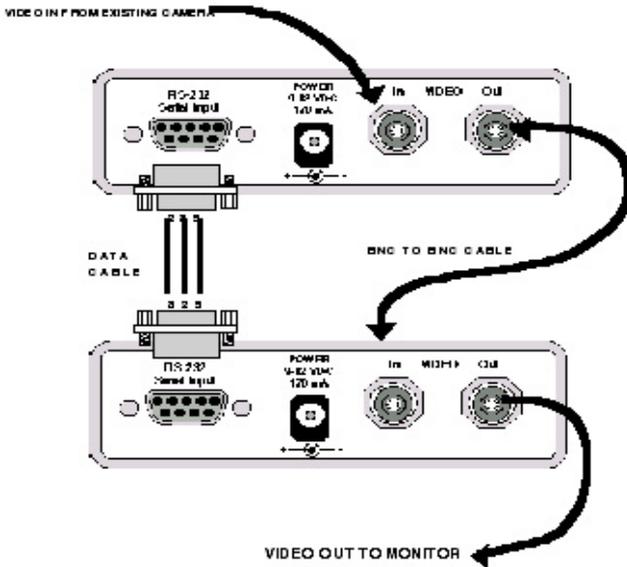
## UPLOAD/DOWN LOAD CABLE DIAGRAM

---

---

Note: The Down/Upload feature can only be used on VSSI-Pro's with the same software revision level!

The arrow should be pointing to "DOWNLOAD SETUP". Press and release "SET".



You will see the prompt "DOWNLOADING ...". This VSSI-Pro is now waiting to receive data from the PROGRAMMED VSSI-Pro.

Now go to the menu of the PROGRAMMED VSSI-Pro and follow the instructions above to get to the "DOWN/UP LOAD SETUP". Press and release the "SET" button to go to the submenu. Now place the arrow in front of "UPLOAD SETUP".

We are now ready to perform the data transfer. Press and release "SET". The data transfer will start and you will have a screen count down of the status that reads:

Programmed VSSI-Pro	Unprogrammed VSSI-Pro
UPLOADING ...1	DOWNLOADING ...1

The count will end at 99.

When this prompt clears the screen, the data transfer is complete.

Press Reset to exit this menu on both VSSI-Pros.

Now go to the main programming menu of the previously unprogrammed VSSI-Pro on the right side of the screen. Enter the EXCEPTIONS menu. You should see your exceptions and other programmed data just as they were on the original programmed VSSI-Pro. Follow this same procedure to program all the VSSI-Pro's in your system.

For locations or companies with a large number of interfaces, we strongly advise that you keep one programmed VSSI-Pro as a master and backup to insure your system's integrity. This will also aid in reprogramming any changes and protect against any catastrophic events.

## UPLOADING/DOWNLOADING VIA A PC

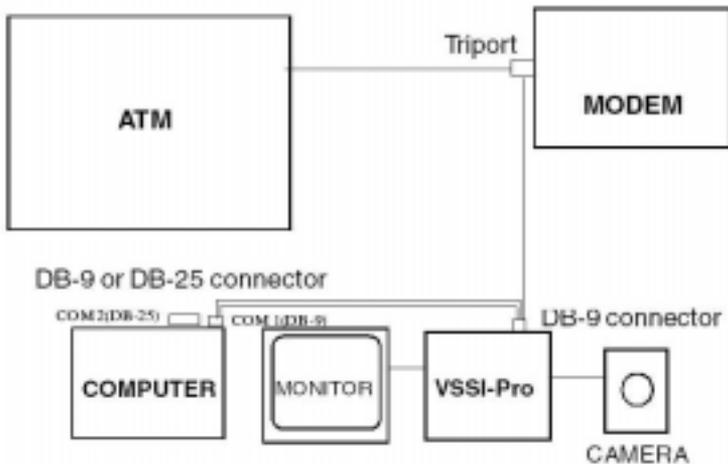
You can use a Laptop PC and AVE's IC or equivalent communications program to store data from a VSSI-Pro to a file. This file can then be uploaded to other VSSI-Pro units with the same software revision level. Use 4800 baud for the PC's baudrate.

### TRIPORT Pin Out

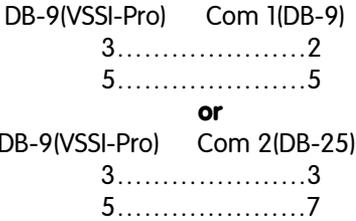
VSSI-Pro	PC Com 1	Com 2
2	3	2
3	2	3
5	5	7

## DATA DUMP CONNECTIONS

---



To execute a data dump you will have to connect wires from the DB-9 connector of the VSSI-Pro to either Com 1 or Com 2 of a computer, using the following pin out diagram:



### **Performing a Data Dump:**

1. Make the proper connections, as shown.
  2. Make sure the PORT 1 communication settings are the same as the computer's settings.
  3. Run a PORT A receiving test (access PORT A submenu in TEST/DEMO of the main programming menu) to make sure data is being received.
  4. Go to DUMP DATA in the PORT A submenu and press "SET." The data should appear on the computer screen. Save this data to a file.
- Follow the same procedure for performing a data dump from PORT B, using the PORT B submenu for a receiving test and the DUMP DATA command.

# PROBLEM SOLVING GUIDE AND APPENDIX

---

---

This section contains a Problem Solving Guide and additional information regarding AVE's interfaces, cables, tips, and special applications.

**Note: Before attempting to install your system, we highly encourage you to get your customer to demonstrate to you that their ATM is operating properly.**

## **No data on screen.**

VSSI-PRO

1. Press the reset button on the front panel.
2. Incorrect protocol selected in the ATM SELECT Menu.
3. Data cable is miswired.
4. Data cable is too long or did not use shielded cable.

## **No video on monitor.**

1. VSSI-PRO transformer not plugged in.
2. Video In/Out connectors reversed.
3. No video input signal.
4. Bad video cable or connector.
5. Camera Iris is closed.

Characters Jitter, Jump or Skew

## **The VSSI-Pro requires 1V p-p +/- 20 percent, terminated @ 75 ohms.**

1. Darken the gray scale of the characters.
2. Video Input level less than 1VP-P - use an amplifier to get the proper level.
3. Poor input sync signals - too many AC coupled amplifiers in the video input signal.
4. Noisy or poor quality video source- Replace with better source.
5. Check for double termination

## **Funny characters or garbage on screen.**

1. Power disconnected for too long and memory is lost.
2. Lightning strike, power line noise or power surge.

SET UP dots scroll but the COMPLETED message never appears:

1. Check ATM SELECT for protocol. Try another format.

**SET UP dots do not scroll.**

1. Check ATM SELECT for protocol.
2. Check Cabling.

**No SET UP Mode.**

1. Choose format in ATM SELECT (Main Menu)
2. Press Reset.

**No Video**

1. Check Power Connections.

**How to do a Master Reset on the VSSI-Pro.**

Simultaneously, press and hold in the DOWN, UP and SET buttons. While holding those three buttons in, press and release the RESET button and then release the other three. Our copyright notice will appear, then disappear and the message SET UP will appear. Go into the ATM SELECT menu and chose your format. Then have someone perform a transaction on the ATM.

**Caution: Performing a master reset will set the VSSI-Pro back to its factory defaults and erase all programming including Exceptions. If you have programmed exceptions, we suggest you go to the Exceptions Report page 57 and write down the exceptions.**

## **Commonly Asked Questions Regarding ATM Interfacing**

---

---

**My customer is changing ATMs; will the VSSI-Pro they have work on the new ATM?**

This is a tricky one. There may be other versions of software needed to work with different ATM formats. The probability the VSSI-Pro will work with a new system is relatively high, especially if it's Version 11 based.

Call AVE's Product Support Specialists for additional help along these lines.

**I installed a VSSI-Pro and the On-screen Text jumps or jitters.**

Our VSSI-Pro text inserter requires the input video signal to be 1V P-P +/-20%, terminated @ 75 ohms. If this voltage varies either too high or too low, the VSSI has trouble synchronizing the text to the video.

There are a couple of things you can try to help settle the text down. Change the gray scale level of the text block from the whitest level to one of the slightly lower gray levels. Changing the size of the text block may help. Sometimes moving the text block away from the edge of the screen may help settle the text down too.

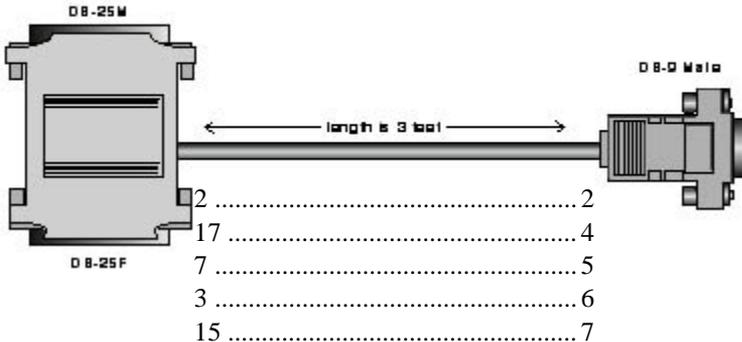
If these don't seem to have an effect then try using a distribution amp like AVE's VDA-601 to properly adjust the video level. If the camera you're using has an auto iris lens, try adjusting the iris to average and then reduce or increase the level.

## Triport and Adapter Cable

Triports are typically used to passively tap data from a serial device. A Triport has three connectors, either 2-DB-25's back to back or 2-DB-9's and an additional DB-9 male which connects to the VSSI-Pro. The Triport (and cable) supplied with the VSSI-Pro is the ATM 2 Channel Triport. The following pin out diagram for the cable is available for troubleshooting purposes.

### VSSI-Pro ATM 2 CHANNEL TRIPORT

SYN C, BISYNC & SDLC TRIPORT



With Data-out options:

VSSI-Pro DB-9(M)	DB-9(M or F)
3	2
5	5

With RTS Triggered Text

VSSI -Pro DB-9 (M)	
8	trigger input (+)
5	trigger input( GND)

For ATM Camera Port Connection (Cable between ATM Camera Interface and VSSI-Pro):

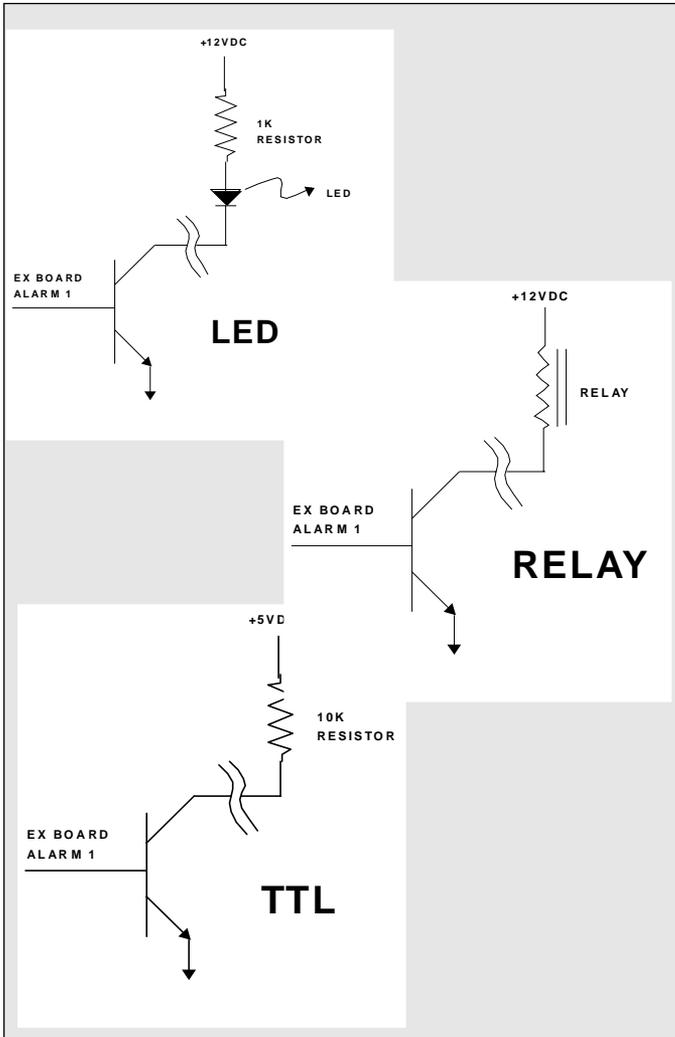
ATM	VSSI-Pro	
	Camera Interface DB-25 (M)	DB-9 (M)
2	3	
3	6	
7	5	

**Note: The VSSI-Pro does not provide any hardware handshaking signal. The ATM camera port must either be programmed without handshaking or the handshaking signal should be looped back to the camera port.**

# HARD ALARM OUTPUT

The Alarm Output provides two open collector transistor alarm outputs to trigger alarming devices. Upon an Exception, a VSSI-Pro can be programmed to trigger a VCR to go to its fastest record time, have a Quad go full screen, home a switcher, trigger a preprogrammed PTZ, or provide visual or audible alarms.

Following are some basic circuit designs to take advantage of the Alarm Output.



# VSSI-Pro MENU Summary

---

---

## ATM SELECT

SDLC FORMAT I  
SDLC FORMAT II  
SDLC FORMAT III  
SDLC FORMAT IV  
CAT ELF  
EXIT  
BISYNC FORMAT I  
EXIT  
ASYNC FORMAT I  
EXIT  
CAMERA PORT  
FUJITZU 4000/6000  
FUJITZU 7000  
IBM 4700  
IBM PICTURE TEXT  
NCR 5000  
EXIT  
CUSTOM  
CUSTOM I  
EXIT  
EXIT

## SCREEN SETUP

CHARACTER SIZE  
10 CHOICES  
BORDER/GRAYSCALE  
10 LEVELS  
HORIZONTAL POSITION  
ANYWHERE  
VERTICAL POSITION  
ANYWHERE  
CLOCK  
T/D DISPLAY: ON/OFF  
TIME FMT:12 HOUR/24 HOUR  
DATE FMT: MM/DD/YY  
DD/MM/YY  
YY/MM/DD  
SET TIME/DATE  
RESET TIME/DATE  
T/D LOCKING: OFF/ON  
EXIT  
ONSCREEN TITLER  
TITLER—ON/OFF  
TITLER (1 LINE X 20  
CHARACTERS)  
EXIT

## TEXT DISPLAY

SCREEN BLANK  
CHOICES: NONE, 6, 12, 20, 30,  
60, 120, 180, 300  
DISPLAY LINE  
CHOICES: 1-9

TRUNCATE: ON/OFF  
LINE COMPRESS: ON/OFF  
LEFT JUSTIFIED: ON/OFF  
SCROLL DELAY: ON/OFF  
DISPLAY: ON/OFF  
EXIT

## COMMUNICATION

### PORT 1

RX BAUD RATE  
CHOICES: AUTO, 150, 300  
600, 2400, 4800, 9600,  
19.2K,28.8K, 38.8K  
TX BAUD RATE  
CHOICES: AUTO, 150, 300  
600, 2400, 4800, 9600,  
19.2K,28.8K, 38.8K  
PARITY  
CHOICES: ODD, EVEN, NONE  
DATA BITS  
CHOICES: 7 OR 8

HANDSHAKE—ON/OFF  
AUTO LINEFEED—ON/OFF  
OUTPUT—ON/OFF  
EXIT

### PORT A

ASYNC  
ADDRESS SETUP  
CHOICES: ANY OR 0-254  
BAUD RATE  
CHOICES: 1200, 2400,  
4800, 9600, 14.4, 19.2,  
28.8, 38.4, 57.6, 115.2  
PARITY  
CHOICES: NONE, EVEN,  
ODD  
DATA BITS—7 OR 8  
EXIT

### BISYNC

ADDRESS SETUP  
CHOICES: ANY OR 0-254  
DATA ENCODE  
CHOICES: NRZ, NRZI, NRZID  
DATA ENCODING ASCII  
EXIT  
SDLC

ADDRESS SETUP  
CHOICES: ANY OR 0-254  
DATA ENCODE  
CHOICES: NRZ, NRZI,  
NRZID, AUTO  
DATA ENCODING ASCII

BAUD RATE  
CHOICES:1200, 2400,  
44800 9600, 14.4K, 19.2K,  
228.8K, 38.4K 57.6K, 115.2K

**EXIT**

EXIT

**EXCEPTION REPORT**

EXCEPTION HISTORY

TOTAL EXCEPTS  
view exceptions  
output exceptions  
clear history  
exit

SET EXCEPTION

EXCEPTION No.  
CHOICES: 1-24

DISPLAY: ON/OFF

OUTPUT: ON/OFF

EXCEPTION STRING

1 LINE X 20 CHARACTERS

RANGE

0000.00<-> 0000.00

OPERATOR

NONE, IN, OFF  
exit

OUTPUT: ON/OFF

TIME STAMP: on/off

EXIT

**ALARM OUTPUTS**

ALARM NO. CHOICES: 1-16

ALARM TRIGGER

CHOICES: EX 1-12, 13-24, 1-24,  
ANY DATA- EX 1, 2, 3, 4...24

NORMAL STATE

CHOICES: N/O,N/C

ALARM DURATION

CHOICES IN SEC.: 6, 12, 20, 30,  
60, 120, 180, 300, PULSE

FLAG TYPE

CHOICES: NONE, FLASHING \*,  
REVERSE, \*, FLASHING

REVERSE

FLAG DURATON

CHOICES IN SEC.: 6, 12, 20, 30,  
60, 120, 180, 300

RTS TRIGGERED TEXT

40 CHARACTERS

DISPLAY TEXT: ON/OFF

OUTPUT TEXT ON/OFF

SET TRIGGERED TEXT

EXIT

**TEST/DEMO MODE**

PORT 1 (TEST)

RECEIVE (RX) TEST

RX BAUD RATE

TX BAUD RATE

parity

DATA BIT

HANDSHAKING

RECEIVING

TRANSMIT (TX) TEST

RX BAUDRATE

TX BAUDRATE

TX

PARITY

DATA BIT

HANDSHAKING

TRANSMITTING

RX/TX TEST

RX BAUDRATE

TX BAUDRATE

PARITY

DATA BIT

HANDSHAKING

ECHOING

BAUDRATE SCAN

RX BAUDRATE

TX BAUDRATE

PARITY

DATA BIT

HANDSHAKING

BAUDRATE SCAN

BAUDRATE DETECTION

EXIT

PORT A

RECEIVE RX TEST

PROTOCOL

DATA ENCODE

RECEIVING

TRANSMIT TX TEST

RX/TX TEST

DUMP DATA

EXIT

PORT B

RECEIVE RX TEST

TRANSMIT TX TEST

RX/TX TEST

DUMP DATA

EXIT

ATM DEMO

VERSION ID

LOGO

EXIT

**DWN/UP LOAD SETUP**

DOWNLOAD SETUP

UPLOAD SETUP

EXIT

HELP

# VSSI-Pro MANUAL INDEX

---

---

## A

ALARM DURATION 35

ALARM NO. 33

ALARM OUTPUTS 8, 33

ALARM TRIGGER 33

ATM DEMO 42

ATM SELECTION

(CONFIGURATION) 12

AUTO LINEFEED 22

## B

BAUD RATE SCAN 40

BORDER/ GRAY SCALE 13

## C

CHARACTER SIZE 13

CHARACTERS (number of) 30

CLOCK 14

COMMONLY ASKED

QUESTIONS 50

COMMUNICATION 20

CONNECTING YOUR VSSI-Pro

6

CONTROL BUTTONS 10

## D

DATA BITS 21

DATA DUMP (Performing a ) 47

DATA DUMP CONNECTIONS 47

DEFINING THE OPERATOR

31

DEFINING THE RANGE 31

ALSO SEE RANGE

DISPLAY 19, 28

DISPLAY LINES 17

DOWN LOAD 45

DOWN/UP LOAD 43

UP/DOWN LOADING VIA A  
PC 46

## E

EXCEPTION NO. 27

EXCEPTION REPORT

(OVERVIEW) 24

PROGRAMMING 25

EXCEPTION STRING 29

EXITING THE RANGE FIELD

(SEE RANGE)

## F

FEATURES 4, 5

FLAG TYPE 35

FLG DURATION 36

FRONT PANEL

CONTROLS 10

## G

GLOSSARY (SEE HELP)

## H

HANDSHAKE 21

HARD ALARM OUTPUT 24

HELP 44

HORIZONTAL POSITION 14

## I

IDENTIFICATION (VERSION

IDENTIFICATION) 42

## L

LEFT JUSTIFIED 18

LINE COMPRESS 18

LOGO 42

M  
MAIN MENU 11  
~~MAINTENANCE~~ 29  
PROGRAMMING 11  
MASTER RESET 49

N  
NAVIGATING THE EXCEPTION STRING/  
RANGE 31  
NEGATIVE EXCEPTIONS 30  
NORMAL STATE 35

O  
ON-SCREEN FLAGS 35  
ONSCREEN TITLER 15  
OPERATOR 31  
OUTPUT 25, 28

P  
PARITY 21  
PC (UP/DOWN via a) 46  
PORT 1 20  
PORT 1 TEST 38  
PORT A 23  
PORT A TEST 41  
PORT B TEST 42  
PRINTER OUTPUT 25  
PROBLEM SOLVING 48  
PROGRAMMING 9, 11

R  
RANGE 31  
NAVIGATING 31  
DEFINING 32  
EXITING 32  
RECEIVE (RX) TEST 41  
RS-232 SERIAL INPUT 8  
RTS TRIGGERED TEXT 37  
RX BAUD RATE 20

RX/TX TEST 40

S  
SELECT (ATM CONFIGURA-  
TION) 12  
SCREEN BLANK 17  
SCREEN SETUP 13  
SCROLL DELAY 19

T  
TEST/DEMO MODE 38  
TEXT DISPLAY 17  
TIME /DATE  
SETTINGS 14  
TITLE 16  
TITLER 15  
TRANSMIT (TX) TEST 39  
TRIGGERED TEXT  
PROGRAMMING 36  
TROUBLE SHOOTING 48  
TRIPORT 51  
TRUNCATE 18  
TX BAUD RATE 21

U  
UP/DOWN LOADING 43  
UPLOAD/DOWN LOAD CABLE  
DIAGRAM 45  
UPLOADING/DOWNLOADING  
VIA A PC 46

V  
VERSION IDENTIFICATION 42  
VERTICAL POSITION 14  
VSSI-PRO CONNECTIONS 7  
VSSI-PRO MENU SUMMARY 53

W

EX NO.	DISPLAY	OUTPUT	EXCEPTION STRING	RANGE	OPERATOR
1	ON OFF	ON OFF			IN OUT NONE
2	ON OFF	ON OFF			IN OUT NONE
3	ON OFF	ON OFF			IN OUT NONE
4	ON OFF	ON OFF			IN OUT NONE
5	ON OFF	ON OFF			IN OUT NONE
6	ON OFF	ON OFF			IN OUT NONE
7	ON OFF	ON OFF			IN OUT NONE
8	ON OFF	ON OFF			IN OUT NONE
9	ON OFF	ON OFF			IN OUT NONE
10	ON OFF	ON OFF			IN OUT NONE
11	ON OFF	ON OFF			IN OUT NONE
12	ON OFF	ON OFF			IN OUT NONE
13	ON OFF	ON OFF			IN OUT NONE
14	ON OFF	ON OFF			IN OUT NONE
15	ON OFF	ON OFF			IN OUT NONE
16	ON OFF	ON OFF			IN OUT NONE
17	ON OFF	ON OFF			IN OUT NONE
18	ON OFF	ON OFF			IN OUT NONE
19	ON OFF	ON OFF			IN OUT NONE
20	ON OFF	ON OFF			IN OUT NONE
21	ON OFF	ON OFF			IN OUT NONE
22	ON OFF	ON OFF			IN OUT NONE
23	ON OFF	ON OFF			IN OUT NONE
24	ON OFF	ON OFF			IN OUT NONE

# NOTES

---

---

## **AVE**

*617 E. Richey Road • Houston, Texas 77073-3512*

*Phone: (281) 443-2300 • Fax: (281) 443-8915*

*To get more product information and see AVE's  
extensive product line, visit us on our website.*

*Website: [www.americanvideoequipment.com](http://www.americanvideoequipment.com)*

*E-mail: [aveus@ibm.net](mailto:aveus@ibm.net)*

---