

Integrated Portable Speed Gun System



Operation Manual

August 2009



VSI-Pro



CAUTION!
RISK OF ELECTRICAL SHOCK!
DO NOT OPEN!



TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE COVER. DO NOT EXPOSE THE EQUIPMENT TO RAIN OR MOISTURE. NO USER SERVICEABLE PARTS ARE INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

WARNING!

THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION 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 OF 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/HER OWN EXPENSE WILL BE REQUIRED TO TAKE WHATEVER MEASURES MAY BE REQUIRED TO CORRECT THE INTERFERENCE.

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INTRODUCTION

1. INTRODUCTION

The Integrated Portable Speed Gun System allows characters to be inserted into any video source via an RS-232 source. This allows Radar or Laser Speed Guns, GPS or Alcohol Meters or any RS-232 communicating device to display alpha-numeric in the video picture of any CCTV system. Simple front panel push-buttons allow the user to simply program all functions and features of the Integrated Portable Speed Gun System. This includes characters position, gray scale and a wide variety text processing function including exceptions and alarming features along with camera and DVR setups.

The Exception Processor of the Integrated Portable Speed Gun System provides the intelligence to monitor the data stream and alarm or notify is the speed higher than the legal limit or if any data has changed along with triggering the DVR to record images.

The Integrated Portable Speed Gun System is fully remotely downloadable, uploadable or programmable by our PC Integrated Portable Speed Gun System Programmable software. This utilizes a direct connection via RS-232 from a laptop to the Integrated Portable Speed Gun System. Complete Integrated Portable Speed Gun System settings can be saved on the laptop and uploaded to the Integrated Portable Speed Gun System at will. This is mainly used for dealer maintenance or for single station user programming.

Firmware is also downloadable in the field with our Firmware Utility so new updates and features can be easily passed to customers without changing EPROMs or opening the unit.



2. FEATURES & SPECIFICATIONS

VSI-PRO INTERFACE

-All popular GPS Data Formats NEMA0183, AIR, NORTHM2
-All popular Speed Radar Units, Decatur, MPH, Kustom, Stalker, Targetron, Tribar, Municipal
-All popular Speed Laser Units, LTI, Laser Atlanta, Stalker, Kustom
-Intoxilyzer and Alcolmeter Alcohol Meters
-RS232C AND TTL Interface
-Serial output of all data or exceptions to printers, computers, modems and DVRs
-Cross Hair Programmable for vehicle targeting
-Universal time/date format
-100 lines exception history buffer
-16 triggered text associated with 16 alarms
-Large data buffers for input/output to accommodate newer, faster registers
-Powerful data filtering algorithms
-Easy on-screen menu-driven setup and programming
-Auto baud rate detection
-24 field programmable exceptions with numeric range

-On-screen flagging of exceptions with asterisk or reverse text
-Programmable alarm outputs.
-Programmable delayed screen blanking
-Choice of 1 to 11 lines displayed on-screen
-On-screen titler up to 40 characters
-Gray scale and border selection from front panel
-Built-in test mode
-Upload/download programming to a PC or another VSI-Pro
-Data captured either to the memory or to the serial port
-Local Firmware Downloadable
-Local / Remote Programming via PC Software

RECORDING

-Internal 128Mb and external SD Card up to 2Gb recording Media
-Selectable Video/Photo Recording
- 640 x 480 Pixel for JPEG in Photo Reccrding standard JPEG
- 320 x 240 Pixel MJEG Compression for AVI @10fps

CAMERA

- | | |
|-------------------------------|--|
|Signal systems | NTSC/PAL |
|Imager | 1/4" Sony CCD |
|Horizontal Resolution | 480 TVL |
|S/N Ration | More than 52dB |
|Min. Illulimnation | Day 0.5 Lux Night 0.05 Lux |
|Auto Electronics Shutter | 1/60 to 1/100,000 NTSC 1/50 to 1/100,000 PAL |
|Optical Lens | 30X |
|White Blance | Auto/ Lamp / Outdoor / Indoor |
|Iris | Auto/ Fix / Night / Move |
|Mirror | On/Off |
|Auto Gain Control | On/Off |
|Programming Control | Push Switches |
|Auto Color / B/W | Day-Color, Night-Auto Color / B/W |
|Focusing Systems | Auto / Manual / Key Control |
|Video Ouput | 1.0V p-p 75 Ohm Terminated |

DISPLAY

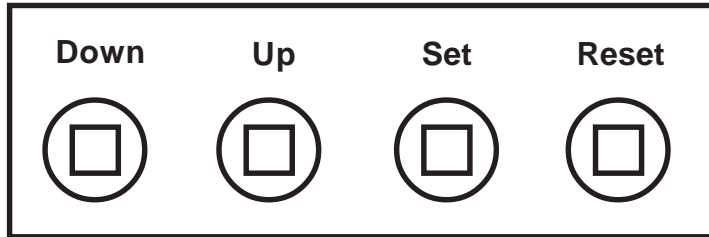
- | | |
|-------------------------------|---|
|TFT LCD Screen Size | 4.05 Inches (Diagonal) |
|Display Mode | Normal White |
|Input signal | PAL/NTSC Auto detect |
|White Chromaticity | X = 0.30, Y = 0.35 at view angle 0 |
|Active Display Area | 480 (W) x 234 (H) |
|Display Resolution | 480 x 234 |
|Dot Pitch | 0.171W x 0.264mm (H) |
|Gray Scale | Analog |
|Backlight | CCFL x 1 |
|Front Surface | Anti-Glare hard coating |
|Bright Ness | 250 cd/m2 typical |
|Contras Ratio | 150 typical |
|Viewing Angle | Left/Right +/- 45 Deg. (H) (at CR >10)
Top/Bot +/- 10/30 Deg. (V) (at CR>10) |
|Humidity | 10% RH-90%RH |
|Virbration (with Carton) | 5-200 Hz Sweep Frequency |
|Drop (with Carton) | 60cm at 1 corner, 3 edges, 6 surface |

- | | |
|---------------------------|---|
| Power Input | 12VDC +-10% @ 1.25A on 4P DIN Connector |
| Video Output | 1Vpp 75 Ohm RCA Connector |
| Brightness Control | Potentiometer |
| Dimensions | 220mm(L) x 1.33mm(W) x 1.66mm (H) |
| Weight | 2.15 kg or 4.76 lbs |

USER FRONT PANLE CONTROLS

3. USER FRONT PANEL CONTROLS

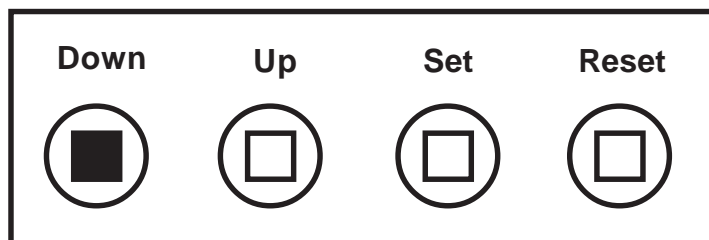
The VSI-Pro Radar is programmed by pressing and releasing specific combinations of the four front panel push-buttons. Via these four simple buttons, all of the powerful programming features of the Text Inserter are available. A video source and a monitor must be connected in order to see the programming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



3.1 FRONT PANEL CONTROLS

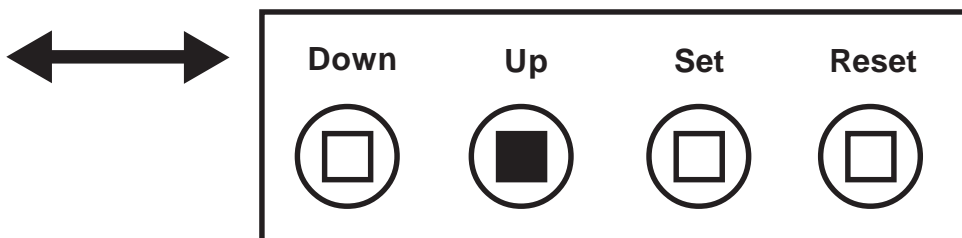
The front panel controls are provided to allow simple changing of the display's vertical and horizontal position and the gray scale or border. This eliminates the need of the user to enter the main menu and inadvertently change important programming setups.

Changing the Gray Scale



- 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 Gray Scale.
- 5) When choice is made, press and release the "Set" button.

Changing the 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 the choice is made, press and release the "Set" button.

Changing the Vertical Position

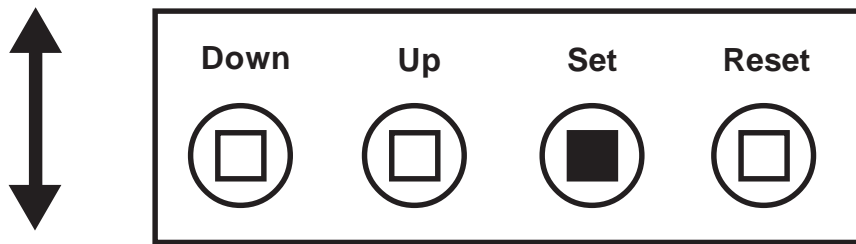


Figure 8: Four Front Pannel Push Buttons of VSI-Pro Radar (Set)


- 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 the choice is made, press and release the "Set" button.

VSI-PRO PROGRAMMING

4.1 GETTING STARTED

To access the main-menu of the VSI-Pro Radar, simultaneously hold down the “Down” & “Up” buttons and press and 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, simply use the “Down” and “Up” buttons to position the cursor in front of the desired function, then press “Set” to access that function.

If you have difficulty entering the main-menu, try the following procedure exactly. With your left thumb, lightly press and hold in the two buttons to the left (Up & Down). While holding down these buttons, press and release the “Reset” button with your right thumb. Then release the other buttons.

NOTE  *If a sub-menu has an “EXIT” selection, always go there and press “Set”. Pressing “Reset” at the main-menu exits you from the programming mode.*


4.2 MAIN PROGRAMMING MENU

Following is a detailed description of the menu selections and the programming capabilities of the VSI-Pro Radar.

- DEVICE SELECT**
- SCREEN SETUP**
- TEXT DISPLAY**
- COMMUNICATION**
- EXCEPTION REPORT**
- ALARM OUTPUTS**
- TEST/DEMO MODE**
- DOWNLOAD/UPLOAD SETUP**
- HELP**

4.3 DEVICE SELECT

To select a specific register, press the “Up” or “Down” button to move the cursor to “DEVICE SELECT” and press “Set”. The DEVICE SELECT menu will bring up a sub-menu consisting of registers shown in Figure 10-A. You can go to the next or previous page by placing the cursor in front of “NEXT” or “PREVIOUS” and then pressing “Set”. To select the desired register, press the “Up” or “Down” button to move the cursor to that register and press “Set”. After selecting the register, exit out of the DEVICE SELECT menu by pressing the “Up” or “Down” button to move the cursor to “EXIT” and then pressing “Set”. In the main-menu, press “Reset” to activate the programming for that specific register. DEVICE SELECT automatically formats the VSI-Pro to match your register’s communication settings. However, if you need to change these settings, you can do so through the COMMUNICATION menu described later in this manual.

NOTE  *Whenever you select a device in this menu, certain programming features are reset to the default settings. Always set the register selection first, get the data on-screen, then proceed with additional programming.*

VSI-Pro Radar

Press the “Up” or “Down” button to move the cursor to “DEVICE SELECT” and press “Set”. The DEVICE SELECT menu will appear:

- GENERIC**
- GPS INTERFACE**
- RADAR GUN**
- LASER GUN**
- ALCOHOL METER**
- EXIT**

Press the “Up” or “Down” button to move the cursor to “GENERIC” and press “Set” to select, The Generic mode has no filter or driver but simply displays all the printable ASCII characters sent to the VSI-Pro Radar. If you are testing a new device use this setting first to verify data and then select the appropriate driver.

GPS INTERFACE

Press the “Up” or “Down” button to move the cursor to “GPS INTERFACE” and press “Set”. The GPS INTERFACE menu will appear:

- | | |
|--|-----------------|
| <input checked="" type="radio"/> FORMAT | NEMA0183 |
| <input type="radio"/> TIME | ON |
| <input type="radio"/> DATE | ON |
| <input type="radio"/> SPEED | ON |
| <input type="radio"/> DIRECTION | ON |
| <input type="radio"/> EXIT | |

GPS INTERFACE Sub-Menu

FORMAT

Choices: NEM0183, AIR, NORTHM2

Selecting all the other options for ON or OFF will either display or not the selection.

RADAR GUN

Press the “Up” or “Down” button to move the cursor to “RADAR GUN” and press “Set”. The following menu options will appear.

- DECATUR**
- KUSTOM**
- MPH PHYTHON**
- MPH Z35**
- MUNICIPAL TS-4**
- RG2RS**
- NEXT PAGE
- EXIT**

Radar Gun Sub-Menu Page 1

- PREVIOUS PAGE
- STALKER DUAL SL**
- STALKER SPORT**
- STALKER ATR**
- TARGETRON RAPID FIRE**
- TRIBAR MUNI QUIP**
- EXIT**

Radar Gun Sub-Menu Page 2

DECATUR

Choices: GENESYS I/II, Hunter

Note that when selecting the Hunter model this requires a special TTL Mod adapter for inside the VSI-Pro Radar. Please contact the factory for further information.

KUSTOM

Choices: Golden Eagle, Kustom ICFT

Note that Kustom Signals has many versions of software for RS-232 output of their radar guns. Particularly they encode the data so the customer can not use with 3rd party video systems. Contact Kustom to obtain the proper generic software version for your radar gun.

RG2RS

The RG2RS is an AVE additional adapter that allows interfacing to older radar guns via remote display and other special protocols prior to the common RS-232.

STALKER ATR

The STALKER ATR either requires the RG2RS adapter or is supported by the VSI-Pro Mini RG which only available in PCB form or is an integral part of the Portable Radar Set.

VSI-PRO PROGRAMMING

LASER GUN

Press the “Up” or “Down” button to move the cursor to “LASER GUN” and press “Set”. The LASER GUN menu will appear:

- LTI20-20**
- LASER ATLANTA**

LASER GUN Sub-Menu

ALCOHOL METER

Press the “Up” or “Down” button to move the cursor to “ALCOHOL METER” and press “Set”. The ALCOHOL METER menu will appear:

- ALCOLMETER SD-400P**
- INTOXILYZER 400**

ALCOHOL METER Sub-Menu

4.4 SCREEN SETUP

Press the “Up” or “Down” button to move the cursor to “SCREEN SETUP” and press “Set”. The following menu will appear:

- TEXT GRAYSCALE
 - BACKGROUND GRAYSCALE
 - HORIZONTAL POSITION
 - VERTICAL POSITION
 - CLOCK
 - ON-SCREEN TITLER
 - EXIT

SCREEN SETUP Sub-Menu

TEXT GRAYSCALE

To change the display border and/or the grayscale of the text on screen, press the “Up” or “Down” button to move the cursor to “TEXT GRAYSCALE” and press “Set”. Cycle through the selections by pressing the “Up” or “Down” buttons. There are 10 settings to choose from. Make your selection and press “Set” to return to the previous menu.

BACKGROUND GRAYSCALE

To change the display border and/or the grayscale of the text on screen, press the “Up” or “Down” button to move the cursor to “BACKGROUND GRAY SCALE” and press “Set”. Cycle through the selections by pressing the “Up” or “Down” buttons. There are 10 settings to choose from. Make your selection and press “Set” to return to the previous menu.

HORIZONTAL POSITION

To change the horizontal position of the inserted text on-screen, press the “Up” or “Down” button to move the cursor to “HORIZONTAL POSITON” and press “Set”. Press the “Up” or “Down” buttons to move the text to the desired horizontal position.

VERTICAL POSITION

To change the vertical position of the inserted text on-screen, press the “Up” or “Down” button to move the cursor to “VERTICAL POSITION” and press “Set”. Press the “Up” or “Down” buttons to move the text to the desired vertical position.

NOTE

Upon powering up for the first time or when the battery becomes depleted, the on-screen Time / Date display may be incorrect or have unreadable characters. If this is the case, enter the clock menu and “Reset Time / Date”. The Time / Date will then show readable characters and be unaffected by a Master Reset.

CLOCK

To program the clock’s functions, press the “Up” or “Down” button to move the cursor to “CLOCK” and press “Set”. The following menu will appear:

<input checked="" type="radio"/> T/D DISPLAY	ON
<input type="radio"/> TIME FORMAT	12 HOUR
<input type="radio"/> DATE FORMAT	MM/DD/YY
<input type="radio"/> DAYLIGHT SAVING	DISABLED
<input type="radio"/> SET TIME / DATE	
<input type="radio"/> RESET TIME / DATE	
<input type="radio"/> T/D LOCKING	ON
<input type="radio"/> EXIT	

CLOCK Sub-Menu

T/D DISPLAY turns the time/date display on or off. Press the “Up” or “Down” button to move the cursor to “T/D DISPLAY” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between “ON” or “OFF” and press “Set” when the desired value is displayed.

TIME DISPLAY selects either 12-hour AM/PM or 24-hour Military Time format with AM/PM. Press the “Up” or “Down” button to move the cursor to “TIME DISPLAY” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between time formats and press “Set” when the desired format is displayed.

DATE FORMAT chooses one of the three available formats. Press the “Up” or “Down” button to move the cursor to “DATE FORMAT” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between date formats and press “Set” when the desired format is displayed.

DAYLIGHT SAVING selects, for example, USA, Canada, UK, Australia, Tasmania or is disabled. Press the “Up” or “Down” button to move the cursor to “DAYLIGHT SAVING” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between values and press “Set” when the desired value is displayed.

SET TIME/DATE sets the clock manually. Press the “Up” or “Down” button to move the cursor to “SET TIME/DATE” and press “Set”. The time/date will appear and the cursor will start flashing. Press the “Up” and “Down” button to change the value and press “Set” when the desired value is displayed. The value is selected and the cursor will advance to the next position. When the desired time/date is displayed, press the “Up” and “Down” buttons simultaneously to enter the time/date into memory and return to the previous menu.

RESET TIME/DATE resets the clock to the default value. Press the “Up” or “Down” button to move the cursor to “RESET TIME/DATE” and press “Set” to reset the time/date.

T/D LOCKING turns the time/date locking on or off. If the time/date locking is turned on, make sure that the time and date format selected is the same as the ATM time and date format. Press the “Up” or “Down” button to move the cursor to “T/D LOCKING” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between “ON” or “OFF” and press “Set” when the desired value is displayed.

If the T/D LOCKING is turned on, make sure that the time format selected is the same as the register’s time/date format. If the T/D LOCKING is turned on, the VSI-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:MM AM, HH:mm:ss AM
HH:MM PM, HH:MM:ss PM

where hh is a number between 0 and 12 (24 if either AM or PM not present)
A valid date has the same format as for date display and has either “/” or “-” as a separator.

ON-SCREEN TITLER

Press the “Up” or “Down” button to move the cursor to “ON-SCREEN TITLER” and press “Set”. The following menu will appear:

<input checked="" type="radio"/> TITLER	OFF
<input type="radio"/> TITLE	
<input type="radio"/> EXIT	

ON-SCREEN TITLER Sub-Menu

TITLER

To change the status of the on-screen titler, press the “Up” or “Down” button to move the cursor to “TITLER” and press “Set”. The cursor will start flashing. Select either “ON” or “OFF” by pressing the “Up” or “Down” button. After making a selection, press “Set”. This will return the cursor to the non-flashing mode. Now select “EXIT” to return to the previous menu.

TITLE

The VSI-Pro Radar gives you the option of a 40-character display for easy register identification in addition to the actual register transaction data.

To create a title, press the “Up” or “Down” button to move the cursor to “TITLE” and press “Set”. You will see a row of 40 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 alpha-numeric selections from the following list of available characters.

ABCDEFGHIJKLMN OPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz =.:+*/9876543210

The solid white box is used for a blank space. Make your selection and press “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. Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

NOTE  *Remember, enabling the TITLE will limit text insertions to 10 lines maximum.*

EXIT

Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

4.5 TEXT DISPLAY

This menu will give you more control over the actual text block formatting and its appearance on the screen. To access the menu, press the “Up” or “Down” button to move the cursor to “TEXT DISPLAY” and press “Set”. The following sub-menu will appear:

<input checked="" type="radio"/> SCREEN BLANK	20
<input type="radio"/> DISPLAY LINES	10
<input type="radio"/> DISPLAY FORMAT	(TOP)
<input type="radio"/> LINE COMPRESS	OFF
<input type="radio"/> SPACE COMPRESS	OFF
<input type="radio"/> LEFT JUSTIFIED	OFF
<input type="radio"/> SCROLL DELAY	OFF
<input type="radio"/> DISPLAY	ON
<input type="radio"/> CROSS HAIR	
<input type="radio"/> EXIT	

Text Display Sub-Menu

VSI-PRO PROGRAMMING


SCREEN BLANK

Choices: NONE, 6, 12, 20, 30, 60, 120, 180, 300

This is the amount of time that the VSI-Pro Radar text display will remain on-screen after data sent before blanking itself off (not the video picture, just the radar data) until the next transaction.

To change the SCREEN BLANK setting, press the “Up” or “Down” button to move the cursor to “SCREEN BLANK” and press “SET”. The cursor will begin flashing. Press the “Up” or “Down” buttons to cycle through the selections.


Press “Set” when the desired time is displayed. The cursor will stop flashing and you may continue programming.


NOTE  **Choosing “NONE” means No Blanking. The VSI-Pro Radar 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 up to 11 lines.

To change the DISPLAY LINES setting, press the “Up” or “Down” button to move the cursor to “DISPLAY LINES” and press “Set”. The cursor will begin flashing. Press the “Up” or “Down” buttons to cycle through the selections. Press “Set” when the desired number is displayed. The cursor will stop flashing and you may continue programming.

NOTE  **All register 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 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 10 lines for the text insertion. If you enable the on-screen Time/Date then this takes one additional line also.**

DISPLAY FORMAT

If “TOP” is selected which is the default, the data scrolls from the top most line down to the selected number of lines displayed. “T/D” and/or “TITLE” is displayed at the top of the screen. If “BOTTOM” is selected then the data scrolls up from the bottom most line to the top of the screen and “T/D” and/or “TITLE” is displayed at the bottom of the screen.

LINE COMPRESS

The VSI-Pro automatically compresses the spaces in a line first as it reaches 40 characters. With LINE COMPRESS “ON”, the VSI-Pro will additionally remove multiple spaces and then 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” button, and press “Set” when your choice is displayed. The cursor will stop flashing and you can continue programming.

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

SPACE COMPRESS

Space Compress allows you select the number of maximum spaces next to each other in a line. The selections are 1,2,3,4,5 and OFF. If you select "1" then if three spaces are shown on the receipt the VSI-Pro Radar will delete 2 and only show 1 space between characters on the video and on the output data to the DVR.

LEFT JUSTIFICATION

When LEFT JUSTIFIED is "ON", the VSI-Pro Radar 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 0.5 seconds. This is especially useful with registers that run at a high baud rate, time-lapse VCRs in extended record modes, switchers, or multiplexers. Sometimes, the register can produce characters so quickly that they can scroll up too fast on the screen to be recorded. When SCROLL DELAY is "ON", the VSI-Pro Radar 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" button, then press "Set" when your choice is displayed. The cursor will stop flashing and you can continue programming.

NOTE

At high baud rates, the SCROLL DELAY on the internal buffer of the VSI-Pro Radar may overflow. This will cause lost text. The internal buffer can hold up to 20K characters before overflowing so it is more than enough for almost all cash register applications.

DISPLAY

You have the choice to globally turn "ON" or "OFF" the complete VSI-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 the program set-up in the ALARM OUTPUTS menu. With the display "OFF", the VSI-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. Also the data will not show in the history buffer if not displayed.

CROSS HAIR

Choices: ON, OFF, White Color or Black Color

The Cross Hair puts a targeting crosshair into the video image so the user can better target the car or license plate of the vehicle they are detecting. This cross hair is recorded in the video so can be used as legal evidence the office targeted the proper vehicle with the radar. The Color mode selects a white cross hair for Night and a black cross hair for Day.

EXIT

Press the "Up" or "Down" button to move the cursor to "EXIT" and press "Set" to return to the previous menu.

VSI-PRO PROGRAMMING

4.6 COMMUNICATION

This was discussed briefly in the section under “REGISTER SELECT” and will be fully explained here. When you choose your register type under the REGISTER SELECT menu, this automatically formats the VSI-Pro to the appropriate settings needed to communicate with your register. There may be times when you will need to amend these settings for a specific register.

To access the Communication menu, press the “Up” or “Down” button to move the cursor to “COMMUNICATION” and press “Set”. The following menu will appear:

<input checked="" type="radio"/>	INTERFACE TYPE	RS-232
<input type="radio"/>	RX BAUD RATE	AUTO
<input type="radio"/>	TX BAUD RATE	AUTO
<input type="radio"/>	PARITY	NONE
<input type="radio"/>	DATA BITS	8
<input type="radio"/>	HANDSHAKE	ON
<input type="radio"/>	AUTO LINEFEED	ON
<input type="radio"/>	EXIT	
<input type="radio"/>		

COMMUNICATION Sub-Menu

INTERFACE TYPE

Choices: RS-232, PASSIVE TAP, RS-485

To set the interface type for your particular device, press the “Up” or “Down” button to move the cursor to “INTERFACE TYPE” and press and release “Set”. The cursor will start flashing. You can now use the “Up” or “Down” button to make your selection. When your selection appears, press “Set” again. The cursor will stop flashing and you can proceed to the next menu item for programming. RS-232 and RS-485 are defined by IEEE standards, however, the Passive Tap is a high impedance (100K) input with full diode protection. Refer to Table 1 and 1A for respective pin-outs of RS-232 or RS-485.

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, press the “Up” or “Down” button to move the cursor to “RX Baud Rate” and press “Set”. The cursor will start flashing. You can now use the “Up” or “Down” button to make your selection. When your selection appears, press “Set” again. The cursor will stop 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

This is a new feature that allows you to set the transmit baud rate to a separate device if you are looping the data back out of the VSI-Pro Radar.

To set the TX Baud Rate for your particular device, press the “Up” or “Down” button to move the cursor to “TX BAUD RATE” and press “Set”. The cursor will start flashing. You can now use the “Up” or “Down” buttons to make your selection. When your selection appears, press “Set”. The cursor will stop flashing and you can proceed to the next menu item for programming.

NOTE  *When selecting 38.4K, the TX and RX Baud rate must both be 38.4K. However, with any lower baud rate the TX and RX can be any different baud rate.*

PARITY

Choices: NONE, ODD, EVEN

Press the “Up” or “Down” button to move the cursor to “PARITY” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

DATA BITS

Choices: 7 or 8

If you select 7 Data Bits, you must select “ODD” or “EVEN” Parity in the Parity menu. Press the “Up” or “Down” button to move the cursor to “DATA BITS” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

HANDSHAKE

Choices: ON, OFF

Handshaking is an electrical signal that tells the cash register or computer that the VSI-Pro is ready to receive data. It may not be necessary and/or need not be connected to an outgoing signal from the cash register or computer since the VSI-Pro does not require handshaking. The VSI-Pro handshaking signal is always true signally the cash register or computer to send data.

Handshaking guarantees that the internal buffer is not over run or text is not lost. Most AVE interfaces do not support this function. Also since the VSI-Pro has a 20K buffer this feature is generally not required.

Press the “Up” or “Down” button to move the cursor to “HANDSHAKE” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

AUTO LINEFEED

Choices: ON, OFF

Auto Linefeed makes the VSI-Pro Radar append a CR/ LF after each displayed line. The default of this function is “ON”, but if you would like to disable it then press the “Up” or “Down” button to move the cursor to “AUTO LINEFEED” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

EXIT

Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

4.7 EXCEPTION REPORTS**EXCEPTION REPORT 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 data that you have preprogrammed into the VSI-Pro Radar. The VSI-Pro Radar will allow programming of up to 24 separate exceptions. These exceptions can be any data new, speed over 120kph, arriving at a designated GPS location, blood alcohol over the legal limit or any data that you determine (by programming) to be “exceptional” or questionable.

You may even set ranges for the exceptions. For example, speed over 90 MPH, between 55 and 75, or lower than 10 and greater than 100, all data by a specific car, or whatever data you need to watch exceptionally close.

VSI-PRO PROGRAMMING

The following is a brief overview of how to set up Exception Reports.

1. On the main-menu, press the "Up" or "Down" button to move the cursor to "EXCEPTION REPORT" and press "Set".
2. On the sub-menu, press the "Up" or "Down" button to move the cursor to "EXCEPTION HISTORY" and press "Set".
3. On the sub-menu, press the "Up" or "Down" button to move the cursor to "DVR SELECTION" and press "Set". Then select the model of DVR you are using.
4. Exit and press the "Up" or "Down" button to move the cursor to "SET EXCEPTION" and press "Set".
5. To select the Exception No. that you wish to program, press the "Up" or "Down" button to move the cursor to the desired Exception No. then press "Set". Press the "Up" or "Down" button to toggle between the choices.
6. Make sure that DISPLAY is set to "ON" for any exception data to be saved in the Exception History.
7. Program the Exception String in the Exception Report to compare the data that shows on the screen for time search mode in the Exception History menu.
8. After you have set up the desired configurations, press the REC button on the DVR to record video into a hard drive or use alarm output for triggering the DVR at record input.
9. The monitor should display a flashing REC message and the REC button will light up indicating the DVR is in the recording mode.

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, or reversing the entire text 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 number 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 DVR or 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 DVR or VCR.

HARD ALARM OUTPUT

The VSI-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 or DVR OUTPUT

There may be situations where you do not want cashiers or other employees to know what triggers an exception. In this case, the VSI-Pro Radar 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 VSI-Pro Radar, 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 VSI-Pro Radar can be programmed to send out the entire transaction. The output can be connected to the other equipment such as DVRs, computers, phone line transmissions or digital storage devices for later retrieval.

The VSI-Pro Radar also has a "triggered text" feature. This feature allows programmed text or control characters to be sent out when an exception occurs to trigger devices like DVR's to save the data file for future review. Other computer devices can wait for this specified text string and do other functions at this time via the serial communication process.

From the main programming VSI-Pro Radar menu, press the "Up" or "Down" button to move the cursor to "EXCEPTION REPORT" and press and release "Set". The following menu will appear:

<input checked="" type="radio"/> EXCEPTION HISTORY	
<input type="radio"/> SET EXCEPTION	
<input type="radio"/> OUTPUT	ON
<input type="radio"/> TIME STAMP	ON
<input type="radio"/> EXIT	

EXCEPTION REPORT Sub-Menu

EXCEPTION HISTORY

Press the “Up” or “Down” button to move the cursor to “EXCEPTION HISTORY” and press “Set”. The following menu will appear:

<input checked="" type="radio"/> TOTAL EXCEPTION	000
<input type="radio"/> VIEW EXCEPTIONS	
<input type="radio"/> DVR SELECTION	
<input type="radio"/> TIME SEARCH	
<input type="radio"/> OUTPUT EXCEPTIONS	
<input type="radio"/> CLEAR HISTORY	
<input type="radio"/> EXIT	

EXEPTION HISTORY Sub-Menu

TOTAL EXCEPTIONS

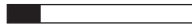
This is not a selection for just displays the total exception count kept in the Exception History Buffer.

VIEW EXCEPTIONS

This displays the buffered exceptions on-screen, starting with the oldest exception in the buffer. Press the “Up” or “Down” button to move the cursor to “VIEW EXCEPTIONS” and press “Set”. Once in the exception displaying screen, press the “Up” or “Down” button to scroll to the next screen. Press “Set” to exit and return to the previous menu. Remember, you must turn the DISPLAY “ON” for exceptions to be saved in history.

For example:

Define “NOSELL” as an exception string In Exception NO. 2 , DISPLAY to be “ON”, and define OPERATOR “IN”.

11:09:45A	9/12/05	MON	REC
11:09:45 A	9/12/05	NO SALE	
11:13:12 A	9/12/05	RETURN	
11:20:23 A	9/12/05	NO SALE	
11:22:21 A	9/12/05	CANCEL	
11:26:18 A	9/12/05	NO SALE	
**** END OF EXCEPTION ****			
			
12-09-2005 11:30:05			

Display of View Exceptions

<p> NOTE</p> <p>For any exception you must program Display “ON” for any exception data to be saved in the Exception History.</p>

VSI-PRO PROGRAMMING

OUTPUT EXCEPTIONS

This selection allows you to have the buffered exceptions sent out for printing. This is a global setting for all exceptions, but you also need to turn on the output for each independent exception.

CLEAR HISTORY

This selection clears all the buffered exceptions and resets the TOTAL EXCEPTIONS counter.

EXIT

Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

SET EXCEPTION

Press the “Up” or “Down” button to move the cursor to “SET EXCEPTION” and press “Set”. The following sub-menu will appear:

<input checked="" type="radio"/>	EXCEPTION NO.	1
<input type="radio"/>	DISPLAY	ON
<input type="radio"/>	OUTPUT	ON
<input type="radio"/>	HISTORY BUFFER	ON
<input type="radio"/>	SCROLL MATCHING	OFF
<input type="radio"/>	EXCEPTION STRING	
	LOCK	
<input type="radio"/>	RANGE	
	0000.00 - 0120.00	
<input type="radio"/>	OPERATOR	OUT
<input type="radio"/>	EXIT	

EXCEPTION NO.

SET EXCEPTION Sub-Menu

Choices: 1 through 24

To select the Exception No. that you wish to program, press the “Up” or “Down” button to move the cursor to “EXCEPTION NO.” and press “Set”. The cursor will start flashing. Use the “Up” & “Down” button to sequence through the choices. Make your selection and press “Set”. The cursor will stop flashing and you may continue to the next menu item.

DISPLAY

Choices: ON, OFF

The DISPLAY item lets you control whether or not this particular exception is displayed on the video monitor. Please understand that if you are not using a remote serial printer and if you do not turn 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, press the “Up” or “Down” button to move the cursor to “DISPLAY” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between “ON” or “OFF”. Make your selection and press “Set”. The cursor 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” that follows.

OUTPUT

Choices: ON, OFF

The OUTPUT controls the RS-232 data from the VSI-Pro Radar. Typically this is sent to a remote Serial Printer to provide a hard copy of Exceptions with time and date on it. This data can also be sent out to a computer with appropriate software and give you the ability to analyze data. You could also use an auto answer modem and have the data sent to a central office or even to your home. The serial devices must have the same Baud Rate, Parity, and Data Bits as the VSI-Pro Radar for optimum performance of data transfer.

To make your selection, press the "Up" or "Down" button to move the cursor to "OUTPUT" and press "Set". Press the "Up" or "Down" button to toggle between "ON" or "OFF". Make your selection and press "Set". The cursor will stop flashing and you may continue to the next menu item.

HISTORY BUFFER ON/OFF

The history buffer stores all the exceptions that occur in the VSI-Pro Radar. Sometimes this can be very large and consume a large portion of the memory of the VSI-Pro Radar. This can be used to automatically search a compatible DVR, upload to a PC to save or print out and view on screen on the VSI-Pro Radar. This setting allows the user to enable or disable this feature as to conserve memory allocation for other features.

SCROLL MATCHING EXCEPTION STRINGS ON/OFF

Scroll Matching is a feature to better remove those advertising scrolling messages on the customer display of cash registers so they do not clutter up the video recording. To better understand how to use this, first we must discuss how the Exception String is processed.

Exception Strings (with Scroll Matching OFF) are compared to any text in a line or any text after a CR LF up to 20 characters. If the line is longer than 20 characters we insert a virtual LF CR. Therefore exception string can not be longer than 20 characters. If you use a wild card in front of or behind of a normal exception string then no matter what letter is received in that position of the wild card it will be accepted as part of exception string.

Typically to erase these scrolling messages we would use the Negative Exception feature and turn "Off" the display after we entered in the words with or without wildcards. However this left many unwanted bits and pieces of the scrolling message visible because the transactions interrupt the scrolling message and then when the transaction is completed the scrolling message goes back to the exact place in the message where it was interrupted. This is different than normal transactions for they always start with a the description, quantity and price usually in one line.

In scrolling messages we may not have LF and sometimes no CR. This has the first character of every line different of the scrolling message possibly different and even partial words starting at any place within any one of the words of the scrolling message. Therefore conventional Exceptions even with the wild card does not remove all.

Scroll Matching "On" allows you to enter an exception string with or without wildcards and no matter when this string is detected the entire line is erased. This feature "On" does not process the exception string any differently than normal exceptions with Display "Off" but gives a higher priority than any normal exception set with Scroll Matching "Off" and Display "On".

This means that if you set an Exception for "Shipping" with or without a dollar figure associated and a normal transaction that you wanted to generate an exception and set Display "On". Everytime you hit the "Shipping" key you would get an exception. However if you had a scrolling message "You can rely on us for all your Shipping needs" Then you might want to erase this entire line and by doing so the word shipping would be included in the exception with scroll matching "On". In this case you would never see the normal transactions with Shipping \$4.50 either as an exception or displayed for the Scroll Matching would override.

A rule of thumb is to never use a scroll matching word the same word as any word in an item description or any partial word that is a partial of any item description.



PROGRAMMING NOTE

The following sections defines the Exceptions Strings, the Operator and the Range. The Exception String is programmed first, then Range is defined and finally the Operator is selected. The VSI-Pro Radar looks at the Exceptions String first, and if there is data that matches, it then checks to see if a Range has been defined.

EXCEPTION STRING

The VSI-Pro Radar 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. Example of this would be to assign a word "Target" as an exception. VSI-Pro Radar will look for that string so range definition is not necessary. However, exception string "Target" could be further defined by assigning a Range, i.e. all "Target" over 80MPH.

You can also define a global exception to flag all negative transactions. An example of this using the a radar gun would be the following exception to flag any speed that contains a "-", or negative sign. For example, in the an assigned Exception string "...-" will flag all speeds in the reverse direction say on a one way street and send out to the monitor.

You can also use wild card symbol ".", a centered dot on any data location. An example of this would be instead of assigning eight different exception strings for dept 00 to dept 07, you can assign only one exception string e.g. "dept .". That wild card exception string will handle exceptions for all eight departments.

To program the exception string, press the "Up" or "Down" button to move the cursor to "EXCEPTION STRING" and press "Set". The first 40 character exception will become active after flashing. Program in your exception string.

NOTE

Remember to enter your Exception String based on the way that data prints to video, including spaces. Also remember pressing "Set" advances to the next position. Pressing "Down" and "Up" at the same time enters the string into memory and returns to the menu for further programing.



TIP

If you make a mistake and need to erase a character, pressing "Up" and "Set" at the same time will change the character back to a blank space.

NEGATIVE EXCEPTION

You can remove unwanted text from the screen using the VSI-Pro Radar. The VSI-Pro Radar displays data in the text block 11 lines by 40 characters wide for total of 440 characters. To remove unwanted messages from the register data you first determine how the unwanted messages prints to the video. For example, a typical message which scrolls on the customer display or appears on the video monitor.

The removing of the above string is referred to as the Negative Exception. Follow the following steps to program the negative exception. Turn the display off for that exception. In the Exception String enter the words "Patrol" exactly as they appear on the screen, including spaces.

NOTE 

Only 40 characters are allowed in each Exception String, including blank spaces.

OPERATOR

Choices: 0000.00-9999.99

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 this version of the VSI-Pro, you can define ranges for your exceptions and have the VSI-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". To program the operator, press the "Up" or "Down" button to move the cursor to "OPERATOR" and press "Set". The cursor will start flashing. Press the "Up" or "Down" button to cycle through the values and press "Set" when the desired value is displayed.

RANGE

Choices: 0000.00-9999.99

The Range defines the limits of the Operator. These are numeric only. As you can see from the previous examples, the range has two separate fields that are separated by a double-sided arrow. This format must be followed.

To program the range, press the "Up" or "Down" button to move the cursor to "RANGE" and press "Set". The first "0" in the range starts to flash. This means it is active and ready for programming. Press the "Up" or "Down" button to cycle through the values and press "Set" when the desired value is displayed. This will advance the active block to the next character. 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 want to set this range into the VSI-Pro memory, simultaneously press and release the "Up" and "Down" buttons.

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 VSI-Pro memory and exit you back to the previous menu.

EXMAPLES FOR SETTING EXCEPTION**EQUAL**

Suppose Exception #2 would be flag all \$10 sales on Register Department 1. This would be the settings for this Exception: (For these examples, we are using the Samsung ER-4715 Electronic Cash Register)

Exception	No. 2
Display	ON
Output	ON,OFF (depending on presence of serial printer)
Exception String	1 . . .
Range	0010.00-0010.00
Operator	IN

OUT RANGE

Suppose Exception #3 would “FLAG” every transaction on Department 2 that is under 10 cents and over \$100 dollars. This would be the settings for this Exception:

Exception	No. 3
Display	ON
Output	ON, OFF (Depending on presence of serial printer).
Exception String	2 . . .
Range	0000.10 -0099.99
Operator	OUT

IN RANGE

Suppose Exception # 5 would flag all transactions between \$50.00 & \$100.00 on Department 3:

Exception No.	3
Display	ON
Output	ON or OFF (Depending on presence of serial printer).
Exception String	3 ...
Range	0049.99-0099.99
Operator	IN

With this exception all sales between \$50 and \$100 dollars will be flagged.

IN RANGE

Suppose Exception # 5 would flag all transactions between \$50.00 & \$100.00 on Department 3:

Exception No.	3
Display	ON
Output	ON or OFF (Depending on presence of serial printer).
Exception String	3 ...
Range	0049.99-0099.99
Operator	IN

With this exception all sales between \$50 and \$100 dollars will be flagged.

GREATER THAN

This example will show you how to program an exception to flag all sales in department 5 greater than \$100 dollars

Exception	No. 2
Display	ON
Output	ON or OFF
Exception String	5...
Range	0000.01- 0099.99
Operator	OUT

Now whenever anyone rings a sale of \$100 or more on Department 5, the transaction will be flagged.

LESS THAN

This example will show you how to program an exception to flag all sales in Department 6 of less than \$100. 00:

Exception	No. 4
Display	ON
Output	ON or OFF
Exception String	6
Range	0000.01-0099.00
Operator	N

EXCEPTION REPORT MENU CONTINUED

OUTPUT

Choices: ON, OFF

This is global output to send data to the serial printer. When “ON” is selected all the data will be send to the serial printer regardless of what setting of out put has selected in the individual output in set exception menu. When “OFF” is selected only those exception will send to the serial printer whose out put is “ON” under set exceptions menu for individual exceptions. To turn output “ON” or “OFF”, press the “Up” or “Down” button to move the cursor to “OUTPUT” and press “Set”. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

TIME STAMP

Choices: ON, OFF

If TIME STAMP is selected “ON” then printer will print the exception with time stamp flag, otherwise just print the Exception. To turn TIME STAMP “ON” or “OFF”, press the “Up” or “Down” button to move the cursor to “TIME STAMP” and press “Set”. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

EXIT

Press the “Up” or “Down” button to move the cursor to “Set” to return to the previous menu.

4.8 ALARM OUTPUTS

To access alarm output, press the “Up” or “Down” button to move the cursor to “ALARM OUTPUTS” and press “Set”. The following sub-menu will appear:

<input checked="" type="radio"/> ALARM NO.	1
<input type="radio"/> ALARM TRIGGER	1
<input type="radio"/> NORMAL STATE	NO
<input type="radio"/> ALARM DURATION	20
<input type="radio"/> FLAG TYPE	FLASH *
<input type="radio"/> FLAG DURATION	000
<input type="radio"/> TRIGGERED TEXT	
<input type="radio"/> EXIT	

ALARM OUTPUTS Sub-Menu

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.

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

The VSI-Pro allows you up to 16 alarms that may be used with any of the user programmed exceptions. However there are only 2 hardwired alarm outputs and these correspond to Alarm 1 & 2 only. The other 14 alarms can be used to send trigger text, serial data out or flash the screen. To select the Alarm Number that you want to program, press the “Up” or “Down” button to move the cursor to “ALARM NO.” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

VSI-PRO PROGRAMMING

ALARM TRIGGER

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

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

Choices: Exceptions 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 (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 VSI-Pro Radar has 1 alarm input, if you are not using the handshaking function. A contact closure to ground on pin 7 (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.



RTS APPLICATION NOTE

The RTS alarm input can be connected to a timer on the drawer of a cash register to alarm and send the message "DRAWER OPEN" to the screen if the drawer is open too long.

To select the alarm trigger that you want to program, press the "Up" or "Down" button to move the cursor to "ALARM TRIGGER" and press "Set". The cursor will start flashing. Press the "Up" or "Down" button to cycle through the values and press "Set" when the desired value is displayed.

NORMAL STATE

Choices: NO (Normally open), NC (Normal closed)

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, press the "Up" or "Down" button to move the cursor to "NORMAL STATE" and press "Set". The cursor will start flashing. Press the "Up" or "Down" button to cycle through the values and press "Set" when the desired value is displayed.

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, press the "Up" or "Down" button to move the cursor to "ALARM DURATION" and press "Set". The cursor will start flashing. Press the "Up" or "Down" button to cycle through the values and press "Set" when the desired value is displayed.

FLAG TYPE


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, press the “Up” or “Down” button to move the cursor to “FLAG TYPE” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

FLAG DURATION

Choices: 6, 12, 30, 60, 120, 180, ..., 300

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 Alarm Duration. Flag Duration is the amount of time the on-screen flag will remain on after activation, while, Alarm Duration is the amount of time that the hard-wired Alarm Output remains activated after it is triggered.

To select the amount of time in seconds that you want to program for the flag duration, press the “Up” or “Down” button to move the cursor to “FLAG DURATION” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

TRIGGERED TEXT

A Triggered Text is a data string that associates with one of the 16 alarms or with external RTS alarm. 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. To program the TRIGGERED TEXT, go to the ALARM OUTPUTS sub-menu. Select desired ALARM NO or RTS for external alarm. Then go to the TRIGGERED TEXT sub-menu.

<input checked="" type="radio"/>	DISPLAY TEXT	OFF
<input type="radio"/>	OUTPUT TEXT	OFF
<input type="radio"/>	SET TRIGGERED	TEXT
<input type="radio"/>	EXIT	

TRIGGERED TEXT Sub-Menu

DISPLAY TEXT

Choices: ON, OFF

Press the “Up” or “Down” button to move the cursor to “DISPLAY TEXT” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed. Selecting “OFF” will not display any exception text on the video output.

VSI-PRO PROGRAMMING

OUTPUT TEXT

Choices: ON, OFF

Press the “Up” or “Down” button to move the cursor to “OUTPUT TEXT” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed. Selecting “OFF” will not send any exception text to the serial printer.

SET TRIGGERED TEXT

Press the “Up” or “Down” button to move the cursor to “SET TRIGGERED TEXT” and press “Set”. The following sub-menu will appear:

- | | |
|---|-----|
| <input type="radio"/> DISPLAY TEXT | OFF |
| <input type="radio"/> OUTPUT TEXT | OFF |
| <input checked="" type="radio"/> SET TRIGGERED TEXT | |
| <input type="radio"/> EXIT | |

Triggered Text Main-Menu

You can enter 2 lines with 40 alpha numeric text on each line. You can also enter non-printable data (control code) instead of triggered text. Each control code occupies 3 characters, therefore you can enter 13 control codes in a line. To enter control code, first print up arrow ^ followed by 2 hex digit. For example, hex code 01 has to be entered like ^01.

Press “Up” and “Down” simultaneously to exit..

EXIT

Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

4.9 TEST/DEMO MODE

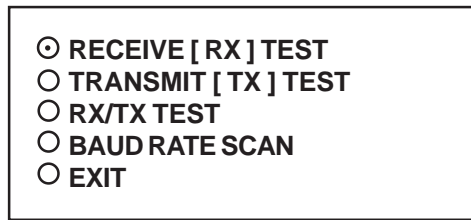
The TEST/DEMO MODE provides you with several ways to test the VSI-Pro and demonstrate its capabilities as a cash register interface. Press the “Up” or “Down” button to move the cursor to “TEST/DEMO MODE” and press “Set”. The following sub-menu will appear:

- | |
|--|
| <input checked="" type="radio"/> PORT 1 TEST |
| <input type="radio"/> DATA CAPTURE |
| <input type="radio"/> REGISTER DEMO |
| <input type="radio"/> VERSION ID |
| <input type="radio"/> EXIT |

TEST/DEMO MODE Sub-Menu

PORT 1 TEST

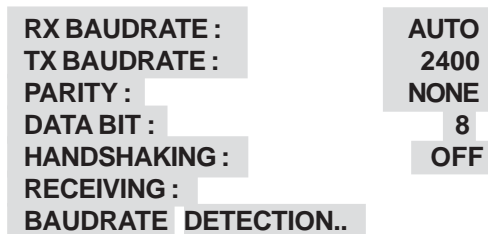
Sending and receiving data performance can be analyzed under the PORT 1 TEST sub-menu. Press the “Up” or “Down” button to move the cursor to “PORT 1 TEST” and press “Set”. The following sub-menu will appear:



PORT 1 TEST Sub-Menu

RECEIVE [RX] TEST

The purpose of this test is to determine that if VSI-Pro is receiving the data or not. Press the “Up” or “Down” button to move the cursor to “RECEIVE [RX] TEST”. The following display will appear (example only):



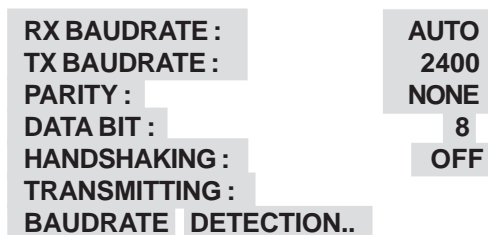
RECEIVE [RX] TEST Display

Receiving data will be appear in three sperate lines, scrolling from right to left. The first line is the actual ASCII data coming from the register while last two lines are HEX conversion of ASCII data. If you do not receive any data, check the connections between VSI-Pro Radar and device or any additional interfacing device.

Press “Set” to return to the previous menu.

TRANSMIT [TX] TEST

The purpose of this test is to determine that if the VSI-Pro Radar is able to transmit data or not. Press the “Up” or “Down” button to move the cursor to “TRANSMIT [TX] TEST” and press “Set”. The following display will appear (example only):



TRANSMIT [TX] TEST Display

If VSI-Pro transmitting data you will see some predefined ASCII character on the screen. If you don’t see any characters on the screen, check the connections and try again.

Press “Set” to return to the previous menu.

NOTE 

In any of the above tests, you can stop the scrolling data by holding down either “Up” or “Down” button.

RX / TX TEST

In the RX/ TX test the VSI-Pro Radar echos whatever it receives. Press the “Up” or “Down” button to move the cursor to “RX/TX TEST” and press “Set”. The following display will appear (example only):

```
RX BAUDRATE :      AUTO
TX BAUDRATE :      2400
PARITY :          NONE
DATA BIT :        8
HANDSHAKING :     OFF
ECHOING :
BAUDRATE DETECTION..
```

RX /TX TEST Display

Press “Set” to return to the previous menu.

BAUD RATE SCAN

The Baud Rate Scan test can scan the baud rate of your register. Press the “Up” or “Down” button to move the cursor to “BAUD RATE SCAN” and press “Set”. The following display will appear (example only):

```
RX BAUDRATE :      AUTO
TX BAUDRATE :      2400
PARITY :          NONE
DATA BIT :        8
HANDSHAKING :     OFF
BAUDRATE SCAN :
BAUDRATE DETECTION..
```

Baudrate Scan Display

Enter a transaction from the register. The VSI-Pro Radar will detect the baud rate and display it in front of RX Baud rate.

Press “Set” to return to the previous menu.

EXIT

Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

DATA CAPTURE

This feature allow user to store the data either internal memory of VSI-Pro Radar or some external data storing device. Press the “Up” or “Down” button to move the cursor to “DATA CAPTURE” and press “Set”. The following sub-menu will appear:

- CAPTURE TO PORT 1**
- CAPTURE TO MEMORY**
- DUMP MEMORY**
- EXIT**

DATA CAPTURE Sub-Menu

Press “Set” to return to the previous menu.

CAPTURE TO PORT 1

This feature redirect the incoming data to VSI-Pro Radar to its output (Pin 3 of AT type RS-232 female connector) where that data can be stored to data storing devices (e.g. PC). This feature is useful to store non-RS 232 format data. Press the “Up” or “Down” button to move the cursor to “CAPTURE TO PORT 1 and press “Set”. The following display will appear (example only):

RX BAUDRATE :	AUTO
TX BAUDRATE :	2400
PARITY :	NONE
DATA BIT :	8
HANDSHAKING :	OFF
BAUDRATE DETECTION..	

CAPTURE TO PORT 1 Display

Press “Set” to return to the previous menu.

CAPTURE TO MEMORY

This feature allow you to store the data in the internal memory of VSI-Pro. You can store up to 20 kilobytes of data in the internal memory of VSI-Pro Radar. Power up the VSI-Pro Radar for 24 hours prior to download of data. This will provide VSI-Pro Radar’s internal battery a full charge to hold data in its memory. Press the “Up” or “Down” button to move the cursor to “CAPTURE TO MEMORY” and press “Set”. The following display will appear (example only):

RX BAUDRATE :	AUTO
TX BAUDRATE :	2400
PARITY :	NONE
DATA BIT :	8
HANDSHAKING :	OFF
BAUDRATE DETECTION..	

CAPTURE TO MEMORY Display

Press “Set” to return to the previous menu.

NOTE  **VSI-Pro Radar can only hold up to 20 kilobytes of data to make sure that you only transfer the data which is in correct format.**

NOTE  Any Programming or data transfer of any kind can overwrite the saved data in memory.

DUMP MEMORY

You can upload any saved information from the VSI-Pro Radar memory to any PC or some specific communication devices using appropriate upload cable. To upload the information into a PC you must have any communication software which can transfer the binary data. Press the “Up” or “Down” button to move the cursor to “DUMP MEMORY” and press “Set”. The VSI-Pro Radar will start uploading the data.

RADAR GUN DEMO

This demonstration simulates the data from an actual radar gun. This is used to demonstrate the VSI-Pro Radar’s capabilities with just a monitor and camera without having a device hooked up. When the demo mode is active the VSI-Pro Radar thinks the data is actually coming from a real radar gun. You can use this demo data to configure exceptions and alarms to be fully functional for a complete customer demonstration.

Press the “Up” or “Down” button to move the cursor to “RADAR DEMO” and press “Set”. You will see the following;

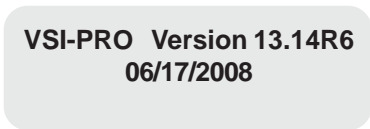


Selecting “DEMO” will start the demo after a few seconds. To exit this demo, press and release “Reset”. If data is sent to the VSI-Pro Radar during this demo mode with “DEMO ON POWER UP” set to OFF then the demo mode will be disabled and you must go back into the programming mode and select again as described above.

If you select “DEMO ON POWER UP” as “ON” then pressing the “Reset” or powering up or down will have no effect on the demo mode and will continuously work until disabled by this menu selection. If you connect the VSI-Pro Radar to a device and it sends data to the VSI-Pro Radar during this demo mode then the demo mode will also be disabled until you press “Reset” or power down and up again.

VERSION ID

When selected, this will display the version of software in use by the VSI-Pro Radar shown detail (example below).



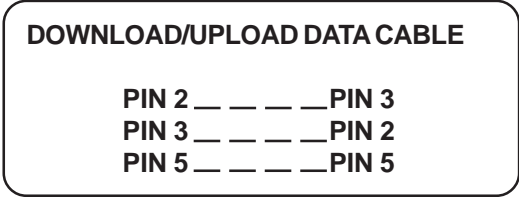
EXIT

Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

4.10 DOWNLOAD/UPLOAD SETUP

This feature lets you upload or download data between two VSI-Pro Radar’s or a VSI-Pro Radar and a PC. This feature is especially helpful on multi-interface installations. You can program one VSI-Pro and download the data to another VSI-Pro Radar with the download/upload feature and a data transfer cable. The cable is made up of two male DB-9 connectors and the pin-out is below. **NOTE:** This feature is only available to like versions and release. Therefore you can only program a Ver. 13.14 R6 with a same exact VSI-Pro Radar Version and Release or erroneous data will occur.

Figure 78: Download/Upload Data Cable



DOWNLOAD/UPLOAD SETUP USING A PC

You can use a Laptop PC and AVE’s IC or equivalent communications program to store data from a VSI-Pro Radar to a file. This file can then be uploaded to other VSI-Pro units with the same software revision level. Use 4800 baud for the PC’s baud rate. **NOTE:** This feature is only available to like versions and release. Therefore you can only program a Ver. 13.00 R5 with a same exact VSI-Pro or erroneous data will occur.

NOTE 

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

VSI-Pro Radar Firmware Download Menu

To update the VSI-Pro Radar, load the VSI-Pro Radar Firmware Download Utility and follow the instructions below. Then select “UPDATE FIRMWARE” from the menu selection.

VSI-Pro Radar Firmware Download Utility

This document describes the VSI-Pro Radar V13.00 The new features of this version are able to download firmware update via the RS-232 port. The LDROM 4K boot strap loader must be burner to the uP via a conventional programmer. Then the executable program is then loaded via any terminal program such as Hyper Terminal via a PC or compatible device. All firmware files are encoded to the AVE proprietary format and decoded by the bootstrap loader for standard program execution.

Update Firmware of VSI-Pro Radar

You have to connect the VSI-Pro Radar with a Serial Program Terminal such as HyperTerminal, IC etc. But advise to use HyperTerminal. First, you have to set the baud rate HyperTerminal to 19200

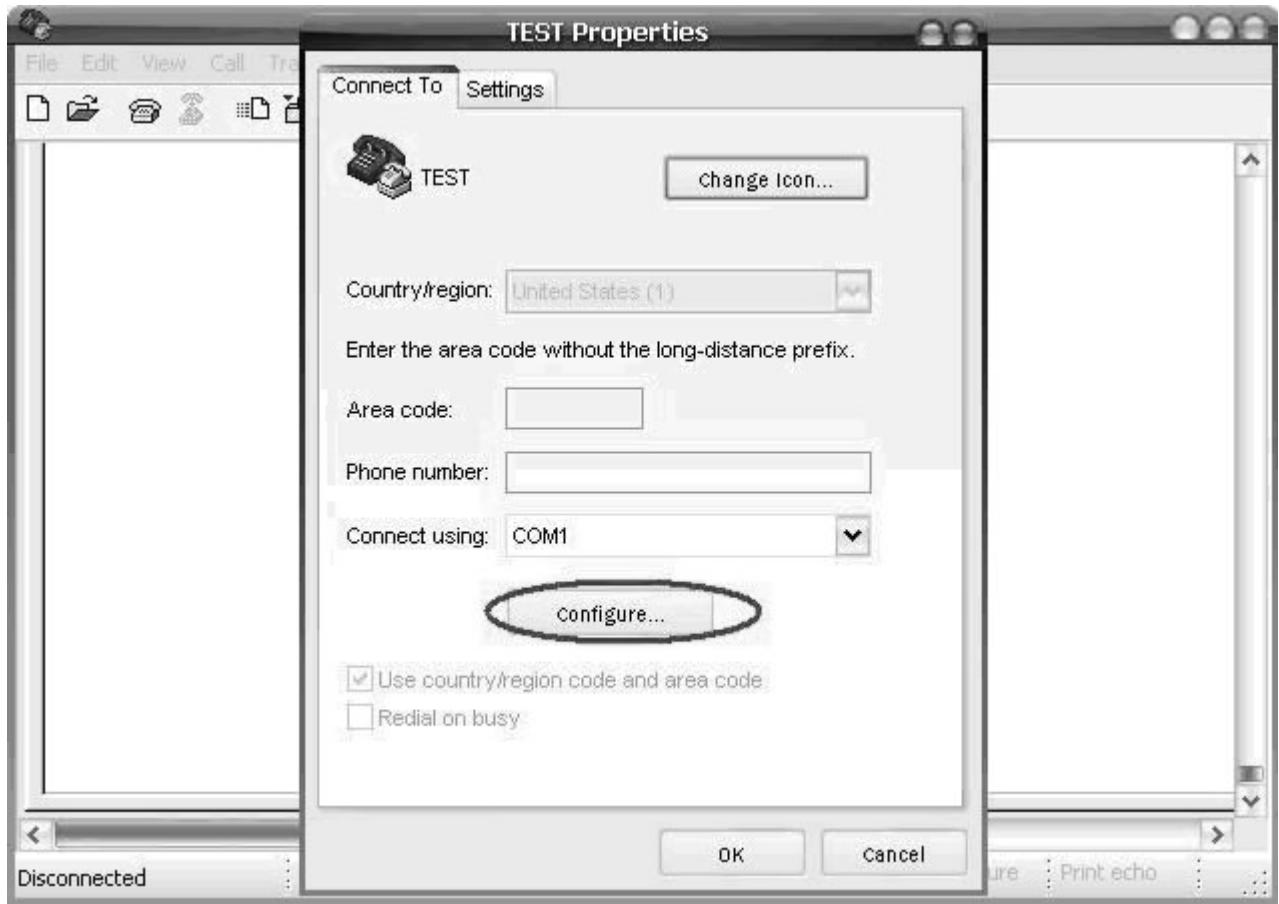
See PC Windows below to verify proper HyperTerminal setup.



VSI-PRO PROGRAMMING

Click File ==> Properties

You will see the configuration frame and then click.



Choose Bits per second to 19200 and press connect.

Figure P6 Connect To Menu

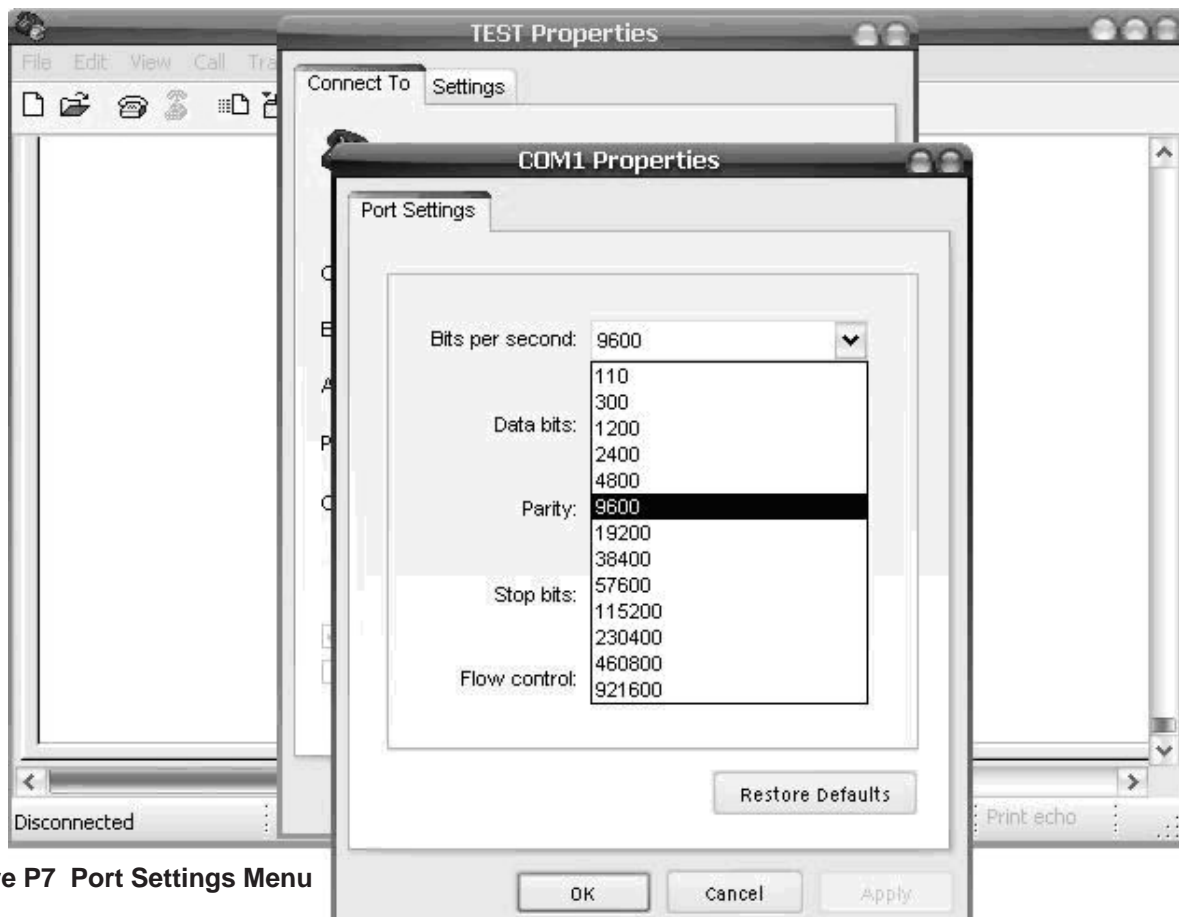


Figure P7 Port Settings Menu

Second, you go to the menu of the VSI-Pro Radar "Download/Upload Setup" then select ==> "Update Firmware" and then press Set. Now you will see message in Hyper Terminal.

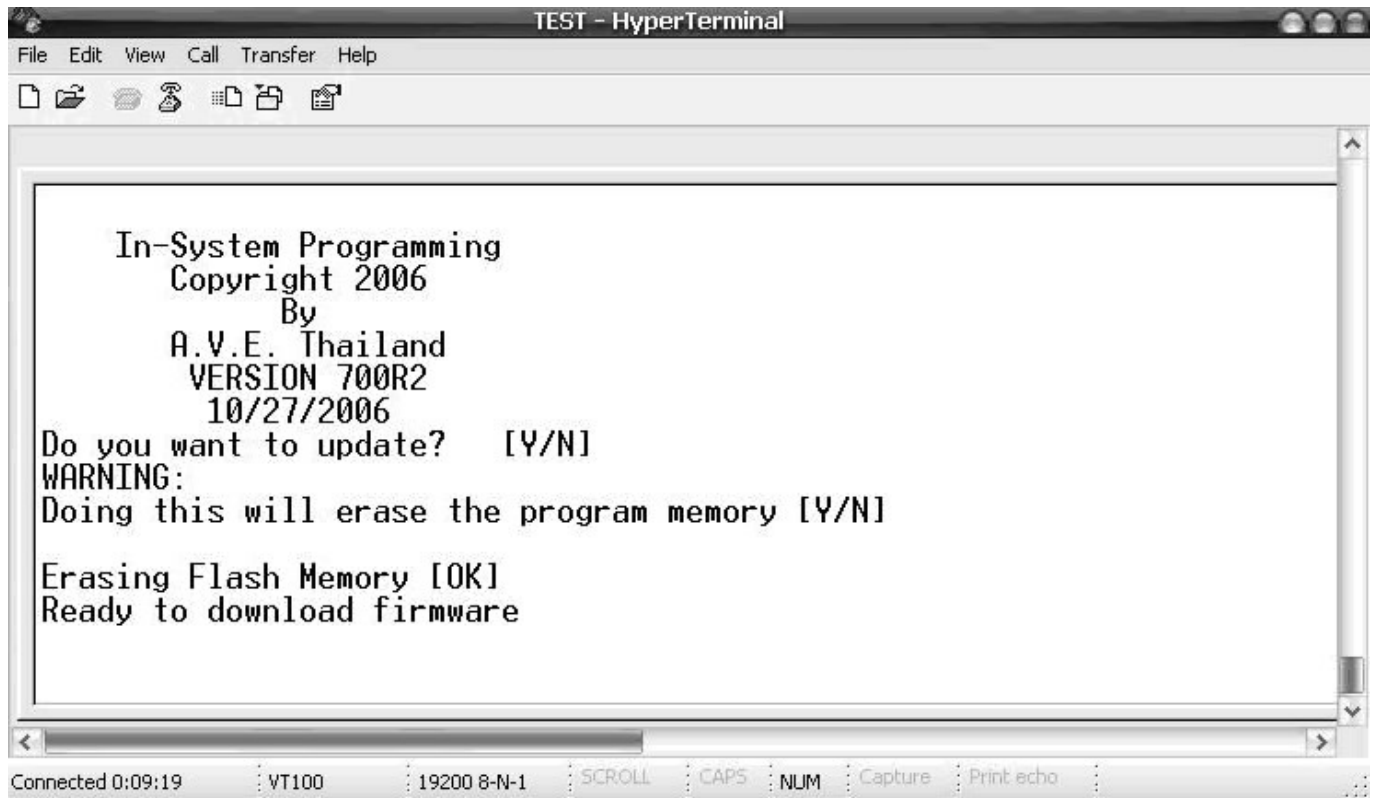


Figure P8 In-System Programming Display

"Do you want to update? [Y/N]"
 Press "Y" to accept update.
 You will see message warning again.
 "Doing this will erase the program memory [Y/N]"
 Press "Y" again to accept update.

NOTE: Pressing "Yes" again will permanently erase the entire program memory and the VSI-Pro Radar will not function until firmware is loaded. Make sure you have the proper firmware file ready or the VSI-Pro Radar will be rendered useless.

Finish erasing the program memory step.
 Next, you have to send file to update firmware by click on "Transfer Menu" and select "Send Text File" and wait until finished programming. Progress dots will be displayed on the terminal program until finished and takes approximately 2.5 minutes.

NOTE: If for some reason you are disconnected from the VSI-Pro during downloading, power is lost to the VSI-Pro Radar or PC or the firmware update does not finish for any reason you can repeat the procedure above again. The bootstrap loader never is erased and will always request for a valid firmware update until achieved.

To do this just power up the VSI-Pro Radar or press reset while the terminal program is connected and you will see the prompt messages as above window.

4.11 HELP

“HELP” on the main-menu provides a quick reference guide of the functions of the “Up” and “Down” and “Set” buttons.

Key Definitions :	
UP/DOWN	-- Change value
SET	-- Enter change mode
	-- Save change
	-- Go to position
UP AND DOWN	-- Save string input
UP AND SET	-- Erase character

HELP Sub-Menu

VSI-PRO PROBLEM SOLVING

NO DATA ON-SREEN

1. Press the “Reset” button on the VSI-Pro Radar front panel.
2. Incorrect register selected in the REGISTER SELECT menu.
3. Data cable is miswired.
4. Data cable is too long or did not use shielded cable.
5. May be connected to the wrong port.

PROBLEMS WITH RG2RS

1. Check the cable to the register.
2. If VSI-Pro Radar was working and stopped, power cycle the system. Turn off the device, unplug the power to the RG2RS, and unplug the power to the VSI-Pro Radar. Now power up the system, plug in the VSI-Pro Radar and the RG2RS. The data should re-appear.
3. Check the cable between the VSI-Pro Radar and the RG2RS.

NO VIDEO ON MONITOR

1. VSI-Pro Radar transformer not plugged in, or is malfunctioning.
2. Video In/Out connectors reversed, or BNC connector is not correctly wired.
3. No video input signal.
4. Bad video cable or connector.
5. Camera Iris is closed.
6. Other video device in system is off or malfunctioning.

5.1 CHARACTERS JITTER, JUMP, OR SKEW

1. Darken the gray scale of the characters.
2. The VSI-Pro Radar requires the input video signal to be 1V P-P +/-20%, terminated @ 75ohms. If the voltage is too high or low, then the VSI has trouble syncing the text to the video. Use an amplifier such as AVE's VDA-401 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.
6. Video level too high; VSI-Pro Radar will clip video.
7. The text block is too close to the edge of the screen. Try repositioning the text block. Also, changing the size may help.
8. Too much light in the video picture may cause character distortion. Reposition the camera or reduce the amount of light to which the camera view is exposed. If the camera you're using has an auto iris lens, try adjusting the iris to average and then reduce or increase the level.

NOTE 

The VSI-Pro requires 1V P-P +/- 20 percent, terminated @ 75 ohms.

5.2 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.
3. RG2RS make sure data cable is plugged in correctly.
4. Ground and Data wires are reversed. Verify correct DB-9 cable wiring.

6. HOW TO DO A MASTER RESET ON VSI-Pro Radar

1. Press and hold in simultaneously the "Down", "Up" and "Set" buttons.
2. While holding those three buttons in, press and release the "Reset" button and then release the other three buttons.
3. This will display the copyright notice.
4. Restores the VSI-Pro Radar to all the factory default settings.

DVR PROGRAMMING

7. DVR FRONT PANEL PROGRAMMING KEY



VIDEO / PHOTO CAPTURES

1. VSI-Pro Radar will generate an alarm to close the contact of the CAPTURE switch to start capture video or photo.
2. For Manual recording Press CAPTURE Key direct on DVR.
3. Motion Detection will also generate an alarm for DVR to start capture video or photo
4. Press DISPLAY to select video source between Video 1 and Video 2

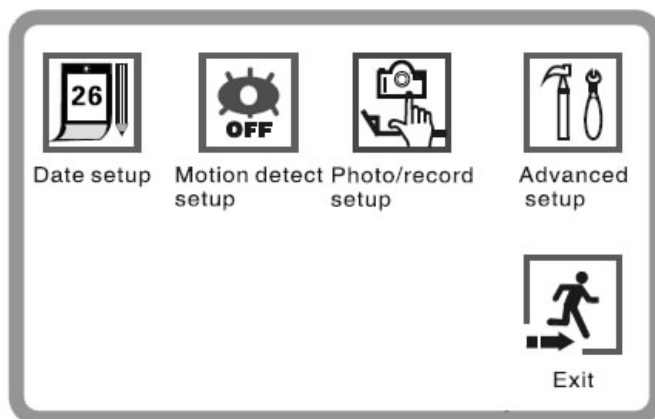
Notes: Video 2 No Connection and blue screen will come out.

8. DVR PROGRAMMING

8.1 RECORDING MODE

Press the Menu button while DVR is powered on, ensure DVR was not on recording or photo taking. The Programming menu will pop up as below:

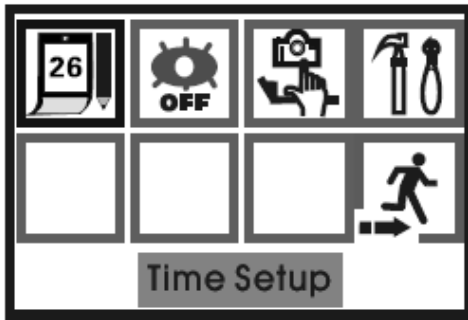
SETUP MENU



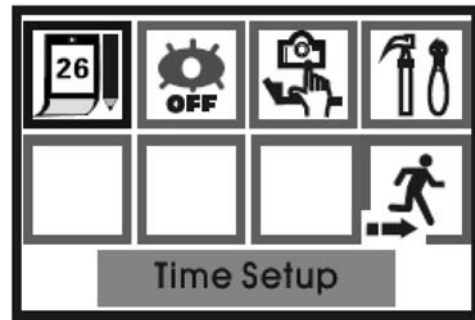
Notes: Video Capture mode will take about 20 second continuously and is not programmable or stoppable.

8.2. TIME/ DATE SETUP

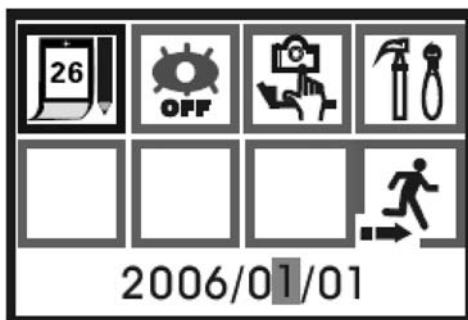
1. Press MENU to setup.



2. Press LEFT/RIGHT to move cursor to T/D Setup

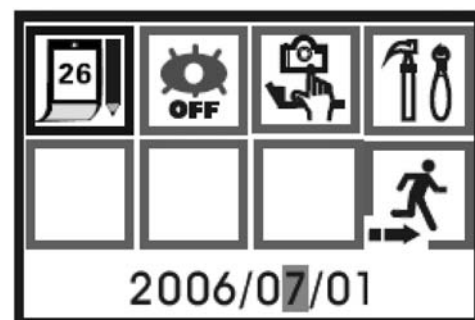


3. Press RIGHT to move the cursor forward. and LEFT to backward the cursor.



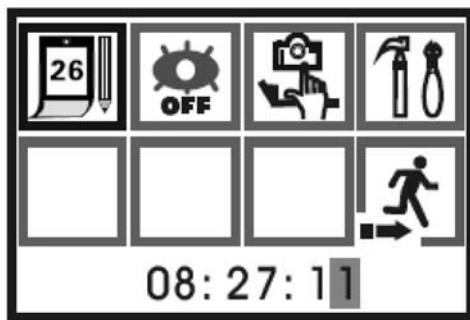
Year/month/day

4. Press UP/DOWN to increase or decrease that cursor is on.



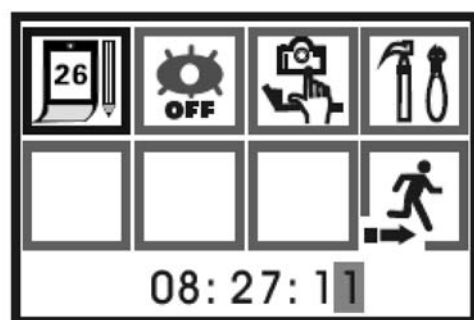
Year/month/day

5. Press RIGHT to move the cursor till Date menu come up. and do as items 3 and 4.



Year/month/day

6. When setup complete, Press OK to return to the setup menu.



Year/month/day

7. Exit setup menu, Press LEFT/RIGH to move Cussor to Exit and press OK. or Press MENU to Exit off directly.

DVR PROGRAMMING

MOTION DETECTION SETUP

QUICK SETUP

When power up if the SD card is not inserted to DVR. Motion Detect will be enabled automatically. to disable the motion detection incase to avoid DVR to start record when motion detected in the video. DVR provided shortcut key to enable or disable directly while DVR on record mode.

1. Press UP to toggle Motion Detection to be ON/OFF, EYE is sybole for motion detection.



Motion Detect On

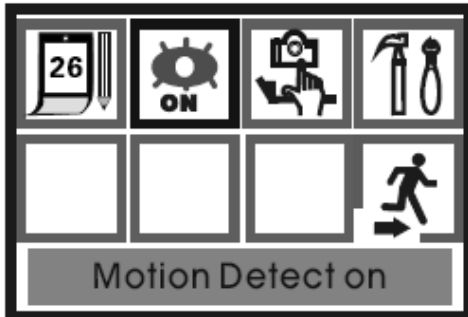


Motion Detect Off

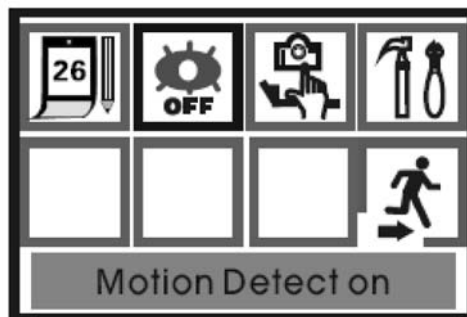
MENU SETUP

1. While DVR was on record mode, Press MENU to access setup menu
2. Use LEFT/RIGHT to control the cursor to Motion detection menu.
3. Press OK to toggle ON/OFF motion detection.

ON



OFF

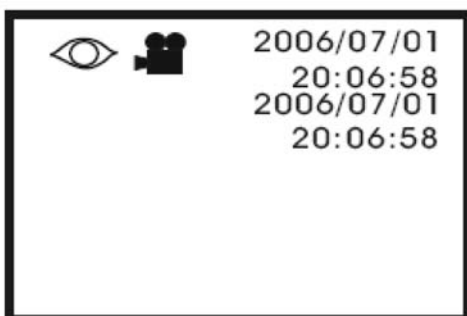


RECORD VIDEO/PHOTO SETUP

Recording format available for AVI 320x240 pixels @10 fps and compressed in motion JPEG and JPEG Resolution 640 x 480 pixels for photo.

QUICK SETUP

1. While on Record mode onscreen, Press DOWN to toggle between Video or Photo Camera.



Av setup status

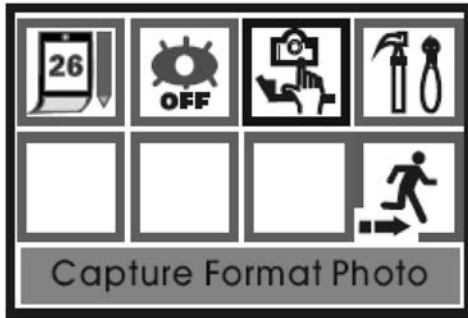


Photo setup status

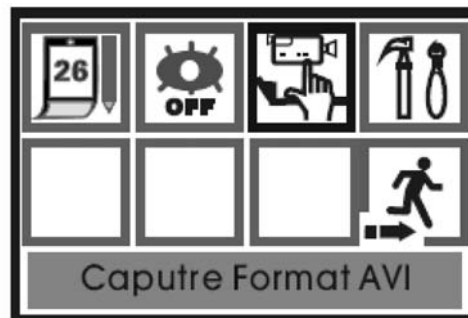
MENU SETUP

1. Press MENU to access setup menu.
2. Use LEFT/RIGHT to control the cursor to Motion detection menu.
3. Press OK to toggle Video/ Photo camera

PHOTO



VIDEO



ADVANCE SETUP

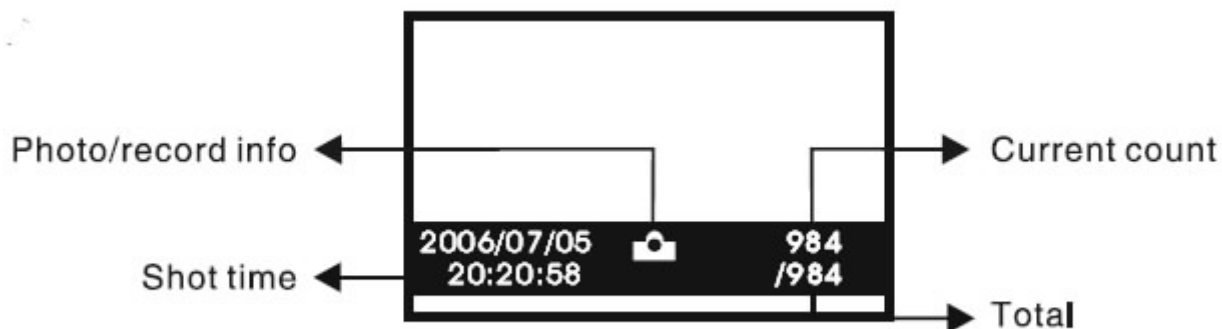
This is systems set up including:

- | | |
|------------------------------|--------------------|
| 1. Standard Video format | NTSC/PAL |
| 2. Video Quality Setup | HIGH/LOW |
| 3. Motion Area Detection | LARGE/MEDIUM/SMALL |
| 4. Motion Alarm Counter | 0-99 |
| 5. Motion Detection Interval | 1S/3S/5S |
| 5. Motion Sensitivity | 01-99 |

DVR PROGRAMMING

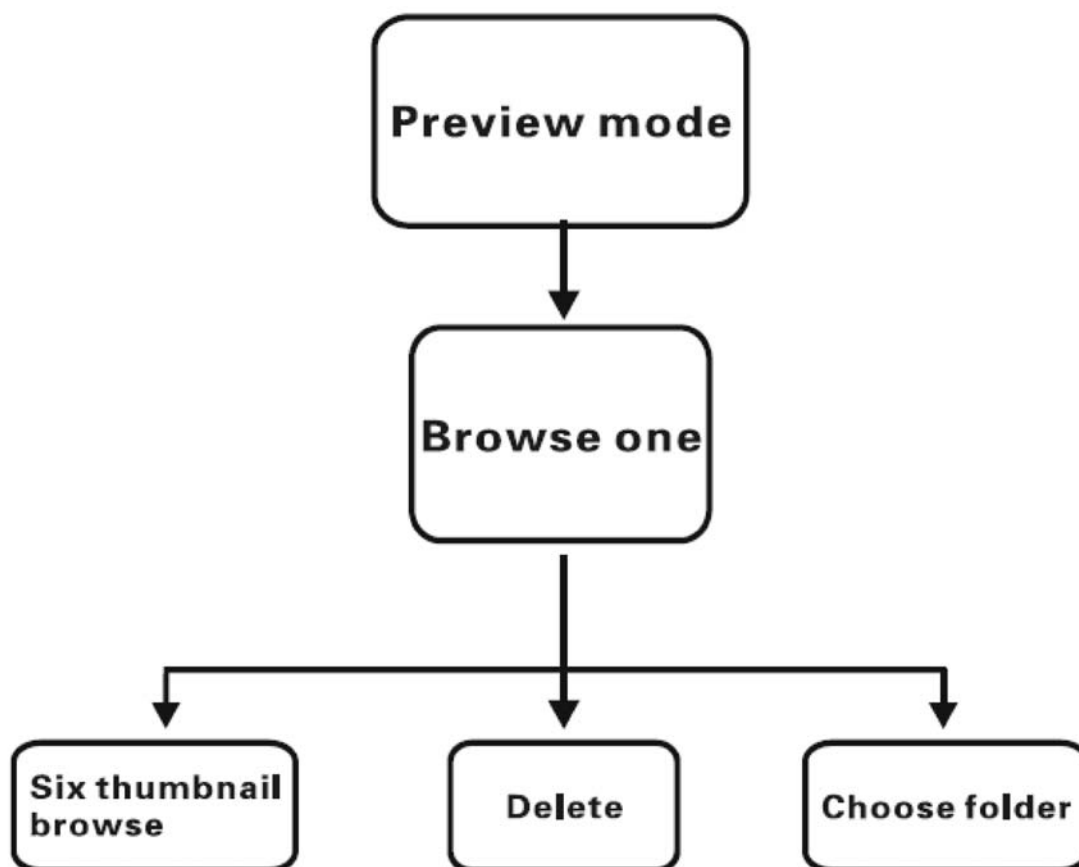
PLAYBACK/PREVIEW MODE

Press MODE to toggle to Preview Mode, DVR will start to preview all recorded videos and taken photo



PREVIEW MODE DIAGRAM

Video/Photo can be browsed by one or sixth thumbnail. It can be deleted one by one, and all, The SD Card can be formatted in the preview mode by press menu to enter preview menu.

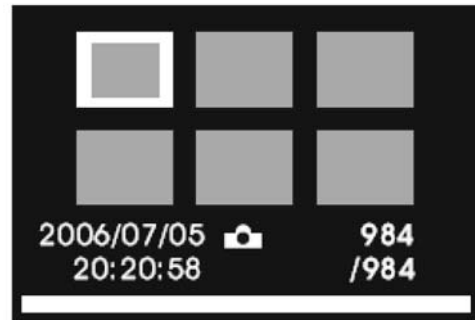


BROWSE SIXTH THUMBNAIL PHOTO

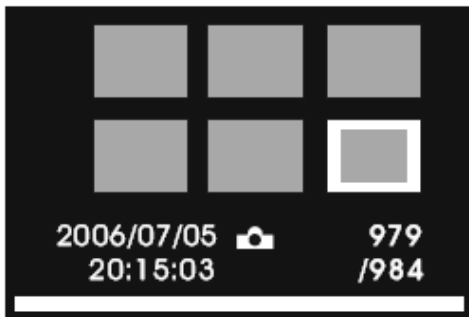
1. Press MODE to toggle to preview mode



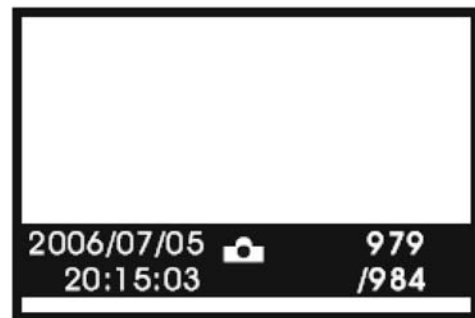
2. Press OK to sixth thumbnail browse.



3. Press LEFT/RIGHT to move the highlight to choose photo and video.



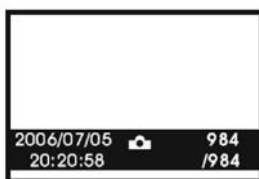
4. Press OK to view Photo or Video with full Screen and Press DOWN again to play video file.



5. Press MODE to return playback mode.

DELETE FILES

1. Press Mode to enter playback mode.
2. Press LEFT/RIGHT to move the cursor for select file.
3. Press MENU to enter to delete menu
4. Press LEFT/RIGHT to select deleting ONE/ALL/FORMATE
5. Press OK to desired menu
6. Press LEF/RIGHT to enable/disable delete.

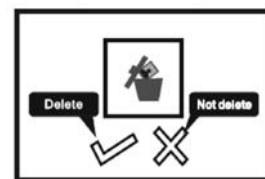


Select File



Delete Menu

Delete Steps



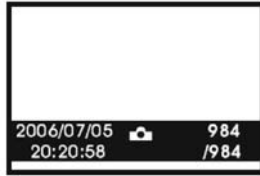
Delete?

DVR PROGRAMMING

FORMAT SD CARD

1. Press MODE to toggle to playback mode.
2. Press MENU to pop up format menu.
3. Press LEFT/RIGHT to format.
4. Press OK to enter Format.
5. Press LEFT/RIGHT to enable/disable format.
6. Press OK to confirm

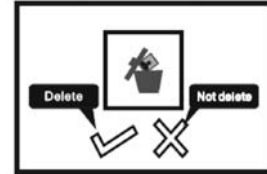
Notes: *Doing this you may lose all files.*



Playback Mode



Format Menu



Format?

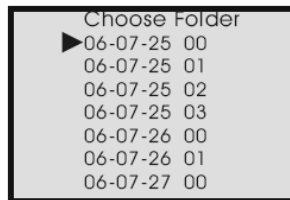
Format Steps

CHOOSE FOLDER

1. Press MODE to toggle to playback mode.
2. Press CAPTURE to choose the folder.
3. Press UP/DOWN to select the folder.
4. Press OK to enter the folder.



Playback Mode



Format Menu



Photo in Folder

Choose Folder Steps

9. DVR PROBLEM SOLVING

1. No video output when power up the systems.
SD CARD may corrupted and cause DVR and able to start up. Please remove the SD Card and insert brand new into and power up again.
2. Video Noisy and jittering.
Requirement for re-charger battery
3. SD Card Corrupted.
While the DVR is recording do not power down the DVR to avoid SD Card Corruption.

Camera Operation Menu

1. Press "Menu" to menu page 1st will pop up, Press again menu page 2nd will pop up. Press again to exit off menu.
2. Enter the menu, Press "Tele/Wide" to choos menu up/down press "Near/Far" to choose the function of menu.
3. The default of Focus is Manual Focus.
4. Enter the automatic focus mode, you can exit it to press "Near/Far" then return to the automatic focus mode by pressing "Tele/Wide".
5. Enter the menu to choose "Reset" this systems will reset to factory default.

MENU

LANG: ENG/Chinese
Focus:AUTO/Manual/KTCL
ZOOM: ON/OFF
Lock: ON/OFF
ADDR: 001-256

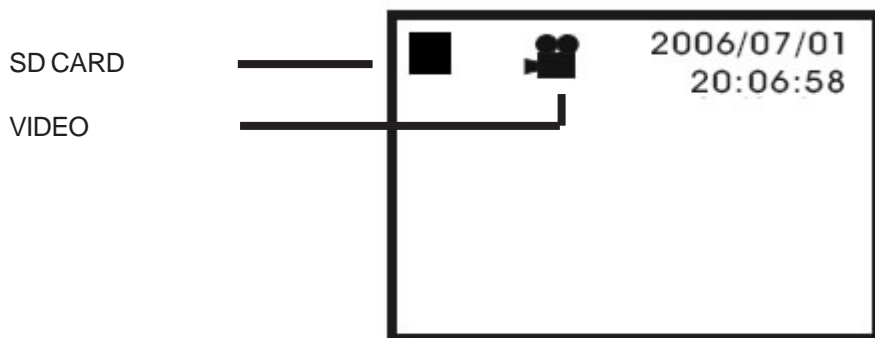
WB: AUTO/OUT DOOR/IN DOOR/LAMP
IRIS:AUTO/FIX/NIGHT/MOVE
AGC: ON/OFF
DE: OFF/OFF
BAUD: 2400

TYPICAL SPEED GUN OPERATION

STALKER II SDR



1. Turn on Integrated Speed Gun Systems, Verify LCD Display for DVR motion detection, if it was enabled then push UP on DVR keypad to disable.
2. Verify the SD Card is presented on LCD Display, So ready for recording.
3. Verify the DVR Recording Mode was Photo or Video. Push DOWN for Video Mode
4. Setup Time /Date for VSI-Pro and DVR



Av setup status

5. Select Radar Gun Interface.

- DEVICE SELECT
- SCREEN SETUP
- TEXT DISPLAY
- COMMUNICATION
- EXCEPTION REPORT
- ALARM OUTPUTS
- TEST/DEMO MODE
- DOWNLOAD/UPLOAD SETUP
- HELP

1.

- GENERIC
- GPS INTERFACE
- RADAR GUN
- LASER GUN
- ALCOHOL METER
- EXIT

2.

- DECATUR
- KUSTOM
- MPH PHYTHON
- MPH Z35
- MUNICIPAL TS-4
- RG2RS
- NEXT PAGE
- EXIT

3.

- PREVIOUS PAGE
- STALKER DUAL SL
- STALKER SPORT
- STALKER II SDR
- STALKER ATR
- TARGETRON RAPID FIRE
- TRIBAR MUNI QUIP
- EXIT

4.

6. Verify exception report.

Examples of detect speed over 120 km.
 EXCEPTION STRING = TARGET
 RANGE = 0000.00-0.120.00
 OPERATOR = OUT

- DEVICE SELECT
- SCREEN SETUP
- TEXT DISPLAY
- COMMUNICATION
- EXCEPTION REPORT
- ALARM OUTPUTS
- TEST/DEMO MODE
- DOWNLOAD/UPLOAD SETUP
- HELP

1.

- EXCEPTION HISTORY
- SET EXCEPTION
- OUTPUT ON
- TIME STAMP ON
- EXIT

2.

- EXCEPTION NO. 1
- DISPLAY ON
- OUTPUT ON
- HISTORY BUFFER ON
- SCROLL MATCHING OFF
- EXCEPTION STRING
- TARGET
- RANGE 0000.00 - 0120.00
- OPERATOR OUT
- EXIT

3.

TYPICAL SPEED GUN OPERATION

7. Verify Alarm set up is the same as below:

- DEVICE SELECT
- SCREEN SETUP
- TEXT DISPLAY
- COMMUNICATION
- EXCEPTION REPORT
- ALARM OUTPUTS
- TEST/DEMO MODE
- DOWNLOAD/UPLOAD SETUP
- HELP

1.

- ALARM NO. 1
- ALARM TRIGGER 1
- NORMAL STATE NC
- ALARM DURATION PULSE
- FLAG TYPE FLASH *
- FLAG DURATION 002
- TRIGGERED TEXT
- ALARM TYPE DWELL
- EXIT

2.

8. Seft test with radar gun demo. Run this demo mode, The Radar information included TARGET , PATROL, LOCK virious range of data. Press RESET to clear demo, when alarm. cause the demo will continue send out data.

- DEVICE SELECT
- SCREEN SETUP
- TEXT DISPLAY
- COMMUNICATION
- EXCEPTION REPORT
- ALARM OUTPUTS
- TEST/DEMO MODE
- DOWNLOAD/UPLOAD SETUP
- HELP

1.

- PORT 1 TEST
- DATA CAPTURE
- RADAR GUN DEMO
- VERSION ID
- EXIT

2.

- DEMO
- DEMO ON POWER UP OFF
- EXIT

3.

9. Cross Hair Setup

- DEVICE SELECT
- SCREEN SETUP
- TEXT DISPLAY
- COMMUNICATION
- EXCEPTION REPORT
- ALARM OUTPUTS
- TEST/DEMO MODE
- DOWNLOAD/UPLOAD SETUP
- HELP

1.

- SCREEN BLANK 20
- DISPLAY LINES 10
- DISPLAY FORMAT (TOP)
- LINE COMPRESS OFF
- SPACE COMPRESS OFF
- LEFT JUSTIFIED OFF
- SCROLL DELAY OFF
- DISPLAY ON
- CROSS HAIR
- EXIT

2.

- CROSS HAIR ON
- COLOR MODE DAY
- EXIT

3.

9. Camera Setup for moving target.

LANG	ENG
FOCUS:	MANUAL
ZOOM:	ON
LOCK:	ON
ADDR:	001-256

WB	AUTO
IRIS	MOVE
AGC:	ON
DE:	OFF
BAUD	2400

10. Power up you radar gun interface and connect the cable to DB9 of Integrated Portable Speed Gun System.

11. Change DVR recording to Photo Mode.

12. Point the radar to the target and hold the trigger to read the speed of the target. if the range of speed exceed the the range is more than in the setup then VSI-Pro will generate alarm for DVR to capture the image and record to SD CARD.

LIMITED WARRANTY

(Terms and Conditions)

For **2 Years** from the date of shipment, Seller warrants to Buyer that the Product is free from defects in material or workmanship **under normal use and service**. Equipment manufactured by other than Seller but furnished by Seller carries the same warranty to Buyer as Seller receives from the other manufacturer, notwithstanding any provision to the contrary. If Buyer has specified a particular manufacturer's product which is not the brand standardly supplied by Seller, Buyer shall look only to the other manufacturer's warranty and Seller shall not warrant such item.

EXCLUSIONS. Seller's warranty does not cover the following :

1. In-transit damage claims, improper handling by carrier or post office.

(Only the consignee of the shipment can file a claim with the common carrier.)

2. Damages caused by incorrect use, modification, carelessness, improper storage, hostile operating conditions, or unauthorized service, installation or repairs without proper training from the Seller.
3. Damages caused by fire, flood, lightning, collision, acts of God or other events beyond the control of Seller.
4. Products or parts thereof that have had serial numbers removed, altered or defaced.
5. Products returned without an RMA number and sales or delivery receipt showing the date of original purchase.
6. Use of components that do not meet Seller's specifications.
7. External parts such as cabinets or keypads.
8. Periodic maintenance and adjustments resulting from normal use.

WARRANTIES EXCLUDED, SELLER EXPRESSLY DISCLAIMS AND EXCLUDES ANY EXPRESS OR IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEEDS OR IS INCONSISTENT WITH THE WARRANTY HEREIN EXPRESSLY SET FORTH.

NON-WARRANTY CLAIMS

In the event Buyer makes a warranty claim and Seller's warranty does not apply, Buyer shall reimburse Seller for all reasonable expenses incurred by Seller in diagnosing the installation/repair problem.

BUYER'S EXCLUSIVE REMEDIES

If the Product supplied shall fail to conform to the contract or any applicable warranty, Buyer shall immediately notify Seller of such condition and afford Seller a reasonable opportunity to inspect said Product. Seller shall, at its option, either repair or replace such nonconforming Product. Seller shall not be responsible for labor charges for removal or installation of such equipment or material or charges for transportation, handling and shipping except as provided in Seller's written service policy. No Product shall be returned without Seller's prior written consent.

SELLER SHALL NOT BE LIABLE FOR ANY SPECIAL, DIRECT INCIDENTAL OR CONSEQUENTIAL DAMAGES OF A COMMERCIAL NATURE ARISING OUT THE USE OF OR INABILITY TO USE SELLER'S PRODUCT BY REASON OF THE FACT THAT SUCH PRODUCT DOES NOT CONFORM TO THE CONTRACT OR TO ANY EXPRESS OR IMPLIED WARRANTY. SELLER'S MAXIMUM LIABILITY SHALL BE LIMITED TO THE COST OF REPAIR AND/OR REPLACEMENT OF THE PRODUCT CLAIMED TO BE DEFECTIVE OR NONCONFORMING, SUBJECT TO SELLER'S RIGHT OF REMOVAL AND RETURN OF PRODUCT.

All of the foregoing constitute Buyer's sole and exclusive remedy and Seller's sole and exclusive liability for supplying nonconforming or defective Product.

RETURNS

AVE products are fully inspected and carefully packed to ensure you are delivered a quality product in good condition. If you are not fully satisfied with our product, returns of standard stocking items with no restocking fee can be made within thirty (30) days of invoice to Buyer. All such returns must have prior consent of Seller by obtaining an RMA number and must include the sales or delivery receipt showing the date of original purchase and be in an unused condition contained in its original packaging. Any other returns must have prior written consent of Seller and are subject to a restocking fee of fifteen percent (15%) and freight charges.

RMA NUMBER

The RMA (Return Material Authorization) number must be obtained by contacting Seller prior to the shipment of the product for return. The RMA number is valid only for 15 days from the date of issue. The RMA number must be clearly displayed on all shipping labels.

NOTES



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