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Ce-VBS-EZ

Part #: Ce-VBS-EZ (CeLAN VBS-EZ Module)

Contents

Product Summary

Overview

The Ce-VBS-EZ Module allows for barrier command and control while providing features designed to reduce the cost of operation by tracking numerous metrics of the system and reporting them to the Rampart Central Control System or local SD memory card.

The CeLAN VBS-EZ Module monitors /measures /controls the following:

Standard digital inputs:
- ✓ Limit Switch – Non-secure
- ✓ Limit Switch – Secured
- ✓ Vehicle Safety Loop
- ✓ Pressure Switch (Motor)
- ✓ Fluid Level
- ✓ Input One
- ✓ Input Two
- ✓ Manual Secure
- ✓ Manual Non-Secure
- ✓ Manual EFO
- ✓ Manual EFO Reset

Standard Relay Outputs:
- ✓ EFO
- ✓ Secure
- ✓ Non-secure
- ✓ Traffic Light
- ✓ Warning Horn
- ✓ Motor Run
- ✓ Relay One
- ✓ Relay Two

The CeLAN VBS-EZ Module has an integrated 2x16 LCD Display to allow for easy service review of over 31 different system metrics. These metrics can also be reviewed on the Rampart touch screen Ce-TS-VBS

The module monitors all inputs and alerts the panel if there is an open/short circuit by using a 3.0K ohm end-of-line (EOL) resistor on each digital input.

The CeLAN VBS-EZ Module comes with the 3.0K ohm EOL resistors required

Power for the CeLAN VBS-EZ Module is provided by:

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Ce-VBS-EZ

- Rampart Panel, 12 VDC CeLAN power terminals
- CeLAN Remote Power Supply Module, or
- Separate 12-24 VDC-power supply capable of delivering 12VDC @ 5A

Note: Input power to the Ce-VBS-EZ must be made to the terminals at the top of the board

Note: terminal blocks are split to allow for easier removal

Figure 1 Ce-VBS-EZ

Features

- Seven (7) Form-A relays that are, supervised, and dedicated for their purpose. And One (1) Form C relay for traffic lights
- Eleven (11) fully supervised inputs with dedicated purposes per module
    - Five (5) state inputs:
        - Open Circuit
        - Supervised Circuit (3k EOL)
        - Short Circuit
        - Ground Fault High
        - Ground Fault Low
- On-Board 2x16 LCD Display for reviewing system metrics and programming
- CeLAN AES encrypted technology for security, easy setup and enhanced performance.
- 'CINCH Stick' Field Upgradeable

Installation

Planning the Installation
This section describes system capabilities to help you get familiar with the system.

Panel Components
Before installing devices and making wiring connections, familiarize yourself with the main panel components. Figure 1 shows the main component locations for the circuit

Panel Terminals
Table 6 describes each of the controller's terminals

Terminal Block	Function	Purpose
J1	Negative In	+12 VDC
	Positive In	+12 VDC
J2	Input	Input One
	Return	
	Input	Hi/LO Pressure
	Return	
	Input	Vehicle Safety
	Return	
	Input	Limit Switch Secure
	Return	
	Input	Limit Switch Non-Secure
	Return	
J3	Input	Input Two
	Return	
	Input	Manual EFO
	Return	
	Input	EFO Reset
	Return	
	Input	Manual Secure
	Return	
	Input	Manual Non-Secure
	Return	
J4	Input	Fluid Level
	Return	
	Positive In	

Ce-VBS-EZ

		+12 VDC
	CeLAN	Bus A
	CeLAN	Bus B
	Negative In	+12 VDC
J5	Output	Motor Run
	Output	
	Output	EFO
	Output	
	Output	Secure
	Output	
	Output	Non-Secure
	Output	
J6	Positive Out	24 VDC
	Negative Out	24 VDC
J7	Output	Warning Horn
	Output	
	Output	Relay One
	Output	
	Output	Relay Two
	Output	
J8	Amber	Traffic Light
	CMN	
	Red	

Table 1: Ce-VBS-EZ-N Terminals

VBS-EZ Panel Accessories

The components listed in Table 2 are included with the VBS-EZ module and available for purchase

| Part #	Description	Qty.
¼" x ¼" #6	Installation Stand-offs	4
#6 Rolling Thread	Installation screws	8
Lock washers	Lock washers	8
CO-3K-EOL	3.0K ohm resistors	8
I-Ce-VBS-EZ	Installation Manual	1

Table 2 Accessory Kit

Mounting the VBS-EZ Module

Note: when installing it is important to use the standoffs to mount the circuit board

Select a NEMA rated enclosure that best fits the installation site.

Mounting the module:
1. Mark the location for the five mounting holes in the VBS-EZ module
2. Using the spacers mount the module in the enclosure
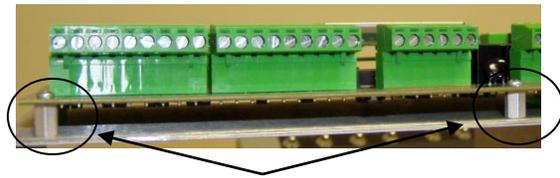
Mount spacers under each mounting hole location

Grounding the panel

The VBS-EZ module must be grounded in accordance to NEC standards. Connect a16 AWG or greater copper wire to the ground terminal and connect to an approved ground location.

Ground terminal located in the lower right corner of the board Proper NEC grounding is essential for proper safety and operation.

Installing the System

The VBS-EZ module can be installed as a stand-alone (single barrier, single controller) or in an enterprise installation using a Rampart control

panel, multiple barriers and controllers in a single system.

This section describes how to install VBS-EZ. Before starting the installation, plan your system layout and programming.

Installing the system consists of the following:
- ✓ Determining the panel location.
- ✓ Running wires to the panel location.
- ✓ System wire lengths.
- ✓ Mounting the panel.
- ✓ Connecting CeLAN modules and touch screens.
- ✓ Connecting communications
- ✓ Wiring input/outputs
- ✓ Connecting input power
- ✓ Installing the backup battery(s) to power supply
- ✓ Powering up the panel

Stand-Alone Installation

Before permanently mounting the product verify all of the required equipment is available.

Required Product:

- ✓ VBS-EZ Module (enclosure)
- ✓ Safety Loop(s) (optional)
- ✓ Remote Power Supply (enclosure)
- ✓ Backup Batteries (Remote Power)
- ✓ Manual Button Controller (if needed)
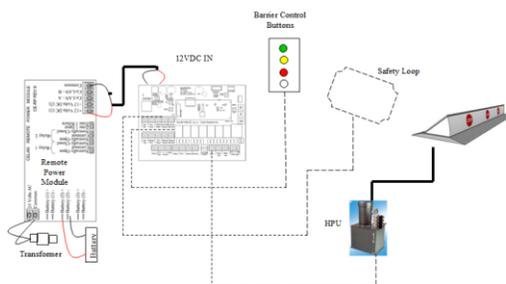
Enclosure:

For a stand-alone installation the VBS-EZ module, power supply and safety loop (if needed) are installed in a single enclosure.

Enterprise Installation

An enterprise installation includes all of the items from a stand-alone installation plus a Rampart control panel which provides the data bus that connects multiple VBS-EZ modules together.
Required Product:

- ✓ Rampart Control Panel (enclosure)
- ✓ VBS-EZ Module (enclosure)
- ✓ Safety Loop(s) (optional)
- ✓ Remote Power Supply (enclosure)
- ✓ Backup Batteries (Remote Power)
- ✓ Touch Screen Controller (programming)
- ✓ Expansion Module
- ✓ Fiber Module (optional)
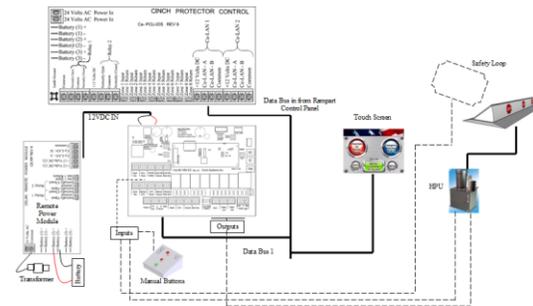
Data communications:

The Rampart control panel manages the system through an RS485 data bus, the data bus originates at the Rampart panel and terminates at a CeLAN module. The data bus communication:
> RS485 - Copper (22-24AWG)
> Fiber Optics (using Ce-FC-N Module)
> Network (using Ce-TCP Module)

Powering the Ce-VBS-EZ

The Ce-VBS-EZ can be powered by 12VDC power supply able to deliver 12VDC @ 5A Max When using the Ce-VBS-EZ in a multiple barrier installation, it is recommended to use the Ce-RP (Remote Power) module connected via data bus to the Rampart control panel. When connected to

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Ce-VBS-EZ

a Rampart panel the Ce-RP is continuously monitored for any fluctuations in the output voltage.

Note: see I-Ce-RP installation manual

The Ce-RP requires a back-up battery

The Ce-RP supplies 12VDC to the Ce-VBS-EZ module.

The Ce-VBS-EZ requires 12VDC for operation; the module converts the 12VDC to 24VDC @ 2.5A for system operation.

Ce-VBS-EZ

Back-up Battery

If used, the Ce-RP also requires the use of a back-up battery in case of AC power loss. The back-up battery(s) must be capable of providing enough power to provide XX (site specific) cycles of the barrier during a power loss

Note: the Ce-RP is capable of handling up to three 18Ahr back-up batteries, if multiple batteries are used an enclosure must be added to accommodate the batteries.


Note: When using the Ce-RP to power the VBS-EZ module , jumper the 12VDC outputs to allow 5A out.

VBS-EZ Module Input Wiring:
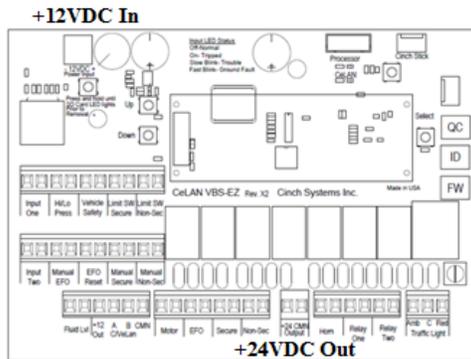
All inputs on the VBS-EZ module are supervised and require a 3.0K ohm resistor at the controlling device to supervise the wiring. End of Line Resistors (EOL) need to be installed at the supervised device.

All inputs require a 3.0K ohm resistor; the system will supervise the wiring for the following conditions:

- Open Circuit,
- Supervised Circuit (3k EOL),
- Short Circuit,
- Ground Fault High,
- Ground Fault Low

Note: The Manual EFO Input does not require an EOL resistor

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Ce-VBS-EZ

Note: the 3.0K ohm resistor should be located at the device being wired

Note: EOL is wired in series for N/C and in parallel for N/O

Each VBS-EZ Module includes 8 pre-wired EOL resistors. These resistors are designed to make it easier to connect the resistor at the device rather than the circuit board

Input LED Status:

Each digital input has a corresponding LED that monitors the input status.

Input LED Status:
  Off – Normal
  On- Tripped
  Slow Blink – Trouble
  Fast Blink – Ground fault

VBS-EZ Module Digital Inputs:

Input 1 - Defaults as a manual gate arm input, if tripped it will activate Relay 1. In programming the input can also be set to Card Reader allowing the use of an access control system to allow entry

Hi/Low Pressure – If this input is enabled, the motor will only run when this input in tripped (off normal), and the motor will stop when this input returns to normal.   If this input is disabled, the motor will run for the entire duration of a secure, non-secure or EFO event

Vehicle Safety - Enabled: prevents the barrier from securing if the loop input is activated, also

will abort a secure action if the loop input is activated while the secure action is in process.

Secure Limit Sw - Enabled, this input will end a Secure Barrier action or an EFO Barrier action, when it goes to the tripped (off normal) state.   It also ends the Secure Barrier Transition time.

Non Secure Limit Sw – Enabled, this input will end a Non Secure barrier action when it goes to the tripped (off normal) state.   It also ends the Non Secure Barrier Transition time

Input 2 - Defaults as a safety loop, see card reader mode in programming for other options

Manual EFO Button - Enabled, this input will initiate a Barrier EFO action when tripped. Note: this input does not require a EOL resistor

Manual EFO Reset Button - This input will reset a Barrier EFO action when tripped.   This input is always enabled, but has no effect unless a Barrier EFO action is active.

Manual Secure Button - Enabled, this input will initiate a Barrier Secure action when tripped.

Manual Non Secure Button – Enabled, this input will initiate a Barrier Non Secure action when tripped.

Fluid Res. Level – Enabled, this input must be in the tripped (off normal) state for the motor to run.

Relay Output Wiring:

All on-board relays are form A type, supplying the voltage to the device when required

Form A Relays:

EFO
Non Secure
Secure
Motor Run
Warning Horn
Relay One
Relay Two

Ce-VBS-EZ

Form A relays require a voltage in and switch that voltage when activated
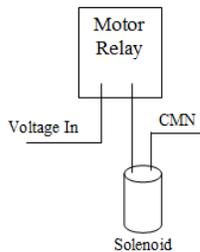
Form C Relays:

Traffic Lights
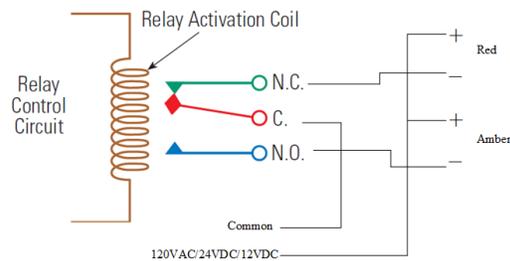
Note: Using a form C relay either ground or positive voltage can be switched

VBS-EZ Module Relay Outputs:

Motor Relay – Controls the motor. The motor relay is also controlled by the condition of the Hi/Lo pressure input and fluid level input, if these inputs are used they must be in the normal state for the motor to run.

EFO Valve Relay – Controls the EFO valve solenoid. This relay is activated at the start of an EFO Barrier action and remains active until the Secure Limit Switch indicates that the barrier has reached the full secure position, or the maximum EFO action time has elapsed.

Secure Valve Relay - Controls the Secure Valve Solenoid. This relay is activated at the start of a

Barrier Secure action and remains active until the Secure Limit Switch indicates that the barrier has reached the full secure position, or the maximum secure action time is reached. This relay is also activated for an EFO barrier action.

Non Secure Valve Relay – Controls the Non Secure Valve Solenoid. This relay is activated at the start of a Barrier Non Secure action and remains active until the Non Secure Limit Switch indicates that the barrier has reached the full non secure position, or the maximum Non Secure action time is reached.

Horn Relay – Controls the warning siren. This relay is activated at the start of any barrier action, and remains active until the barrier action ends. If the barrier action is EFO, the relay will remain active until the EFO action is reset.

Relay 1 – Control the gate arm when Input 1 is set to Manual Gate arm

Relay 2 – Outputs the limit switch condition for secure or unsecure

Traffic Light Relay – Form C relay supplies power to the traffic lights, both amber and red lights are wired off the relay

Data Wiring: (only required when using a Rampart Control Panel)

The data bus is originated from the Rampart control panel. The Rampart has two CeLAN bus ports, Bus one should be used when wiring data to the VBS-EZ

The data network can be made up of:
  Copper
  Fiber Optic
  TCP/IP

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Data wiring using copper

Data wiring using fiber optic modules

Data wiring using TCP/IP module
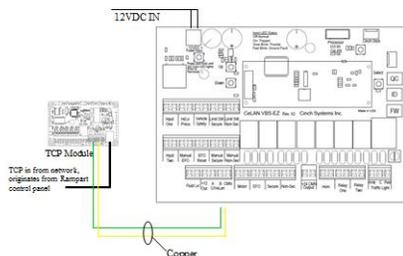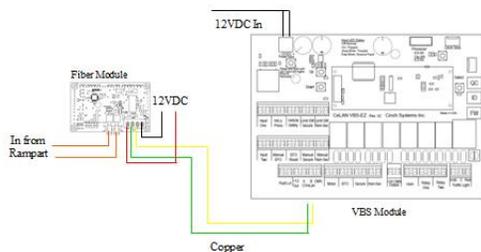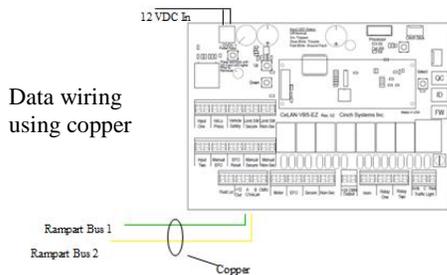
On-board VBS-EZ Programming:

A number of programming items can be accomplished from the VBS-EZ module by using the LCD screen and programming buttons

Select

Entering/Exiting Program Mode:

Press and hold the Select button for about 5 seconds the display will read:

Press the Select Button to enter program mode

Press Select Button to enter Timer programming

Immediately press the Up or Down button to begin scrolling through programming

Setting a Time:

Press the Up/Down button until Bar. Unsecure Tm. is displayed. The default or per-programmed setting will be displayed (15 Seconds)

To change the setting press the Select button, a M will display

Using the Up/Down buttons select the time required, when complete press the Select button and the M will no longer display

Programming Steps:

1. Press Select button for 5 seconds
2. Press the Up/Down button to select item
3. Press the Select button to enter Mode (M)
4. Use the Up/Down buttons to set item
5. Press the Select button to exit Mode (M)

6. Exit programming, use Up/Down buttons to select Program Mode Done
7. Press the Select button to exit program

```
Prog. Mode Done
Press Sel - Exit
```

Entering Advanced Programming Mode:

```
Advanced Prog
Press Sel - Entr
```

Press the Select Button

```
Enter Code
_ _ _ _  -  Entr
```

Enter access code by pressing the up/down buttons to select the number and the Select button to enter (default code -1234)

In Advanced Programming the access code can be changed by scrolling to Set Access Code

View Event Buffer:

```
View Event Hist
Press Adv - View
```

Use the up/down buttons to view the VBS-EZ history

Timers:

Barrier Unsecure Time – 1-30 seconds (15 sec)
The time that a barrier unsecure action will be allowed to run
Barrier Secure Time – 1-30 seconds (15 sec)
The time that a barrier secure action will be allowed to run
Barrier EFO Time – 1-30 seconds (6 sec)
The time that a barrier EFO action will be allowed to run
Gate Arm Up Time – 1-20 seconds (3 sec)

The time that is allowed for the gate arm to transition from down to up
Gate Arm Down Time – 1-20 seconds (3 sec)
The time that is allowed for the gate arm to transition from up to down
Unsecure Warning Time – 5-240 sec (60 sec)
The time that the barrier must be in the unsecure position before the barrier unsecure warning horn will sound

Advanced Operation: (password protected)

Input Programming – enable/disable digital inputs, also allows the selection of N/O or N/C (these settings are intended for standalone operation, when used with a Rampart the settings can also be programmed though a Rampart system VBS touch screen.
Gravity Unsecure – disabled/enable (disabled)
Enabled: Barriers are lowered by gravity; the unsecure valve is open for an unsecure action. The valve stays open for the entire time that the barrier is down. The motor does not run for barrier unsecure (gravity drops the barrier).
Disabled: Motor runs for unsecure action (subject to other inputs that control motor).
EFO Secure Valve – disabled/enabled (disabled)
Enabled: The secure valve opens along with the EFO valve on any EFO action
Disabled: EFO valve only for EFO actions.
Re-Secure Retry – disabled/enabled (disabled)
Enables a retry of a secure action when a secure action is aborted by traffic loop activity
Motor Run for Secure – disabled/enabled (disabled)
Enabled: Motor runs during barrier secure and EFO cycles For barrier unsecure cycles, the motor running is controlled by the hi/low pressure input (if enabled). The motor runs only when hi/low pressure input is off normal (low pressure), or in an EFO or secure cycle.
Disabled: The motor is controlled by the hi/low pressure input (if enabled) for both secure and unsecure cycles.   The motor always runs for EFO cycles.
Gate Arm Used – enabled/disabled (enabled)
Enabled: Gate arm is used in the system. Drops gate arm before secure actions, and raises gate arm at the end of unsecure actions.

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Disabled: There is no gate arm used in the system. Skips the gate arm delay times at beginning of secure action and end of unsecure action

Input 1 Function –Gate Arm/Card Reader (default gate arm):

Gate Arm: Input 1 is manual gate arm input. Input 2 is safety loop. Output 1 is manual gate arm relay (if Gate Arm option is enabled). Output 2 function is determined by the Output 2 Function option. Gate arm state will be toggled when input 1 is tripped (only if the barrier is unsecure).

Card Reader: Input 1 is card reader input. Input 2 is safety loop and resecure loop. Safety loop input is safety/presence input. Output 1 follows Secure Limit input, Output 2 function is determined by the Output 2 Function option. When presence loop and Input 1 (card reader) are both tripped, barrier unsecure action is started. Resecure (secure action) will be initiated based on setting of the Auto Resecure Mode option.

Output 2 Function – Limit Down (default): Output 2 follows the state of the unsecure limit input.

Limit Up: Output 2 follows the state of the secure limit input

Auto Re-secure Loop – Exit Loop:When barrier is unsecured by card reader, resecure (barrier secure) will start immediately, when the Exit loop transitions from normal to tripped and back to normal. The safety loop input and Input 2 (exit loop) both function as safety loops and will interrupt the secure action if tripped.

Both Loops: When barrier is unsecured by card reader, resecure (barrier secure) will start when the safety loop input and the Input 2 input are normal for 3 seconds. The safety loop input and Input 2 (exit loop) both function as safety loops and will interrupt the secure action if tripped.

Auto Close: Same as Exit Loop option, except that the Exit loop input is ignored as a safety loop during the resecure action.

Barrier Unsecure Warning – enabled/disabled (enabled)

Enabled: Sound the horn and send status to Rampart when the barrier has been down for more than the barrier unsecure warning time.

Disabled: Does not monitor how long the barrier is down, and no horn or status report for barrier down is sent.

Vehicle Safety Loop – Acts as a safety loop to re-secure the barrier if activated while the barrier is in motion, or will not allow the barrier to secure if activated, if Input 1 is set to Card Reader the loop becomes a presence/safety loop allowing entry upon a valid card read

Warning Horn Mode – EFO only/All Barriers (EFO only)

Enabled: Sound the warning horn during barrier secure and non-secure barrier actions in addition to EFO actions.

Card Reader Mode – Entry Only: Input 1 is card reader input, Safety loop input is presence loop Input 2 is Exit loop/safety loop input.

Entry/Exit: Input 1 is card reader input, Input 2 is presence loop, and Safety loop input is Exit loop/safety loop input

Traffic Light Red – Presence Loop Clear: For an unsecure action initiated by card reader, the traffic light will return to red when the presence loop restored.

ReSecure Start: For an unsecure action initiated by card reader, the traffic light will return to red when the resecure action starts.

EFO Delay – 0-10 seconds delays the EFO operation

EFO Resume Delay - 00-10 in 1/10 sec Default (00)

If set to 00 a safety loop will prevent an EFO action

If set to any setting other than 00 the EFO will delay the programmed time after the loop is clear before EFO

HT Barrier Control - Enables control of both barrier and gate arm in HT (high traffic) mode. Holds the slide gate open.

Disabled: When in High traffic mode, on the gate arm transitions. Barrier and AUX relay remain in the "Open" or non-secure position.

Enabled: When in High traffic mode, AUX relay held in the "open" or non-secure position. Barrier and gate arm transition normally.

Motor Run Time Max - 5-30 min (default 15 min) sets the maximum amount of time a motor will run

Unsecure Hold Time - 0-10 sec (default 00)

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Sets the amount of time the unsecure output relay is held after an unsecure sequence is complete

Zone Scan Time - varies the scan speed of the digital inputs, increasing or decreasing the reaction time of the input. Adjusts the zone scan time between 088 – 1024 msec. This option would be used to provide a faster response time from an input (manual push button)

+24V Output Enabled – Enables/disables (default) the 24VDC output on the control panel, the option default off

Set Access Code – set the access code for entering advanced programming (default 1234)

VBS-EZ Module Testing:

Each individual input can be tested on the VBS-EZ module prior to operation, this verifies each input and output is operating

Entering Test Mode:

1. Remove power from the module
2. Hold down the two buttons to the left of the LCD
3. While holding the buttons apply power
4. Hold the buttons until the LCD displays

```
*** Zone Test***
****Active****
```

5. Activate each input by shorting the input or actually activating the device. The LCD will display when activated
6. Activate each input and verify the reading
7. Press the Down button to active the Output Test, during this test the outputs will activate and light the LED's
8. Press and hold the Select button to exit test mode

Specifications:

Input Power: 12 VDC nominal (10 VDC minimum, 14 VDC maximum), 500mA maximum (board only)

Current draw: 1A @ 24VDC
           2.5A @ 12VDC

Output Power: 24VDC or 12VDC

Input Supervision: 3.0K ohm resistor

Outputs: 8 Form A relays rated at 10A @120VAC and 10A @ 30VDC

Board Dimensions: 6.5 (L) X 4.47 (W)

Operating Temperature: -25° to 140° F (-32° to -60° C)..

Storage Temperature: -25° to 140° F (-32° to 60° C)

Maximum Humidity: 90% relative humidity, non-condensing

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Ce-VBS-EZ

SD Card

The Ce-VBS-EZ module has a micro SD card slot available for storing system events. It is important that the card is installed and removed per instructions to avoid card failures.

SD Card Compatibility

****Important****

The Ce-VBS-EZ is compatible with only Class 4 micro SD cards.

The Class marking is located on the card inside the letter C

Class 4 SD cards are available in:
4GB - 37M + events
8GB - 75M + events
16GB - 125M + events
32GB - 250M + events

Card Installation

Locate the SD card holder in the upper left corner of the module.

1. Slide the holder up and pull back to release the cover.
2. Place the card in the cover so the card slides into the slots, with the gold metal tabs facing the board
3. Press and hold the button to the right while pressing down the card in the holder and sliding down
4. Release the button
5. The LED located above the SD card will come on momentarily, and should remain off.

Card Removal

1. Press and hold the card removal button located by the SC card
2. The LED should be on steady
3. While holding the button slide the card holder up and pull back and remove the card
4. Release the button

SD Card LED

Flashing - SD card busy or no card installed
On Steady - SD card ready to remove

If the LED is on steady or flashing fast and a card is installed, using the removal procedure remove the card and re-install.

Reading the SD Card

Once removed from the module the SD card can be read from a computer using a micro SD adapter.

The files are formatted as a CVS type, meaning it will open with MS Excel.

After reading the card follow the installation procedure to reinsert.

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Ce-VBS-EZ

Rampart Programming

VBS Programming

VBS programing includes the following menus:

Touch Screen Options
CeLAN Devices
Partitions
Cinch Stick Control
Schedules
System

Note: The VBS programming menu does not include Zone and Output programming, if these items need to be programed an IDS touch screen must be used

Programming:
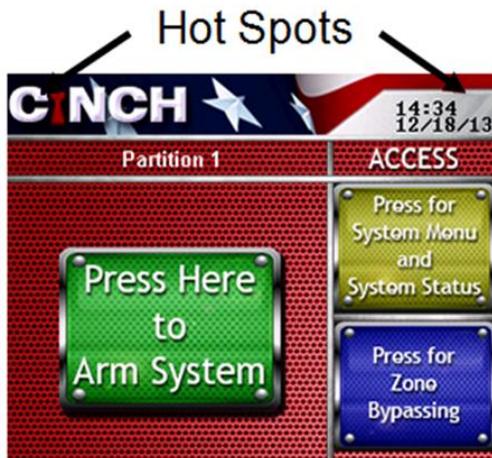
Enter programming using a system touch screen; to view all VBS programming options a VBS touch screen must be used.

VBS touch screen part # Ce-TS-VBS

Enter access code to view main menu:
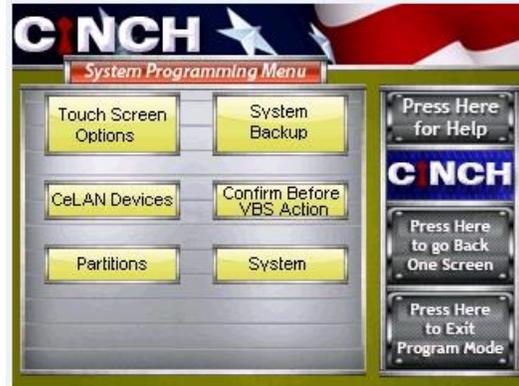
Figure 16: Main VBS Programming Menu

From the Main Programming Menu select "Touch Screen Options" by touching the corresponding button displayed on the screen. The Touch Screen Options menu is then displayed as seen in Figure 17 below:

Figure 17: Touch Screen Options

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Touch Screen Volume

**Figure 24: Selecting Touch Screen Volume**

From the Touch Screen Options Menu select touch screen volume by touching the corresponding 0-7 button displayed on the screen.

Select the desired local touch screen volume (0 is the lowest (Off) and 7 is the highest) for this CeLAN Touch Screen. When you touch the desired volume level the background will turn to yellow to indicate your selection and the system will 'beep' at the selected volume level. You will need to repeat this process on all CeLAN Touch Screens installed in the system to set the volume level for each of them individually. By default, all CeLAN Touch Screens volume levels are set to 7.

Scramble Keypad
When highlighted in yellow both the QWERTY and Keypad will scramble with each entry.

Chime Feature
When highlighted in yellow selected zones will chime from the touch screen when activated with the system in the Access state

Idle Touch Screen
After 5 minutes of no activity the Touch Screen will go idle, select how the Touch Screen will react when idle
        Go dark
        Show Logo
        Do nothing
Note: If Touch Screen is dark or showing logo touch the upper left corner to awaken

Calibrate LCD
If required select Calibrate LCD and follow the instructions on the screen.
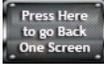
When you have completed your selection select the [Press Here to go Back One Screen] button to return to the CeLAN

CeLAN Devices
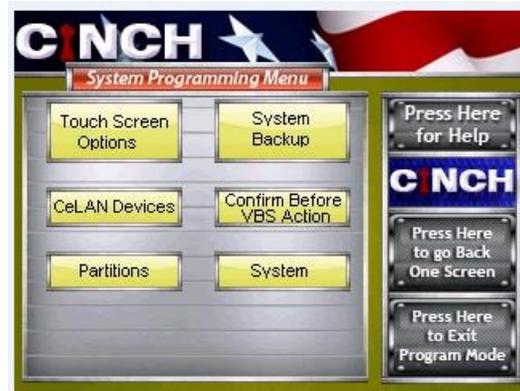
Figure 18: Selecting CeLAN Devices Menu

From the Main Programming Menu select "CeLAN Devices" by touching the corresponding button displayed on the screen. The CeLAN Devices menu is then displayed as seen in Figure 19 below

No Access Code Required to Arm*

Figure 19: Selecting No Access Code required to Arm

From the CeLAN Devices Menu select "No Access Code Required to Arm" by touching the

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corresponding button displayed on the screen. When this option is selected the user will not be required to enter a valid access code to arm the system. If the option is not selected the user will be required to enter a valid access code to arm the system.
*Feature must be set to Off for UL1076 installations

Enrolling Devices
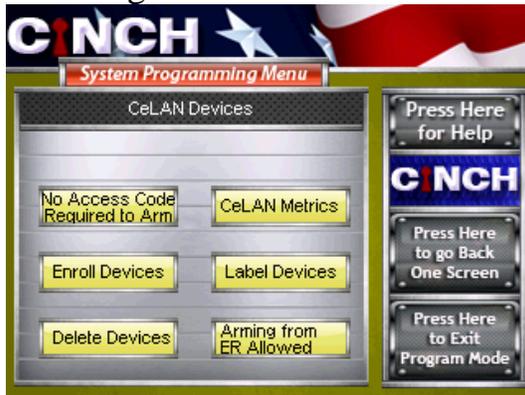
Figure 20: Selecting Enroll Devices

From the CeLAN Devices Menu select "Enroll Devices" by touching the corresponding button displayed on the screen. The Enroll Devices menu is then displayed as seen in Figure 21 below:

Figure 21: Enrolling CeLAN Devices Screen

By selecting this option you are directing the system to 'Enroll' all the CeLAN devices properly connected to the Rampart Panel's CeLAN 1 or CeLAN 2. The screen will display the message "All Devices Enrolled Use Label to

Review" after all the devices on the CeLAN are enrolled.
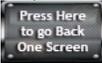
When you have completed your selection select the [Press Here to go Back One Screen] button to return to the CeLAN Devices Menu

Deleting Devices
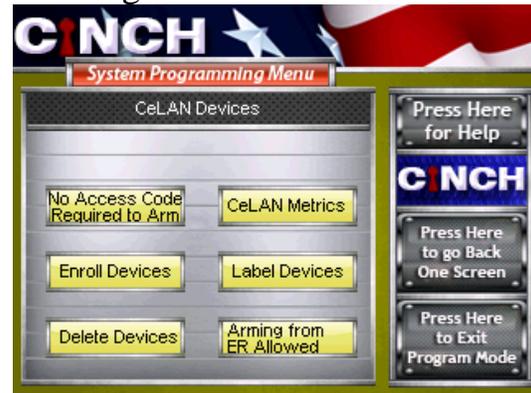
Figure 22: Selecting Delete CeLAN Devices

From the CeLAN Devices Menu select "Delete Devices" by touching the corresponding button displayed on the screen. The Delete Devices menu is then displayed as seen in Figure 23 below:

Figure 23: Delete CeLAN Devices Screen

From this menu you can do several items:
   o   Scroll the Device List: To review the list of devices enrolled into the Rampart

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System simply use the "UP" and "DN" scroll buttons.
- o Use the Device Search for faster access to devices
- o Delete a Device: To delete a device simply scroll up or down to the desired device and then select the `Active` button. When you leave the screen being displayed the device will be removed from the system. To add the device back into the system simply return to the Enroll Devices Menu.

When you have completed your selection(s) select the `Press Here to go Back One Screen` button to return to the

CeLAN Devices Menu.

Label Device
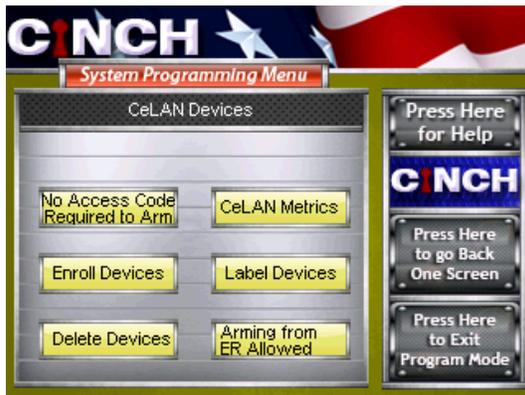
Figure 26: Selecting Label Devices

From the CeLAN Device Menu select "Label Devices" by touching the corresponding button displayed on the screen. The Label devices menu is then displayed as seen in Figure 27 below:
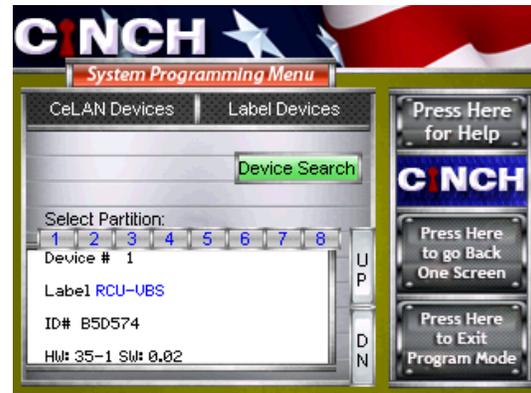
Figure 27: Label Devices Menu

From this menu you can do several items:
- o Scroll the Device List: To review the list of devices enrolled into the Rampart System simply use the "UP" and "DN" scroll buttons.
- o Change a devices label: The system will automatically apply a label to all devices enrolled into the system. You will want to change these labels to make them more descriptive to your actual application. By selecting the blue Hyper Text device label you will be taken to a Label Screen where you can enter in a new label for the device.
- o Select the CeLAN devices partition; simply select which partition the device is active in by selecting the partition number.

Selecting the Hyper Text to change the label will bring up the Label Screen as seen below in Figure 28.

Figure 28: Entering in new label screen

Enter in the new label description for the selected CeLAN Device. The display will show the new label as you type it after the "Enter Label:" on the display. If you make a mistake you can select the 'Back Space' key to clear the wrong entry. When you have the label the way you desire it simply press the enter key.

> **Note**
> **By pressing the 'Shift' key before selecting any letter key will change the next entry to the lower case version of the letter. The 'Shift' key has no impact on the number keys and impacts the punctuation keys as shown on the display.**
>
> **Note**
> **The system allows for a maximum of 25 characters for any label in the system.**

You can continue to scroll through all the devices until you have changed all the labels.

When you have completed your selection(s) select the button.

VBS Module Programming

In the CeLAN - Label Devices menu using the up/down arrows scroll to the VBS Module

CeLAN - Label Devices

To program VBS setting press
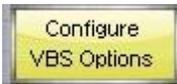
VBS Options

Translator Button Number - this option sets the ID number of the VBS module when using a Ce-T422 module and computer touch screen (HMI) program

Sync/Interlock - allows the interaction of multiple VBS module to operate together. Sync will operate the barriers at the same time, Interlock will not allow two barriers to open at the same time (sally port), EFO Sync will allow barriers to operate at the same time during an EFO action

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When programming sync and interlock functions all barriers must be programmed to sync/interlock with the other.

Comm Loss

Comm Loss allows the operation of a barrier in case of data communication loss, select Manual operation, or trigger an EFO in a set amount of time

Blast Wave - not used
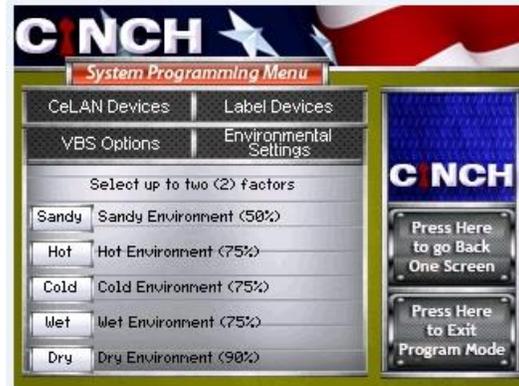
Enviro Settings

Environmental settings allows the variation of system maintenance metrics to change due to module location and usage

Barrier Settings

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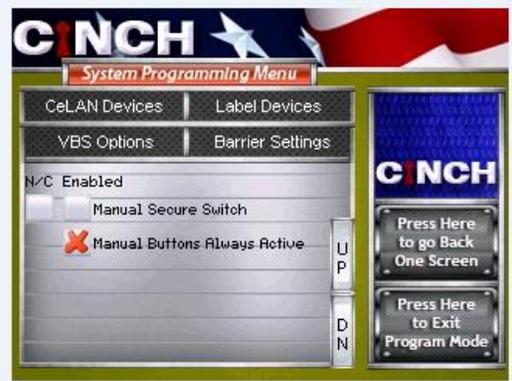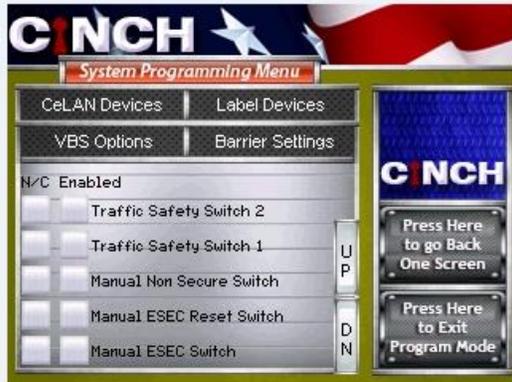
Barrier Settings control the VBS Module inputs, by checking enabled it will turn on the input as N/O, if N/C is required it must be checked.

Note: the inputs can also be programmed locally at the VBS module, if changes are made in Rampart they will write over any locally programmed settings

VBS metrics keeps track of time and cycles of VBS specific settings, if needed the setting can be reset from the menu.

Metrics

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⚡ **Grounding the panel** ⏚

QC
ID
FW
Select

Cinch Stick

Processor
CeLAN

Made in USA

CeLAN VBS-EZ Rev. X2 Cinch Systems Inc.

Input LED Status
Off- Normal
On- Tripped
Slow Blink- Trouble
Fast Blink- Ground Fault

12VDC In

-12VDC + Power Input

Press and hold until SD Card LED lights Prior to Removal

Up
Down

3.0K Ohm EOL

Limit Switches

Safety Loop

Pressure Switch

Note: All manual button require EOL except the EFO input

Up   Dn   EFO   Reset

Input One — Hi/Lo Press | Vehicle Safety | Limit SW Secure | Limit SW Non-Sec

Input Two — Manual EFO | EFO Reset | Manual Secure | Manual Non-Sec

Fluid Lvl | +12 Out | A | B CMN C/VeLan

Motor | EFO | Secure | Non-Sec

-24 CMN Output

Horn | Relay One | Relay Two | Amb. C Red Traffic Light

Rampart Databus

Motor
EFO
Secure
Non-Sec

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Addendum:

Pressure Switch Operation:

A pressure switch is used in conjunction with a hydraulic barrier system, the switch controls the motor run relay.
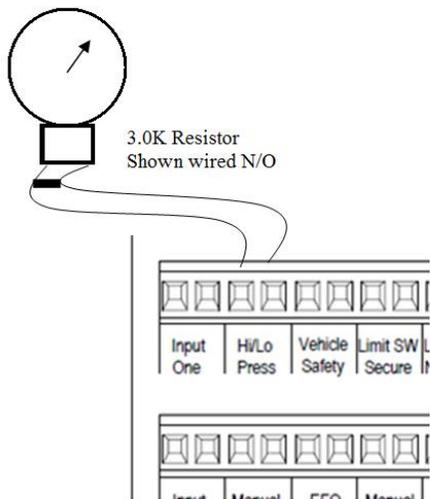
Traffic Light Operation:

The VBS-EZ module is equipped with a form C type relay for wiring the traffic light, the light is wired to be either Red or Amber based on barrier status,

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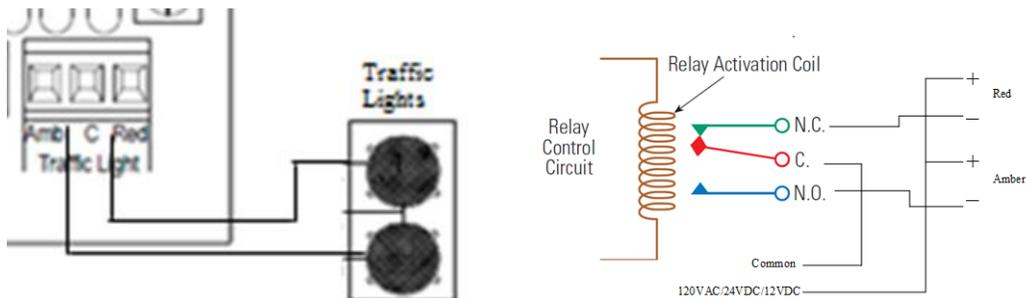
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Safety Loop:

The VBS-EZ module is equipped with 1safety loop:

Loop 1:

Presence-Safety- Allows loop 1 to function as both safety and presence loop. On presence the loop will trigger open or unsecure sequence working in conjunction with the card reader input, also act as a safety loop not allowing the barrier to secure if active.

Loop 2:

Onetime auto close- Allows loop 2 to auto close and continue closing once the vehicle has cleared loop 2. i.e. once the barrier starts raising re-triggering the loop will not cause the barrier to go back down.

Input -1 Card reader function:

If input-1 is programmed for card reader, then input-2 becomes (Loop 2) or Auto- close. Note: The dedicated vehicle safety input is Loop 1 presence/safety.

Input-1 Gate arm function:

If Input-1 is programmed for gate arm, then Output 1 becomes Gate Arm output.
Note: There is no manual Gate Arm input if card reader option is used.

Outputs 1 and 2 default:
Outputs 1 and 2:
Output-1 =Limit up status.
Output-2 =Limit down status.
Note: Individually output 1 or 2 shall be optionally assignable as either: Example; if Gate Arm function is used for output 1, then you can set output 2 as either up OR down limit status.

Safety Input:

Input 1 or 2 would be selectable as a Safety Input feature (photo beam or equivalent). When triggered if the barrier is securing it will reverse the barrier action. Also used to prevent barrier from securing when secure button is activated

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SD Card

The Ce-VBS-EZ module has a micro SD card slot available for storing system events. It is important that the card is installed and removed per instructions to avoid card failures.

SD Card Compatibility

****Important****

The Ce-VBS-EZ is compatible with only Class 4 micro SD cards.

The Class marking is located on the card inside the letter C

Class 4 SD cards are available in:
4GB - 37M + events
8GB - 75M + events
16GB - 125M + events
32GB - 250M + events

Card Installation

Locate the SD card holder in the upper left corner of the module.

6. Slide the holder up and pull back to release the cover.
7. Place the card in the cover so the card slides into the slots, with the gold metal tabs facing the board
8. Press and hold the button to the right while pressing down the card in the holder and sliding down
9. Release the button

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10. The LED located above the SD card will come on momentarily, and should remain off.

Card Removal

5. Press and hold the card removal button located by the SC card
6. The LED should be on steady
7. While holding the button slide the card holder up and pull back and remove the card
8. Release the button

SD Card LED

Flashing - SD card busy or no card installed
On Steady - SD card ready to remove

If the LED is on steady or flashing fast and a card is installed, using the removal procedure remove the card and re-install.

Reading the SD Card

Once removed from the module the SD card can be read from a computer using a micro SD adapter.

The files are formatted as a CVS type, meaning it will open with MS Excel.

After reading the card follow the installation procedure to reinsert.

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Programming Worksheet:

Date: _____   Location/Site Name: _____

Project Manager: _____

Site Contact: _____

Part Name	Device ID #	Location	Text
Ce-VBS-EZ-N	A765B2	NE Ramp	Entry Ramp

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Rampart Programming

Programming Option	Setting
Translator Button Number	Number: _____
Sync Interlock	
Sync	ID# _____
I lock	ID# _____
EFO Sync	ID# _____
Comm Loss	
Enable Manual Operation	Delay Time _____ Sec
Trigger ESEC	Delay Time _____ Sec
Do Nothing	Delay Time _____ Sec
Blast Wave	Not used
Enviro Settings	
Sandy	On/Off _____
Hot	On/Off _____
Cold	On/Off _____
Wet	On/Off _____
Dry	On/Off _____
Barrier Setting	
Hi Lo Pressure Switch	N/C _____ Enabled _____ Off _____
Fluid Reservoir	N/C _____ Enabled _____ Off _____
Manual Gate Arm Control	N/C _____ Enabled _____ Off _____
Non Secure Limit Switch	N/C _____ Enabled _____ Off _____

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Secure Limit Switch	N/C	_____	Enabled	_____	Off _____
Traffic Safety Switch 1	N/C	_____	Enabled	_____	Off _____
Manual Non Secure Switch	N/C	_____	Enabled	_____	Off _____
Manual ESEC Rest Switch	N/C	_____	Enabled	_____	Off _____
Manual ESEC Switch	N/C	_____	Enabled	_____	Off _____
Manual Secure Switch	N/C	_____	Enabled	_____	Off _____
All Manual Buttons Active	On/Off	_____			

VBS-EZ Board Programming

Programming Option		**Setting**
Timers		
Barrier Unsecure Time	1-30 Sec	_____ Sec
Barrier Secure Time	1-30 Sec	_____ Sec
Barrier EFO Time	1-30 Sec	_____ Sec
Gate Arm Up Time	1-20 Sec	_____ Sec
Gate Arm Down Time	1-20 Sec	_____ Sec
Unsecure Warning Horn	30-240 Sec	_____ Sec
Advanced Programming		
Gravity Unsecure	Disable/Enable	_____
EFO Secure Valve	Disable/Enable	_____
Re-Secure Retry	Disable/Enable	_____
Motor Run for Secure	Disable/Enable	_____

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Gate Arm Mode   Disable/Enable   _____

Input 1 Function   Gate Arm/Card Reader   _____

Output 2 Function   Limit Down/Up   _____

Auto Re-Secure Mode   Exit Loop/Both Loops   _____

Barrier Unsecure Warning   Disable/Enable   _____

Safety Loops   Disable/Enable   _____

Warning Horn Mode   EFO Only/All Barriers   _____

Card Reader Mode   Entry Only/Entry Exit   _____

Traffic Light Red   Presence Loop Clear/Resecure Start   _____

EFO Delay   Seconds   _____

EFO Resume Delay   Seconds   _____

HT Barrier Control   Enable/Disable   _____

Motor Run Time Max   Minutes _____

Unsecure Hold Time   Seconds   _____

Input Scan Time   mSec   _____

24V Output   Enable/Disable   _____

Set Access Code   1234   _____