OVERVIEW: The GENESIS board has a 4 line 20 characters per line LCD backlit screen. At power up, the display will show the AutoGate and GENESIS branding, along with the program version number and the current time. After 5 or 6 seconds, this will then shift to the HOME screen, or base operational data shown below under MAIN Screen.

TITLE Screen

JOG/SELECT Control Knob: The screens are accessed and modified by a JOG/SELECT control knob. Turning the Jog/Select dial will scroll through the sub-menu selections. When a sub-menu is showing, a quick momentary press of the Jog/Select knob will display the first screen in that sub-menu. Turning the Jog/Select knob will move the cursor (>) through the adjustable parameters.

SCROLLING: Rotating the Jog/Select knob clockwise will scroll through the adjustments on that screen. If there is another screen in that sub-section, continue to scroll after the last character, the screen will automatically change to the next screen. When at the last screen of a sub-section, a long push, (approx. 1 second), of the Jog/Select knob will return to the sub-section main screen. Sub-sections can be scrolled in either direction by turning the Jog/Select knob clockwise or counter-clockwise.

JOG/SELECT ACTIONS: Two different actions can occur on the screens:

1) If the cursor is pointed to a descriptive phrase (Example #1), then a momentary push of the Jog/Select knob will move the cursor to the adjustable parameter. Then turning the Jog/Select knob will change the value.

2) When the cursor is pointed to left side of a value or parameter to be changed, (example #2), use quick momentary push of the Jog/Select knob to move the cursor. The cursor will move to the right side of the value (<). Turning the Jog/Select knob will change the value. When done, again, a quick momentary push of the Jog/Select knob moves the cursor back to the left.

Note: Gate will not be operational while in programming mode. When in programming mode there will be a series of flashing lights at all times above the LCD screen.

Note: Screens in ORANGE are WARNING screens that will appear when there is an issue.

SCREEN MENUS

MAIN SCREEN

- Line voltage: From the Power supply. (Normal voltage will be 26 to 27, Preset to 26.5Vdc)
- Charge/Battery voltage: When AC present: Charging Voltage to batteries, When on DC only: Actual battery voltage. (Normal voltage is 26.4 to 26.8) Note: * Indicates CURRENT POWER source
- Motor: Displays actual motor amperage during cycling
- Cycles/Position: A cycle count is considered a complete OPEN & CLOSE. Hold the Jog/Select button down and the Cycles will change and show the gate position “0” being CLOSED and “90” being full OPEN.
- T=00: Operation count in seconds for both open and close cycles and also counts down the “Timer to Close” (CLOSE TIME) time.

CALENDAR/TIME

- Set the time, date and day of the week. This is an important feature. It will affect the data in all FAULT and OPERATION logs as well as any TIME functions to hold the gate open on any given day(s).
CALENDAR/TIME (cont.)

Set the time, date and day of the week.

TIMER SETTINGS

TIMER SETTINGS: 4 Sub Menus to set OPEN & CLOSE times, MOTION ALARM times and 7-DAY TIMERS

Auto Close: off
Auto Delay: 03

Motion Alarm: On
Pre-Op Alarm: 0
Pre-C1 Alarm: 0

Automatic Schedule: Off

AUTO CLOSE TIME: Default is ON from 1 to 120 seconds, OFF requires a CLOSE command.
CLOSE TIME DELAY: Timer to close after all inputs are clear. Settable from 1 to 120 seconds.
(Note: If using the “Auto Close” in a PRIMARY/SECONARY gate system, only set the PRIMARY “Auto Close” to on, leave the Secondary off.)
OPEN/CLOSE TIME (This option is only active when LIMIT SWITCHES are used): Full Speed Run Time, Set this when the slow down is to start. Slows down after time value expires.

MOTION ALARM: Turns ON and OFF an alarm or Strobe Light.
PRE-OPEN ALARM: Turns on the alarm from 1 to 5 seconds before the gate opens.
PRE-CLOSE ALARM: Turns on the alarm from 1 to 5 seconds before the gate closes.
*Note: This time value must be equal to or shorter than the AUTO CLOSE TIME value.

Automatic Schedule: >7 days a week
Automatic Schedule: >Mon-Fri only
Automatic Schedule: >Sat & Sun only

Automatic Schedule: >Custom-Daily

Set the time, date and day of the week individually. Two complete options for each day: SUNDAY to SATURDAY and SUNDAY 2 to SATURDAY 2.

Each day has the ability to set a HOLD OPEN and CLOSE time.

(Same as above) Each day has the ability to set a second HOLD OPEN and CLOSE time.
**OPERATOR CONTROL**

**OPTIONS:** GATE SPEED, LIMIT SWITCHES, HALL (A & B), OPEN/CLOSE, POSITION SETTINGS

**Gate Orientation:** Set for **LEFT** or **RIGHT** hand gate. *The hand is always determined from the INSIDE or PRIVATE side of the gate system. If the operator is located on the right-RIGHTHAND, left-LEFTHAND.*

**Dual Gate Mode:** Turn “ON” when you have (2) gates opening at the same time. Options: **OFF, PRIMARY** or **SECONDARY**. If “ON”, then each gate needs to be set accordingly. **Status:** Disconnected or Connected
- If using the “Auto Close”, only set the PRIMARY “Auto Close” to on, leave the Secondary off.
- Make sure both gates are powered up, otherwise you receive a “communication” error message (see yellow message below).

In a **PRIMARY/SECONDARY** or **DUAL** gate mode system, if you lose communication between the two operators you will get this message. **Note:** Gates will not operate in DUAL gate mode unless BOTH are powered up and connected.

**Gate Opening Speed:** 100%  
**Gate Closing Speed:** 100%

**Limit Switches:** **Not Used**  
**Limit Switches:** (REQUIRES SECURITY CODE TO ACCESS) Default is “NOT USED”. Model VPG 2490 systems are equipped with a LIMIT POSITION SENSOR (LPS). *If no sensor is present, then a fault code is generated and the gate will not move.* Choices are: **NORMALLY OPEN, NORMALLY CLOSED, HALL & HALL B.** Normally open & close will choose the type of wired Limit Switch to be used. **HALL A & HALL B:** Only used on direct replacements on certain barrier gate operators.

**Open Decel:** 10  
**Close Decel:** 10

**Decel Speed:** Sets the time value on setting the gate speed from full speed to slow speed. The scale is 7 to 20, with 7 being the fastest and 20 being the slowest.

**Constant Pressure (CP) Mode (Class IV):** In the CP mode, the **OPEN 1, OPEN 2 & CLOSE** inputs can be wired to a push button station for gate control. In a CP mode, these inputs will override the Entrapment STOP/ALARM condition. Status is **ON** or **OFF** only. Default is **OFF**.

**Stop Input Mode:** Either Normally **OPEN** or Normally **CLOSED**

**WARNING! Use caution when using these inputs. Always have direct line of site to the gate at all times to avoid pedestrian injuries or equipment/vehicle damage.**
MONITORED INPUT SETTINGS

OPTIONS: OPEN OBSTRUCTION, CLOSE OBSTRUCTION, PROGRAMMED MONITORED INPUTS:

Choices are: 10K (10,000 Ohms Resistance) or 2-Wire. (The GENESIS board supports a maximum number of (2) OPEN, (2) CLOSED & (2) programmable inputs. Contact AutoGate if additional inputs are required).

Board is programmed for a Monitored Input. If it is missing, gate will not operate until the monitored input is installed or restored.

Board is programmed for a Monitored Input. If it is enabled and the required feedback is missing you will get these FAULTS: CLOSE BEAM MISSING, OPEN BEAM MISSING, CLOSE EDGE MISSING, OPEN EDGE MISSING, PGM INPUT 1 MISSING, PGM. INPUT 2 MISSING. You will need to re-establish the monitored device.

If your gate has a monitored UL Event and either “locks” open or goes “closed”, this warning screen will appear as well as the FAULT light will flash. Any intended INPUT will reset the gate to normal operation. Providing the obstruction is no longer present. You can also “manually” reset the board.

OPEN OBSTRUCTION: Either an EDGE or BEAM will work on either OB1 or OB2. You have (3) choices: OFF, 10K or 2-WIRE. You must have a minimum of (1) programmed at all times for UL325 Rev. 6 and up.

If your gate had an OPEN OBSTRUCTION event, the gate will stop and reverse to full close until the obstruction is cleared and an INTENTED INPUT (Access Control Input, Loop Reset, etc., but NOT the CLOSE TIMER) or a MANUAL INPUT on the control board resets your gate back to normal operation.

CLOSE OBSTRUCTION: You have (3) choices: OFF, 10K or 2-WIRE. You must have a minimum of (1) installed and programmed at all times per UL325 latest edition. CLOSE OBSTRUCTION DEVICES are approved Beams and Edges only! NEVER HOOK A BEAM TO THE EDGE INPUT!

If your gate had a DOUBLE CLOSED EDGE OBSTRUCTION event, the gate will shut down in the OPEN position until the obstruction is cleared and an INTENTED INPUT (Access Control Input, Loop Reset, etc., but NOT the CLOSE TIMER) or a MANUAL INPUT on the control board resets your gate back to normal operation.

PROGRAM MONITORED INPUTS: Additional INPUTS for additional monitored devices. Choices are: OFF, 10K: OPEN EDGE, OPEN BEAM, CLOSE EDGE & CLOSE BEAM

2-WIRE: OPEN EDGE, OPEN BEAM, CLOSE EDGE & CLOSE BEAM.

If your gate had an OBSTRUCTION event, depending on the monitored device, the gate will shut down either in the OPEN or CLOSED position until the obstruction is cleared and an INTENTED INPUT (Access Control Input, Loop Reset, other) or a MANUAL INPUT on the control board will reset your gate back to normal operation.

If your gate had a DOUBLE FAULT, it will be shut down. To restore normal activity, check for obstructions and if clear, hit the RED STOP button, do a manual reset or power the system down and back on again.
INPUT OPTIONS

OPTIONS: INPUT 1 & 2
All of the INPUTS will require a momentary pulse from a remote source such as a Pushbutton, Toggle Switch, etc.

INPUT (1 & 2) MODES:
OFF
OPEN-Open command
CLOSE-Close command
Single Button-Open-Stop-Close-Stop
Reverse-Reverse command
Fire-Holds the gate Open (will cause a FLASHING ALERT warning screen)
Shadow-Shadow Loop input
Auto Open: Default is OFF-Skips the next days 7-Day Timer cycle commands
Hold Open-Opens gate: Holds open until Input removed (will cause a FLASHING ALERT warning screen)
Emergency Secure-Gate will NOT open (will cause a FLASHING ALERT warning screen)
Emergency Close-(Custom programmed, contact AutoGate for this option, requires security access code)
Aux 1 Pulse-Pulses Auxiliary 1 contacts
Aux 1 Hold-Holds Auxiliary 1 contacts until triggered
Aux 2 Pulse-Same as Pulse 1
Aux 2 Hold-Same as Hold 1

WARNING! HOLD OPEN IS ENABLED, gate will not close until released

WARNING! FIRE SWITCH IS ENABLED. Hold Stop and press Jog/select to clear

WARNING! EMERGENCY SECURE is enabled. Gate will not OPEN until released

AUXILLARY INPUT 1 & 2 DELAY: Option to delay the INPUT from firing and opening the gate. Settable from 1 to 20 seconds

Open/Close Program: Programs the OP/CL PRM Input under P2 on the board to either: OFF, OPEN only or OPEN and CLOSE.

AUXILIARY OUTPUT OPTIONS

OPTIONS: AUXILIARY RELAYS (A & B), OUTPUT (1 & 2), PROGRAMMABLE LOCK
AUX RELAYS will switch contact between NORMALLY OPEN and NORMALLY CLOSED from a common input.
AUX OUTPUTS physically switch 24VDC ON or OFF

OUTPUT QUICK SET OUTPUT 1 & 2: 4 Quick Set options for flashing lights:
Choices are:
No Preset: Off
Always Flashing: Light Flash 24/7
Closed & Motion 1: Always flashes except on solid on full open
Closed and Motion 2: Always flashes except off on full open
Flashing Closed: Lights flash when the gate is closed only
AUXILIARY RELAYS (A & B): Either relay can be set for a variety of functions:

- OFF
- Pulse on Open Limit
- Pulse on Close Limit
- Hold on Open Limit
- Hold on Close Limit
- Pulse on Motor Open
- Pulse on Motor Close
- Hold on Motor Open
- Hold on Motor Close

**Note:** When installing an accessory item (traffic light, siren, etc.), you need to run the COMMON down to our POWER TERMINAL (common) and then take a wire from the 24vdc up to the RELAY A or B COMMON. This will provide power to your unit.

OUTPUT (1 & 2): Either relay can be set for a variety of functions and provides 24vdc power

- OFF
- Pulse on Open Limit
- Pulse on Close Limit
- Hold on Open Limit
- Hold on Close Limit
- Pulse on Motor Open
- Pulse on Motor Close
- Hold on Motor Open
- Hold on Motor Close
- Hold on UL Alarm
- Hold on Motor Run
- Hold Always
- Pulse Always
- Hold Not Open Limit
- Pulse Not Open Limit
- Hold Not Close Limit
- Pulse Not Close Limit
- Pulse Not Opening
- Pulse Not Opening
- Hold Not Closing
- Pulse Not Closing
- Pulse On Motor Run

**Note:** For all accessories (lights, alarms, etc.), check on [www.autogate.com](http://www.autogate.com) for technical data or refer to the manufacturer's technical data and installation sheets.

PROGRAMMABLE LOCK: Output to control Maglocks or Solenoid Locks. The Maglock will be powered all the time and turn off prior to gate motion. The Solenoid mode will power a 24VDC output prior to gate motion.

AUX OUTPUT STATES:

- Out 1 N-O, Out 2 N-O: Normally OPEN, Normally OPEN
- Out 1 N-C, Out 2 N-C: Normally CLOSED, Normally CLOSED
- Out 1 N-C, Out 2 N-O: Normally CLOSED, Normally OPEN
- Out 1 N-O, Out 2 N-C: Normally OPEN, Normally CLOSED

OUTPUT PULSE RATE: Controls the time sequence of the pulse

- Options: ¼ Second, ½ Second, 1 Second, 2 Seconds
- Options: 1 Second Single

MAINTENANCE

GATE ORIENTATION, BATTERY STATUS, SOLAR, BATTERY CHECK, BATTERY LEVEL, OVER CURRENT LEVEL, CONSTANT PRESSURE MODE, DUAL GATE MODE & CUSTOM SETTINGS
MAINTENANCE (cont.)

**BATTERY STATUS:** Indicates the charging status:
- **FLOAT:** When battery is FULL voltage and not being charged
- **BULK:** Battery is in charging mode

**ABSORTPTION:** Batteries are low, switches to charging

**POWER SUPPLY VOLTAGE:**
- **NORMAL (Default):** Standard power supply
- **CHARGE:** For retrofitting older systems only and replaces the original factory transformer
- **SOLAR:** Used when you have Solar Panels

**WARNING!** If Solar is set to ON, and AC voltage is present, the AC voltage will not be connected and you will still be operating off batteries only!

**NO MAIN AC POWER ACTION:**
- **RUN ON BATTERIES:** If you lose AC power, your gate will continue to run on battery power
- **HOLD OPEN:** If you lose AC power, your gate will lock up in the OPEN mode

**LOW BATTERY ACTION:** Default is No Action
- **FAIL SAFE:** Gate will fail OPEN *(will cause a FLASHING ALERT warning screen)*
- **FAIL SECURE:** Gate will fail CLOSED. *(will cause a FLASHING ALERT warning screen)*

**BATTERY V CHECK:** How often the board will test the batteries under load. The factory pre-set is every 50 cycles. (Pass code required to change cycle frequency)

**Additional VOLTAGE WARNINGS FAULTS & Screens:**
- **AC is missing:** There is no AC voltage detected on the GENESIS board at the AC INPUT. **OVER VOLTAGE:** The voltage at the AC INPUT measured over the 30V in normal mode. **MOTOR OVER-CURRENT:** The motor current exceeded the high set point.

**BATTERY LEVEL:** During battery test, if the battery level falls below the level set, it will turn on the FAULT LIGHT and issue a FAULT CODE. (Passcode required to change). *(will cause a FLASHING ALERT warning screen)*

**WARNING! LOW BATTERY**
Check charge circuit, charge or replace Batteries

**WARNING! LOW BATTERY LEVEL**
*Note: this screen not viewable. Requires passcode*

**WARNING! FAIL SAFE!**
Gate held OPEN due to critical low battery voltage

**WARNING! FAIL SECURE**
Gate held CLOSED due to critical low battery voltage

**WARNING! Charging source NOT detected in the last 24 hours!**

**Voltage not detected at the AC Input**

**Voltage at the AC Input measured over 30V in normal mode**

**Motor current went above set point**

**>Low Battery Action**
- **No Action**
- **No Main Power Act.:** Run on Batteries

**Battery issue:** Check the charge voltage, check the Batteries or replaced if necessary.

**FORCED OPEN DETECT:** The gate was attempted to be opened and moved off the CLOSED limit without a command from the GENESIS board.

**INTERNAL EEPROM & MISSING EEPROM:** Internal EEPROM missing of defective

**Gate has been moved off the CLOSE limit w/o a command from the GENESIS board**

**Internal EEPROM fault detected**

**EEPROM chip not detected**
OVER-CURRENT LEVEL: Adjusts the Internal Inherent Amp current level for the motor. On model 2490 systems with the GENESIS board and the LPS SENSOR, this will not be in effect. When using LIMIT SWITCHES, the OVER-CURRENT LEVEL must be set for obstruction/entrapment sensing. If the board senses an OVER-CURRENT it will reverse the gate on the first activation. On a sequential activation, this will stop the gate and turn on the UL Alarm. To reset... Check for any obstructions, if none, Press the STOP button on the board or if you have an accessory STOP button wired to the STOP input. Other options are hit the RESET button or cycle all power off and on.

CUSTOM SETTINGS: For advanced features. Requires a “PASSCODE” available from AutoGate only. Code is active for 24 hours only. After 24 hours a new code is required.

OPTIONS: Fault log, Operation Log, Maintenance Alerts

FAULT LOG: Running list of faults, stored for reference for diagnostic troubleshooting. The last 99 faults are stored. The newest fault will always be the first one shown. Any fault in the system will also turn on the FAULT LIGHT on the outside of the cabinet.

OPERATION LOG: All normal “operations” are recorded up to 99 events. (i.e. Close Limit, Open Limit, Green Open button, Red Stop button, entry Inputs, loop detections, & photoelectric sensors/beam detections, traffic lights, etc. are examples of normal “operation” events logged.)

MAINTENANCE ALERT: Alerts the owner that maintenance is due after a selected number of cycles. This can be set by the installer for 10K, 20K or 50,000 cycles. The screen will show how long until the next alert will show.

MAINTENANCE ALERT: You have reached your predetermined number of cycles to perform general maintenance. Hold the STOP button and press the JOG/Select button to clear.
<table>
<thead>
<tr>
<th>Fault Log Entry</th>
<th>Fault Menu Display</th>
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</thead>
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<tr>
<td>AC Missing</td>
<td>Voltage not detected at the AC input</td>
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<tr>
<td>Battery Low Charge</td>
<td>WARNING! Battery low, check battery charge voltage</td>
</tr>
<tr>
<td>Close Beam Missing</td>
<td>If your “monitored” device is enabled and the required feedback (10K or Pulse) is missing</td>
</tr>
<tr>
<td>Close Edge Missing</td>
<td>If your “monitored” device is enabled and the required feedback (10K or Pulse) is missing</td>
</tr>
<tr>
<td>DUAL Gate Comm. Lost</td>
<td>Gate set in DUAL mode: Primary or Secondary not detected</td>
</tr>
<tr>
<td>Emergency Secure</td>
<td>WARNING! EMERGENCY SECURE is enabled, gate will not OPEN until released</td>
</tr>
<tr>
<td>Fail Safe Open</td>
<td>WARNING! Fail Safe gate held open due to critical battery voltage</td>
</tr>
<tr>
<td>Fail Secure Close</td>
<td>WARNING! Fail Secure gate held close due to critical battery voltage</td>
</tr>
<tr>
<td>Fire Hold Enabled</td>
<td>WARNING! FIRE SWITCH IS ENABLED. Hold Stop and press Jog/Select to clear</td>
</tr>
<tr>
<td>Forced Open Detect</td>
<td>Gate has been moved off the CLOSE limit position without a command from the GENESIS board</td>
</tr>
<tr>
<td>HOLD OPEN</td>
<td>WARNING! HOLD OPEN is enabled, gate will not close until released</td>
</tr>
<tr>
<td>Internal EEPROM</td>
<td>Internal EEPROM fault detected</td>
</tr>
<tr>
<td>LPS Sensor Not Detected</td>
<td>LPS Sensor is not detected by the GENESIS board (not applicable in LIMIT SWITCH more)</td>
</tr>
<tr>
<td>Maintenence Req’d.</td>
<td>Maintenance required, hold stop button and press Jog/Select to clear</td>
</tr>
<tr>
<td>Missing EEPROM Chip</td>
<td>EEPROM chip not detected</td>
</tr>
<tr>
<td>Monit. Input Missing</td>
<td>WARNING! Monitored input missing, see LED indicators for monitored inputs</td>
</tr>
<tr>
<td>Motor Over-Current</td>
<td>Motor current went above set point</td>
</tr>
<tr>
<td>No Charge In 24 Hrs</td>
<td>WARNING! Charging source not detected in the last 24 hours</td>
</tr>
<tr>
<td>Open Beam Missing</td>
<td>If your “monitored” device is enabled and the required feedback (10K or Pulse) is missing</td>
</tr>
<tr>
<td>Open Edge Missing</td>
<td>If your “monitored” device is enabled and the required feedback (10K or Pulse) is missing</td>
</tr>
<tr>
<td>Over Voltage</td>
<td>Voltage at AC input measured over 30V in normal power mode</td>
</tr>
<tr>
<td>PGM. Input 1 Missing</td>
<td>If your “monitored” device is enabled and the required feedback (10K or Pulse) is missing</td>
</tr>
<tr>
<td>PGM. Input 2 Missing</td>
<td>If your “monitored” device is enabled and the required feedback (10K or Pulse) is missing</td>
</tr>
<tr>
<td>Speed Over-Run</td>
<td>Downward speed was too fast</td>
</tr>
<tr>
<td>UL Fault Condition</td>
<td>WARNING! DOUBLE DEFAULT. Push RED stop button or RESET button to restore to use</td>
</tr>
<tr>
<td>UL Fault Condition</td>
<td>WARNING! OBSTRUCTION DETECTED! An intended input or RESET required to restore use</td>
</tr>
</tbody>
</table>