**GENESIS CONTROL BOARD**

**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.

**AutoGate Ver.5.6**

**GENESIS 01:22am**

**Line Voltage 25.39\***

**Batt Voltage 26.67**

**Motor 0.00 Amp**

**Cycles 0 T=00**

 **Open Time: 10**

 **Close Time: 10**

**>Auto Close: Off**

 **Auto Delay: 03**

 **Open Time: 10**

 **Close Time: 10**

 **Auto Close: Off<**

 **Auto Delay: 03**

**TITLE SCREEN MAIN SCREEN Example 1 Example 2**

**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.



 **JOG/SELECT Knob**

**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 operation 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)

**Battery voltage:** When AC present: Charging Voltage to batteries, When on DC only: Actual battery voltage. (Normal voltage is 26.4 to 26.8)

**Motor:** Displays actual motor amperage during cycling

**Cycles:** A cycle count is considered a complete **OPEN & CLOSE**

**T=00:** Operation count in seconds for both open and close cycles and also counts down the *“Timer to Close”* (**CLOSE TIME**) time.

**Line Voltage 25.39\***

**Batt Voltage 26.67**

**Motor 0.00 Amps**

**Cycles 0 T-00**

**CALENDAR/TIME**

**Calendar/Time**

**Set the time, date and day of the week.**

**GENESIS CONTROL BOARD**

**CALENDAR/TIME (Con’t.)**

 **>01:14:58 am**

 **03/21/19 Th**

**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

**Timer Settings**

**>Open time: 10**

 **Close Time: 10**

 **Auto Close: off**

 **Auto Delay: 03**

**OPEN/CLOSE TIME:** Full Speed Run Time, Set this when the slow down is to start. Slows down after time value expires. ***This option is only active when LIMIT SWITCHES are used.***

**AUTO CLOSE TIME:** Default is **ON** from 1 to 90 seconds, **OFF** requires a **CLOSE** command.

**CLOSE TIME DELAY:** Timer to close after all inputs are clear. Settable from 1 to 90 seconds.

**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 timevalue must be equal to or shorter than the AUTO CLOSE TIME value.

**>Motion Alarm: On**

 **Pre-Op Alarm: 0**

 **Pre-Cl Alarm: 0**

**AUTOMATIC SCHEDULE:** Sets the gate to lock OPEN and CLOSE daily, 7 Days a week, Monday thru Friday or Saturday & Sunday only

**>Automatic Schedule:**

 **Off**

 **Automatic Schedule:**

 **>Mon-Fri only**

 **Automatic Schedule:**

 **>Sat & Sun only**

 **Automatic Schedule:**

 **>7 days a week**

 **Automatic Schedule:**

 **>Custom-Dailey**

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.

**Monday**

**On**

**Open: 08:00 am**

**Close: 06:00 pm**

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

**Thursday 2**

 **On**

 **Open: 06:00 am**

 **Close: 05:00 pm**

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

**GENESIS CONTROL BOARD**

**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).***

 **Monitored Input**

 **Options**

Board is programmed for a “Monitored” Input and it is missing, gate will not operate until the monitored input is restored.

**WARNING Monitored**

**Input missing**

**See LED indicators**

**For Monitored Inputs**

**OPEN OBSTRUCTION:** 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.

**Open Obstruction:**

 **>Edge: 10K**

 **Beam: Off**

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 *NOT* the CLOSE TIMER) or a MANUAL INPUT on the control board resets your gate back to normal operation.

***WARNING! Obstruction***

**An intended Input or manual reset req’d. to restore use.**

**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 Rev. 6 through latest editions. **CLOSE OBSTRUTION DEVICES** are approved Beams and Edges only!

**Close Obstruction:**

 **>Edge: Off**

 **Beam: 10K**

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 *NOT* the CLOSE TIMER) or a MANUAL INPUT on the control board resets your gate back to normal operation.

***WARNING! Obstruction***

**An intended Input or manual reset req’d. to restore use.**

**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.

**Prog Mon Input 1:**

 **>Open Edge 10K**

 **Prog Mon Input 2:**

 **Close Beam 2-Wire**

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.

***WARNING! Obstruction***

**An intended Input or manual reset req’d. to restore use.**

**tore normal use.**

**INPUT OPTIONS**

 **OPTIONS: INPUT 1 & 2**

**Input Options**

**GENESIS CONTROL BOARD**

**MOTORED INPUT OPTIONS (cont.)**

**>Input 1 Mode:**

 **Off**

 **Input 2 Mode:**

 **Off**

**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)***

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

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

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

**AUXILARY OUTPUT OPTIONS**

 **OPTIONS: AUXILIARY RELAYS (A & B), OUPUT (1 & 2), PROGRAMABLE LOCK**

 **Aux Output Options**

**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**

 **>Relay A Mode:**

 **Off**

 **Relay B Mode:**

**OUTPUT (1 & 2):** 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**

**Hold on UL Alarm**

**Hold on Motor Run**

**>Output 1 Mode:**

 **Hold on Aux 2**

 **Output 2 Mode:**

 **Off**

**GENESIS CONTROL BOARD**

**AUXILARY OUTPUT OPTIONS (cont.)**

**PROGRAMABLE 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.

**>Programable lock:**

 **Magnetic**

**MAINTENANCE**

**GATE ORENITATION, BATTERY STATUS, SOLAR, BATTERY CHECK, BATTERY LEVEL, OVER CURRENT LEVEL, CONSTANT PRESSURE MODE, DUAL GATE MODE & CUSTOM SETTINGS**

 **Maintenance**

**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.

**>Gate Orientation:**

 **Right**

**BATTERY STATUS:** Indicates the charging status:

**FLOAT:** When battery is FULL voltage and not being charged

**BULK:** Battery is in charging mode

**ABSORBTION:** Batteries are low switches to charing

**POWER SUPPLY VOLTAGE:**

**NORMAL (Default):** Standard power supply

**CHARGE: F**or 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!***

**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)

**Batt: Float Charge**

**>PWR SUPPLY: Normal**

 **Batt V Check Freq:**

 **50 Cycles**

**>Low Battery Action**

 **No Action**

**LOW BATTERY ACTION:** Default is No Action

Options are:

**FAIL SAFE:** Gate will fail OPEN

**FAIL SECURE:** Gate will fail CLOSED.

**>Low Battery Level**

***Note: this screen not viewable. Requires passcode***

**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)***

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

**WARNING! LOW BATTERY**

**Check charge circuit, charge or replace Batteries**

**OVER CURRENT LEVEL:** Adjusts the IRD Amp current level for the motor. On model 2490 systems with the GENESIS board and the **LPS SENSOR**, this will not be in effect using **LIMIT SWITCHES. T**he **IRD** **OVER CURRENT LEVEL** must be set for obstruction/entrapment sensing. If the board senses an OVER-CURRENT it will shut down. To reset….

 **>Over-Current level: 10 Amps**

**GENESIS CONTROL BOARD**

**CONSTANT PRESSURE (CP) MODE (CLASS IV):** In the CP mode, the **OPEN 1 & CLOSE 1** 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.

 **>Const Press Mode:**

 **Off**

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.

**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

 **>Dual Gate Mode:**

 **>Off**

 **Status**

 **Disconnected**

 In a PRIMARY/SECONDARY or DUAL gate mode system, if you lose communication between the two operators you will get this message.

 **Dual Gate Mode**

**Communication lost**

**CUSTOM SETTINGS:** For advanced features. Requires a “PASSCODE” available from AutoGate only. Each time the screen is accessed it will require a new code.

 **LOCKED**

**Key: EB60F3CA**

 **\_ \_ \_ \_ \_**

**MOTOR CONTROL**

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

 **Motor** **Control**

**GATE SPEED:** Default 100%, any percentage less than 100% down to 80% will slow the gate opening and closing down accordingly.

**>Gate Speed:**

 **100%**

**>Limit Switches:**

 **Not Used**

 **Open/Close Pgm In:**

 **Open Only**

**LIMIT SWITCHES:** 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 ***MEGA ARM*** operators.

**OPEN/CLOSE PROGRAM IN:** **OPEN & CLOSE**, **OPEN** only

***WARNING!* No Limit Position Sensor detected! Gate will not operate!**

**DECEL SPEED:** Sets the time value on setting the gate speed from full speed to slow speed. The scale is 1 to 20, with 20 being the slowest.

**>Open Decel: 10**

 **Close Decel: 10**

**GENESIS CONTROL BOARD**

**FAULT/LOGS/ALERTS**

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

**Fault/Logs/Alerts**

**FAULT LOG:** Running list of faults, stored for reference for diagnostic troubleshooting. The last 99 codes are stored. The newest code 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.

**Fault Log**

**>25 10:34p 04/20/18**

 **Gate Angle Sensor**

**Operation Log**

**#06< 02:55p 06/29/18**

 **Local Open**

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

**>Maintenance Alerts**

 **50K Cycles**

**Next due at 80,000**

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

**MAINTENANCE ALERT:** You have reached your predetermined number of cycles to perform general maintenance.

**>Maintenance Alert**

**Maintenance required**