AUTOGATE INC.

RETROFIT INSTRUCTIONS TO INSTALL A GENESIS BOARD REPLACING A LIFTMASTER BOARD

LIFMASTER BOARD	GENESIS BOARD	RSP-320-27 POWER

Congratulations on your purchase of our new state of the art GENESIS control board kit for replacing the LiftMaster control board which has been discontinued.
*PLEASE READ THESE INSCTRUCTIONS THOURHLY BEFORE PROCEEDING.*
WE HIGHLY RECOMMEND A CERTIFIED TECHNICAN REPLACE INSTALL THIS UPGRADE KIT!
Included in your kit are the following items:

- **GENESIS Control Board (w/terminal blocks)**
- **RSP-320-27 Power Supply w/(2) mounting screws & (2) Mounting brackets**
- **6' RED & BLACK wire (power from the power supply to the board-replaces YELLOW wires)**
- **6' BLACK & WHITE AC Power wires 14 gauge (power from AC box to power supply if needed)**
- **6' GREEN ground wire**
- **DC Troubleshooting light w/4' of 24 gauge 2-conductor RED & BLACK wire**
- **10Amp Glass fuse (Replaces the AC 3Amp in the face of the Battery Tray)**
- **Miscellaneous wire connectors and cable ties**

1. Turn off all power (**AC** at Outlet Box & **DC** Toggle switch under Control Box). For extra precaution, turn off the main dedicated breaker feeding the operator outlet box.
2. *CAUTION:* **Additional accessories may have been installed and powered off the AC transfomer by a 3rd party!** These will need to be handled by the onsite technichian doing the upgrade.
3. Remove transformer cover. Unplug the wires, unbolt, remove transformer, discard or recycle.
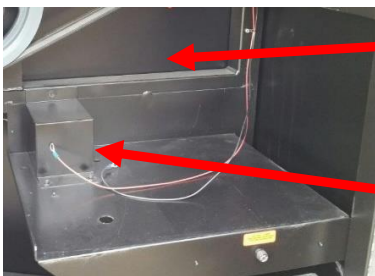
Optional location for new power supply. Fan facing out. Secure on top tubing to back skin.

Remove Transformer Cover & Transformer.

Transformer: Remove wires, Unbolt, remove transformer discard or recycle.
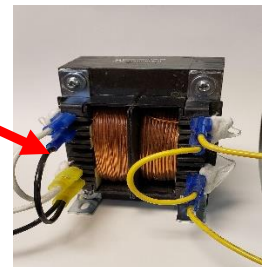
4. When removing the YELLOW transformer wires and discarding, *also* remove the small **RED** & **BLACK** wires going to the **AC POWER INDICATOR LIGHT** (If used). These wires will be re-connected on the GENESIS board **"MAIN POWER LOSS/LOW BATTERY" & COM (See P3)**. The AC Indicator light will be replaced with a

DC LED FAULT light. It will FLASH where there are issues. Review the GENESIS Board menus for more details on what causes the light to flash and the different types of flashing.

5. Connect the original or supplied **AC BLACK** & **WHITE** wires that fed the transformer to the Power Supply using spade connectors. **BLACK** to the **L**-Line, **WHITE** to the **N**-Neutral.

6. Connect the supplied 14-gauge **GREEN** Ground wire to the power supply ground. Run the **GREEN** Ground wire along the **BLACK** & **WHITE** wires back to the **AC** Outlet box and connect to the AC Outlet box **GREEN Ground** wire.

7. Using the supplied new **RED** & **BLACK** wires connect them to the Power Supply, **RED** to positive, **BLACK** to negative.

8. The RSP-320-27 has a universal AC input switch and will accept **100-240** Vac. Any voltage over 120 needs to be single phase. See below for proper wiring.

9. We suggest Installing the new power supply by securing it to the frame on top of the back tubing above the Battery Shelf in the same area the transformer was located but towards the corner (see above picture) using one or two of the included mounting brackets. The brackets attach to the power supply with metric M4 x 6 mm screws. Use the self-tapping screws provided to attach to the battery shelf/frame or skin. *Options:* install on the back panel next to the AC outlet or installed UNDER the Battery Shelf. Make sure the fan is not blocked. *NOTE: Leave the ORIGINAL AC and DC switches in place!*

Mounting bracket & mounting holes

120 Vac	240 Vac
L-Line (**BLACK**)	L-Line (**Black**)
N-Neutral (**WHITE**)	L-Line (**Black**)
G-Ground (**GREEN**)	G-Ground (**GREEN**)
-V (**BLACK**)	
+V (**RED**)	

VOLTAGE ADJUSTMENT POT

10. On the old LiftMaster board, Remove the **J2** terminal strip (4 terminals: Limit Switches wires) from the top left side of the board.

11. Remove the **J5** (12 terminals: Input, reversing devices & grounds) terminal strip at the top right side of the board.

12. Remove the **BROWN** wire from the **J1** terminal

13. Mark and unscrew the wires from the **J4** terminal strip at the bottom of the board.

14. Remove and save screws from side of control box mounting the control board. Then, using a pair of needle nose pliers, squeeze the tabs together on the stand-offs to release the control board.
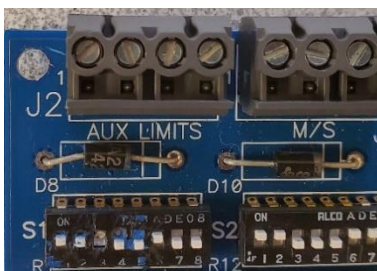
**J2: LIMIT SWITCH WIRES**   **J5: ACCESSORY INPUT**   **J4: MOTOR & POWER**   **Bolts**

15. Remove the LiftMaster board. Align the **GENESIS** board over the stand-offs and push down to lock in place. A small screwdriver may be used to pry open the lock tabs on the stand-offs.
16. Using the original screws and nuts, attach the mounting bracket to the side of the control box.
17. Attach BATTERY **RED** & **BLACK** wires to the **P11** terminal marked **BATTERY +/-**. *Leave the 24 VDC MAIN POWER toggle switch in the battery positive wire.* This will allow turning the batteries on/off without having to remove wires.
18. Attach the **DC RED** & **BLACK** power supply wires from the power supply to the **24V DC** terminals on the **P11** terminal strip. Make sure to follow the correct polarity!
19. Attach the Motor wires to the MOTOR A/B terminals
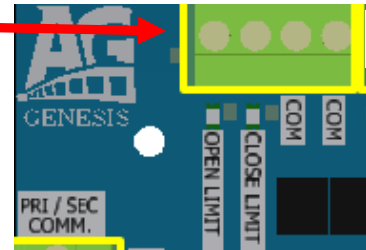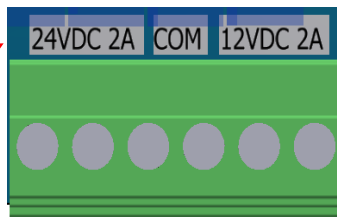20. Wires: **RH OPERATOR MOTOR: A=BLUE, B=ORANGE. LH OPERATOR MOTOR: A=ORANGE, B=BLUE**

P11
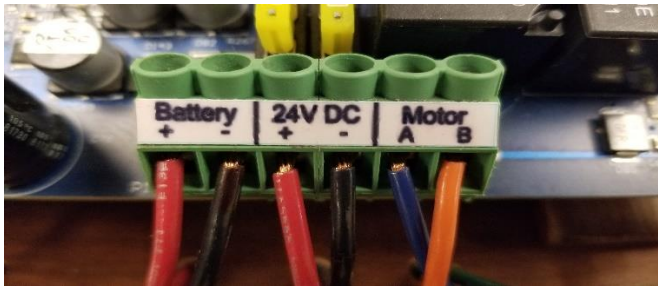
21. Attach the **RED** & **BLACK ACCESSORY POWER STRIP** wires to the **P9** terminal strip (**24VDC**). **RED** to POSITIVE, **BLACK** to COMMON.
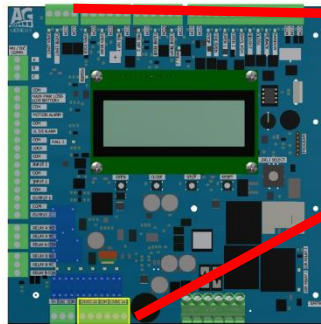

22. Transfer the limit switch wires from the LiftMaster terminal strip **J2** to the **GENESIS P1** terminals (see above) **LIMIT** input terminals. These will be the in the same position. Left end wire is the **WHITE OPEN** limit wire. The second terminal is the **RED CLOSE** limit wire. The third terminal is for the 2 **Black** wires (commons) from the limit switches. *WARNING! DO NOT TURN ON ANY POWER AT THIS TIME!*
23. Remove wires from the **J5** 12 terminal strip taken from the LiftMaster board earlier. One by one insert them in their proper location on the **GENESIS P2** terminal strip (see below). Any wires that were in terminals #1, #2, or #3 on the **J5** LM board, put into Open 1 or Open 2. Any wire in terminal #4 on the **J5** LM board, put into the **OP/CL PGM**. Wires located in terminal #5 on the **J5** of the LM board will be put into **REV/INT**. If there is a wire in the **J5** #6, move it to the **CLOSE** input on **GENESIS**. Normally, the **FE/BACK & SHADOW** are not used. If they are, use the same input as marked on **GENESIS**.
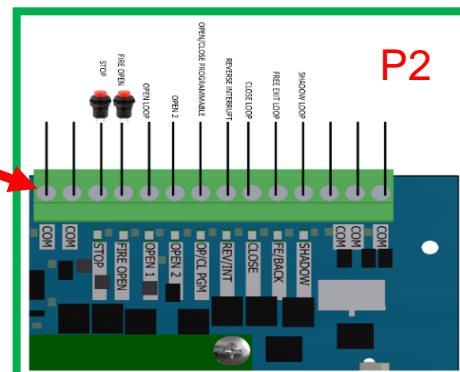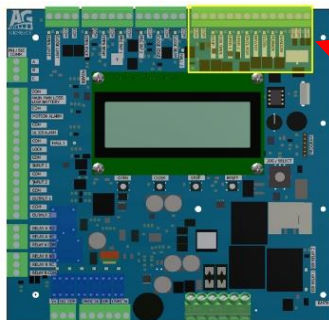
20. Now attach the **BROWN** wire into the 6th terminal down on the **P3** terminal strip on the left side of the **GENESIS** board. This is the UL alarm wire. The ground for the alarm is already wired to the ground on the auxiliary power strip to the left of the board. If the there is an auxiliary limit switch kit, the power wires for this will be removed from the LM BATTERY terminals and attached to the **24 VDC & COM** terminals on the **P9** (see graphic above) terminal strip.
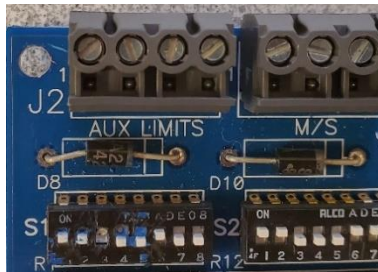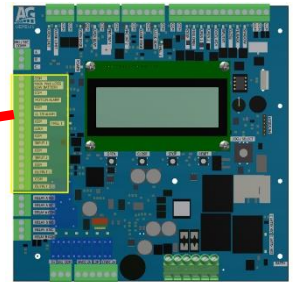
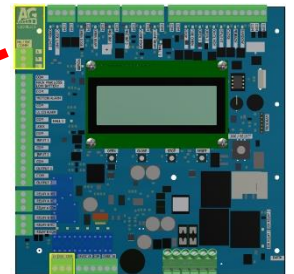**FAULT LIGHT CONNECTION**
COMMON
MAIN POWER LOSS/LOW BATTERY
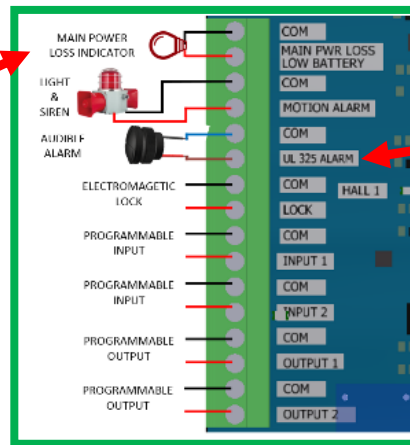
P3

J2: LIFMASTER PRIMARY/SECONDARY (M/S)   **P8:** GENESIS PRIMARY/SECONDARY

21. If you are replacing both boards in a PRIMARY/SECONDARY DUAL gate system, remove the cross-connected wires between the gates, but do not reconnect yet. After connecting control wires to the GENEISIS board, use 3 of the cross-connect wires for the DUAL GATE COMMUNICATION connection on **P8**. If you have a shielded multi-conductor wire cable for the connection, connect the SHIELD to a COMMON on the **PRIMARY gate only!** Then use any three remaining wires for the PRIMARY/SECONDARY connection. **A to A, B to B and C to C.**

22. **NOTE:** *DO NOT* re-connect the CYCLE COUNTER, AMP METER (located in the electrical box door), both of these items are built into the GENESIS board. (See screens below)

23. If you had a **VOLTAGE CLAMP ACCESSORY** board, do not re-connect it as well, just toss it.

24. *POWERING UP YOUR SYSTEM:* If main circuit breaker has been turned off, turn it back on. Turn on **AC** power switch and turn on the **DC** battery toggle switch. *Note: IF YOUR BOARD WAS FACTORY PRESET,* the board should power up and display the **TITLE** screen with the **GENESIS** Version number (Ver. #.#). After 6 to 8 seconds the screen will change to the **MAIN** screen showing the **Line Voltage (DC) from the AC/DC Power Supply, Battery Voltage (DC), Motor Amps, Cycles** and **Close Timer**. If your board was not Factory preset, *you will get a FAULT warning screen with this message: LPS SENSOR NOT DETECTED BY THE GENESIS BOARD!* You will need to call AutoGate (800-944-4283) for assistance in programming your board for **LIMIT SWITCH** use. *WARNING! DO NOT OPERATE YOUR GATE AT THIS TIME!*

25. Scroll down to **TIMER SETTINGS** to set the **AUTO CLOSE** if your system was set to close automatically**.**

```
AutoGate    Ver A#.#
GENESIS     01:22am
```

```
Line Voltage 25.39*
Batt Voltage 26.67
Motor  0.00 Amp
Cycles 0        T=00
```

```
Timer Settings
```

```
Auto Close: Off<
Auto Delay:  03
Open Time:   10
Close Time:  10
```

26. *Follow the enclosed GENESIS board instructions (included) to setup ALL options, accessories and reversing equipment paramaters*

27. Change the **BATT:** Bulk Charge >Power SUPPLY to "NORMAL" *(may already be done by the factory)*

28. The **OUTPUT VOLTAGE POT** is adjustable between 27-31 Vdc. We recommend setting it to 29.5 volts.

```
  Maintenance
```

```
 Batt: Float Charge
>PWR SUPPLY: "Normal"
 Batt V Check Freq:
    50 Cycles
```


29. *You are now ready to fully test your gate system.*

    a. Check your board programming for to make sure you are set for LIMIT SWITCHES and your MONITORED INPUTS are all set to OFF. If not, you will need to contact AutoGate for the KEY code to change those statuses.

```
>Limit Switches:
   Yes
```

```
 Open Obstruction:
>Edge:  Off
 Beam:  Off
```

```
 Close Obstruction:
 >Edge:  Off
  Beam:  Off
```

    b. If your GENESIS board was **FACTORY PRESET** your operating speed should be set for **OPENING** and **CLOSING** speed of 110%, if not change the speed to 110%. Refer to OPERATOR CONTROL/GATE SPEED below in the GENESIS programming instructions to adjust if necessary.

    c. Now cycle the gate and record your OPENING & CLOSING cycle times.

    d. Set the OPEN RUN and CLOSE RUN times for 2 seconds LESS than the cycle times you just recorded. For example, if the cycle time was 12 seconds, set the run times to 10.

GENESIS BOARD OPERATION BUTTONS

GREEN: OPEN (Will also act as a constant pressure and override defaults to OPEN the gate)

YELLOW: CLOSE (Will also act as a constant pressure and override defaults to OPEN the gate)

RED: STOP (Stops the gate in either direction)

WHITE: RESET (Resets the board in the event of a program change or fault)

    a. Press the **GREEN OPEN** button, if you set the **CLOSE TIME** the gate should time out and close. If you have not set the **CLOSE TIME**, it is found under **TIMER SETTINGS**.

    b. Press the **YELLOW CLOSE** button to close the gate.

    c. Test *ALL* Accessory & Reversing (Photo Beams, Loops, Keypad, Card Readers, etc.) devices to make sure they are operational.

Note: There should not be any accessory indicator or warning lights on.

27. *For the balance of the GENESIS board instructions and set up, please review the GENESIS CONTROL BOARD document attached.*

28. Refer to TROUBLESHOOTING guide or for more information, go to **GENESIS** Board Instructions or 2490 Installation manual which is located online at https://www.autogate.com/vertical-pivot-gates/ under the INFORMATION tab.

For further assistance, call AutoGate 800-944-4283 and ask for Tech help.

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. A#.#
GENESIS     01:22am
```
TITLE Screen

```
Line Voltage 25.39*
Batt Voltage 26.67
Motor  0.00 Amp
Cycles 0        T=00
```
MAIN Screen

```
Open Time:    10
Close Time:   10
>Auto Close: Off
 Auto Delay:  03
```
Example 1

```
Open Time:    10
Close Time:   10
Auto Close: Off<
Auto Delay:  03
```
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 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 25.39*
Chrg Voltage 26.67
Motor 0.00 Amps
Cycles 0        T-00
```

Line voltage: From the Power supply. (Normal voltage should be 29 to 30, Recommended to 29.5Vdc)
Charge/Battery voltage: When AC present: Charging Voltage to batteries, When on DC only: Actual battery voltage. (Normal Battery voltage is 26.4 to 26.8) (Normal Charging Voltage is 26.0 to 28.5 volts)
Note: *** Indicates CURRRENT 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. *NOTE:* 0-90 Display is not available with LIMIT SWITCHES.

CALENDAR/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.)

```
>01:14:58 am
 03/21/19 Th
```

Set the time, date and day of the week.

TIMER SETTINGS

```
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
 Open Time:   10
 Close Time:  10
```

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: 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. Set this time for TWO SECONDS less than recorded cycle time in your initial test of your gate!*

```
>Motion Alarm:   On
 Pre-Op Alarm:    0
 Pre-Cl Alarm:    0
```

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:
   Off
```

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

```
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.

```
      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
 OFF<
 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

OPERATOR CONTROL

```
Operator Control
```

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

```
>Gate Orientation:
    Right
```

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:
  >Off
     Status
     Disconnected
```

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)

```
Gate set in DUAL
Mode: Primary or
Secondary not
detected
```

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:
 110%
 Gate Closing Speed:
 110%
```

GATE SPEED: Default 100%, any percentage less than 100% down to 75% will slow the gate opening and closing down accordingly. Downward speed to fast will cause a **FAULT: SPEED OVER-RUN** (see below). *When retro fitting, set speed to 110% for both OPEN and CLOSE.*

```
>Limit Switches:
  Not Used
```

LIMIT SWITCHES: Default is "NOT USED". You will need to contact AutoGate if your board was not set at the factory to **LIMIT SWITCHES** before you go received it. Choices are: **NORMALLY OPEN, NORMALLY CLOSED, HALL A & HALL B**. Normally open & close will choose the type of wired Limit Switch to be used.

```
>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.

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

```
WARNING! Downward
Speed too fast.
```

```
>Const Press Mode:
  Off
 Stop Input Mode:
  Normally Open
```

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.

GENESIS CONTROL BOARD

MONITORED INPUT SETTINGS (NOT USED WHEN REPLACING A LIFTMASTER CONTROL BOARD-SKIP THIS SECTION!)

Monitored Input Options

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).

WARNING Monitored Input missing See LED indicators For Monitored

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

"Monitored" device is enabled and the reqd feedback (10K-Pulse) is missing

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.

WARNING! Obstruction An intended Input or manual reset req'd. to restore use.

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:
>Edge: Off
Beam: Off

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.

WARNING! Obstruction An intended Input or manual reset req'd. to restore use.

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:
>Edge: Off
Beam: Off

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 OBSTRUTION DEVICES** are approved Beams and Edges only!

WARNING! DOUBLE DEFAULT! Push RED STOP or RESET button to restore use.

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.

Prog Mon Input 1:
>Open Edge 10K
Prog Mon Input 2:
Close Beam 2-Wire

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.

WARNING! Obstruction An intended Input or manual reset req'd. to restore_use.

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 Double Fault Red Stop input or manual reset req'd to restore use.

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

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 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)*
Emergency Close-(Custom programmed, contact AutoGate for this option)
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

>Aux Input 1 Delay
 5 Seconds
 Aux Input 2 Delay
 0 Seconds

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

>Open/Close Pgm In:
 Off

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

AUXILARY OUTPUT OPTIONS

Aux Output Options

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

AUXILARY OUTPUT OPTIONS (cont.)

```
>Output 1 Quick Set:
  Always Flashing
 Output 2 Quick Set:
  Flashing Closed
```

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

```
>Relay A Mode:
  Off
 Relay B Mode:
```

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 Mode:
  Hold on Aux 2
 Output 2 Mode:
  Off
```

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
Hold 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 for technical data or refer to the manufacturer's technical data and installation sheets.*

```
>Programmable lock:
  Magnetic
 Aux Output states:
  Out1 N-O, Out2 N-O
```

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

AUXILARY OUTPUT OPTIONS (cont.)

```
>Output 1 Pulse Rate
  2 Seconds
 Output 2 Pulse Rate
  ¼ Seconds
```

OUTPUT PULSE RATE: Controls the time sequence of the pulse
Options: ¼ Second, ½ Second, 1 Second, 2 Seconds
Options: 1 Second Single

MAINTENANCE

```
Maintenance
```

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

```
 Batt: Float Charge
>PWR SUPPLY: Normal
 Batt V Check Freq:
   50 Cycles
```

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

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 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!
Loss of **SOLAR** or **Power Supply** connection for 24 hours *(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.

```
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
```

LOW BATTERY ACTION: Default is No Action
Options are:
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)*
NO MAIN AC POWER ACTION:
Options are:
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

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

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

```
>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)*

MAINTENANCE (cont.)

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

OTHER FAULT CODES:
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:
20 Amps
```

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.

```
          LOCKED
Key: EB60F3CA
       _ _ _ _ _
```

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.

FAULT/LOGS/ALERTS

```
Fault/Logs/Alerts
```

OPTIONS: Fault log, Operation Log, Maintenance Alerts

```
Fault Log
>25 10:34p 04/20/18
 Gate Angle Sensor
```

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
#06< 02:55p
06/29/18
 Local Open
```

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 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 the installer for 10K, 20K or 50,000 cycles. The screen will show how long until the next alert will show.

```
>Maintenance
Required, Hold Stop
button & Press Jog
to clear.
```

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.

GENESIS CONTROL BOARD

FAULT LOG ENTRY	FAULT MENU DISPLAY
AC MISSING	Voltage not detected at the AC input
BATTERY LOW CHARGE	WARNING! Battery low, check battery charge voltage
CLOSE BEAM MISSING	If your "monitored" device is enabled and the required feedback (10K or Pulse) is missing
CLOSE EDGE MISSING	If your "monitored" device is enabled and the required feedback (10K or Pulse) is missing
DUAL GATE COMM. LOST	Gate set in DUAL mode: Primary or Secondary not detected
EMERGENCY SECURE	WARNING! EMERGENCY SECURE is enabled, gate will not OPEN until released
FAIL SAFE OPEN	WARNING! Fail Safe gate held open due to critical battery voltage
FAIL SECURE CLOSE	WARNING! Fail Secure gate held close due to critical battery voltage
FIRE HOLD ENABLED	WARNING! FIRE SWITCH IS ENABLED. Hold Stop and press Jog/select to clear
FORCED OPEN DETECT	Gate has been moved off the CLOSE limit position without a command from the **GENESIS** board
HOLD OPEN	WARNING! HOLD OPEN is enabled, gate will not close until released
INTERNAL EEPROM	Internal EEPROM fault detected
LPS SENSOR NOT DETECTED	LPS Sensor is not detected by the **GENESIS** board (not applicable in LIMIT SWITCH more)
MAITNENANCE REQ'D.	Maintenance required, hold stop button and press Jog/Select to clear
MISSING EEPROM CHIP	EEPROM chip not detected
MONIT. INPUT MISSING	WARNING! Monitored input missing, see LED indicators for monitored inputs
MOTOR OVER-CURRENT	Motor current went above set point
NO CHARGE IN 24 HRS	WARNING! Charging source not detected in the last 24 hours
OPEN BEAM MISSING	If your "monitored" device is enabled and the required feedback (10K or Pulse) is missing
OPEN EDGE MISSING	If your "monitored" device is enabled and the required feedback (10K or Pulse) is missing
OVER VOLTAGE	Voltage at AC input measured over 30V in normal power mode
PGM. INPUT 1 MISSING	If your "monitored" device is enabled and the required feedback (10K or Pulse) is missing
PGM. INPUT 2 MISSING	If your "monitored" device is enabled and the required feedback (10K or Pulse) is missing
SPEED OVER-RUN	Downward speed was too fast
UL FAULT CONDITION	WARNING! DOUBLE DEFAULT. Push RED stop button or RESET button to restore to use
UL FAULT CONDITION	WARNING! OBSTRUCTION DETECTED! An intended input or RESET required to restore use