washlink SYSTEMS

Single Lane Gate Controller

Tech Guide

Document Revision: v1.0.5

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WASHLINK SYSTEMS SINGLE LANE GATE CONTROLLER
TECH GUIDE

This document provides comprehensive operational procedures for the Washlink Systems Single Lane Gate Controller (SLGC).
In this manual, we will discuss the Installation, Setup and Operation of the SLGC.

If further assistance is needed, please contact the Distributor from which the product was purchased.

When calling for assistance, you must have the following information available:

UL Number: _____

Distributor Name: _____

Operation Basics

Based on inputs and time delays, the barrier gate will open and close

During normal operation, the barrier gate will open when input 1 has been seen
Note: time delay conditions must be met before relay 1 will turn on.

During normal operation, the barrier gate will close when input has gone high then low
Note: time delay conditions must be met before relay 2 will turn on.

In addition to normal operation, the gate open relay 1 can be forced on by giving a momentary input signal to input 3 and a close relay 2 can be forced on by giving a momentary signal to input 4.

Note: All inputs have debounce on and debounce off controls

Note: All outputs have on delay and off delay timer controls

Installation

The Washlink Systems SLGC should be mounted securely to a stable and permanent wall.
Choose a location in the equipment room that is easily accessible and provides protection from the elements.

Power Requirements

The Washlink Systems SLGC requires 120vac (15A max) branch circuit protection for PLC.
This power circuit is provided by the customer.
This circuit should be connected to **Fuse 101 PLC**.

Warning:	All electrical work should be performed by a qualified and licensed electrician. All electrical work should meet or exceed National and Local codes and ordinances.
Warning:	Risk of electrical shock. More than one disconnect may be required to be de-energized before servicing equipment.
Warning:	To reduce the risk of fire, connect only to a 120vac circuit provided with 15a maximum branch circuit protection in accordance with the NEC, ANSI/NFPA 70 and local code authorities.
Warning:	Bonding between conduit connection is not automatic and must be provided as part of the installation.

Inputs

The SLGC Input power is supplied by the input power 24vac terminal.
All inputs are normally open.

Warning:	All Inputs are 0vdc. **Any other voltage will damage the Controller and void warranty.**
Note:	An interface relay may be needed to give the correct input contact type

Outputs

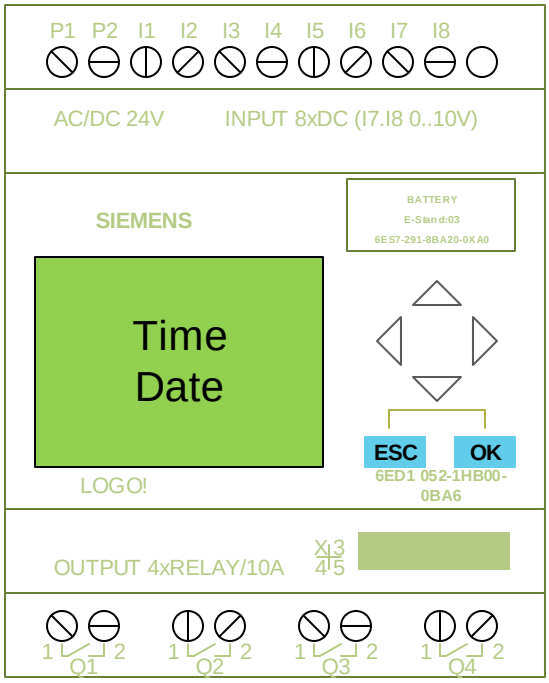
Each of the SLGC outputs have a double pole double throw isolation relay.
Each output relay has a test button as well as a manual override switch.
The green indicator light on each relay will be illuminated when coil power is present.
The devices to be wired to each relay are the responsibility of the customer.

INPUT	PLC INPUT TERMINAL	CONTACT TYPE	DESCRIPTION
1	I1	N.O.	Open Gate Signal from Pay Station
2	I2	N.O.	Close Gate Signal from Gate Loop
3	I3	N.O.	Open Gate Signal from Push Button or other source
4	I4	N.O.	Close Gate Signal from Push Button or other source
5	I5	N.O.	Future
6	I6	N.O.	Future
7	I7	N.O.	Future
8	I8	N.O.	Future

FUNCTION	RELAY	PLC OUTPUT TERMINAL	DESCRIPTION
1	1	Q1	Gate Open
2	2	Q2	Gate Close
3	3	Q3	Positive transition when gate loop active
4	4	Q4	Negitive transition when gate loop active

User Interface

The next page show how to use the HMI user interface, it will show the following;
-Adjust Time of Day Clock
-Adjust the Relay Timers
-Adjust the Operating Time Clock



Programming

To get into programming mode, press the ▼ button until the time and date screen appears. fig1

When the Time and Date screen appears, press the ESC button and the following screen will appear. fig2

fig1

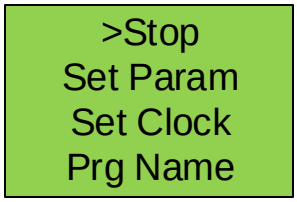


fig2

Setting Time & Date

Use the ▼ button and scroll to Set Clock and the press the OK button. fig2

Use the ◄► buttons to scroll between fields and adjust the values, then press OK . fig3

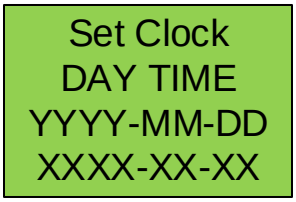


fig3

Setting Relay On Time and On Delay

Each input has a separate On Time and On Delay for the Relay it controls.

There are two settings;

On Time, amount of time the Relay is activated for.

On Delay, amount of time to delay before activating Relay.

Note: For input 2, the input must go high then low before time starts.

<u>While in Programming Mode;</u>

Scroll using the ▼ button until you get to set Parm and then press the OK button. fig4

Use the ◄► buttons to scroll between fields and adjust the values, then press OK . fig5

On Time = TH
(if you want 2.0 seconds on delay TH=02:00s)
On Delay = TL
(if you want 0.5 seconds on delay TL=00:50s)

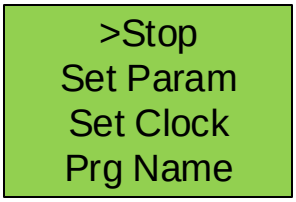


fig4

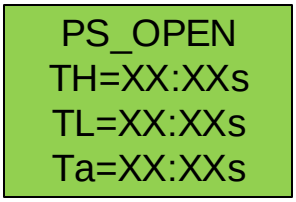


fig5

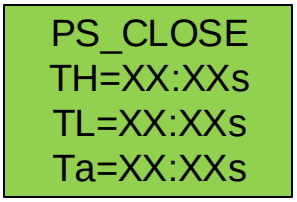


fig6

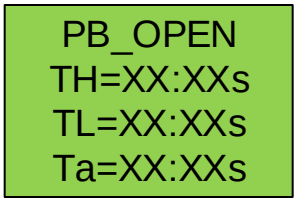


fig7

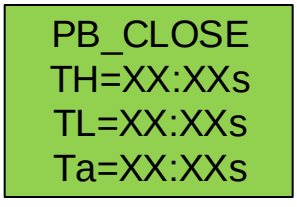


fig8

Setting Gate Loop Status Relays

Relay 3 will turn on when gate loop input 2 goes high based on timer LoopHigh fig8
Relay 4 will turn on when gate loop input 2 goes low based on timer LoopLow fig9
There are two settings;

On Time, amount of time the Relay is activated for.
On Delay, amount of time to delay before activating Relay.

Note: For input 2, the input must go high then low before time starts.

While in Programming Mode;
Scroll using the ▼ button until you get to set Parm and then press the OK button. fig7

Use the ◄► buttons to scroll between fields and adjust the values, then press OK. Fig8&9

On Time = TH
(if you want 2.0 seconds on delay TH=02:00s)
On Delay = TL
(if you want 0.5 seconds on delay TL=00:50s)

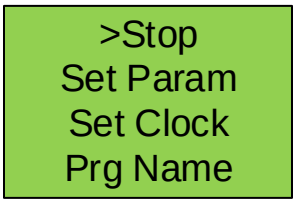


fig7

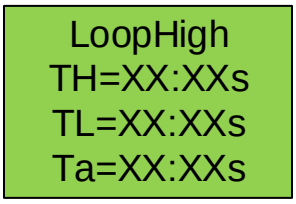


fig8

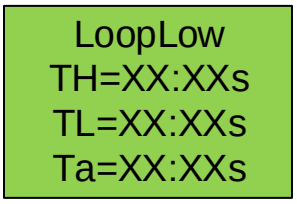


fig9

Programming Operating Time Clocks

The Time Clocks will allow you to set different operating times for different days of the week.
There are thee time clock and the settings are as follows;

D = what days of the week to enable the system
On = time of day to enable the system
Off = time of day to enable the system

While in Programming Mode;
Scroll using the ▼ button until you get to set Param and then press the OK button. fig10

Use the ◄► buttons to scroll between fields and adjust the values, then press OK. fig11

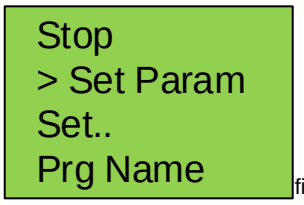
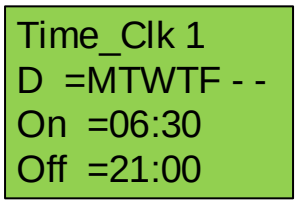
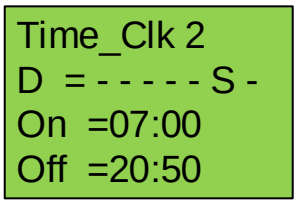


fig10





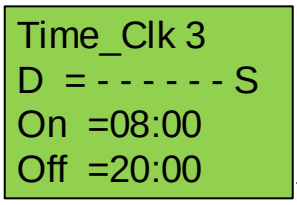


fig11

NOTE: Time_Clk 4 MUST have Pulse set to Off. Fig12
To exit the programming mode, press ESC unitl the time and date message screen appears. Fig13

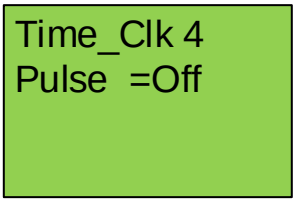
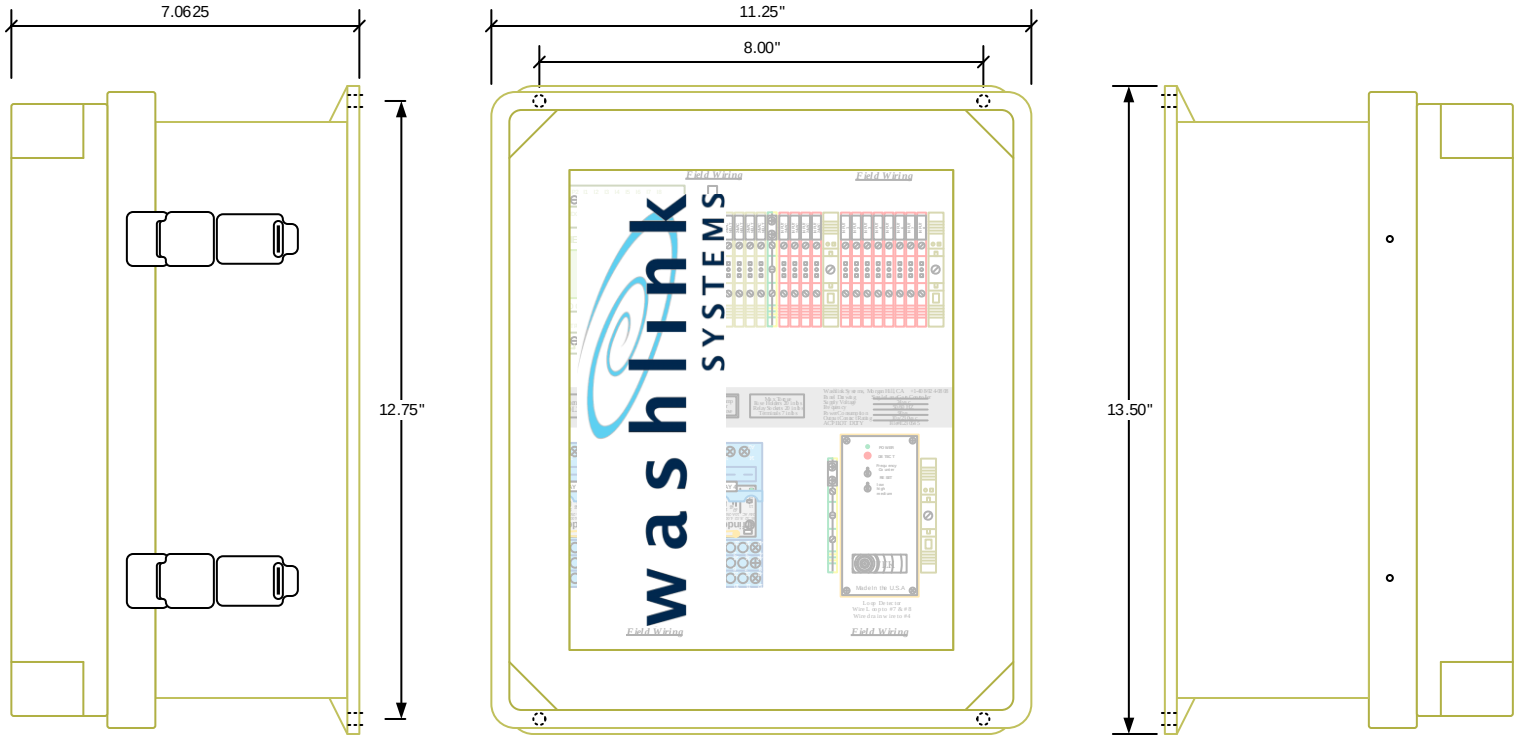


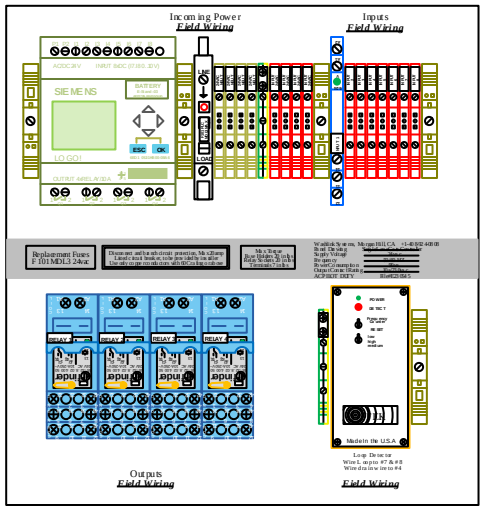
fig12

fig13

Panel Build Information

The next pages show panel build information, they will show the following;
-Inside layout
-Output relay schedule
-PLC internal wiring





NOT TO SCALE

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REV	DATE
v1.0.5	9/1/2016
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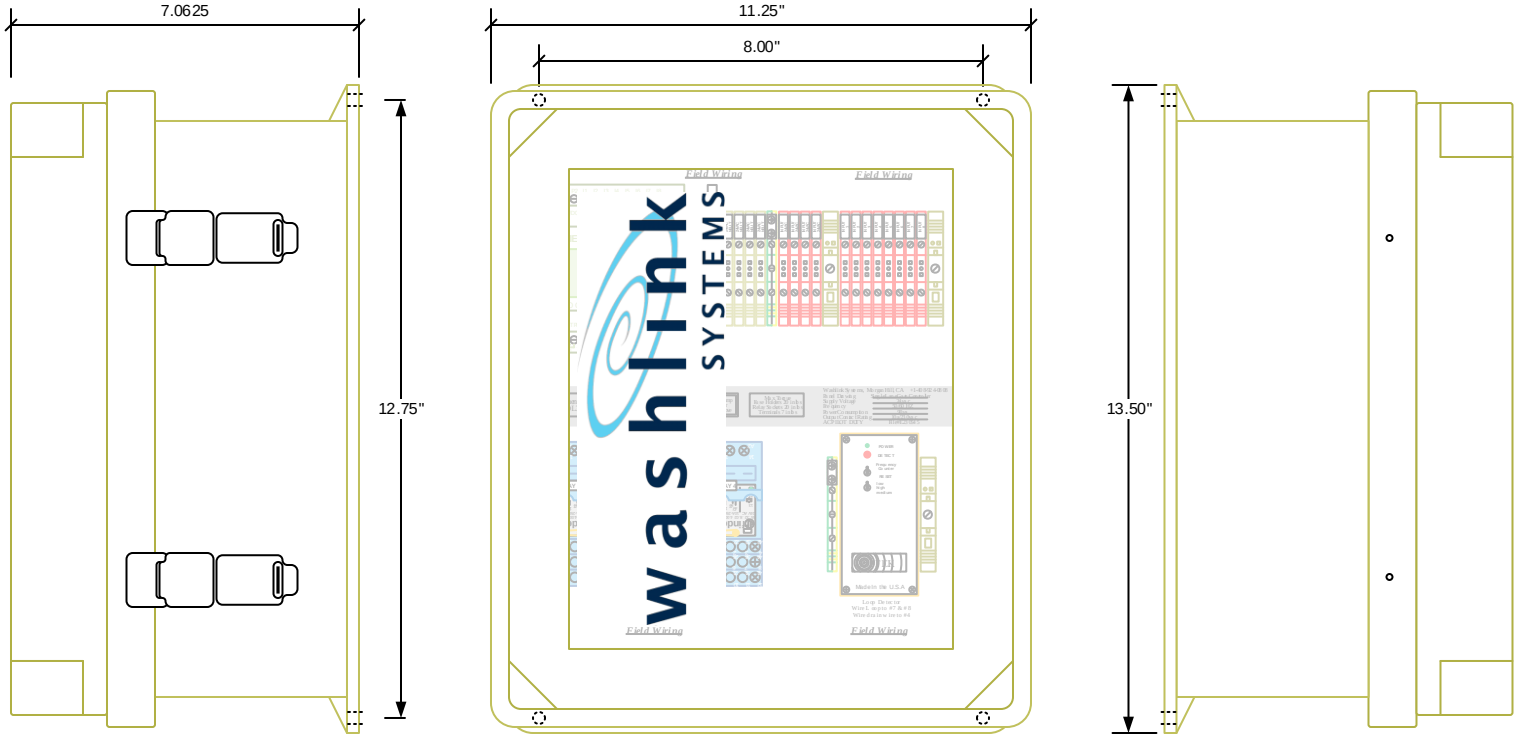
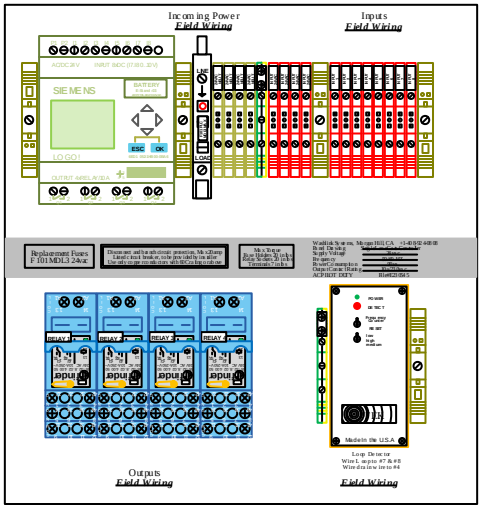
DRAWN DATE: 7/8/2014	

PAGE DESCRIPTION:
LAYOUT (post 9/1/2016)

SLGC





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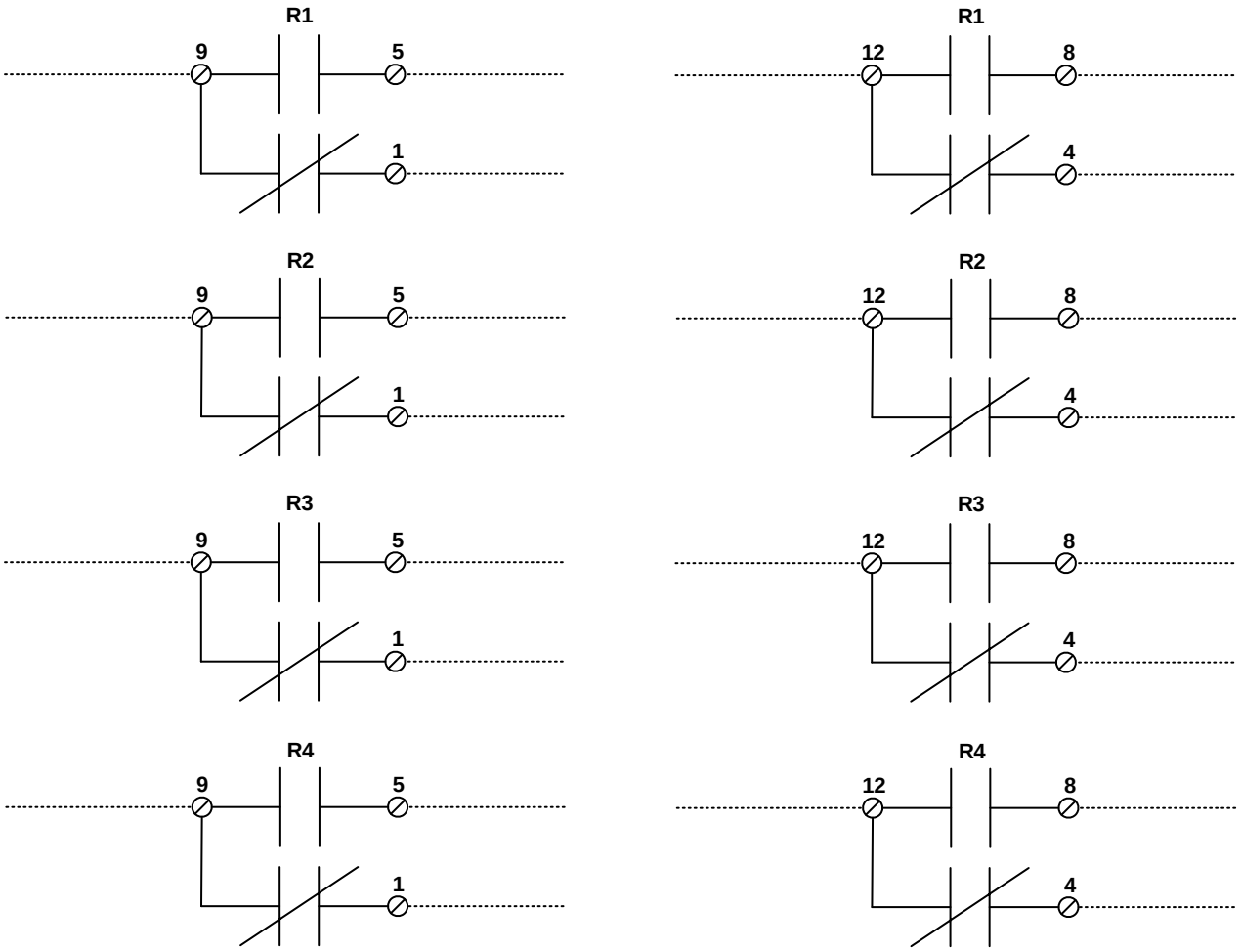
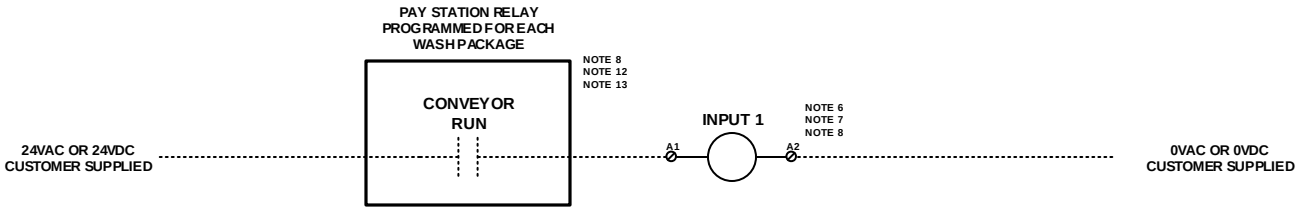


NOTE: All relays are dry contacts and the customers responsibility to bring power to the relay and wire the device from the relay

OPEN GATE SIGNAL FROM PAY STATION

CUSTOMER SUPPLIED VOLTAGE
(post 9/1/2016)



TORQUE SETTINGS

FUSE HOLDER - 20 in-lbs
RELAY SOCKET - 8 in-lbs
TERMINAL BLOCK – 7 in-lbs

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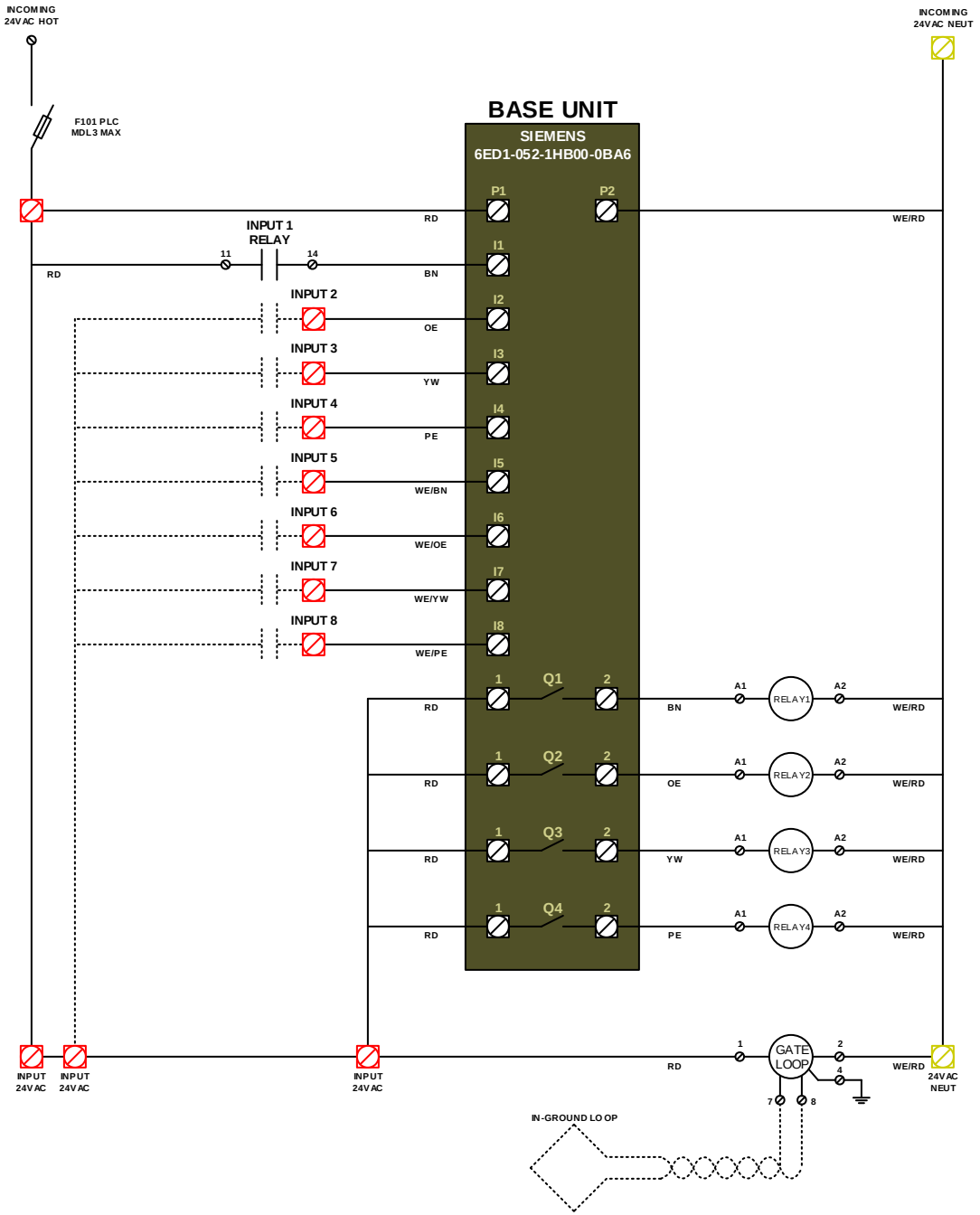
RELAY SCHEDULE

SLGC



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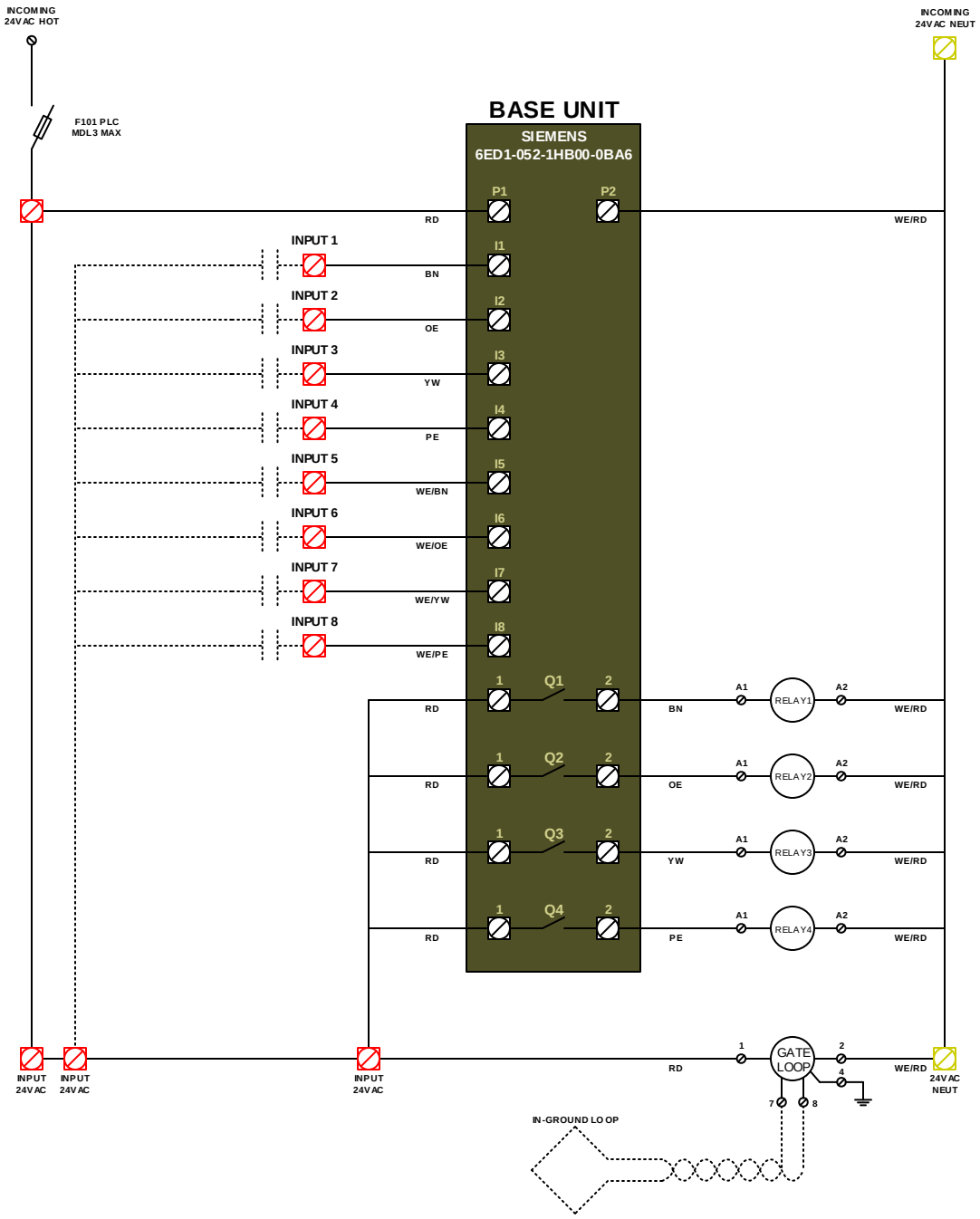
PLC (post 9/1/2016)
INPUT 1-8/OUTPUT 1-6

SLGC



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