

# QuickStart programming guide for MEGA Arm Gate Operators

## MODELS MADCBB, MATDCBB, MASDCBB, & MASTDCB

This Quick Start is intended to highlight the features and functions of the Mega Arm Gate Operator. Refer to the installation manual for complete information regarding installation and programming.

## INTRODUCTION

The operator functions can be customized by changing various DIP switches, and wiring auxiliary devices to the control board on the J5 terminal strip.

### DEFAULT SETTINGS ARE AS FOLLOWS:

- Timer-to-Close is activated and set to four seconds.
- Radio receiver is wired to open only.
- The barrier arm is set to right-hand gate operation.

**NOTE:** Right-hand or left-hand operation is **determined by facing the control board with the barrier arm in the CLOSED position.** If the barrier arm is to the right, it is set for right-hand gate operation.

- Motor speed is set to approximately 2.5 seconds of fast run time.
- Fail Safe is set for Auto Open after batteries drop below 50%.

## OVERVIEW

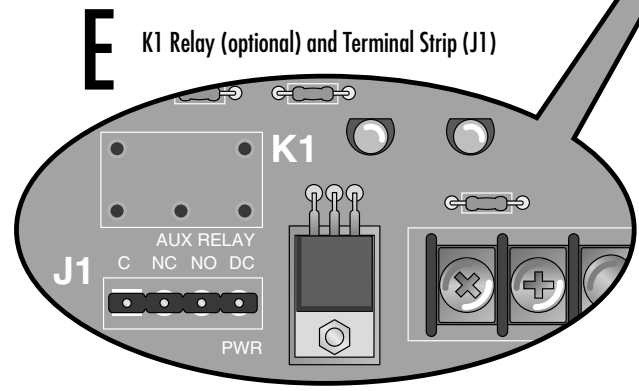
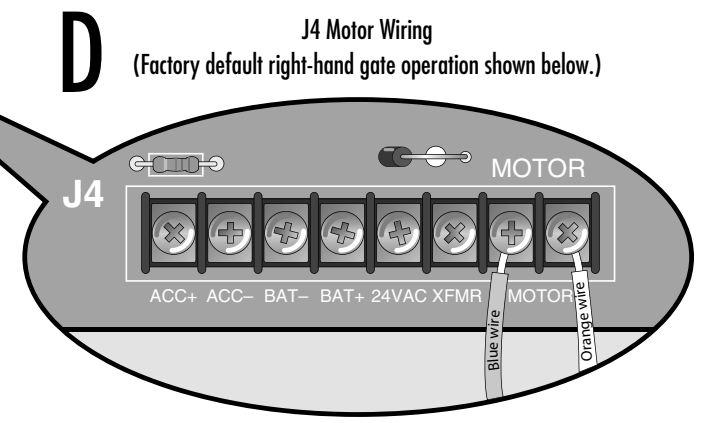
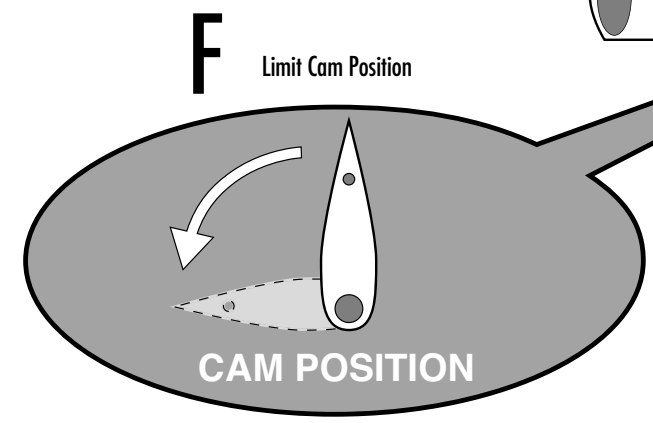
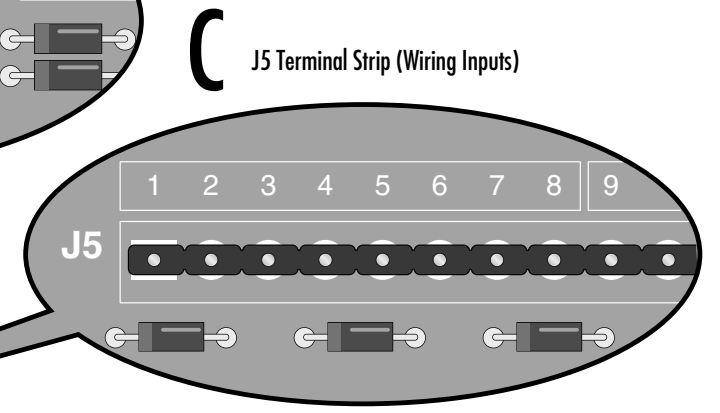
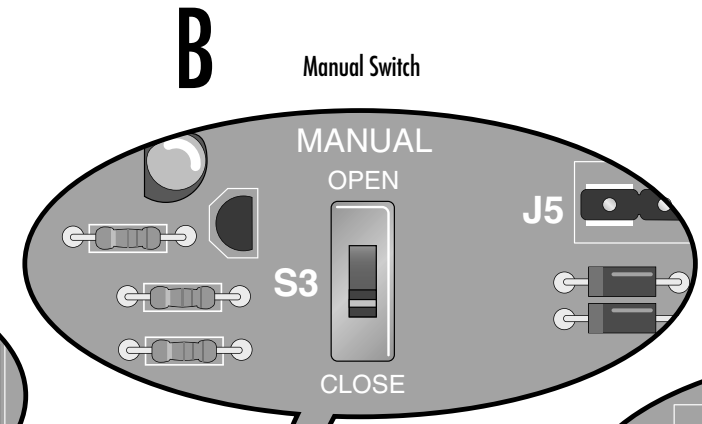
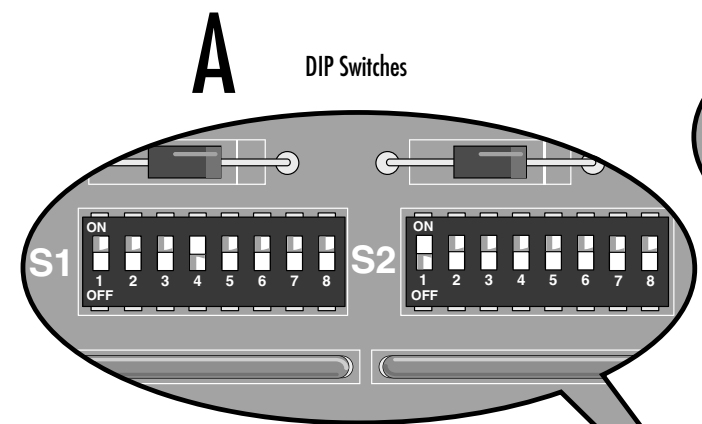
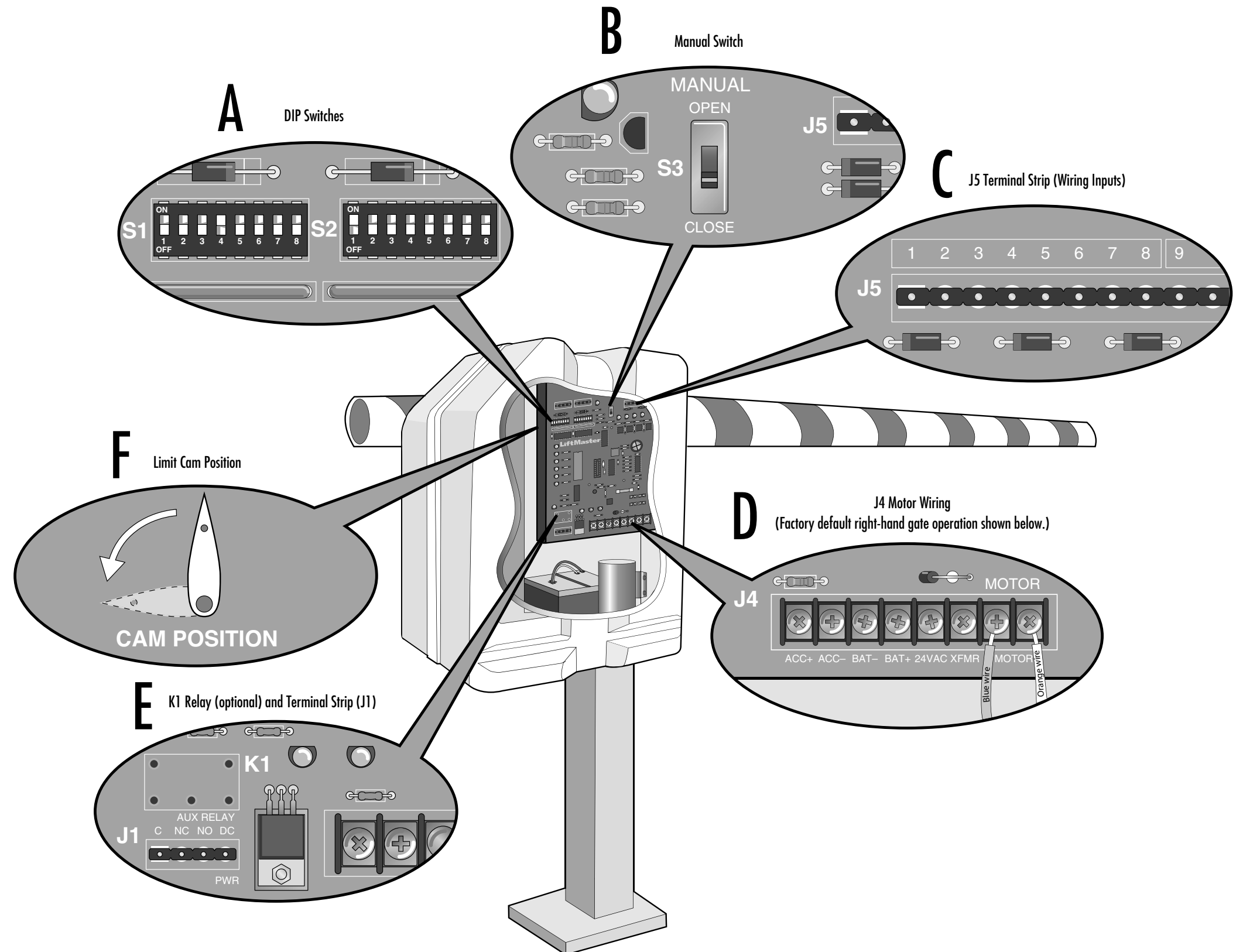
**A** The S1 and S2 DIP switches work together with devices wired into the J5 terminal strip. The DIP switch settings can be set to control various features such as K1 Relay (optional), Timer-to-Close, Single Button Function, and Fail Safe (Auto Open on AC Power Failure).

**B** The S3 DIP switch is a service switch used to open and close the barrier arm from the control board.  
**NOTE:** The S3 DIP switch should be set to CLOSE for normal operation.

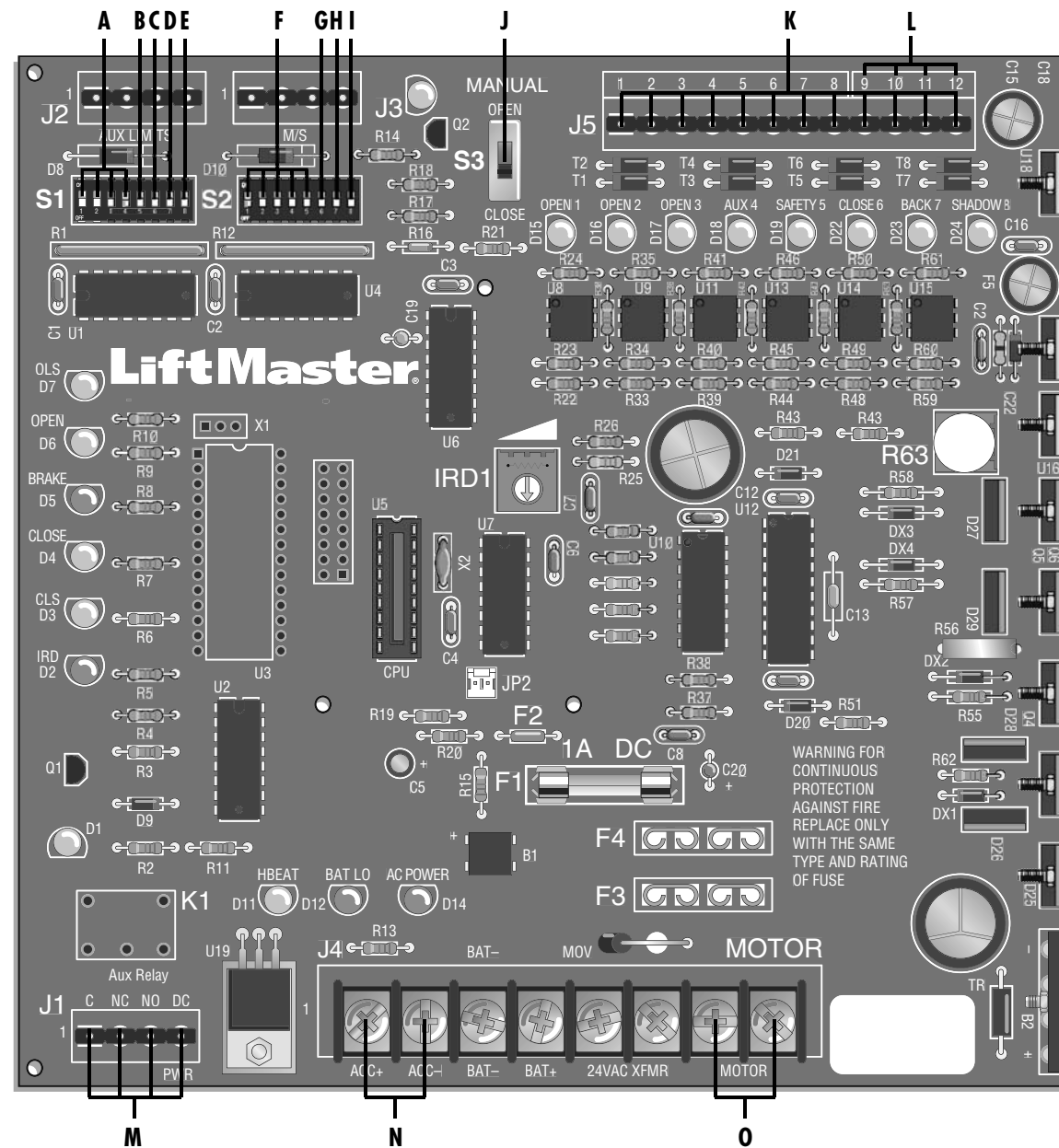
**C** The J5 terminal strip is used for controlling the barrier arm with various accessories such as Receivers, Loop Detectors, Access Controls, and Push Button Stations.

**D** The J4 Motor Wiring is controlled by DIP switch S1-7. The gate operator default setting for DIP switch S1-7 is in the OFF position, and set for right-hand gate operation.

**E** The K1 Relay (optional) and terminal strip (J1) are used for auxiliary devices such as Counters, Alarms, Buzzers, and SAMS (Sequence Access Management System).



# CONTROL BOARD LAYOUT



## PROGRAMMING INPUTS

S1-DIP SWITCHES	S2-DIP SWITCHES	INPUT/OUTPUT LOCATIONS
<b>A</b> DIP Switches S1-1 to S1-4 FAST RUN TIMER	<b>F</b> DIP Switches S2-1 to S2-5 TIMER-TO-CLOSE	<b>J</b> S3 Manual Switch
<b>B</b> DIP Switch S1-5 SINGLE BUTTON FUNCTION	<b>G</b> DIP Switch S2-6 MULTIPLE VEHICLE MEMORY	<b>K</b> J5 Wiring Inputs
<b>C</b> DIP Switch S1-6 CLUTCH OPTION	<b>H</b> DIP Switch S2-7 AUTO CLOSE	<b>L</b> J5 Common (COM) Wiring Inputs
<b>D</b> DIP Switch S1-7 HANDING THE BARRIER ARM	<b>I</b> DIP Switch S2-8 FAIL SAFE	<b>M</b> K1 Relay (optional) and Terminal Strip (J1)
<b>E</b> DIP Switch S1-8 K1 RELAY (OPTIONAL)		<b>N</b> Accessory Output Power (300 mA) max.
		<b>O</b> Motor Wiring Connections

# FEATURES AND FUNCTIONS

## S1 DIP SWITCHES

### A FAST RUN TIMER (FULL SPEED RUN TIMER)

#### DIP Switch S1-1 to S1-4

When the gate operator activates, it ramps up and slows down for a fixed amount of time, but will run at full speed for variable amounts of time depending upon the settings of the S1-1 to S1-4 DIP switches.

Each DIP switch represents increments of 1/8 second.

When DIP switches S1-1, S1-2 and S1-3 are in the ON position, the Fast Run Timer is set to 2-3/8 seconds by factory default.

When DIP switches S1-1 to S1-4 are set in the OFF position, the full speed run time is 1-1/2 seconds.

The longer the operator runs at full speed, the less ramp up and slow down time. When adjusting, make sure the Fast Run Timer settings DO NOT overrun the slow down time.

### B SINGLE BUTTON FUNCTION

#### DIP Switch S1-5

With S1-5 DIP switch in the ON position, the Single Button Function (Command to Open/Command to Close) will activate, with inputs on terminal 4 and Common (COM) on the J5 terminal strip. Any of the terminals 9-12 on the J5 terminal strip can be used for common.

When using this feature with the radio receiver (provided), move the radio wire from terminal 1 to terminal 4 on the J5 terminal strip.

### C CLUTCH OPTION

#### DIP Switch S1-6

With S1-6 DIP switch in the ON position, and using the Clutch Option; when the barrier arm is manually forced UP (OPEN), the barrier arm will automatically CLOSE.

If the Close Loop detects tailgating, the K1 Relay will activate. If an anti-tailgating alarm is wired into terminal strip (J1), an alarm will sound.

**NOTE:** When using the Clutch Option, turn DIP switches S1-6 and S2-7 to the ON position (Auto Close). When this feature is activated the barrier arm will CLOSE by the timer whenever it is forced UP (OPEN).

## S2 DIP SWITCHES

### F TIMER-TO-CLOSE

#### DIP Switch S2-1 to S2-5

The S2-1 to S2-5 DIP switches will set the period of time the gate remains opened after reaching the OPEN position.

Each DIP switch represents the number of seconds the gate will remain OPEN before CLOSING. With the S2-3 DIP switch in the ON (factory default) position, there are 4 seconds to allow a vehicle enough time to move out of the path of the closing barrier arm.

Turning multiple switches ON will combine the amount of time the barrier arm remains OPEN.

The maximum hold OPEN time is 32 seconds.

To de-activate this feature turn S2-7 DIP switch to the OFF position.

### G MULTIPLE VEHICLE MEMORY

#### DIP Switch S2-6

With S2-6 DIP switch in the ON position, the Multiple Vehicle Memory will activate, with inputs on terminal 4 and Common (COM) on the J5 terminal strip. Any of the terminals 9-12 on the J5 terminal strip can be used for common.

**NOTE:** With Multiple Vehicle Memory activated, the barrier arm will remain OPEN until the pre-authorized number of vehicles pass over the Close Loop.

### D HANDING THE BARRIER ARM

#### DIP Switch S1-7

The J4 Motor Wiring is controlled by DIP switch S1-7. The Handing of the Barrier Arm may be changed from right-hand to left-hand operation by reversing the factory default motor connections.

**NOTE:** Right-hand or left-hand operation is determined by facing the control board with the barrier arm in the CLOSED position. If the barrier arm is to the right, it is set for right-hand gate operation.

1. For left-hand operation reverse the motor wires on J4-7 (blue wire) and J4-8 (orange wire) (see illustration example "D" on reverse side).
2. Set DIP switch S1-7 to the ON position.
3. Turn the Limit Cam (see backside of control board) until the barrier arm is in the CLOSED position.
4. Turn the Limit Cam position 90 degrees to the left until the magnet is just behind the limit sensor (see illustration example "F" on reverse side). The barrier arm will now be in the OPEN position.
5. Cycle the power and test the Handing of the Barrier Arm.

### E K1 RELAY (OPTIONAL)

#### DIP Switch S1-8

Auxiliary devices such as Counters, Alarms, Buzzers, and SAMS (Sequence Access Management System), can be wired into the K1 Relay and terminal strip (J1).

When S1-8 DIP switch is in the OFF position, the K1 Relay will activate throughout the OPEN cycle.

When S1-8 DIP switch is in the ON position, the K1 Relay will be activated briefly until the OPEN LIMIT (OLS) is reached.

### H AUTO CLOSE

#### DIP Switch S2-7

The S2-7 DIP switch (Auto Close) should be activated in case one or more of the pre-authorized vehicles DO NOT pass through the gate. The barrier arm will close after the set amount of time elapses and the count memory is reset to zero.

### I FAIL SAFE (AUTO OPEN ON AC POWER FAILURE)

#### DIP Switch S2-8

With S2-8 DIP switch in the ON position, the barrier arm will automatically OPEN approximately 15 seconds after a loss of power. Once the power has been restored the operator will resume normal operation after any input.

With S2-8 DIP switch in the OFF position, the barrier arm will resume normal operation until the batteries drop below 50% at which time the barrier arm will OPEN and remain opened until the batteries are fully charged.