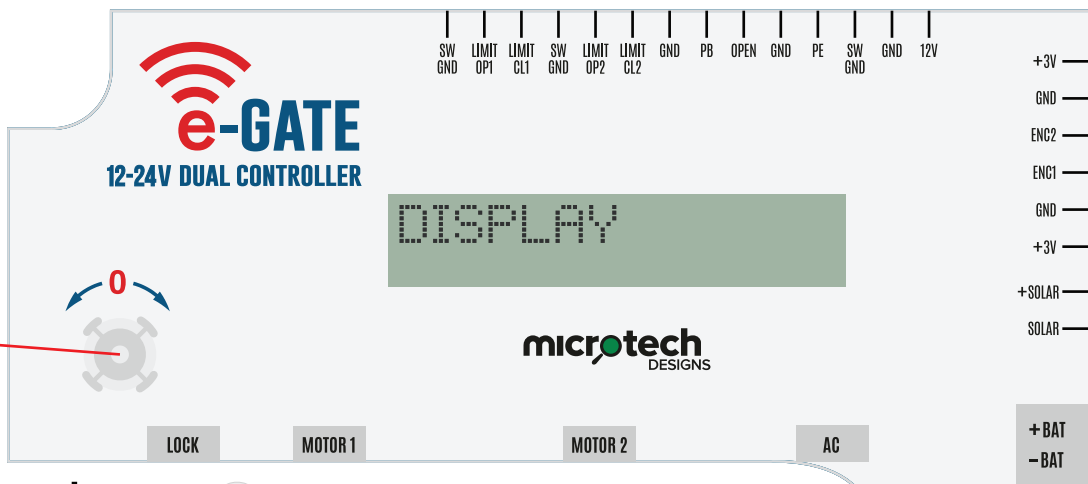# microtech DESIGNS

Specifications

Voltage:	12-24V ACDC
Current draw standby:	14mA (AC) 6mA (Solar)
Frequency:	433MHz Bidirectional
Remote storage:	200 remotes, 4 x keypads, 4 x e-loops
Programs:	4 Selectable programs
Solar:	Inbuilt solar charger
Motors:	12-24V ACDC 120W Solid State Motor Drive with short circuit and overcurrent protection

e-GATE
12-24V DUAL CONTROLLER

e-GATE
12-24V DUAL CONTROLLER

SW GND | LIMIT OP1 | LIMIT CL1 | SW GND | LIMIT OP2 | LIMIT CL2 | GND | PB | OPEN | GND | PE | SW GND | GND | 12V

+3V
GND
ENC2
ENC1
GND
+3V
+SOLAR
SOLAR

DISPLAY

microtech DESIGNS

PB
(Push Button / Dial)

0

LOCK | MOTOR 1 | MOTOR 2 | AC

+BAT
−BAT

Menu Index

Use the dial to scroll right to move forward in the menu

Scroll left to go back through the menu

Press PB to enter or exit any of the menus, or to select or alter any settings.

| RESET MODE PRESS BUTTON | SYSTEM NOT SETUP 12.0 VOLTS | CODE DEVICES | ENTER MENU | CHARGE TYPE |

SETUP MENU

Contents

MAIN MENU

SUB MENUS

CODED DEVICES

ALLOCATE BUTTON   MENU
Allows you to allocate a button number to do a certain function, such as PB Button 1, Open Button 2, Close Button 3, Pedestrian Button 4, Lock Button 5.

DELETE DEVICE MENU
Allows you to delete all or individual remotes or other devices.

SET ID MENU
Allows you to set remote numbers to assigned unit numbers, also allows you to define whether a device is an entry device or an exit device, which can then be added in Lock Out Menu.

LOCK OUT MENU
Allows you to lock out Auto close or a particular device such as an e-Loop or e-Keypad using the e-Remote lock and unlock buttons.

E-LOOP SETTINGS MENU
Allows you to change settings and diagnose operation of a coded e-Loop.

E-RADAR SETTINGS
Allows you to change settings and diagnose operation of a coded e-Radar.

ALTER CLOSE DELAY

CLOSE DELAY TIME
Allows you to change the time delay before closing.

INPUT MENU

SET PB INPUT TO
Allows you to change the default Push Button inputs to OPEN or CLOSE inputs.

SET PED INPUT TO
Allows you to change the default Pedestrian inputs to OPEN or CLOSE inputs.

FORCE MENU

FORCE MARGIN
Allow you to change the safety reverse force to either LIGHT, MEDIUM, HEAVY or MANUAL modes.

ADVANCED FORCED MENU
Contains more advanced force adjustments. (Refer to a technician).

SPEED MENU

MINIMUM SPEED
Allows you to change the start up and slow down speeds.

OPEN SPEED
Allows you to change the OPEN speed.

CLOSE SPEED
Allows you to change the CLOSE speed.

RAMP MENU

RAMP UP OPEN
Allows you to change the ramp up open time.

RAMP UP CLOSE
Allows you to change the ramp up close time.

RAMP DOWN OPEN
Allows you to change the ramp down open time.

RAMP DOWN CLOSE
Allows you to change the ramp down close time.

LOCK OUT MENU

Allows you to turn on and off lockout settings for connected devices.

PE BEAMS MENU

PE BEAM
Allows you to turn on PE Beam activation.

PE AUTO CLOSE
Allows you to activate PE Auto Close function.

PE AC TIME
Allows you to adjust the PE Auto Close time.

AUTO CLOSE MENU

AUTO CLOSE
Allows you to turn on Auto Close function.

AUTO CLOSE TIME
Allows you to change Auto Close time.

SECURE AUTO CLOSE
Allows you to turn on Secure Auto Close (gate will close after set time even if it has not reached the open position)

PEDESTRIAN MENU

PEDESTRIAN MODE
Allows you activate Pedestrian function.

PEDESTRIAN
Allows you to change opening position.

PED AUTO CLOSE
Allows you to activate Pedestrian Auto Close function.

PED AC TIME
Allows you to adjust Pedestrian   Auto Close   time.

LOCK MENU

LOCK TYPE
Allows you to select Pulse Hold or courtesy function.

COURTESY TIME
Allows you to alter the time the light stays on after gate is opened or closed.

RADIO SETTINGS ——— RADIO SETTING
Allows you to turn off the on-board radio to save power consumption when wiring in a third-party receiver.

ADVANCED MENU ——— Allows you to alter advanced settings (refer to a Technician).

DIAGNOSTICS MENU ——— Allows you to view the last 30 recorded faults such as Obstruction, Low Battery or PE Activations.

CURRENT TRIPS ——— Allows you to view the last 20 recorded current trips.

1. e-Gate Dual Set Up – Encoder

Note: Close stop must be fitted to motor arm for articulated arm style. For linear motor we use the fully extended internal stop.

1. Power up display, it will read 'System Not Setup'. Now press **PB** to enter set up menu.

SYSTEM NOT SETUP
12.9 VOLTS

2. First display is 'Encoder'. Press **PB** to select (or rotate dial to select a different program).

SYSTEM TYPE
ENCODER

3. The screen with display 'Motor type'. Use the **PB** button to select single or dual motor.

MOTOR TYPE
DUAL

4. The screen will now display 'Drive Motor Open'. You can drive the motor in the open direction by holding down the **PB** button, or holding down button **1** on a coded remote.

DRIVE MOTOR 1
OPEN

5. Now rotate the dial to display 'Drive Motor 1 Close'.
You can drive the motor in the close direction by holding down the **PB** button, or holding down button **1** on a coded remote. Rotate dial to use 'Drive Motor 2 Open' and 'Drive Motor 2 Close' if you are in dual motor mode.

DRIVE MOTOR 1
CLOSE

6. Now rotate dial to 'Direction Change Press PB'. If you want to change motor direction, press **PB**, and a green light will appear to show the direction has been changed. This can be done for both motors in dual mode. Otherwise rotate dial to 'Motor Setup'.

```
DIRECTION CHANGE
PRESS PB
```

```
DIRECTION
CHANGED
```

7. Rotate to 'Setup System Press Button', now press **PB**, and the gate will close until it reaches the end stop.

```
SETUP SYSTEM
PRESS BUTTON
```

```
SETTING
CLOSE
```

8. Once it reaches the end stop it will display 'Set Open'.
Press and hold down **PB** or button **1** on a coded remote. Drive the gate to the open position, if you go too far you can rotate dial to 'Drive Motor Close' or use button **2** on a remote.

```
SET OPEN
0
```

```
OPENING
239
```

After motor has been stationary for 10 seconds, the screen will display 'Open Position Set'.

```
OPEN POS SET
```

Once gate board has stored the closed position, the gate will close displaying run current on the left and trip current on the right. This process will then repeat for motor 2.

```
CLOSING
0.5 A 3.0 A
```

9. Once gate reaches the closed position 'Setup Complete' will display, then after 2 seconds the main screen will display.

```
SETUP
COMPLETE
```

```
SYSTEM CLOSED
12.9 VOLTS
```

2. e-Gate Dual Set Up – Limit Switch 5 Wire

1. Power up display, it will read 'System Not Setup'. Now press **PB** to enter set up menu 'System Type'.

```
SYSTEM NOT SETUP
12.9 VOLTS
```

First display is 'Encoder', rotate dial to select 'Limit 5 Wire' and press **PB** .

```
SYSTEM TYPE
LIMIT 5 WIRE
```

3. The screen with display 'Motor type'. Use the **PB** button to select single or dual motor.

```
MOTOR TYPE
DUAL
```

2. Screen will display 'Test Limits'. (You can activate limit switches by hand to ensure you have open and close limits set up correctly).
   After testing limits, rotate dial to 'Reverse Limits'. Press **PB** if limits were correct, then rotate dial to 'Drive Motor Open' if limits were incorrect. Press **PB** to reverse limits.

```
TEST LIMITS
```

```
REVERSE LIMITS
PRESS PB
```

3. Screen will now display 'Drive Motor Open'.
   You can drive the motor in the open direction by holding down the **PB** button or button **1** on a coded remote.

```
DRIVE MOTOR 1
OPEN
```

4. Now rotate the dial to display 'Drive Motor 1 Close'.
You can drive the motor in the close direction by holding down the **PB** button, or holding
down button **1** on a coded remote. Rotate dial to use 'Drive Motor 2 Open' and 'Drive
Motor 2 Close' if you are in dual motor mode.

```
DRIVE MOTOR 1
CLOSE
```

5. Now rotate dial to 'Direction Change Press PB'.
If you want to change motor direction, press **PB** and a green light will appear to show the
direction has been changed. Otherwise rotate dial to 'Motor Setup'.

```
DIRECTION CHANGE
PRESS PB
```

```
DIRECTION
CHANGED
```

6. Rotate dial to 'Setup System Press Button', now press **PB** and gate will close until it reaches
the close limit.

```
SETUP SYSTEM
PRESS BUTTON
```

```
SETTING
CLOSE
```

7. Once gate reaches the close limit, the gate will open then close.

```
OPENING
239
```

```
CLOSING
239
```

8. Once gate reaches the closed position, 'Setup Complete' will display, then after 2 seconds,
the main screen will display.

```
SETUP
COMPLETE
```

```
SYSTEM CLOSED
12.9 VOLTS
```

3. e-Gate Dual Set Up – Limit Switch 2 Wire

1. Power up display, it will read 'System Not Setup'. Now press **PB** to enter set up menu 'System Type'.

```
SYSTEM NOT SETUP
12.9 VOLTS
```

First display is 'Encoder', rotate dial to select 'Limit 2 Wire'.

```
SYSTEM TYPE
LIMIT 2 WIRE
```

2. The screen with display 'Motor type'. Use the PB button to select single or dual motor.

```
MOTOR TYPE
DUAL
```

3. Screen will now display 'Drive Motor Open'.
    You can drive the motor in the open direction by holding down the **PB** button or button **1** on a coded remote.

```
DRIVE MOTOR 1
OPEN
```

4. Now rotate the dial to display 'Drive Motor 1 Close'.
    You can drive the motor in the close direction by holding down the **PB** button, or holding down button **1** on a coded remote. Rotate dial to use 'Drive Motor 2 Open' and 'Drive Motor 2 Close' if you are in dual motor mode.

```
DRIVE MOTOR 1
CLOSE
```

5. Now rotate dial to 'Direction Change Press PB'.
If you want to change motor direction, press **PB** and a green light will appear to show the direction has been changed. Otherwise rotate dial to 'Motor Setup'.

```
DIRECTION CHANGE
PRESS PB
```

```
DIRECTION
CHANGED
```

5. Rotate dial to 'Setup System Press Button', now press **PB** and gate will close until it reaches the close limit.

```
DIRECTION CHANGE
PRESS BUTTON
```

```
SETTING
CLOSE
```

4. e-Gate Dual Set Up – End Stop

1. Power up display, it will read 'System Not Setup'. Now press **PB** to enter set up menu 'System Type'.

```
SYSTEM NOT SETUP
12.9 VOLTS
```

First display is 'Encoder', rotate dial to select 'End Stops'. Now press **PB** and a green light will appear .

```
SYSTEM TYPE
END STOPS
```

2. The screen with display 'Motor type'. Use the PB button to select single or dual motor.

```
MOTOR TYPE
DUAL
```

3. Screen will now display 'Drive Motor Open'.
   You can drive the motor in the open direction by holding down the **PB** button or button **1** on a coded remote.

```
DRIVE MOTOR 1
OPEN
```

4. Now rotate the dial to display 'Drive Motor 1 Close'.
   You can drive the motor in the close direction by holding down the **PB** button, or holding down button **1** on a coded remote. Rotate dial to use 'Drive Motor 2 Open' and 'Drive Motor 2 Close' if you are in dual motor mode.

```
DRIVE MOTOR 1
CLOSE
```

4. Now rotate dial to 'Direction Change Press PB'.
If you want to change motor direction, press **PB** and a green light will appear to show the
direction has been changed. Otherwise rotate dial to 'Motor Setup'.

```
DIRECTION CHANGE        DIRECTION
PRESS PB                CHANGED
```

5. Rotate dial to 'Setup System Press Button', now press **PB** and gate will close until it reaches
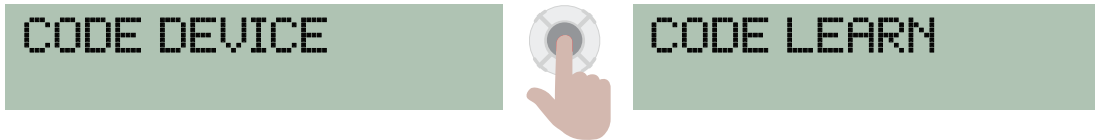the close limit.   (Note: Gate should be in half way position)

```
SETUP SYSTEM            SETTING
PRESS BUTTON            CLOSE
```

5. Coding – Remotes

1. Scroll to 'Code Device' and press **PB** The screen will display 'Code Learn' and the red light will appear.

```
CODE DEVICE          CODE LEARN
```

2. Now press the Remote button once and the e-Gate board will display 'Remote # Coded'.
To code more remotes, repeat step 2.
(Note: To exit Code Learn you can press **PB** again or wait 10 seconds and the board will automatically exit back to main screen. Alternatively press the coded remote button again and it will return the the main screen.)

```
REMOTE 1             REMOTE 2
CODED                CODED
```

6. Coding – e-Loop

1. Scroll to 'Code Device.

```
CODE DEVICE
```

2. Now place the e-Loop close to the antenna of the board then press and release **PB** .
If pairing is successful, the screen will display 'Loop (number) Paired'.
If not successful, 'Code Learn' will be displayed. To exit 'Code Learn' press **PB** again or wait 10 seconds and it will automatically exit to the main menu.

```
LOOP 1
PAIRED
```

7. Altering – e-Loop Settings and Diagnostics

1. To alter the e-loop settings, select coded devices from the main menu, and then select e-loop settings. Before doing so, place a magnet on the mode button of the commercial e-loop for 10 seonds to enter diagnostics mode.

CODED DEVICES		E-LOOP SETTINGS	

2. Scroll to alter e-loop menu for general e-loop settings, alter radar menu for e-loop radar settings and diagnose e-loop for e-loop information readout. Select any option using the **PB** button.
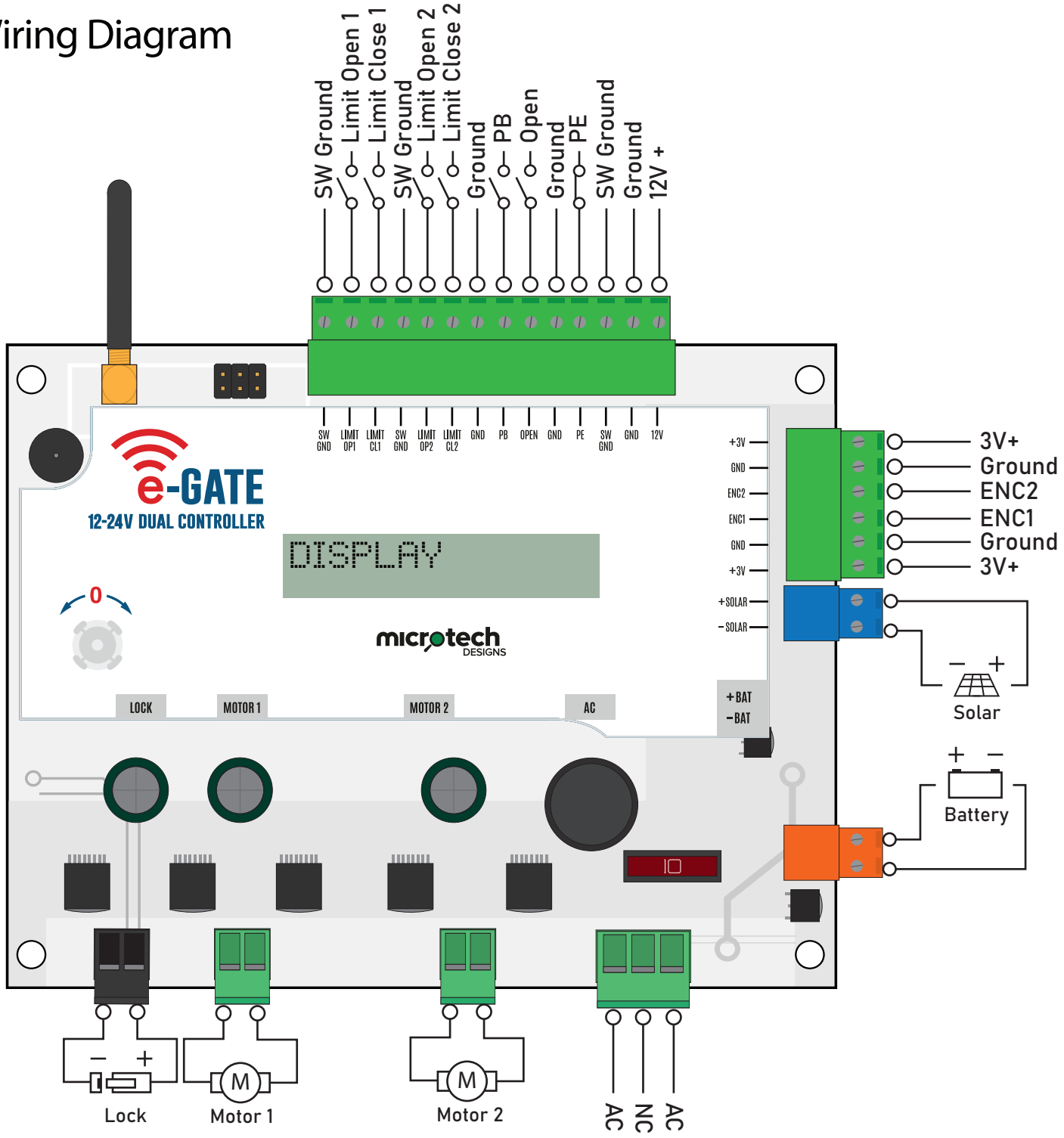
ALTER E-LOOP MENU		ALTER RADAR MENU	

DIAGNOSE E-LOOP MENU	

Note: Diagnostics mode is not required for e-loop and radar settings changes, however the e-loop must be held next to the e-gate board.

Wiring Diagram