


# A-PROBE & A-CONTROLLER

**SPECIFICATIONS:**



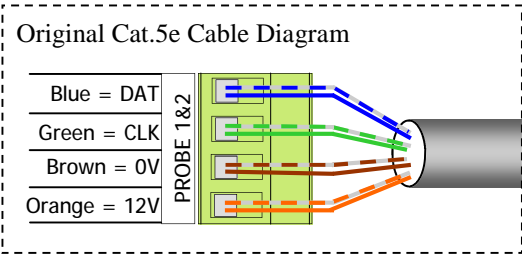
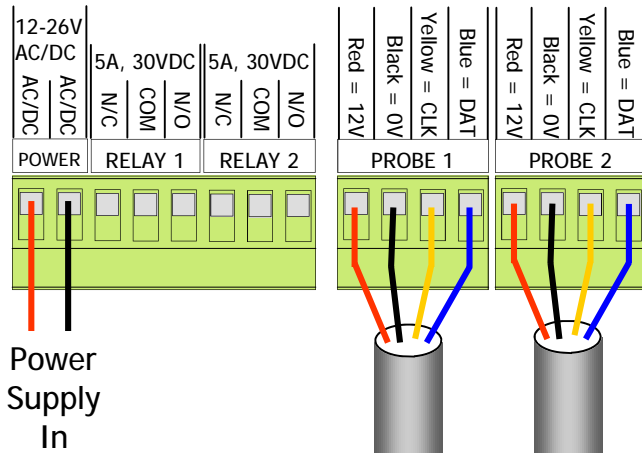
Input Voltage  
12 to 26V AC or DC

Standby Current  
100mA @ 26VDC

Operating Current  
160mA @ 26VDC

LED Status:  
Green = Power On  
Blue 1 = Relay 1 is active  
Blue 2 = Relay 2 is active  
Red = Detection on a Probe inputs

IP Ratings:  
A-Probe = IP67  
A-Controller = IP40



To Second Probe (Slave)

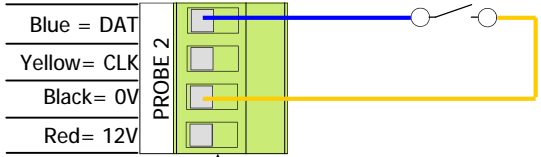
To First Probe (Master)

Dipswitch setting	Function
DIP 1 + 2 OFF	Level 1 Amplification (low)
DIP 1 ON, 2 OFF	Level 2 Amplification (mid/low)
DIP 1 OFF, 2 ON	Level 3 Amplification (mid/high)
DIP 1 + 2 ON	Level 4 Amplification (high)
DIP 3 OFF	Relay Reset Time 2 seconds
DIP 3 ON	Relay Latching
DIP 4 OFF	Independent Probe Mode
DIP 4 ON	Direction Mode (relay 1 only)
DIP 5 OFF	Probe 2 input is A-Probe
DIP 5 ON	Probe 2 input is Contacts (n/o)
DIP 6 OFF	Mode A
DIP 6 ON	Mode B
DIP 7 OFF	Probe Buzzer Off
DIP 7 ON	Probe Buzzer On (v1 probe only)
DIP 8 OFF	Controller Buzzer Off
DIP 8 ON	Controller Buzzer On

Terminal	4-Core Cable	Cat.5e Cable	Connector
12 Volts DC	Red	Orange	Pin 1
0 Volts DC	Black	Brown	Pin 2
Clock	Yellow	Green	Pin 3
Data	Blue	Blue	Pin 4

This option turns Probe-2 input into a normally open trigger. Allowing the safety beams from the gate system to be wired in, saving money and time needing a second probe for direction detection modes.

\*See Smart Gate-230 Wiring diagram for an example.

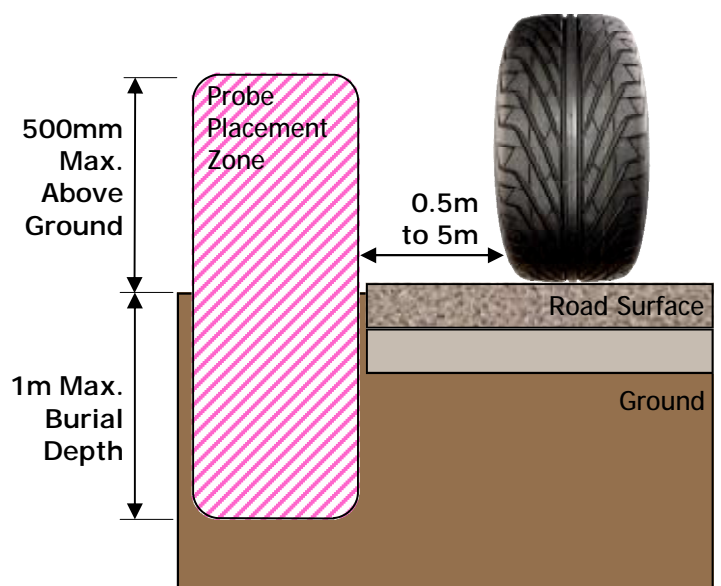
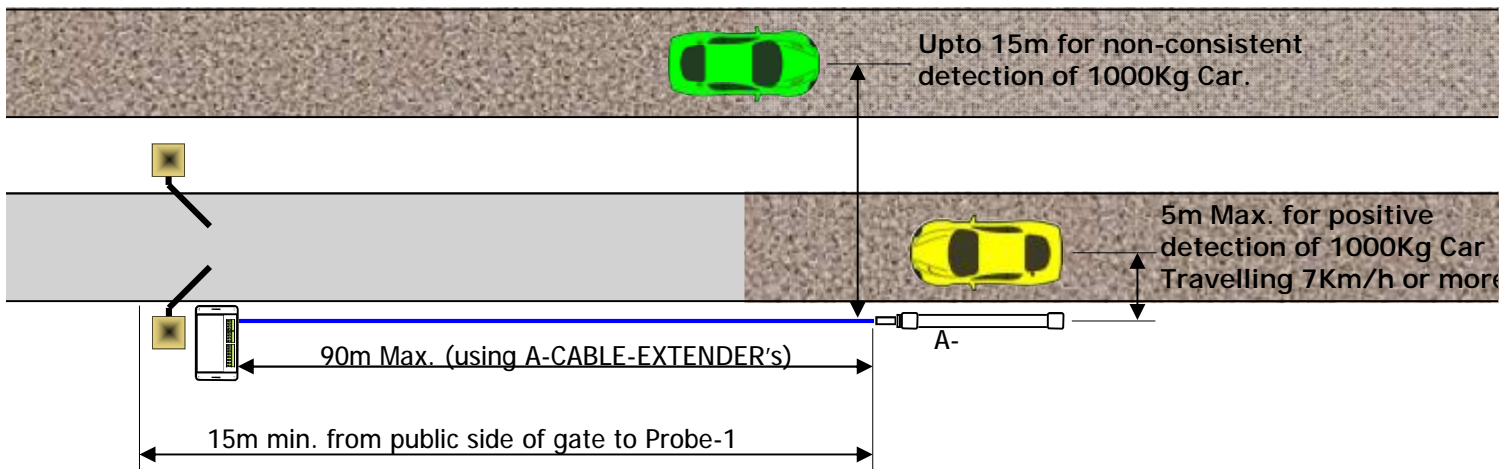


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v1.06



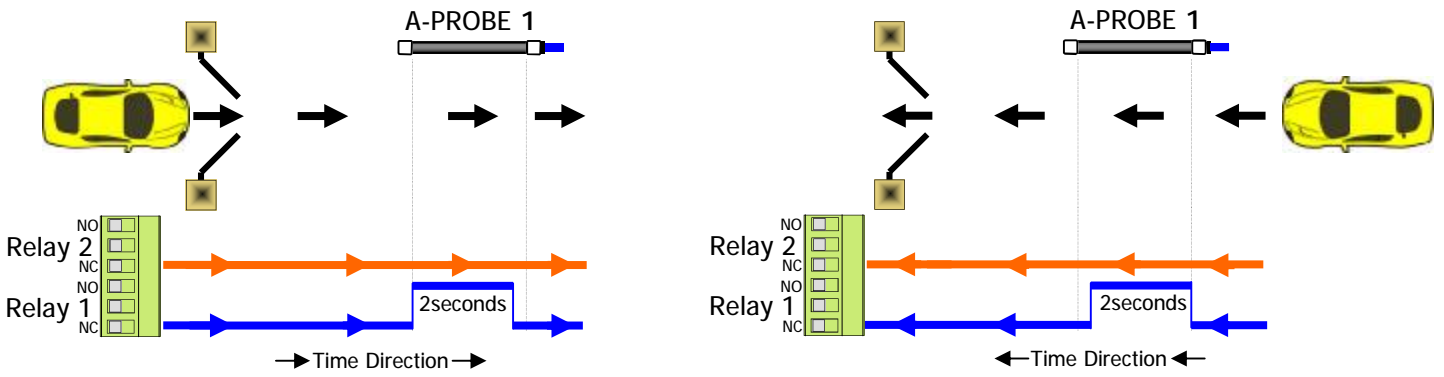
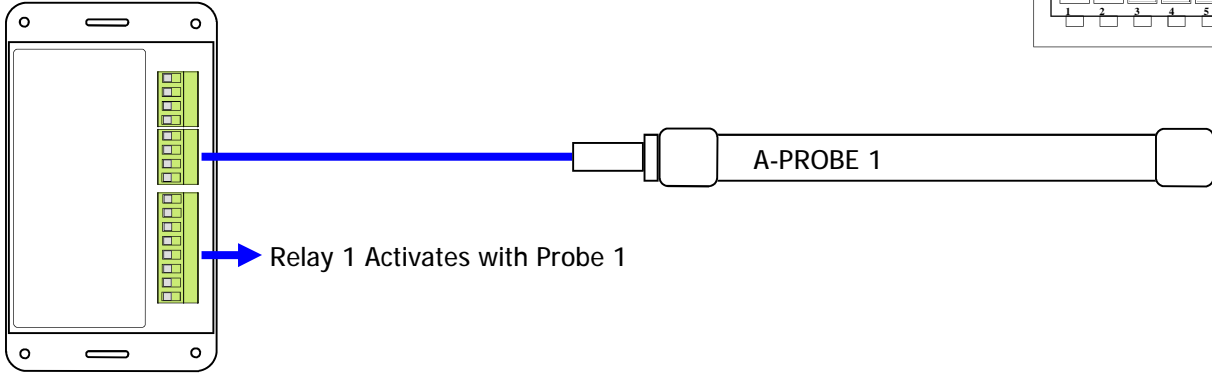
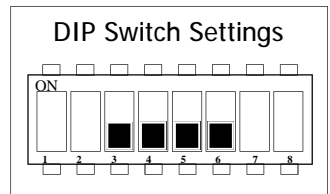
## Probe Placement

- The A-Probe should be placed parallel to the driveway.
- For best detection the A-Probe should be placed within 5 meters from where the moving vehicle will pass.
- Keep the A-Probe a minimum of 15 meters away from other driveways you do not wish detection from.
- The optimum depth below ground is 100mm, with a maximum depth of 1 meter.
- The A-Probe can be mounted above ground upto 500mm from ground, ensure it is securely mounted so it can not rotate or move, a fence post would be a good fixing location.
- The A-Probe can be placed upto 90 meters away from the A-Controller, using A-Cable-Extenders.
- Probe-1 should be mounted a minimum of 15 meters away from the public side of the gate, to prevent false triggers.
- Please note Cutting the Cable down in length, will make return of the product not possible.
- The A-Probe can be fitted inside another PVC pipe for extra protection.
- Breaking open or cracking the A-Probes PVC case will void its warranty.
- Do not mount the A-Probe inside a metal case.
- The A-Controller should be installed in a weather resistant enclosure.
- Install A-Probe at least 2.5 meter away from buried power or telephone lines.
- Install A-Probe at least 3 meters away from natural gas lines.
- Install A-Probe at least 6 meters away from Power poles with transformers.
- Install A-Probe at least 60 meters away from high voltage power pylons.
- Install A-Probe at least 30 meters away from road traffic travelling over 50Km/h
- Install A-Probe at least 20 meters away from road traffic travelling under 50Km/h
- Test the system above ground to confirm operation is satisfactory



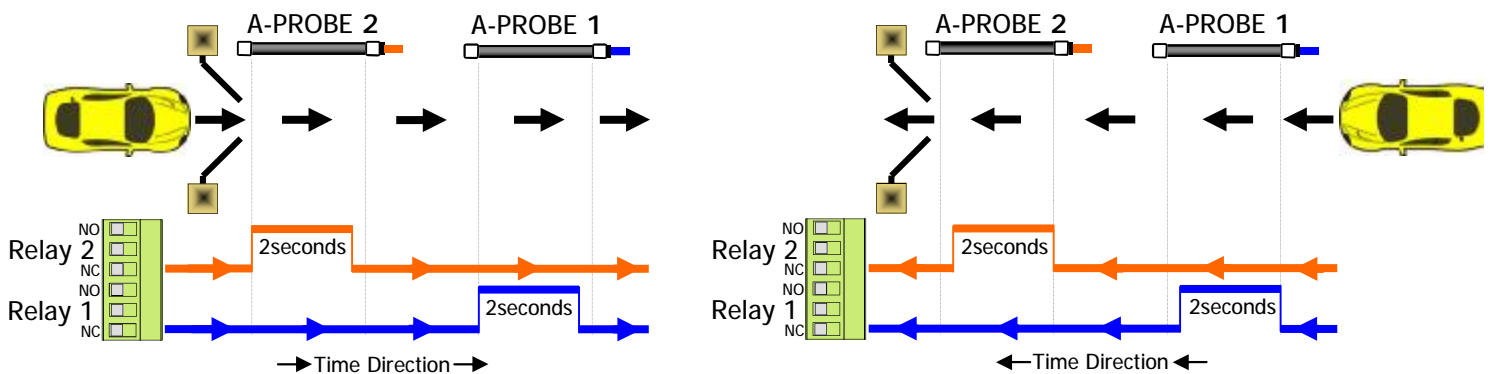
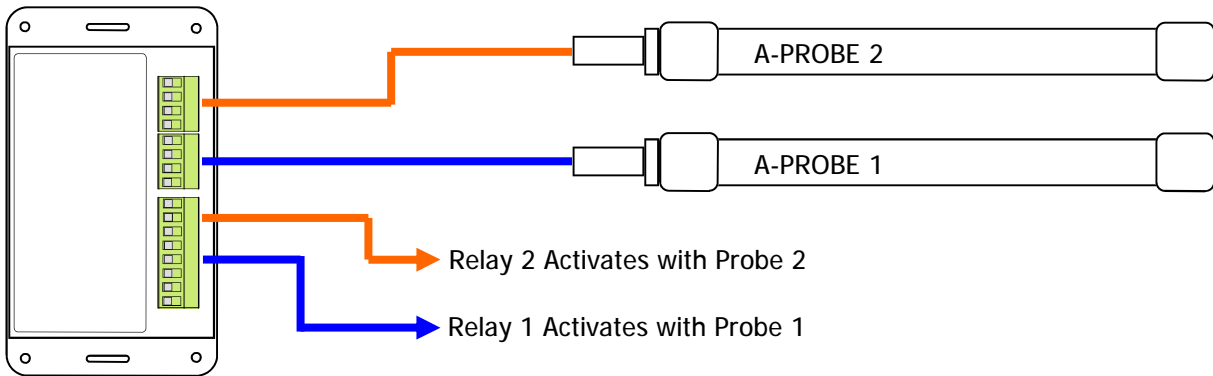
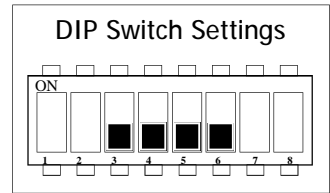
# Single Probe System Mode-1

\*for wiring example see Simple Gate-230 Control Wiring



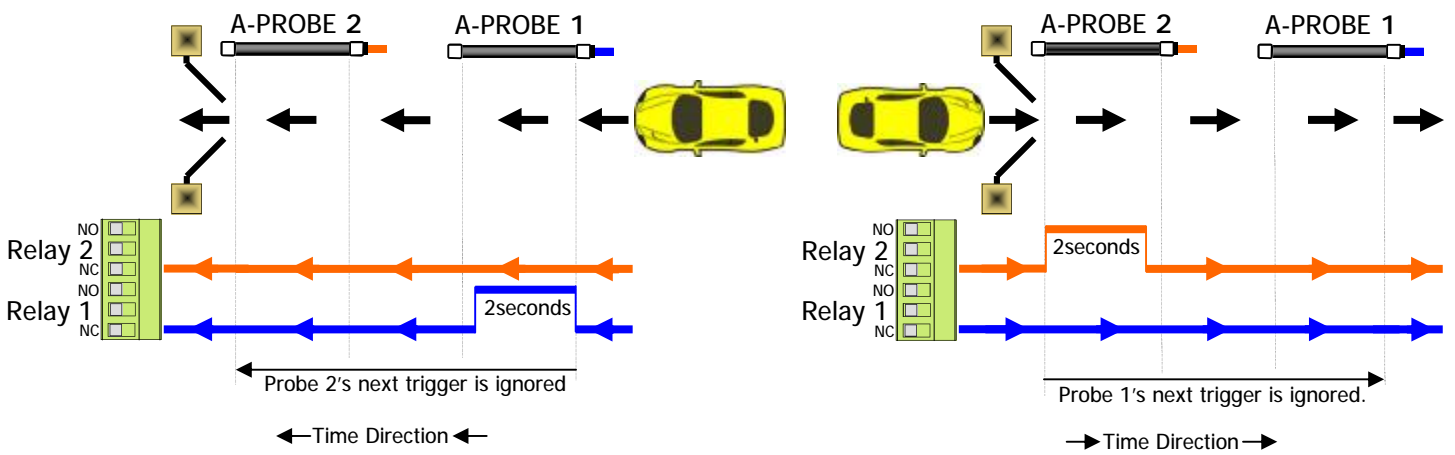
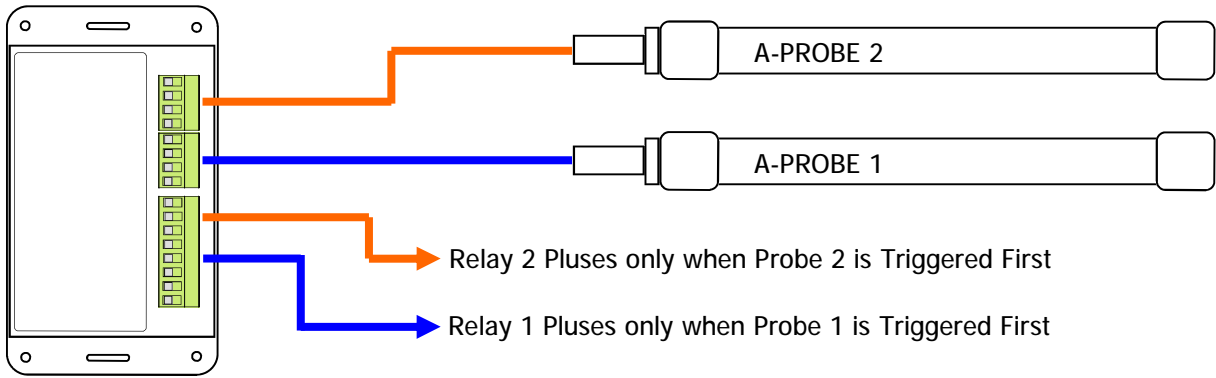
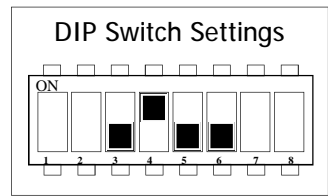
# Dual Probe System Independent Mode-1

In this mode you can have 2 independent Gate systems each with there own Probe, But share the A-Controller unit.



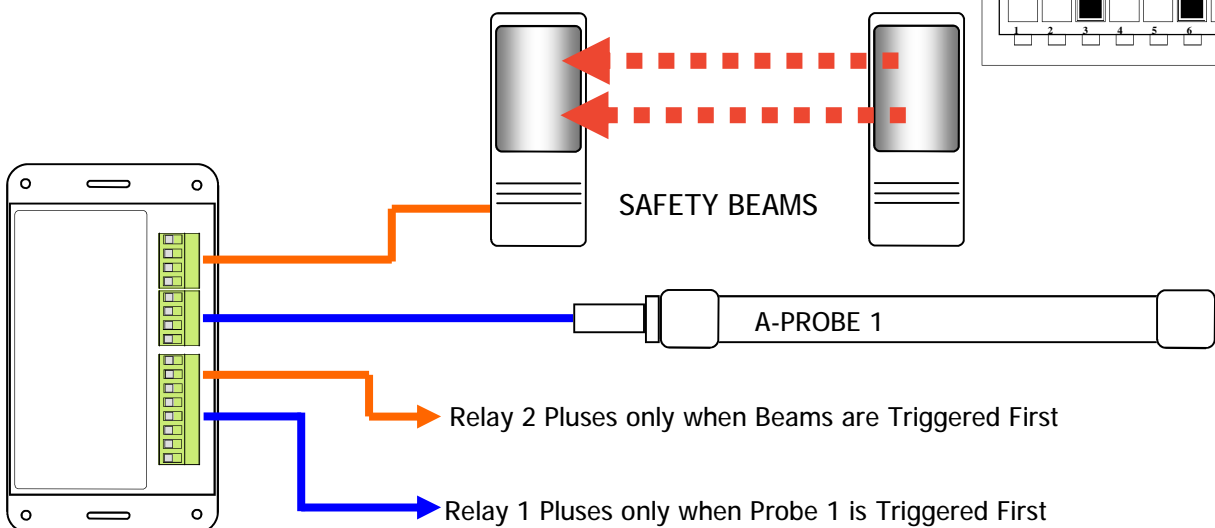
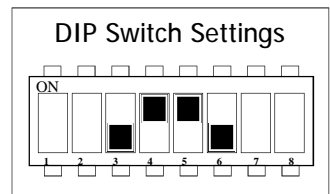
## Dual Probe Direction Mode-2

For Smarter installations this mode is ideal, as the outputs will only trigger in the direction you choose.



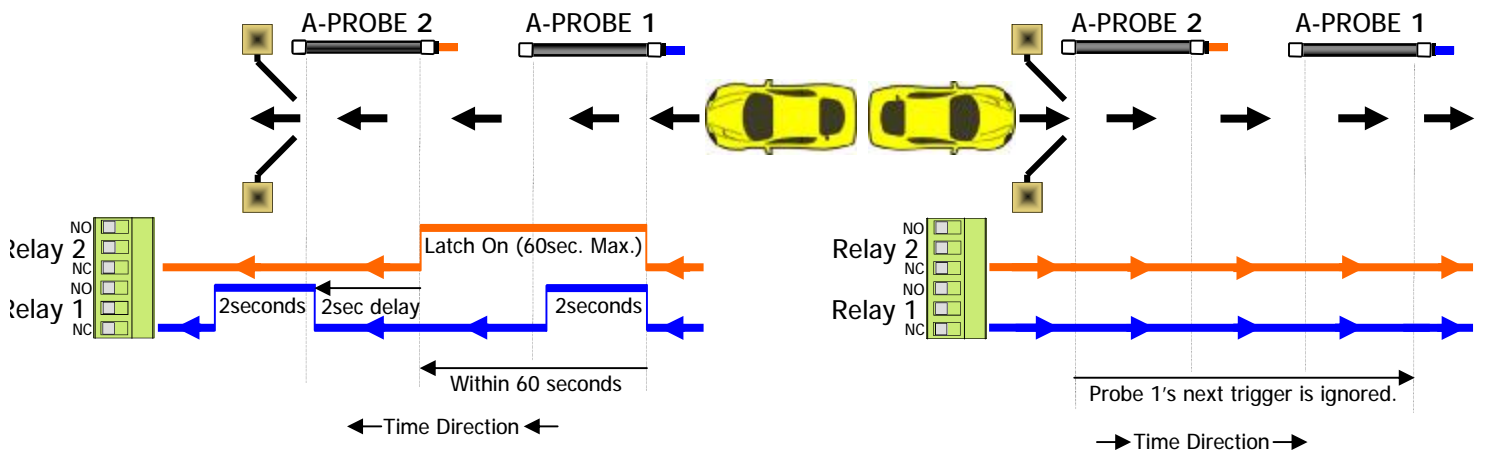
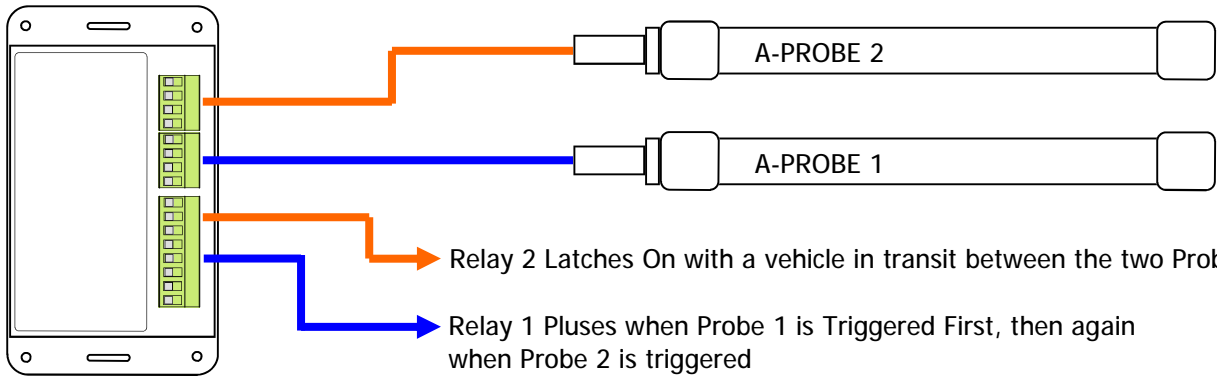
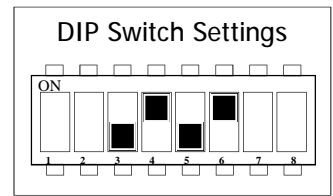
## Direction Mode-2b

Turning On DIP Switch 5 configures the A-Controller to use safety beam contacts instead of a second A-Probe. The functionality and operation is the same as Mode-2.



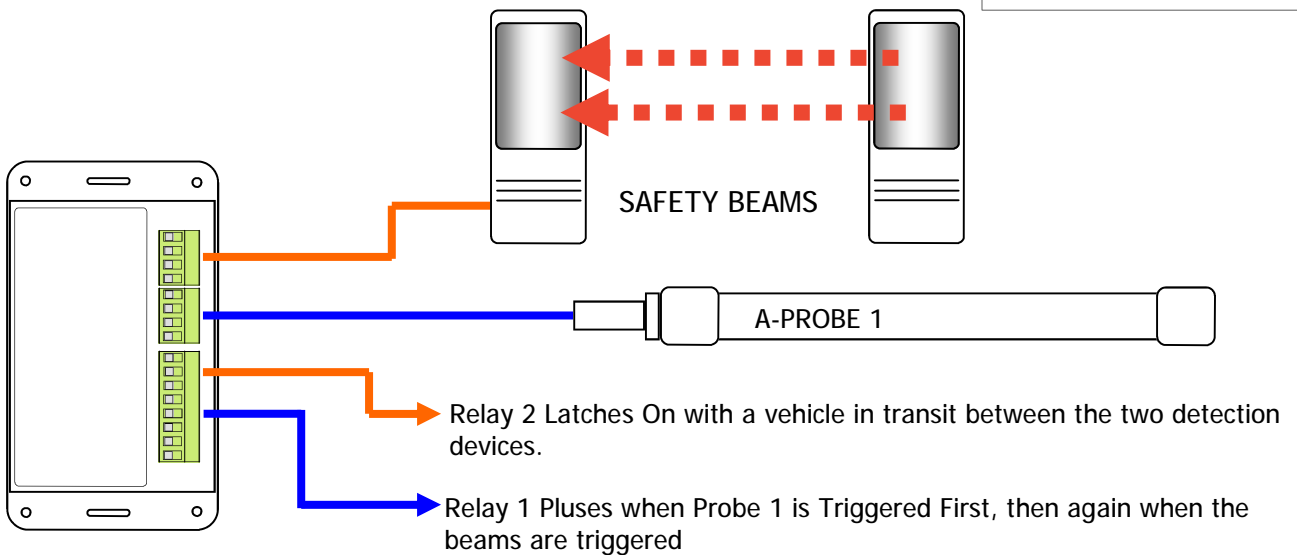
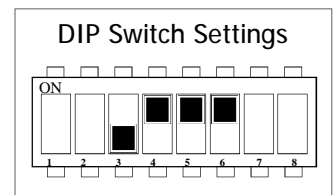
### Dual Probe Direction + Auto Close Mode-3

This Mode is for smart automated installations. The outputs will only Pulse when a vehicle is leaving, plus a second pulse will be triggered when the vehicle has past Probe-2 and exited.



### Direction Mode-3b

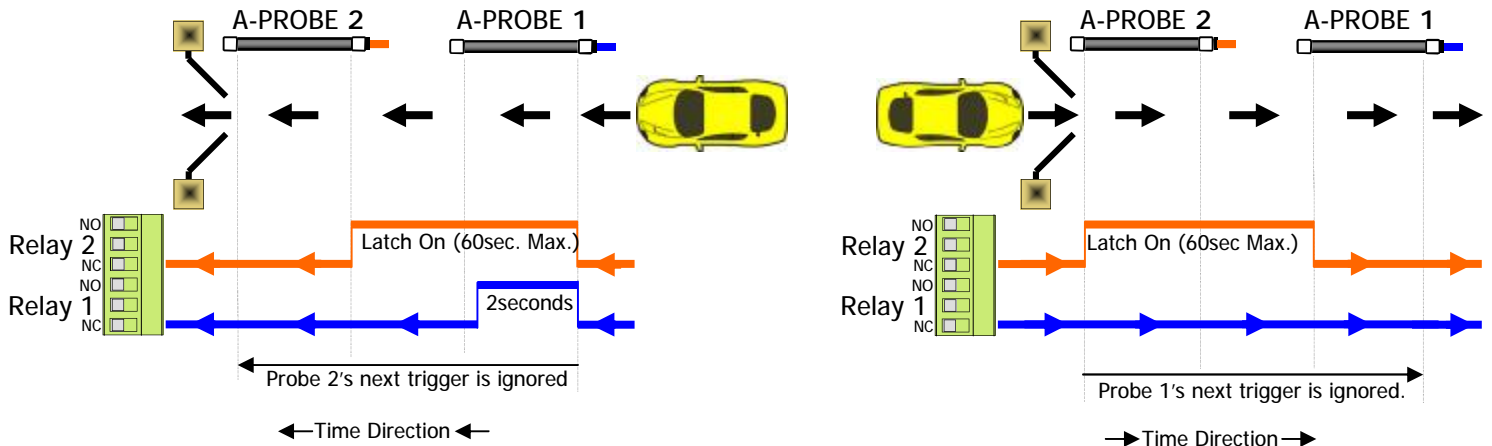
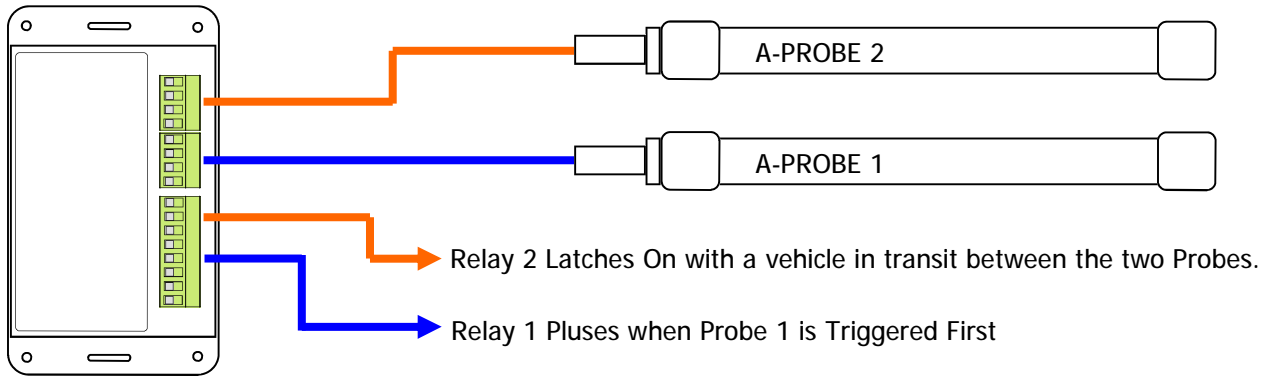
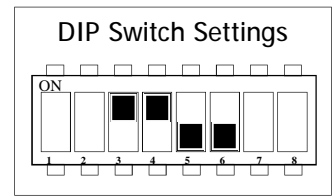
Turning On DIP Switch 5 configures the A-Controller to use safety beam contacts instead of a second A-Probe. The functionality and operation is the same as Mode-3.



## Dual Probe Directional + Latching Mode-4

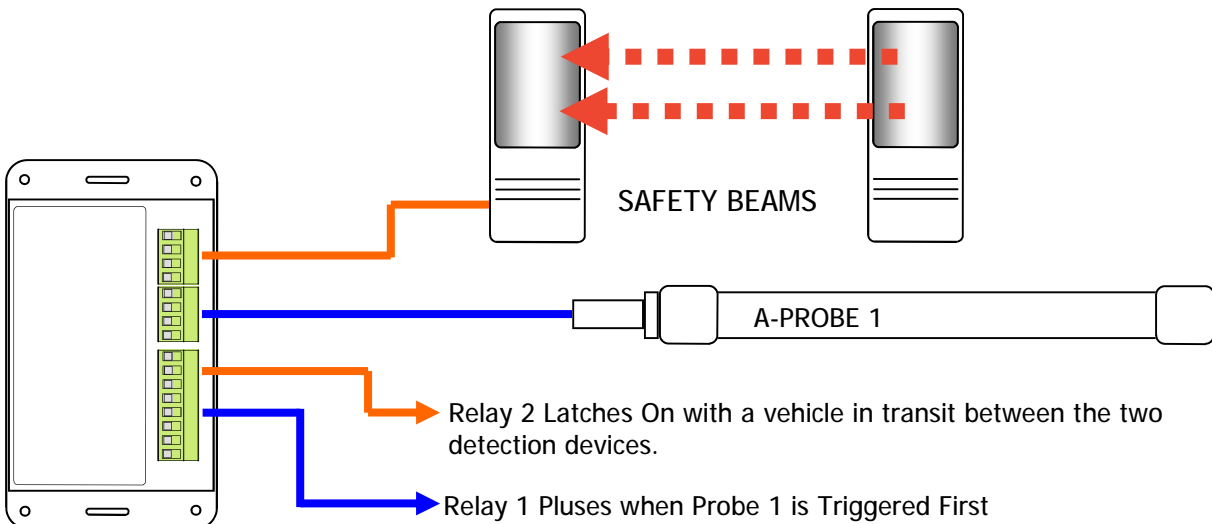
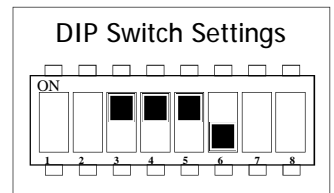
In this mode Relay 1 is used to open the gate, then Relay 2 can have many different functions, including: holding the gate open, by being wired into the photo beam input, or a vehicle approaching warning light, or Driveway lighting.

\*for wiring example see Smart Control Wiring



## Direction Mode-4b

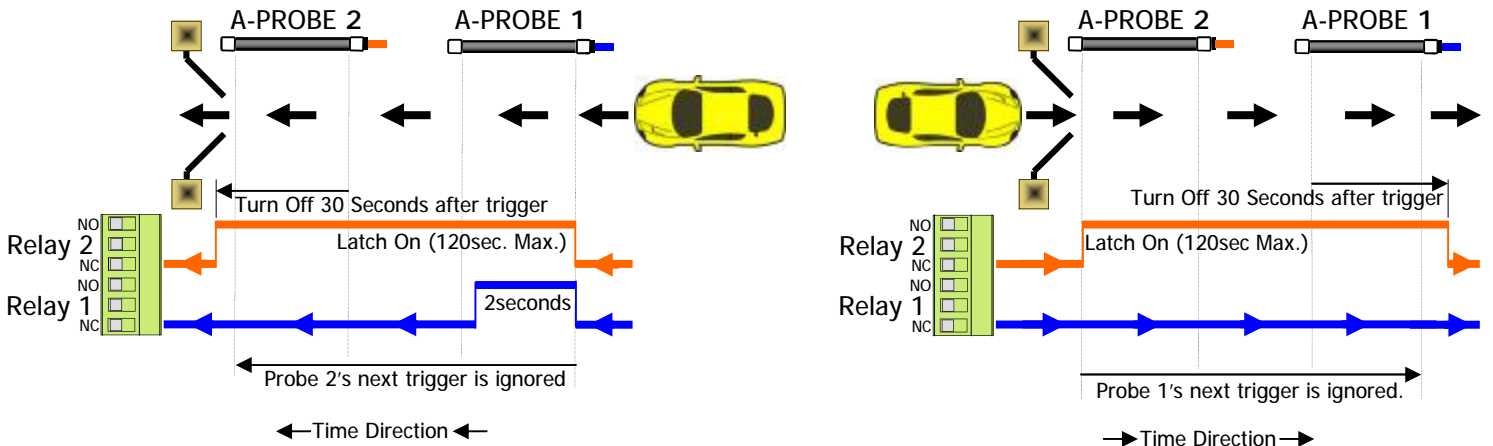
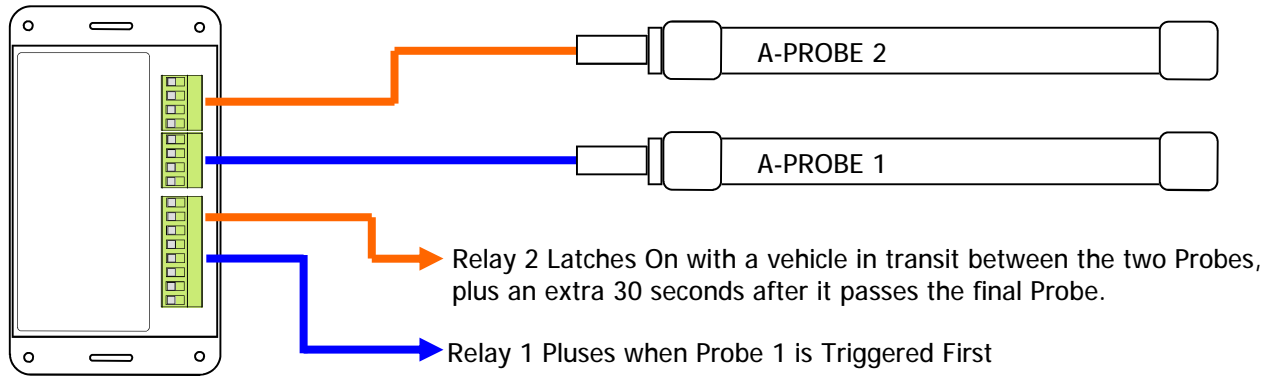
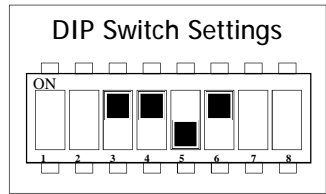
Turning On DIP Switch 5 configures the A-Controller to use safety beam contacts instead of a second A-Probe. The functionality and operation is the same as Mode-4.



## Dual Probe Directional + Latching Extended Mode-5

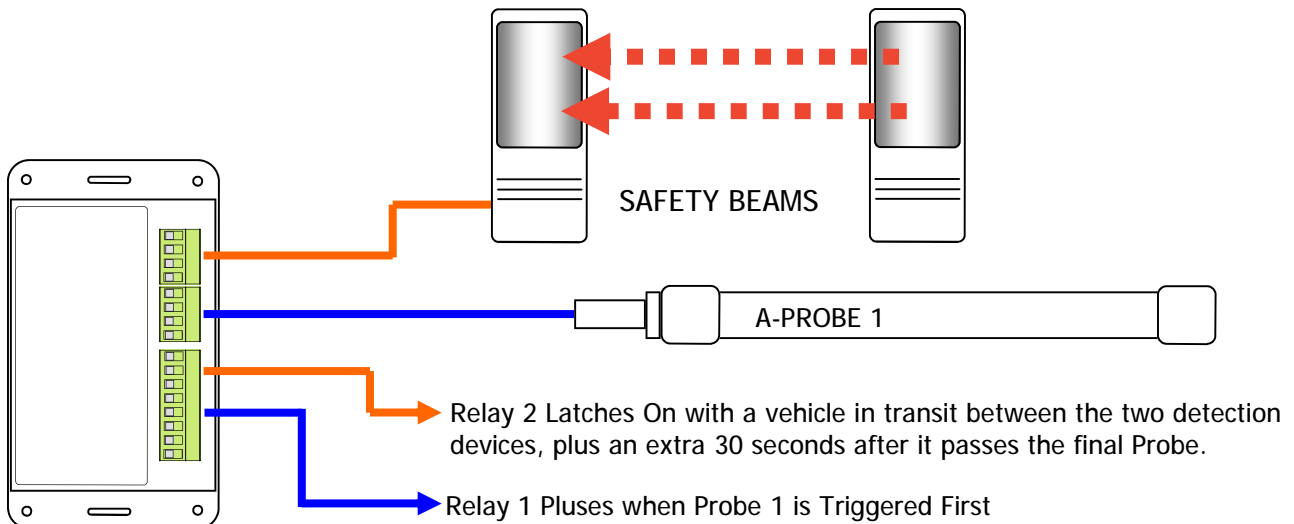
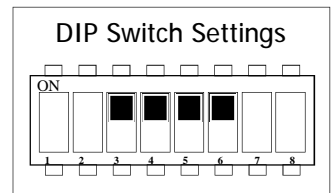
This is the same as Mode 4 but Relay 2 holds on for an extra 30 seconds after the vehicle has exited the system. Holding the driveway light on for longer or keeping the gate open for a bit more.

\*for wiring example see Smart Control Wiring



## Direction Mode-5b

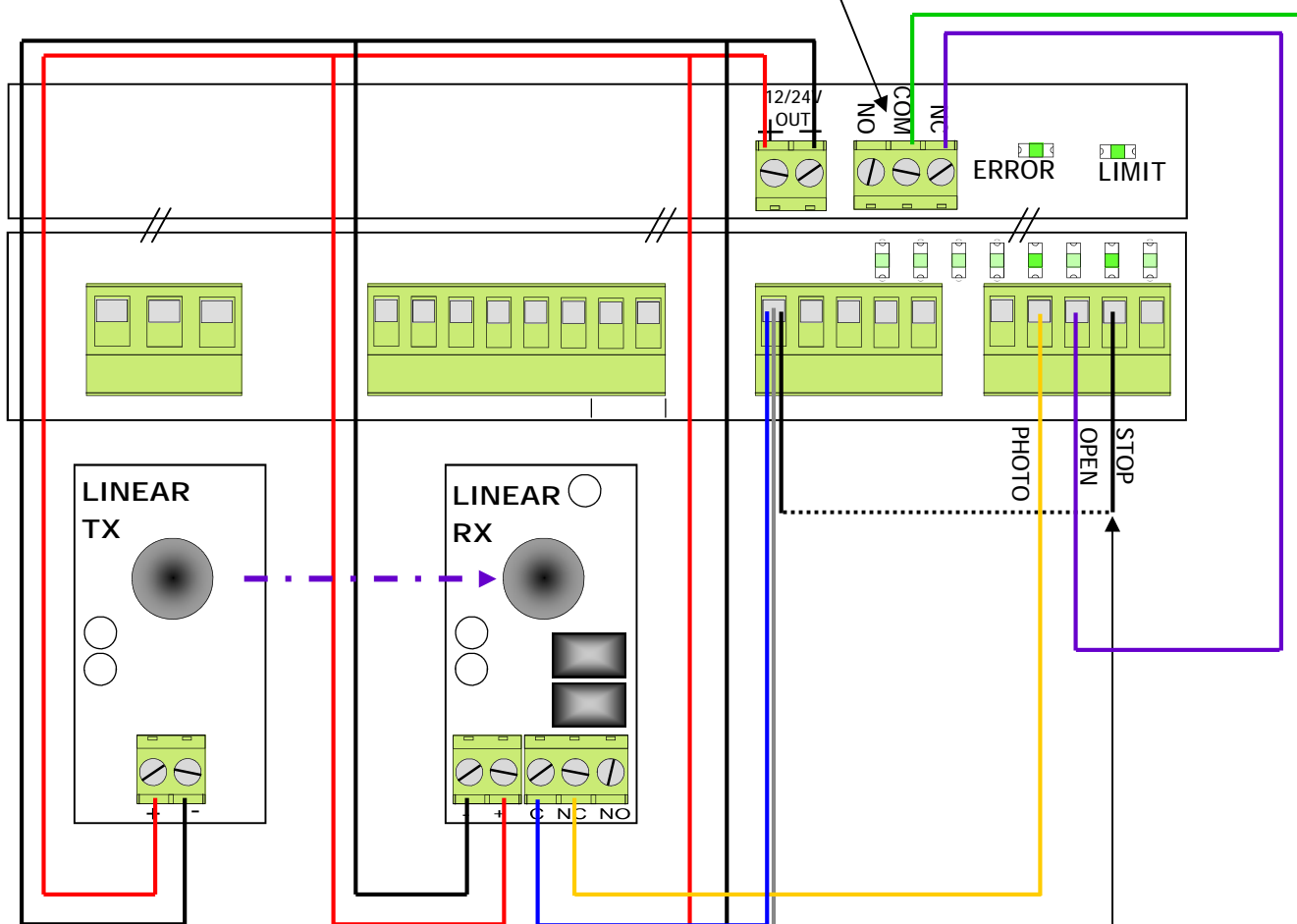
Turning On DIP Switch 5 configures the A-Controller to use safety beam contacts instead of a second A-Probe. The functionality and operation is the same as Mode-5.



# Simple Control Wiring using a Gate-230

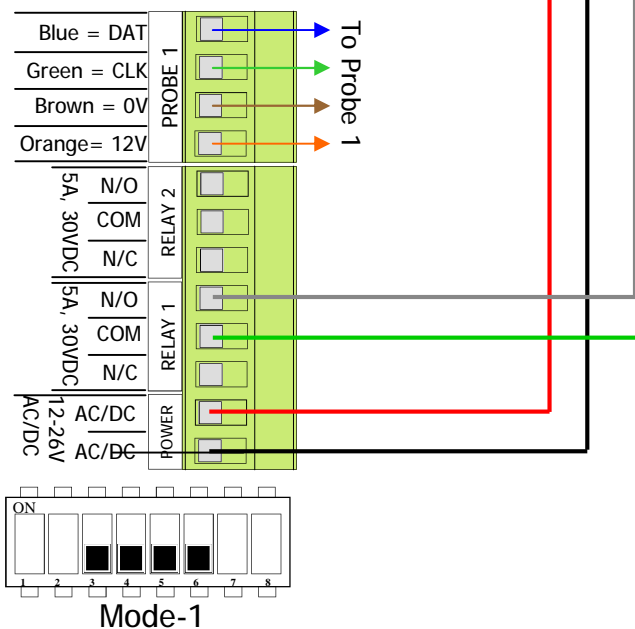
This is an example of a simple wiring configuration.

If you intend to make the Ground Probe to automatically open the gate, it is recommended you wire the Open command through the Lock Relay. This will prevent the gate from closing prematurely, if a second vehicle triggers the loop detector, while the Gate is in the middle of its action.



**Note:** Safety Photo Beams should always be fitted with Automatic gate control features, such as Ground Probes.

If the Stop input is not required you will need to have a wire link between COM & STOP

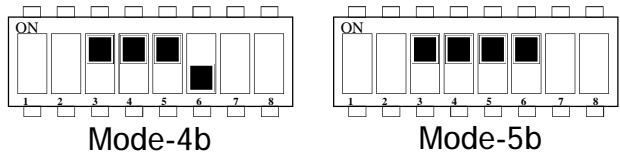
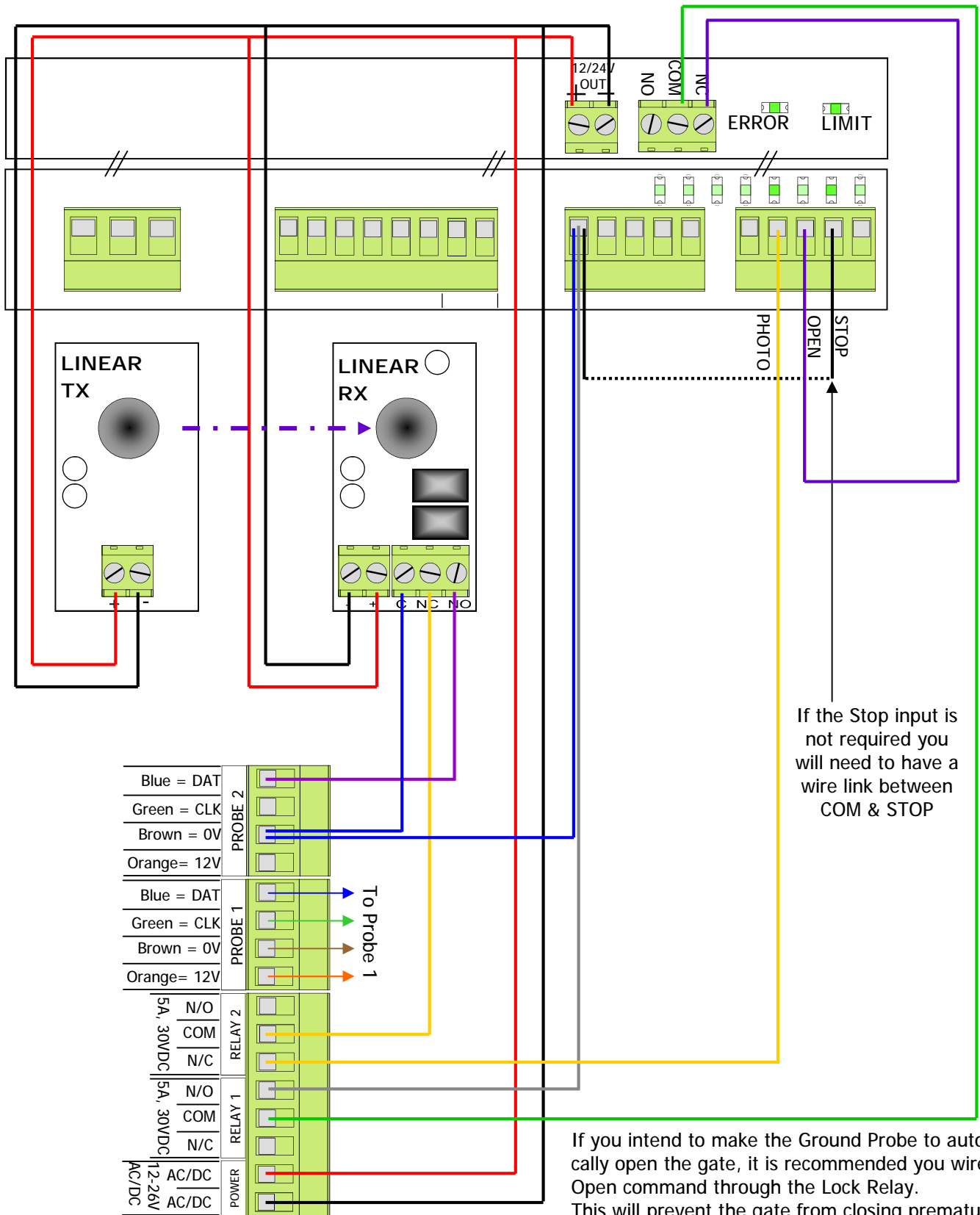




# Smart Control Wiring using a Gate-230

This is an example of an advanced wiring configuration.

Dipswitch 5	ON	PHOTO input active on opening (stops movement)
	OFF	PHOTO input Not active on opening



If you intend to make the Ground Probe to automatically open the gate, it is recommended you wire the Open command through the Lock Relay. This will prevent the gate from closing prematurely, if a second vehicle triggers the loop detector, while the Gate is in the middle of its action.

