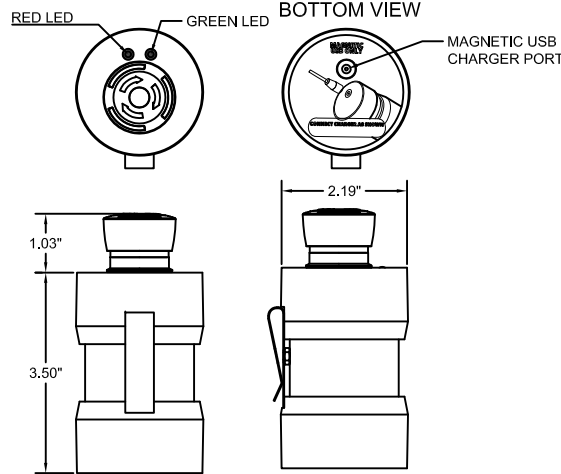


**SALES KIT, WIRELESS E-STOP, STICK INCLUDING:**

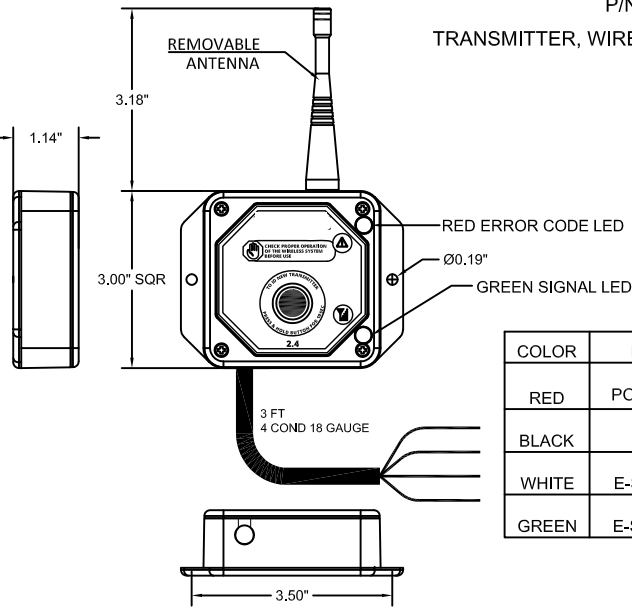
- 1 TRANSMITTER
- 1 RECEIVER
- 1 USB MAGNETIC CHARGING CABLE

ONLY USE APPROVED CHARGERS  
MAGNETIC USB CHARGER (P/N: B20178A)



P/N: 3A563AA

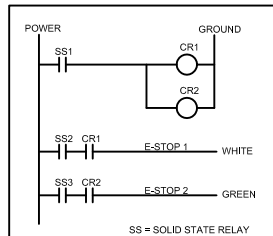
TRANSMITTER, WIRELESS E-STOP STICK, 900MHz, 1W



COLOR	DESCRIPTION
RED	POWER (9-30 VDC)
BLACK	GROUND
WHITE	E-STOP OUTPUT 1
GREEN	E-STOP OUTPUT 2

RECEIVER, WIRELESS E-STOP, 900MHz, 1W

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:  
 (1) this device may not cause harmful interference, and  
 (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by Kar-Tech will void the user's authority to operate the equipment.



RECEIVER INTERNAL DIAGRAM

**OPERATION:**

Up to 6 modules (transmitters or receivers) can communicate with each other simultaneously. For example, there could be 3 transmitters and 3 receivers communicating with each other simultaneously, 5 transmitters and 1 receiver, 5 receivers and 1 transmitter, 2 transmitters and 3 receivers, 2 transmitters and 2 receivers, or more combinations. Under normal conditions, the receiver outputs are ON (shorted to power). When any transmitter's E-Stop is pressed or a transmitter or a receiver loses communication, both outputs will turn OFF.

The receiver is designed with three solid-state outputs that control two relays. Two output/relays are for the outputs. The third output provides redundancy, where two outputs or relays need to fail in the ON state in order to have false outputs. Output one turns on when all transmitters have their E-Stop switches released and all receivers are normally communicating with the leader. Output two turns on after power is cycled to the receiver and all transmitters' E-Stop switches are released and all receivers are normally communicating with the leader. Output two is less permissive than output one. When properly installed, output two is used for additional safety to ensure the equipment will not turn on without cycling power at the receiver.

Note: If multiple transmitters or receivers are taught to the leader, and any transmitter or receiver is not present, the receiver will be in an E-Stop condition. If a transmitter or receiver is lost, misplaced or damaged, and you intend to safely operate with fewer transmitters or receivers, you must re-teach the remaining transmitters or receivers to the receiver to normally operate.

For additional redundancy, the transmitter's E-stop switch includes two normally closed contacts, along with the additional output redundancies on the receiver side.

**TRANSMITTER SLEEP MODE:**

The transmitter will go to sleep (turn off) after 15 minutes if the leader receiver is off to save battery.

**Leader:** The leader module is the unit that controls the communication and makes the E-Stop mode decisions. The key thing to remember when deciding which module will be the leader, is that the leader must be in RF range of all other modules in the system. Note that all the different ways to set up the 3A563 are changeable. If one configuration does not work ideally, you can always try a different one. The leader receiver is the one used for synchronizing below.

**LED INDICATORS (LIGHTS):**

**TRANSMITTER:**

1. Green blinking fast - normal condition.
2. Green blinking slow - the transmitter is not talking to the leader or the leader is not talking to all the transmitters and receivers that were synced to it.
3. Green off - E-stop pressed and transmitter is off or battery is discharged.
4. Red blinking - Low battery.
5. Red solid - E-stop pressed on another transmitter or loss of communication

**RECEIVER:**

1. Green blinking fast - normal condition.
  - 4 times per second - leader receiver is talking to a transmitter or receiver that was synced to it
  - 8 times per second - receiver is talking to the leader
2. Green off - the receiver is not talking to the leader or the leader is not talking to all the transmitters and receivers that were synced to it.
3. Red blinking
  - Solid - E-stop is pressed on the transmitter (assuming synchronized) or loss of communication
  - 1 time - No communication with leader or not synced after ID changed.
  - 2 times and a pause; E-stop pressed at least once on a transmitter or loss of communication
  - 3 times and a pause; Low voltage at the receiver.

**SYNCHRONIZING TRANSMITTER(S) AND RECEIVER(S):**

Transmitter(s) and receiver(s) are synchronized together at the factory. Total of 6 modules (transmitters or receivers) can be synced together. If a new transmitter or receiver is needed, synchronizing is required. Use the following procedure for each transmitter(s) or receiver(s) synchronization:

1. Apply power to a receiver and make sure transmitter battery is not low and E-stop switch is pressed. This will be the leader receiver. All other E-stop transmitters (E-stop switch pressed) and receivers must be off.
2. Press and hold receiver's push button switch for more than 10 seconds then release (this is the leader receiver). Both red and green LEDs will start flashing. If syncing any receiver(s) continue if syncing just transmitter(s) go to step 7.
3. Apply power to the receiver that is to be synchronized
4. Wait until the green and red LEDs stop flashing together on the receiver that is being synchronized. If this does not occur, start over from the beginning and go slow.
5. If more than one receiver is to be synchronized, apply power to each receiver one at a time, wait 5 seconds between each receiver
6. If only syncing receivers then go to step 10 otherwise continue
7. Twist and release transmitter's E-stop switch.
8. Wait until the green and red LEDs stop flashing together on the transmitter. If this does not occur, start over from the beginning and go slow.
9. If more than one transmitter is to be synchronized, twist and release transmitter's E-stop switch one at a time, wait 5 seconds between each transmitter.
10. Teach complete
11. Cycle power off to each receiver before normal operation.

**SPECIFICATIONS:**

RF: 900 MHz, 1 W  
 Output Rating: 5A maximum each (sourcing) 20A system maximum  
 Battery: 2 X 2600mAh Li-Ion Life before charge: 34 hours of operation  
 The red LED on the transmitter will be on during charging and when charging is complete the green LED will be on  
 Receiver Supply: 9-30 VDC.  
 Environmental: Transmitter: -20C to +60C Receiver: -40C to +85C  
 Vibration: 3G to 200Hz