

P/N 3A564KA
SALES KIT, MICRO, PROGRAMMABLE, 3 BUTTON
INCLUDING:

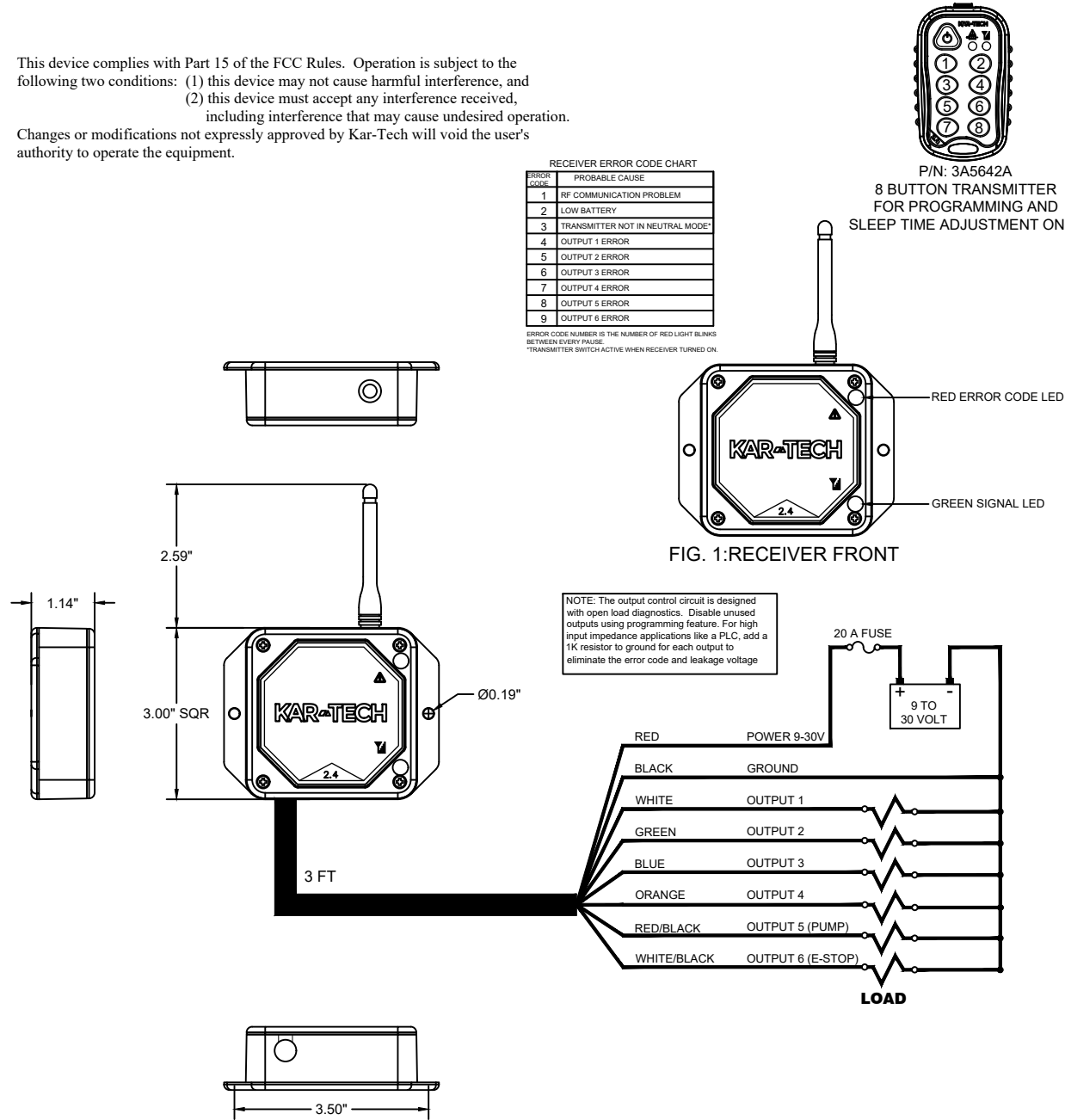
- 1 EA 3A5646A TRANSMITTER
1 EA 3A564DA RECEIVER

Only use approved chargers
WALL CHARGER/ 110-240VAC (B20172A)
CAR CHARGER/ 12-24VDC (B20173A)

FOR FCC, ICC, AND CE DECLARATIONS AND
OTHER INFORMATION, SEE
[HTTP://KAR-TECH.COM/CERTIFICATION](http://kar-tech.com/certification)

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.



OPERATION:

- To turn on the transmitter, press and hold the POWER button for at least 2 seconds and release
- To turn the transmitter off, press and hold the POWER button until the LEDs turn off
- The transmitter is designed with a power saving feature which turns the transmitter off after 15 minutes if no buttons are pressed.
- There are red and green LEDs both on the keypad of the transmitter and inside the receiver case. The green LED will blink rapidly when the transmitter and receiver are communicating. It will blink slowly if there is no communication (i.e. - no power to the receiver)
- The red LED on the receiver will blink if there is a shorted or open output. Refer to the ERROR CODE CHART tables and count the number of blinks to determine the output with the fault (NOTE: the receivers with CAN do not have output error codes).
- The transmitter's red LED blinks 1 time per second if the battery is low and needs to be charged.
- The red LED will stay on while charging and when the charge is completed the green LED will stay on.
- It will take longer to charge if the transmitter is on during charging.

SYNCHRONIZING TRANSMITTER AND RECEIVER

Each transmitter and receiver pair is synchronized together at the factory. If a new transmitter is needed, synchronizing is required. Use the following procedure:

- Make sure both the transmitter and receiver are off.
- Press and hold the POWER button on the transmitter for more than 10 seconds. The red and green LED will start to blink.
- Apply power to the receiver
- Wait for a few seconds until only the green LED begins to blink on the transmitter
- Teach complete

PROGRAMMING

An eight button (P/N: 3A5642A) transmitter is required to perform the procedure below. The user can determine output functionality (momentary or maintained action) and program the system to respond as desired. This is determined by the following procedure:

- Synchronize the eight button transmitter to the receiver using synchronizing procedure above.
- Turn the receiver off. Turn the transmitter on (press and hold POWER until both LEDs turn on, then release).
- Press and hold 1, 4, and 7 and release. Red LED should be blinking on the transmitter
- Turn the receiver on. Be sure all outputs are connected to a load and that there are no error codes present (NOTE: outputs may cycle on and off while programming)
- Are any outputs to be latched (push on/push off)? If yes continue. If no, skip to step 10 for outputs to be momentary.
- Press button 1-4 corresponding to output 1-4 that is to be latched, until green LED goes on, then off
- Press button that corresponds to OFF until green LED goes on, then off. This can be the same button that turns the output on. In this case, pressing the button alternates the output between ON and OFF.
- If latched output should turn OFF for transmitter out of range condition press the button defined in step 6. If latched output should stay ON for transmitter out of range condition press any button other than button defined in step 7.
- Repeat steps 6, 7, and 8 for any more outputs that are to be latched
- Press POWER briefly. The receiver's red LED should blink, indicating that this step is accepted and complete. The red LED on the transmitter should also start to blink a different rate.
- Are any outputs to be disabled (no output and no error code)? If yes, continue, if no, skip to step 13
- One at a time, press and hold each button 1-4 corresponding to output 1-4 that is to be disabled, until the green LED goes on, then off
- Press POWER briefly. The receiver's red LED should blink, indicating that this step is accepted and complete. The red LED on the transmitter should also start to blink at a different rate.
- Is it desired to use the pump functionality (see description below)? If yes, continue, if no, skip to step 16
- One at a time, press and hold each button 1-4 corresponding to output 1-4 that is to be associated with the pump output, until the green LED goes on, then off
- Press POWER briefly. The receiver's red LED should blink, indicating that this step is accepted and complete. The red LED on the transmitter should also start to blink at a different rate.
- Is it desired to use the e-stop functionality (see description below)? If yes, continue, if no, skip to step 19
- To engage the e-stop functionality, press button 2 until the green LED goes on, then off
- If no error code is desired for the E-STOP output press button 3 to disable otherwise go to step 20 to keep error code enabled
- If the E-STOP output should turn OFF for transmitter out of range condition press button 4 otherwise go to step 21 to keep the output ON for transmitter out of range condition
- If no error code is desired for the PUMP output press button 1 to disable otherwise go to step 22 to keep error code enabled
- Press POWER briefly. The receiver's red LED should blink, indicating that this step is accepted and complete.
- One at a time, press and hold each button 1-4 that the corresponding output error code needs to be disabled, until the green LED goes on, then off
- Press POWER briefly. The receiver's red LED should blink, indicating that this step is accepted and complete.
- Programming complete
- Synchronize the 3 button transmitter and receiver using synchronizing procedure above

NOTES:

- Pump functionality: output 5 will turn on with any outputs that have been associated with it
- E-stop functionality: output 6 will be on as long as the transmitter is on. If the transmitter is turned off or POWER is pressed output 6 will go off along with all latched outputs. To reset, turn the transmitter back on or re-cycle power to the receiver and re-engage the outputs as before
- If the receiver does not blink the red LED after each sequence or the transmitter's red LED does not blink at a different rate as described above, the programming was not accepted for that section. Start from the beginning and go slowly. Keep a distance of 2-3 feet from the receiver when programming.
- The factory settings are: 4 momentary outputs, no pump output, and no e-stop output

SLEEP TIME

An eight button touchpad (P/N: 245-020-2400 on transmitter 3A5642A) is required. The cover must be removed and the touchpad must be installed carefully to perform the sleep time programming procedure below. All transmitters have the ability to change the sleep time from the default to user's preference. The transmitter is factory set to turn off (sleep) after 15 minutes.

To change the time the transmitter waits before going to sleep, use the following procedure:

- With the transmitter off, open up the transmitter and carefully remove the three button touchpad by lifting up the connector strip. Replace with an eight button touchpad and push down the connector strip.
- With the transmitter off, press and hold buttons 3, 4, 7, and POWER
- Keep holding the buttons for a few seconds then release the buttons. At this point, both lights will blink once per second
- On the transmitter, press one of the following buttons to adjust the sleep time:
 - 1=15 minutes
 - 2=30 minutes
 - 3=1 hour
 - 4=2 hours
 - 7=sleep disabled
- Sleep time programming complete
- With the transmitter off, replace the eight button touchpad with the three button touchpad and put the transmitter back together.

CLONING TRANSMITTERS

WARNING! - ONLY ONE TRANSMITTER CAN BE ON AT A TIME, THEY CANNOT BE USED SIMULTANEOUSLY - use with CAUTION!

Occasionally, it is desirable to have more than one transmitter work with a single receiver. This is accomplished by a process called cloning. Cloning allows an additional transmitter (B) to have the same ID code as the original transmitter (A). If this feature is desired, use the following procedure:

- Make sure both transmitters and the receiver are off
- On Transmitter A, press and hold the POWER button for 10 seconds until LEDs blink, then release. Green and red LEDs will blink together at this point
- On Transmitter B, press and hold buttons 1, 2, and POWER simultaneously until both LEDs start to blink
- Wait for few seconds until the green LED starts to blink on both transmitter A and transmitter B.
- Turn both the transmitters off
- Synchronize one of the transmitters to the receiver using SYNCHRONIZING TRANSMITTER AND RECEIVER instructions above

If the cloning feature has been invoked and is no longer desired, the ID code of one of the transmitters needs to be changed. This will unclone the transmitters. If this is desired, use the following procedure:

- Make sure the receiver and transmitter are OFF
- Press and hold buttons 1, 2, 3, and POWER buttons simultaneously until both LEDs start toggling then release
- Press any button again to select a new ID
- Uncloning complete
- Follow the SYNCHRONIZING TRANSMITTER AND RECEIVER procedure above to link the uncloned transmitter to a new receiver

SPECIFICATIONS:

Electrical:

RF Transmit power (EIRP): 100 Mw
RF Frequency: 2.4GHz

Transmitter:

Power: Rechargeable 3.7V Lithium Polymer battery
Operation time with full charge: 30 to 40 hours continuous

Receiver:

Power: 9 to 30 Volts DC
Outputs: 5A max each (20A system max)

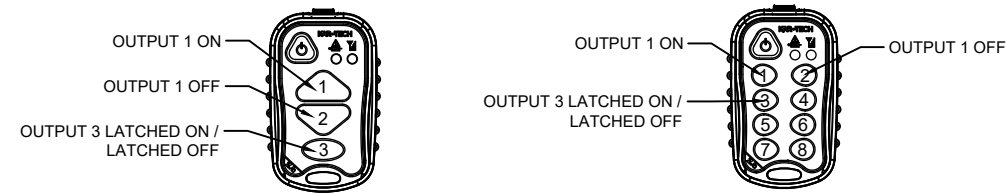
Environmental:

Transmitter: -20°C to +60°C
Receiver: -40°C to +85°C

KAR-TECH Delafield, WI 53018				SHEET NUMBER	
FILE PROGRAMMABLE, 3 FUNCTION, MICRO	COMPANY/REV	KAR-TECH	CADD DRAWING DO NOT REVISE MANUALLY	XX	2 J
				XXX	2 JB
				XXXX	2 JBS
				FRACTIONAL	2 1/8
				ANGULAR	2 0.5 deg
SCALE	ISSUED	DATE	DESIGNED	APPROVED	DRAWING NO.
FULL	AF	09-28-21			3A-564-K-A-3A

OUTPUT PROGRAMMING EXAMPLES

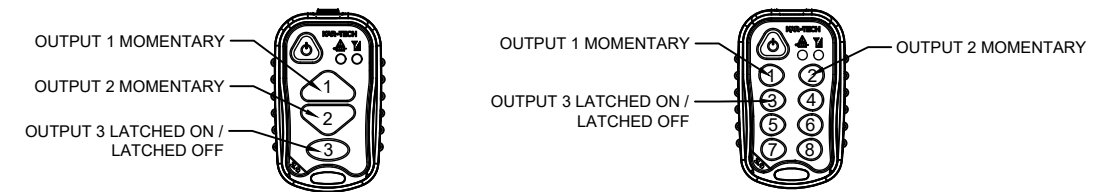
TWO LATCHED OUTPUTS



PROGRAMMING PROCEDURE FOR ABOVE CONFIGURATION:

1. Make sure the receiver is off and the 8 button transmitter is on.
2. Press and hold 1, 4, and 7 and release. Red LED should be blinking on the transmitter.
3. Apply power to the receiver and wait until the green LED starts to blink on the receiver to indicate that the transmitter and receiver are communicating before proceeding to the next step.
4. Press button 1 to make output 1 latched. Button 1 will turn this output ON.
5. Press button 2 to make this button OFF for output 1.
6. Press button 2 to make output 1 turn off for a transmitter out of range condition.
7. Press button 3 to make output 3 latched. Button 3 will turn this output ON.
8. Press button 3 to make this button OFF for output 3.
9. Press button 3 to make output 3 turn off for a transmitter out of range condition.
10. Press POWER briefly to exit latched programming.
11. Press button 2 to disable this output as it is not used.
12. Press POWER briefly to exit disable programming.
13. Press POWER briefly to exit PUMP programming.
14. Press POWER briefly to exit E-STOP programming.
15. Press POWER briefly to exit error code programming.
16. Turn receiver and 8 button transmitter off.
17. Turn 3 button transmitter on and follow synchronizing procedure.
18. Done, outputs 1 and 3 are now latched.

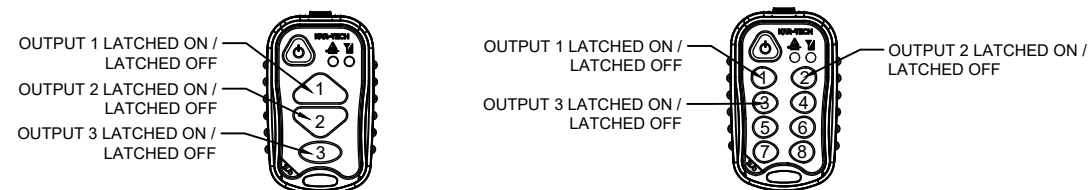
TWO MOMENTARY AND ONE LATCHED OUTPUTS



PROGRAMMING PROCEDURE FOR ABOVE CONFIGURATION:

1. Make sure the receiver is off and the 8 button transmitter is on.
2. Press and hold 1, 4, and 7 and release. Red LED should be blinking on the transmitter.
3. Apply power to the receiver and wait until the green LED starts to blink on the receiver to indicate that the transmitter and receiver are communicating before proceeding to the next step.
4. Press button 3 to make output 3 latched. Button 3 will turn this output ON.
5. Press button 3 to make this button OFF for output 3.
6. Press button 3 to make output 3 turn off for a transmitter out of range condition.
7. Press POWER briefly to exit latched programming.
8. Press POWER briefly to exit disable programming.
9. Press POWER briefly to exit PUMP programming.
10. Press POWER briefly to exit E-STOP programming.
11. Press POWER briefly to exit error code programming.
12. Turn receiver and 8 button transmitter off.
13. Turn 3 button transmitter on and follow synchronizing procedure.
14. Done, outputs 1 and 2 are momentary and 3 is latched.

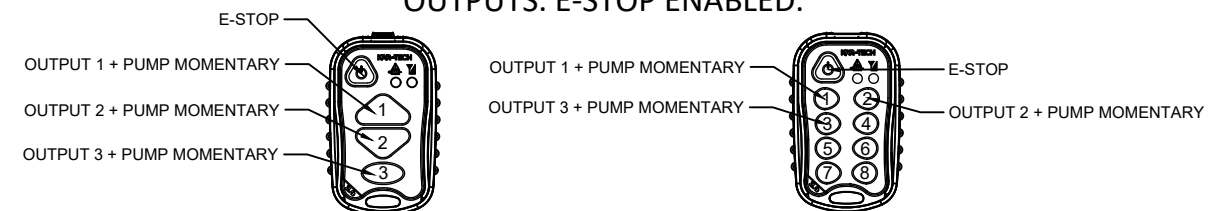
THREE LATCHED OUTPUTS



PROGRAMMING PROCEDURE FOR ABOVE CONFIGURATION:

1. Make sure the receiver is off and the 8 button transmitter is on.
2. Press and hold 1, 4, and 7 and release. Red LED should be blinking on the transmitter.
3. Apply power to the receiver and wait until the green LED starts to blink on the receiver to indicate that the transmitter and receiver are communicating before proceeding to the next step.
4. Press button 1 to make output 1 latched. Button 1 will turn this output ON.
5. Press button 1 to make this button OFF for output 1.
6. Press button 2 to make output 1 turn stay on for transmitter out of range condition.
4. Press button 2 to make output 2 latched. Button 2 will turn this output ON.
5. Press button 2 to make this button OFF for output 2.
6. Press button 3 to make output 2 turn stay on for transmitter out of range condition.
7. Press button 3 to make output 3 latched. Button 3 will turn this output ON.
8. Press button 3 to make this button OFF for output 3.
9. Press button 1 to make output 3 turn stay on for transmitter out of range condition.
10. Press POWER briefly to exit latched programming.
11. Press POWER briefly to exit disable programming.
12. Press POWER briefly to exit PUMP programming.
13. Press POWER briefly to exit E-STOP programming.
14. Press POWER briefly to exit error code programming.
15. Turn receiver and 8 button transmitter off.
16. Turn 3 button transmitter on and follow synchronizing procedure.
17. Done, outputs 1 and 3 are now latched.

ALL OUTPUTS MOMENTARY, PUMP WITH ALL OUTPUTS. E-STOP ENABLED.



PROGRAMMING PROCEDURE FOR ABOVE CONFIGURATION:

1. Make sure the receiver is off and the 8 button transmitter is on.
2. Press and hold 1, 4, and 7 and release. Red LED should be blinking on the transmitter.
3. Apply power to the receiver and wait until the green LED starts to blink on the receiver to indicate that the transmitter and receiver are communicating before proceeding to the next step.
4. Press POWER briefly to exit latched programming.
5. Press POWER briefly to exit disable programming.
16. Press button 1, 2, and 3 to enable the PUMP output with each of these
17. Press POWER briefly to exit PUMP programming.
29. Press button 2 to enable the E-STOP output
30. Press button 4 to have the E-STOP output turn off for transmitter out of range condition
31. Press POWER briefly to exit E-STOP programming.
32. Press POWER briefly to exit error code programming.
33. Turn receiver and 8 button transmitter off.
34. Turn 3 button transmitter on and follow synchronizing procedure.
10. Done, outputs are all momentary, the PUMP output will turn on with each output, and the E-STOP output is enabled.