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### **BUZZaround Diagnostics Codes**

Any fault condition on the S-Drive controller or scooter will cause the "Power on / Diagnostics" L.E.D. to flash. The L.E.D. located on the tiller dashboard will indicate with flash codes what problem is occurring.

L.E.D. Flashes 1 time and pauses, 1 time and pauses.... Batteries are low, scooter will still operate.

L.E.D. Flashes 2 times and pauses, 2 times and pauses.... Batteries are very low, scooter will not operate.

L.E.D. Flashes 3 times and pauses, 3 times and pauses....Over voltage to controller.

L.E.D. Flashes 5 times and pauses, 5 times and pauses....Brake is in the freewheel position or connection to brake is open.

L.E.D. Flashes 6 times and pauses, 6 times and pauses....Paddle or speed potentiometer problem.

L.E.D. Flashes 7 times and pauses, 7 times and pauses....Paddle or speed potentiometer problem.

L.E.D. Flashes 8 times and pauses, 8 times and pauses....Motor disconnected or faulty.

L.E.D. Flashes 9 times and pauses, 9 times and pause....Controller fault.



#### BUZZaround Main Cable



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1234 5678 14 Pin Connector (Plugs into S-Drive Controller)

- Pin 1 Yellow Paddle potentiometer wiper
- Pin 2 Orange Paddle potentiometer +
- Pin 3 Violet Horn
- Pin 5 White Key switch
- Pin 7 Red +24 VDC
- Pin 8 Blue Paddle potentiometer -
- Pin 10 Gray Power on / diagnostics L.E.D.
- Pin 13 Black 0 VDC return

NOTE: Paddle potentiometer wiper is electrically connected to wiper of speed adjust potentiometer.

8 Pin Connector (Plugs into tiller PCB)

- Pin 1 Blue Paddle potentiometer -
- Pin 2 Yellow Paddle potentiometer wiper
- Pin 3 Orange Paddle potentiometer +
- Pin 4 Red +24 VDC
- Pin 5 Violet Horn
- Pin 6 Gray Power on/diagnostics L.E.D.
- Pin 7 Black 0 VDC return
- Pin 8 White Key switch

## **BUZZaround Wiring Front**



## BUZZaround Motor / Brake / Battery Receptacle



## **BUZZaround Wiring Diagrams**



## BUZZaround Battery Pack Wiring



### BUZZaround Motor / Brake Wiring



The micro switch is open when brake is in the freewheel position (brake handle pulled back). Scooter will not run and a 5 flash(s) code will appear on dashboard "Status L.E.D.".

## BUZZaround Tiller Head (Dashboard)



## BUZZaround Upper PCB Connections



## **BUZZaround Lower PCB Connections**



## BUZZaround Printed Circuit Board Tiller (PCB) Replacement



- A) Unplug batteries.
- B) Pull off speed potentiometer adjust knob.
- C) Remove 4 phillips head screws from underside of tiller head.



- D) Standing in front of the scooter lift top half of tiller head clamshell up and disconnect 8 pin main cable connector from tiller PCB by pressing locking tab and pulling.
- E) Disconnect 3 pin paddle potentiometer connector by pressing locking tab and pull.
- F) Remove 4 phillips head screws that secure PCB to tiller head top clamshell.
- G) Lift PCB and disconnect volt meter and key switch connectors by pressing locking tabs and pulling.
- G) Reassemble in reverse order.

# NOTE: If horn, status L.E.D., horn switch, or speed potentiometer fail the PCB must be replaced.

#### **BUZZaround Volt Meter Replacement**



- A) Unplug batteries.
- B) Pull off speed potentiometer adjust knob.
- C) Remove 4 phillips head screws from underside of tiller head.



- D) Standing in front of the scooter lift top half of tiller head clamshell up and disconnect 8 pin main cable connector from tiller PCB by pressing locking tab and pulling.
- E) Disconnect 3 pin paddle potentiometer connector by pressing locking tab and pull.
- F) Remove 4 phillips head screws that secure PCB to tiller head top clamshell.
- G) Lift PCB and disconnect volt meter and key switch connectors by pressing locking tabs and pulling.
- H) Remove PCB.
- I) Remove 2 phillips screws from volt meter retaining plate and remove retaining plate and voltmeter.
- J) Reassemble in reverse order.

#### Tiller Head Lower Clamshell

### **BUZZaround Key Switch Replacement**



- A) Unplug batteries.
- B) Pull off speed potentiometer adjust knob.
- C) Remove 4 phillips head screws from underside of tiller head.



#### D) Standing in front of the scooter lift top half of tiller head clamshell up and disconnect 8 pin main cable connector from tiller PCB by pressing locking tab and pulling.

- E) Disconnect 3 pin paddle potentiometer connector by pressing locking tab and pull.
- F) Remove 4 phillips head screws that secure PCB to tiller head top clamshell.
- G) Lift PCB and disconnect volt meter and key switch connectors by Pressing locking tabs and pulling.
- H) Remove hex nut from upper tiller head clamshell.
- I) Remove key switch.
- J) Reassemble in reverse order.

#### Tiller Head Lower Clamshell

#### **BUZZaround Paddle Potentiometer Replacement**



- A) Unplug batteries.
- B) Using a 2mm allen wrench remove the 2 set screws from the paddle lever (wig wag).
- C) Remove paddle from potentiometer shaft.
- D) Pull off speed potentiometer adjust knob.
- E) Remove 4 phillips head screws from underside of tiller head.



- F) Standing in front of the scooter lift top half of tiller head clamshell up and disconnect 8 pin main cable connector from tiller PCB by pressing locking tab and pulling.
- G) Remove paddle potentiometer connector from PCB by pressing locking tab and pulling.
- H) Remove the 2 phillips head screw from potentiometer plate and lift potentiometer assembly from tiller head.
- I) Reassemble in reverse order.
- NOTE: When reinstalling paddle use Locktite on allen set screws. Make certain that the paddle is well centered or full forward or reverse speed will not be obtained.

#### BUZZaround Tiller Head Lower Clamshell Replacement



- A) Unplug batteries.
- B) Pull off speed potentiometer adjust knob.
- C) Remove 4 phillips head screws from underside of tiller head.



#### Tiller Head Lower Clamshell

- D) Standing in front of the scooter lift top half of tiller head clamshell up and disconnect 8 pin main cable connector from tiller PCB by pressing locking tab and pulling.
- E) Disconnect 3 pin paddle potentiometer connector by pressing locking tab and pull.
- F) Remove top clamshell of tiller head.
- G) Remove clamshell at base of tiller using a 5mm allen wrench, remove 2 machine screws.

# BUZZaround Tiller Head Lower Clamshell Replacement Cont.

H) Remove 2 phillips head screws that attach bottom clamshell to tiller.



# BUZZaround Tiller Head Lower Clamshell Replacement Cont.

**Tiller Head Lower Clamshell** 



- I) Remove tiller.
- J) Push 8 pin main cable connector into tiller and pull main cable out of tiller base.
- K) Pull bottom clamshell off tiller, remove paddle potentiometer from old clamshell and install on new.
- J) Reassemble in reverse order.

#### BUZZaround Rear Shroud/Transaxle/Brake Replacement



#### **Replacing Rear Shroud**

- A) Remove the 4 machine screws, 4 lock washers and 2 rubber spacers that secure shroud to frame. Note that the rubber spacers go between the frame and the shroud. 2 screws that attach the front of shroud go through the frame and into threaded inserts in the shroud. The rear shroud screws are located between shroud and rear bumper.
- B) Remove shroud.
- C) Replace in reverse order.

#### **Replacing Transaxle**

A) Remove the 4 machine screws, 4 lock washers and 2 rubber spacers that secure shroud to frame. Note that the rubber spacers go between the frame and the shroud. 2 screws that attach the front of

# BUZZaround Rear Shroud/Transaxle/Brake Replacement Cont.

shroud go through the frame and into threaded inserts in the shroud. the rear shroud screws are located between shroud and rear bumper.

- B) Remove shroud.
- C) Using a 19mm socket wrench remove nyloc nuts located in center of wheel assemblies. Remove flat washer and pull tire/wheel assemblies off axles.
- D) Using a 6mm allen wrench and a 13mm socket remove transaxle retaining brackets.
- E) Remove transaxle.
- F) Replace in reverse order.

NOTE: Be sure keys are in axle keyways before reinstallation of tire/wheel assemblies.

Brake Replacement

- A)Remove the 4 machine screws, 4 lock washers and 2 rubber spacers that secure shroud to frame. Note that the rubber spacers go between the frame and the shroud. 2 screws that attach the front of shroud go through the frame and into threaded inserts in the shroud. The rear shroud screws are located between shroud and rear bumper.
- B) Remove shroud.
- C) Remove transaxle
- D) Remove right tire/wheel assembly.
- E) Unplug brake electrical connector.
- F) Remove 3 phillips screws.
- G) Pull brake off.
- H) Replace in reverse order.

NOTE: When installing new brake make sure brake is in the freewheel position.

## BUZZaround Front Fender / Fork Replacement



#### BUZZaround Front Fender / Fork Replacement Cont.

- A) To replace fender, fork, or bearing headset remove the 2 machine screws and nyloc nuts shown on drawing below.
- B) Twist and pull tiller off.
- C) Remove jam nut, thrust washer, and bearing race.
- D) Lift frame and remove fork fender wheel assembly. Replacing fender:
- A) Remove turn limit caps using a razor knife.
- B) Remove damaged fender.
- C) Put new fender in place.
- D) Glue on new turn limit caps.

NOTE: When replacing fender or fork check bearing for damage and lubrication. The top bearing cage balls should face down, the bottom bearing cage balls should face up.



### BUZZaround Front Fender / Fork Replacement Cont.

NOTE: When reinstalling bearing race do not over tighten. Wheel should turn easily but not be loose. Hold bearing race with channel locks while tightening jam nut.