## Table of Contents

BUZZaround Diagnostics Codes	1
BUZZaround Complete Wiring Diagram	2
BUZZaround Main Cable	3
BUZZaround Wiring Front	4
BUZZaround Motor / Brake/ Battery Receptacle	5
BUZZaround Wiring Diagrams (Cables that attach to Controller)	6
BUZZaround Battery Pack Wiring	7
BUZZaround Motor/Brake Wiring	8
BUZZaround Tiller Head (Dashboard)	9
BUZZaround Upper PCB Connections	.10
BUZZaround Lower PCB Connections	.11
BUZZaround Tiller PCB Replacement	.12
BUZZaround Volt Meter Replacement	13
BUZZaround Key Switch Replacement	14
BUZZaround Paddle Potentiometer Replacement	15
BUZZaround Tiller Lower Clamshell Replacement16	5-18
BUZZaround Rear Shroud/Transaxle/Brake Replacement1	9-20
BUZZaround Front Fender/Fork Replacement2	1-23

### **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



Ш

Ш

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.