BOOMERBUGGY™

III & IV Series

Mobility Scooter

Owner's Manual

DAYMAK

Daymak Inc. · 130 Oakdale Rd · Toronto, ON · M3N 1V9
416.749.2324 · 1.866.379.7779 · www.daymak.com

Introduction

Thank you for purchasing Daymak's Boomerbuggy Mobility Scooter. We thank you for choosing a Daymak scooter, especially one that has been designed to provide you with years of trouble free, comfortable, quiet, and eco-friendly service. Your scooter has been equipped with the latest technologies that assist in providing you with the most efficient and comfortable ride you've ever felt. We at Daymak Inc. recognize the importance of your comfort when it comes to mobility, and our Boomerbuggy Mobility Scooters provide just that; with our direct drive transaxles and electromagnetic brakes, you will glide effortlessly where ever you choose to go. Another amazing feature of our Boomerbuggy mobility scooters is the fact that they are easily transportable and can be easily disassembled for storage.

Please be sure to take time reading this manual thoroughly before operating your new scooter. As the operator, you are solely responsible for the manner in which you operate and maintain your scooter. Daymak Inc. is not responsible for any damage or personal injury incurred through improper or unsafe usage of the Boomerbuggy Mobility scooter.

For more information about our products, warranty, or services, or if you are having any trouble understanding the instructions presented in this manual, please contact your nearest Daymak dealer, or call Daymak headquarters at 1-866-379-7779, or visit our website at www.daymak.com.

Diagrams and Specs

Boomerbuggy III Reference Guide

Boomerbuggy IV Reference Guide

Model	Boomerbuggy III
Overall Dimensions	51.38” x 25.20” x 46.06”
Gross Weight	96 kg / 211.64 lbs
Net Weight (including batteries)	86 kg / 189.59 lbs
Front Wheel	10”
Rear Wheel	10”
Weight Capacity	150 kg / 330.69 lbs
Forward Speed (adjustable)	6 - 8 km/h
Reverse Speed (adjustable)	2.4 – 4.8 km/h
Range	Up to 45 km per charge
Turning Radius	47.24”
Battery	12V 38AH x 2
Brakes	Intelligent regenerative and electromagnetic
Anti-Tip Wheels	3” x 1”
Bumper	Front and Rear
Motor	24V / 300W
Charger	AC100-240V50/60HZ Output: 24V – 4A

Model	Boomerbuggy IV
Overall Dimensions	55.51” 24.61” x 48.03”
Gross Weight	105 kg / 231.48 lbs
Net Weight (including batteries)	96 kg / 211.64 lbs
Front Wheel	10”
Rear Wheel	10”
Weight Capacity	150 kg / 330.69 lbs
Forward Speed (adjustable)	6 - 9 km/h
Reverse Speed (adjustable)	2.4 – 4.8 km/h
Range	Up to 36 km per charge
Turning Radius	51.18”
Battery	12V 38AH x 2
Brakes	Intelligent regenerative and electromagnetic
Anti-Tip Wheels	3” x 1”
Bumper	Front and Rear
Motor	24V / 300W
Charger	AC100-240V50/60HZ Output: 24V – 4A

EMI Safety Information

EMI Warning

The increasing rate at which communication technology develops has flooded our environment with electromagnetic (EM) waves that are emitted by various sources (such as television transmitters, cellular phones, wireless technologies, and etc). Electromagnetic Interference (EMI) occurs more intensely as you approach the source of the transmission and are capable of causing your scooter to malfunction or function uncontrollably. EMI may cause possible interference with the motor and its braking system!

WARNING! Be wary of EM sources around you, as unintended EMI may cause accident or injury! Some cellular phones and similar devises transmit signals while they are on, even when not in use!

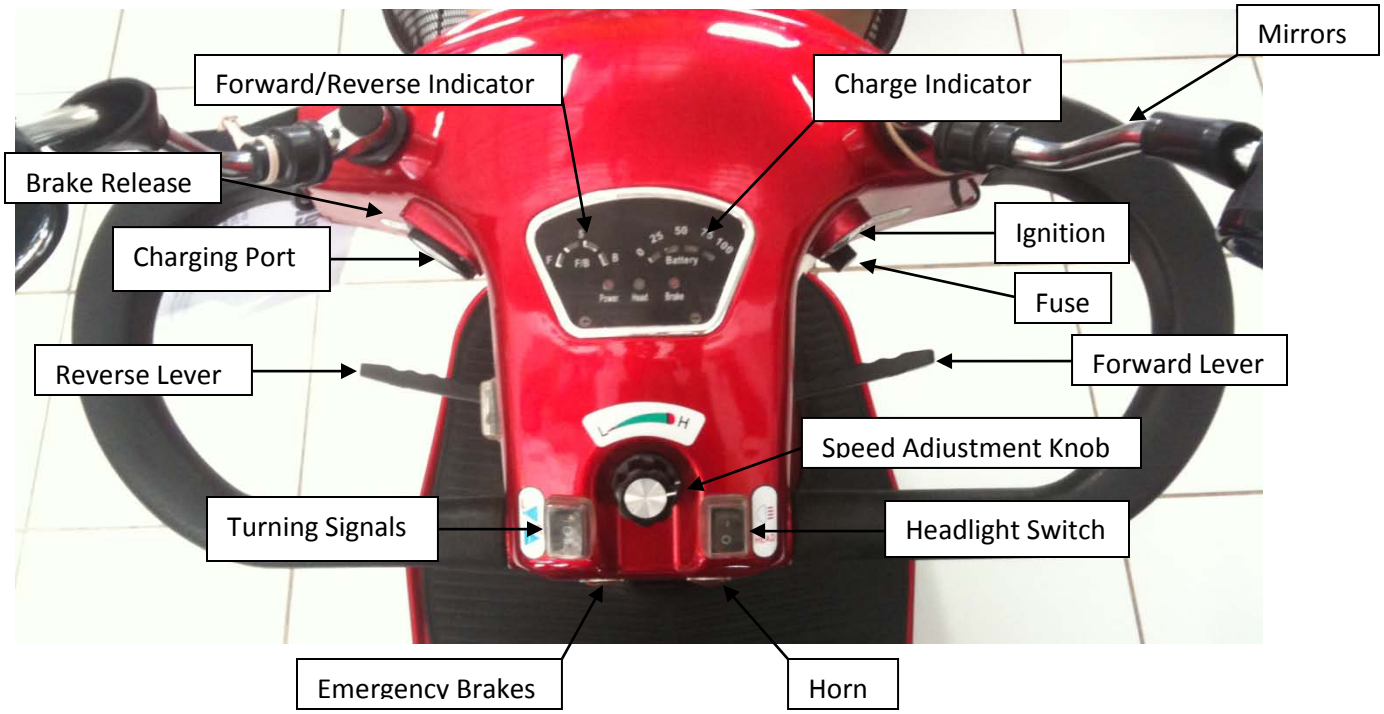
While not guaranteed, the following devices are not likely to cause emit enough EMI to interfere with the scooter: cordless phones, laptops, AM/FM radios, TV sets, CD players, cassette players, and small appliances.

EMI Recommendations

- Do not use hand-held personal communications (cellular phones, CB radio, ham radio, walkie-talkies, etc) while the scooter is in operation
- Be aware of any nearby transmitters along your route to reduce unwanted interference
- Turn off your scooter when not in operation to reduce chances of unintended movement
- If unintended movement occurs, turn off your scooter as soon as it is safe

Getting to Know your Scooter

Scooter Control Panel



Ignition

Place your keys in the ignition and turn **clockwise** one click to engage the motor. You will know the scooter is on once the LEDs light up on your control panel. To turn off your scooter, simply turn your key **counter-clockwise**.

Operating Levers

The forward lever is on your **right** hand and the reverse lever is on your **left** hand. The speed of the scooter is dependent on the amount of pressure applied to these levers. Although there are two separate levers, either lever is capable of both forward and reverse.

Brakes

The scooter uses electromagnetic brakes assisted by the motor to provide a smooth, comfortable stop. To use the brakes, simply release the operating levers and the scooter will automatically engage the brakes.

Speed Controls

You can adjust the speed of your scooter by turning the speed adjustment knob. The lowest setting is set by turning the knob fully **counter-clockwise** and the highest setting is set by turning the knob fully **clockwise**.

Charge Indicator

The number of LED bars lit indicates the amount of charge left. The true charge level will show only when the bike is in operation.

CAUTION! Do not allow the battery to completely deplete! For optimal battery maintenance, charge your batteries once they are at approximately 20%!

Light Switch

The switch turns on or off the headlights and taillights, if applicable. **I** is the on position and **O** is the off position.

Horn

The horn button is located on the tiller, facing the operator. Pressing the horn button operates it.

Indicator Switch

The indicator switch will engage the indicators respective to the position the switch is set. Pressing **up** (labeled ◄) will engage the left indicator and pressing down (labeled ►) will engage the right indicator.

Charging Port

Turn the cover and the charging port will be exposed. Align the charging plug's pins with the charging port's holes and insert the gently insert the charger.

IMPORTANT! When charging your scooter, always make sure that you plug the charger into the scooter before plugging the charger into the wall! Failure to do so can potentially damage the scooter.

Brake Release Button

While the scooter is on, pressing the brake release button will release the brakes, allowing you to physically push the scooter forward and reverse regardless of the free wheel lever's position. Once the button is released, the brakes will automatically reengage.

Free Wheel Lever

Free Wheel Operation

The free wheel lever engages the parking brake while the scooter is inactive. Releasing the free wheel lever will allow you to physically move the scooter, but you will not be able to operate the scooter. For safety purposes, the lever should be left engaged.

- To release the wheels, push the free wheel lever **up**
- To engage the brakes (and for normal operation), push the free wheel lever **down**

WARNING! Do not put the scooter into free wheel mode on any grade of incline! The brakes will not be engaged in free wheel mode and therefore the scooter can roll in an undesired manner and can result in injury or damage to the scooter.

Anti-Tip Wheels

The anti-tip wheels are a safety measure that helps to prevent the scooter from being tipped over. The anti-tip wheels are located at the rear of the scooter's frame.

WARNING! The scooter should never be used unless the anti-tip wheels are in place. Failure to do so can result in injury or damage.

Safety Warnings

WARNING! Failure to follow these instructions may result in damage to the scooter or personal injury!

Safety Advice

Please keep the following in mind to prevent any unwanted injury or damage.

- **DO NOT** carry passengers
- **DO NOT** drive across a slope
- **DO NOT** drink and drive (or under the influence of medications that may impair your driving ability)
- **DO NOT** tow a trailer
- **DO NOT** use distracting devices such as cellular phones while operating
- **DO NOT** exceed inclines over 8°
- **DO NOT** turn on steep inclines
- **DO NOT** turn suddenly at high speeds
- **DO NOT** get on or off the scooter unless the brakes are on and the scooter is off
- **DO NOT** switch the scooter off while in motion
- **DO NOT** drive the scooter where you cannot safely walk; such as roads, streets, highways, and etc.
- **DO NOT** attempt to drive over curbs greater than 2" in height
- **DO NOT** exceed the suggested user weight limit
- **DO NOT** use an escalator; please opt for the elevator

- **DO NOT** drive on an incline with oil, water, or ice on it
- **DO NOT** try to lift the scooter by the seat, tiller, rear chassis cover, or any removable parts
- **DO NOT** use parts of accessories that are not authorized by Daymak Inc.
- **DO NOT** connect any medical devises to the scooter battery

On the Road

Please adhere to the following recommendations to ensure your safety.

- **DO NOT** drive in the rain
- **DO NOT** drive in or on snow
- **DO NOT** drive off-road or on any uneven surfaces
- **DO NOT** drive in traffic
- **DO NOT** reverse unless you are certain there are no obstacles behind you
- **DO NOT** make sudden stops, weave erratically, or make sharp turns
- **DO NOT** extend your arms or legs outside of the scooter while in operation
- **DO NOT** attempt to climb curbs greater than 2”
- **DO NOT** attempt to cross a gap greater than 3”
- **DO NOT** attempt to climb a hill greater than 10”
- **DO NOT** attempt to drive across a sloping surface greater than 8”
- **DO NOT** drive at full speed on a decline
- **DO NOT** get on or off the scooter when on a hill

SAFETY WARNING! When getting on or off the scooter, please make sure that the key is in the off position to prevent engaging the scooter accidentally. When seated comfortably, set the speed control knob according to your driving ability. We recommend that you keep the speed at the lowest setting (fully counter-clockwise) until you are comfortable with higher speeds.

Getting Started

Before the first use, you must charge your scooter completely. This should take approximately 8 to 12 hours. Please refer to the *Getting to Know Your Scooter* section for information on how to charge your scooter.

Getting On/Off

Before getting on or off your scooter, always make sure that the keys are not in the ignition and that the scooter is off. This is a safety measure to prevent any unwanted injury due to accidental engaging of the levers.

For easier mounting or dismounting, lift one of the arm rests before getting on or off. Return the arm rest to its normal position before operation. Before operating your scooter, ensure that you are seated in a comfortable position.

IMPORTANT! Do not use the handlebars or the tiller when mounting or dismounting the scooter. For support, please use the arm rests!

Operating Instructions

Before going on your first trip, spend some time to practice handling your scooter. Find an open area with plenty of room and no obstacles around. It is recommended that you have a friend or family member assist you until you are comfortable to operate the scooter on your own.

Forward and Reverse

First, make sure you are seated comfortably. Put the key into the ignition and turn the scooter on. You will know that the scooter is active when the LEDs light up on the control panel. Set your scooter to the lowest speed possible. You may adjust the speed once you are comfortable with operating the scooter.

Start by gently squeezing the **right lever**. Gradually apply more pressure to the lever and the scooter will begin to pick up speed. If you have set your speed to the lowest, your top speed will be restricted.

Once you are in motion, gently release the lever and the scooter will smoothly come to a stop. Repeat moving forward and braking a few times to get used to the motion.

Next is to practice reversing. To reverse, gradually squeeze the **left** lever. Same as before, the more pressure applied to the lever, the faster the scooter will move. Practice reversing and stopping a few times to get used to the motion.

WARNING! Make sure that there are no obstacles, curbs, or angled slopes behind you before reversing! Practice reversing to get used to judging your environment.

Steering

Steering the scooter is effortless and simple. Before you begin your practice, ensure that there are no obstacles in the way.

To steer, simply rotate the tiller (handlebars) to the desired direction; the more you rotate, the more sharp the turn. Begin by slowly moving forward and steering the tiller at small angles; gradually increase the angle for your turn to familiarize yourself with the maximum turning radius.

Practice by making gentle “S” patterns in both forward and reverse as much as necessary.

When steering through limited spaces (such as a doorway or hallway), make sure to mind the width of your scooter. When approaching doorways, take your time and proceed slowly to prevent injury to yourself or others or damage to the scooter.

When turning around corners, always keep a safe distance from the wall you are turning towards. Most importantly, you want to ensure that your rear tires will clear the corner without getting caught.

WARNING! Never turn sharply while the scooter is at top speed! Always exercise caution when taking corners. Failure to do so can cause injury and damage.

Extra Guidelines

Ramps / Slopes

The stability of your scooter is governed by several factors such as seating position, the angle of the slope, your height and your weight. Take caution when approaching an incline and always head directly (perpendicular) to the slope and not at an angle. While on the slope, avoid making any turns. When heading down a slope, keep your scooter's speed setting to slow.

Grass / Gravel

Your scooter was not designed to travel off-road and therefore caution should be exercised when traveling on grass, sand, or loose gravel. If necessary, always travel at a slow pace to prevent slipping.

IMPORTANT! You should never operate your scooter in wet weather or on wet surfaces.

Adjustment

Tiller Angle Adjustment

The Tiller Adjustment lever is located on the side near the bottom of the tiller. To adjust the tiller angle, hold onto the handlebar with one hand to support its weight, pull the tiller adjustment lever outwards and adjust the angle of the tiller to the desired position. When you are comfortable, tighten the lever once more.

IMPORTANT! Do not drive the scooter if the tiller is not secured.

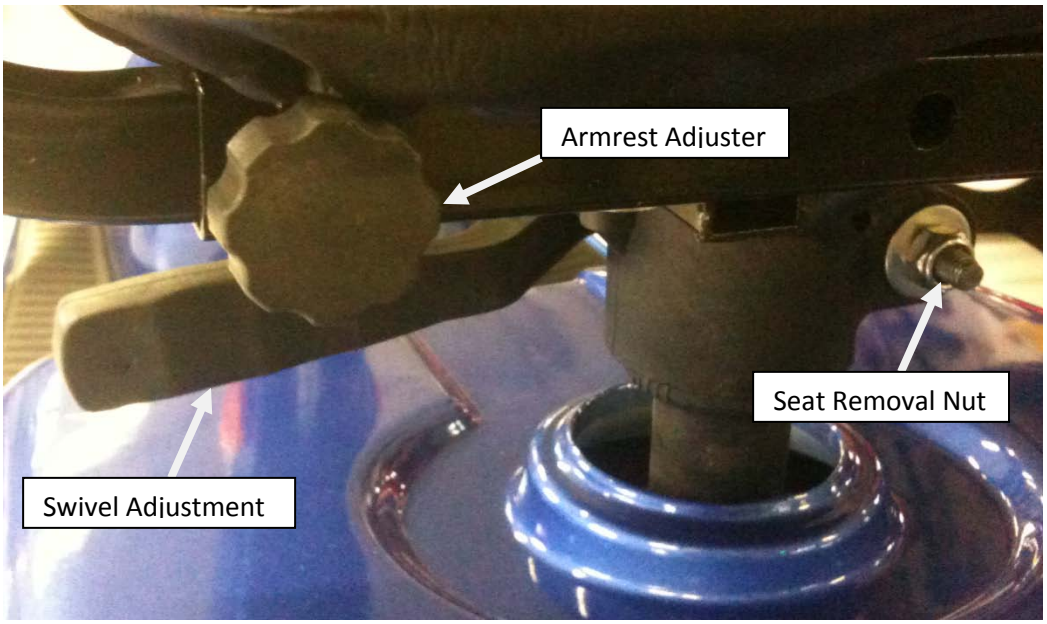
Tiller Adjustment Lever

Seat Adjustment

You can adjust the seat to be either closer or further from the tiller. The seat adjustment lever is located on your seat to the left hand side where your left leg rests. To adjust your seating distance, simply lift the lever and adjust your seat accordingly. Once released, the seat will automatically lock into place.

Seat Adjustment Lever

Armrest Adjustment, Swivel Adjustment and Seat Removal



Swivel Adjustment

An alternative solution to mounting the scooter is to turn the seat outwards to sit comfortably and then turn the seat back to original position.

To do this, simple pull the swivel adjustment lever outwards and the seat will loosen. Adjust the seat appropriately and return the lever to its original position.

Armrest Adjustment

The armrests can easily be adjusted to be wider. To do this, turn the armrest adjustment knob found behind the seat near the bottom **counter-clockwise** to loosen the armrest. Adjust the armrest to the desired width and then retighten the knob by turning **clockwise**. The knob should be not be over tightened.

IMPORTANT! Never operate your scooter without armrests securely in place.

Seat Removal Nut

The seat removal nut is located on the shaft holding the seat, next to the swivel adjustment lever. This is a grub screw that engages a groove on the shaft that the seat is mounted on. By loosening or removing this nut, you will be able to remove the seat. Upon reinstallation, pay extra attention to ensure that the nut is secured and in place.

Seat Removal

After you have removed the seat removal nut, the seat can be easily removed by lifting the chair off of the shaft it rests on.

Disassembling the Scooter for Transport or Storage

The Boomerbuggy series was designed to be easily dismantled for efficient transportation and storage. Disassembling the scooter requires very little time and effort. Simply follow these steps to disassemble your scooter.

- First remove the seat. You can do so by loosening the swivel lever and removing the grub nut that holds the seat to the shaft. Please refer to the *Seat Removal* for more information.
- With the seat removed, release the tiller lever and fold the tiller all the way down to where the seat used to be.

IMPORTANT! While disassembled, the scooter is still considerably heavy due to the batteries and motor. When transporting the scooter, always have someone around to assist you!

Batteries and Charger

The Boomerbuggy series utilizes two maintenance free, seal lead acid batteries. Battery performance is affected by various factors including: temperature, terrain, the weight of the user, and overall usage for the batteries. The battery level indicator/gauge is only a guide for judging the amount of charge in the batteries. The true charge of the batteries will display once the scooter is in drive.

To optimize the battery life, only charge the scooter once the batteries are at approximately 20%.

When storing your unit, be sure to charge the scooter at least once every two weeks to optimize the battery's life. Leaving the batteries completely discharged can cause irreversible damage to the batteries and may need to be replaced.

Charger and Charging

To charge your scooter, first make sure that the bike is off. Plug the charger into the charging port (refer to the *Getting to Know Your Scooter* section) and then plug the charger into the outlet. Once connected, a **red** light should appear on the charger; this indicates that the scooter is being charged. When the scooter is completely charged, the charger will automatically terminate the charge and the light will turn **green**.

The charger requires a **minimum feedback voltage signal** from the batteries in order to begin the charging cycle. If your batteries are severely discharged for a long period of time, the charge may not receive the necessary feedback and therefore the batteries will not charge. If this occurs, contact your nearest Daymak dealer for assistance.

IMPORTANT! Always insert the charger into your scooter before the outlet! Failure to do so has a possibility of short circuiting the scooter.

IMPORTANT! Never let your batteries completely discharge. Doing so can result in irreversible damage to the batteries.

Maintenance and Troubleshooting

Lubrication

In six-month intervals, you should lubricate the following parts with multipurpose grease or similar lubricant: seat pivot post and seat release lever.

CAUTION! Do not lubricate the transaxle gears!

Wheels and Tires

The wheels have split rims, which allows easy puncture repair. To change the wheel, remove the center 13mm bolt and slide the wheel off its axle. When refitting the wheel, be sure to use a locking washer and use locktite or a similar adhesive. When changing a tire, the inner tube must be deflated. Remove the four bolts from the wheel and split the rim.

General Maintenance

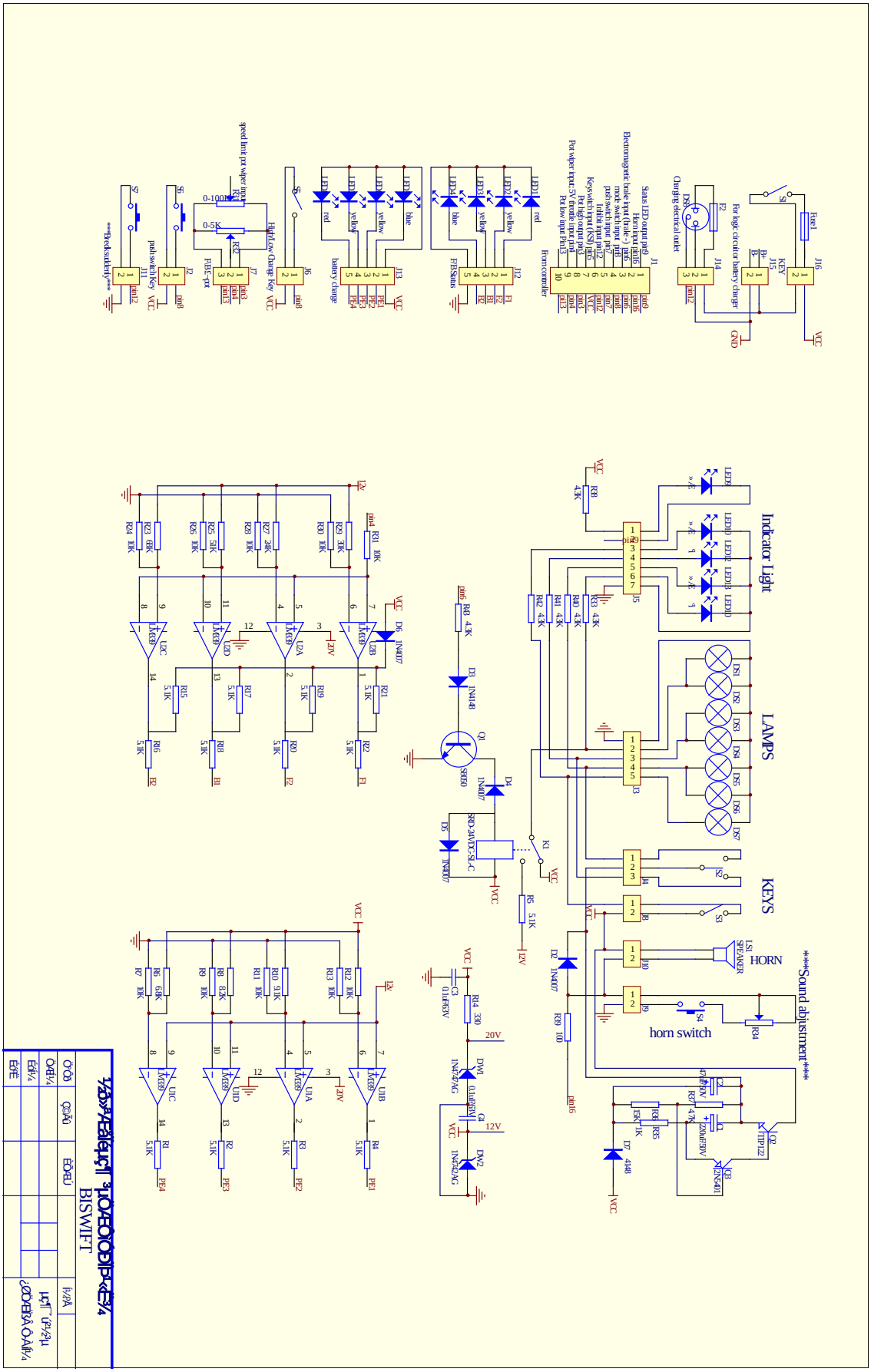
Every six months, you may need to tighten certain nuts and bolts. The reason for this is due to the fact that operating the scooter will cause a lot of vibrations, which can gradually loosen the nuts and bolts on the scooter. The following are some areas that require attention: tiller base bolts, wheel axle bolts, armrest adjustment bolts, wheel-to-axle bolts, and etc.

Troubleshooting Check List

If you are having trouble operating your scooter, please check the following:

- The unit is switched on
- All plugs and connectors are firmly fixed
- Battery is fully charged
- Free wheel lever is engaged
- Battery fuses are not blown

If the problems persist, try resetting the circuit breaker. The circuit breaker can be found under the rear chassis cover and is accessible through a port hold under the seat.


Indicator Light
LAMPS
KEYS
HORN
horn switch
Sound abjustment
BISWIFT

Molex Type 5556 Pins

Brass / Tin

AWG	P/N
16	39-00-0078
18–24	39-00-0039
22–28	39-00-0047

Phosphor Bronze / Tin

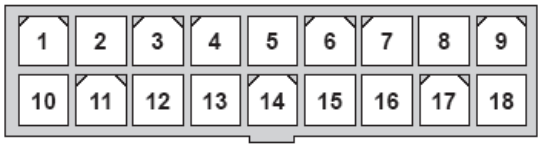
AWG	P/N
16	39-00-0080
18–24	39-00-0060
22–28	39-00-0066

NOTE: 16 AWG wire and pins are recommended for the battery charger circuit.

The low current logic control connections are provided by an 18-pin connector (see pin list below). The Molex Mini-Fit Jr. p/n 39-01-2185 with type 5556 pins is the mating connector; see chart at left for pin part numbers.

Two identical sets of B+/B- pins are provided; they are electrically connected to the controller's **B+**, **B-** terminals and are rated at 9 amps. If these pins are used, they should be fused appropriately to protect the controller.

J1



J1 **Pin 1** B- (for logic circuit or battery charger)
J1 **Pin 2** B- (for logic circuit or battery charger)
J1 **Pin 3** pot high output
J1 **Pin 4** pot wiper input; 5V throttle input
J1 **Pin 5** keyswitch input (KSI)
J1 **Pin 6** electromagnetic brake input (brake -)
J1 **Pin 7** push switch input
J1 **Pin 8** mode switch input—M1 (open), M2 (closed)
J1 **Pin 9** status LED output

J1 **Pin 10** B+ (for logic circuit or battery charger)
J1 **Pin 11** B+ (for logic circuit or battery charger)
J1 **Pin 12** inhibit input
J1 **Pin 13** pot low input
J1 **Pin 14** electromagnetic brake output (brake +)
J1 **Pin 15** BDI output
J1 **Pin 16** horn input
J1 **Pin 17** reverse switch input
J1 **Pin 18** speed limit pot wiper input

J2 **Pin 1** receive data (+5V)
J2 **Pin 2** ground (B-)
J2 **Pin 3** transmit data (+5V)
J2 **Pin 4** +15V supply (100mA)

J2

A 4-pin low power connector is provided for the programmer. For applications with the seat lift feature, this connector is also used for the seat lift connector. To use the programmer in these applications, simply unplug the seat lift connector and plug in the programmer.

Warranty

One Year Limited Warranty

If assembled by a Daymak dealer, we will repair or replace parts within **90 days for parts and labour** and **1 year for the motor and frame** upon examination of the defect by an authorized representative. All parts that are defective in material or workmanship are covered by a manufacturer's warranty. The warranty does not cover the shipping costs of replacement parts.

Do not return faulty parts without prior consent. All transportation costs and shipping damaged incurred while submitting the parts for repair or replacement are at the discretion and are the responsibilities of the original purchaser.

Warranty Exclusions

The warranty will not cover the following:

- Plastic fenders, tires (including flat tires), seats, and baskets
- Damage caused by:
    - Battery fluid spillage or leakage
    - Abuse, misuse, accident or negligence
    - Improper operation, maintenance and storage
    - Commercial use or use other than normal wear and tear
    - Repairs and/or modifications made to any part without specific, written consent
    - Circumstances beyond the control of Daymak Inc., such as theft, natural disasters, or acts of war.

Disclaimer

We disclaim all liability and responsibility for incidental or consequential damages, including personal injury and property damage due to failure to follow the instructions written in this manual. The user is solely responsible for the care and maintenance of the scooter and its use.