BlueJay Quick Start

WARNING

- **Modifying the Motor Controller parameters can damage equipment, property and cause INJURY/DEATH to yourself/others.**
- **Modifications may VOID your WARRANTY**
- **Factory/Dealer settings should only be performed by trained technicians**

Questions? Feedback? Send email to: **BlueJayTuning@gmail.com**

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What BlueJay Does

BlueJay is a simplified performance tuning application for motor controllers used in electric golf carts and utility vehicles. BlueJay automatically detects your controller, saves and restores settings, and makes motor tuning simple - even for beginners.
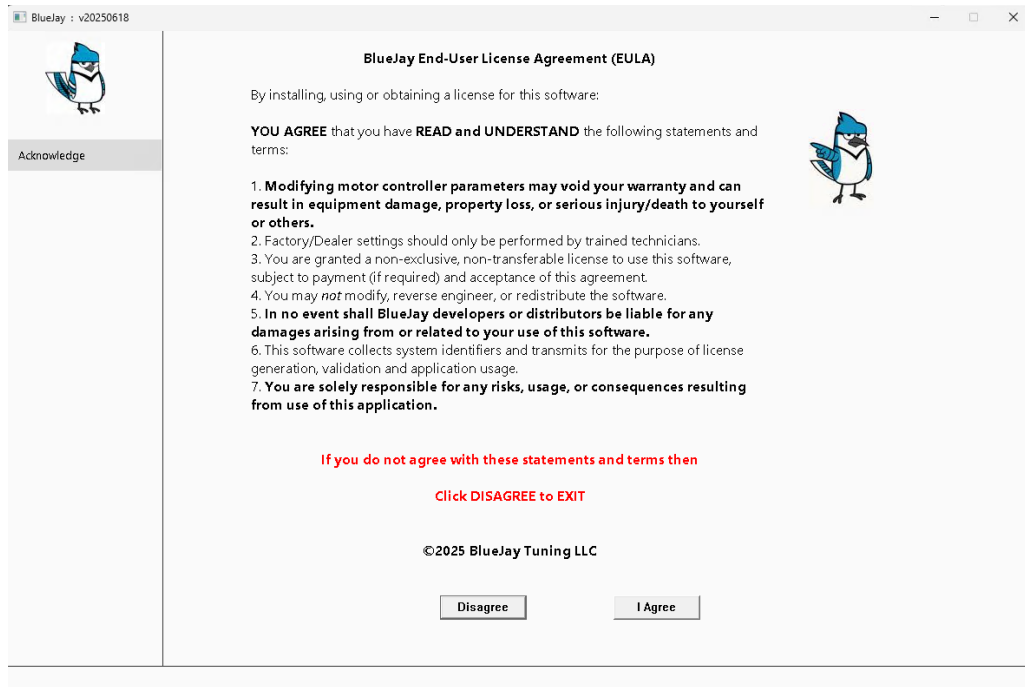
Get the latest version: https://bluejaytuning.lizard43.com

- **Automatic controller detection**: BlueJay queries your connected controller to detect the brand/model/type

- **One application for many controllers**. No manual guesswork of which Chinese OEM tuning application to use

- **Highlights the most important and commonly adjusted tuning parameters**, making them quick and intuitive to edit.

- **Save and Restore**: Snapshot your current configuration or roll back to a known-good one

- **Supports tuning profiles**, including:

  - Sporty and Fast

  - Casual About Town

  - Hill Climber

  - Many other community supported

- Fully **English interface** with simple and clear parameter descriptions

BlueJay works with a wide range of vehicles using compatible AC motor controllers, including Advanced EV, Bintelli, Coleman, Denago, Evolution / HDK, ExCar, EZKruiser, Gotraxx, Gorilla, Moto Electric, Icon, PDG, Racka, Spartan, Tao, Many others with FJ, EV48-400-C and Tercel/LVTong controllers!

Getting Started

BlueJay has an easy all-English installation. Just run the BlueJay Windows setup and double-click the BlueJay desktop shortcut.
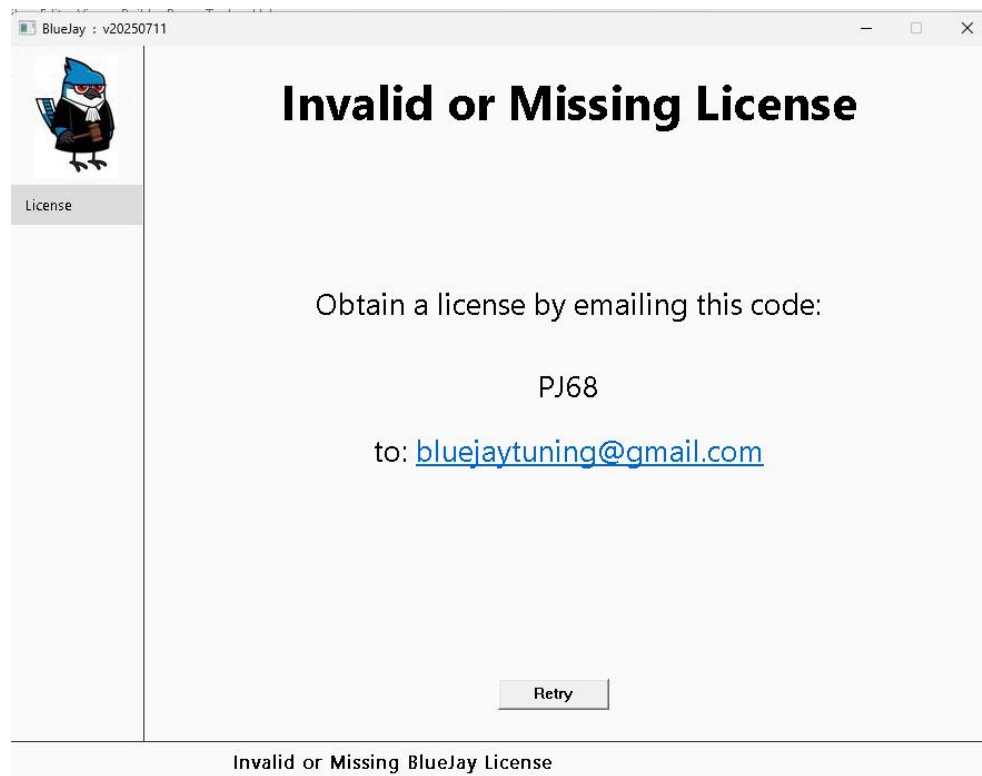
EULA End-User License Agreement

Before you can use BlueJay, you must review and agree to the EULA. If you disagree with these statement and terms, simply click the Disagree button and don't use BlueJay.

If you do agree to the EULA statement and terms, click Agree button and BlueJay will begin.

Licensing

BlueJay is NOT a free application. Once you agree to the EULA, BlueJay will generate a unique code for your PC. Send that code to **BlueJayTuning@gmail.com** and obtain a license.

After you have received a license from BlueJay, restart BlueJay and click the "Retry"
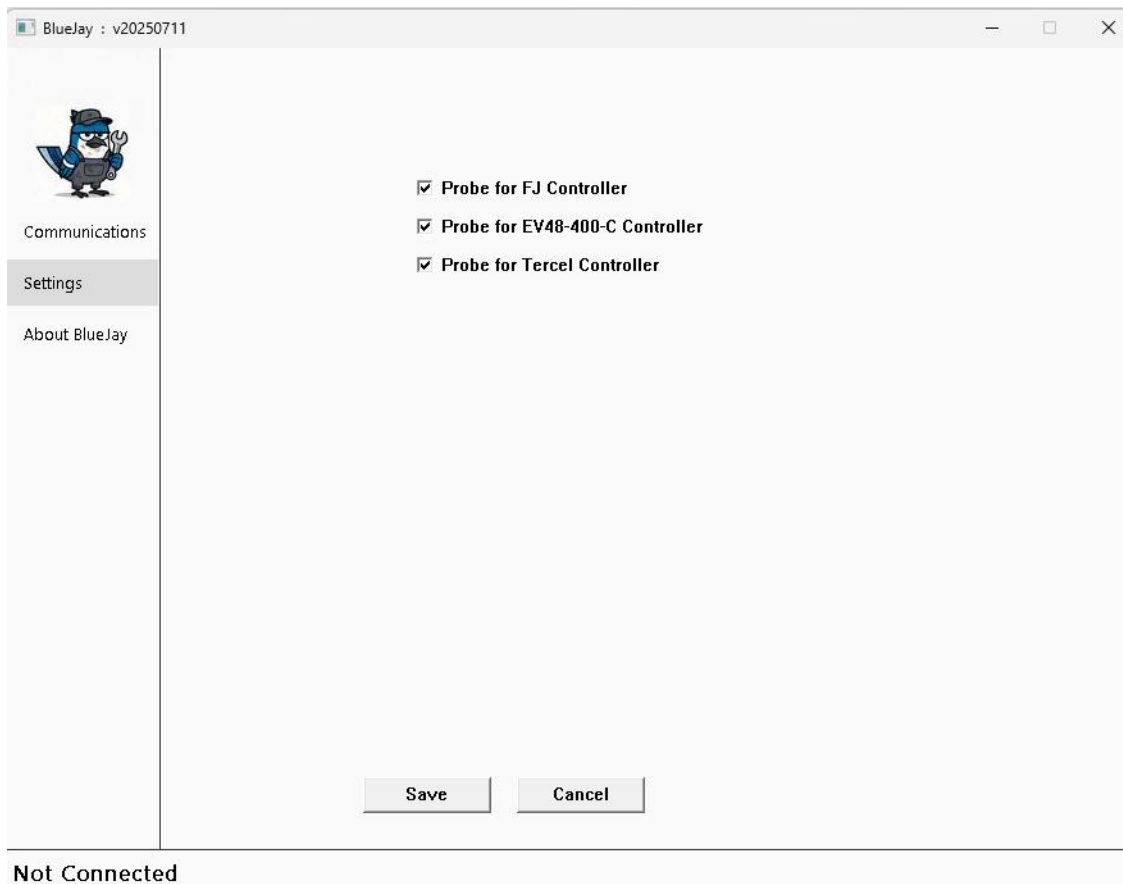
Settings

By default, BlueJay is configured to probe for all supported controllers.

To save time, you may want it look for your controllers.

Click the Setting selection on the left side and then check/uncheck the controllers that you want.

Be sure to click Save if you make changes to the settings.

Communications

BlueJay communicates to your controller via a USB cable. The cable is specific to your controller brand/model/type so you must first identify your controller. The easiest is to go to:
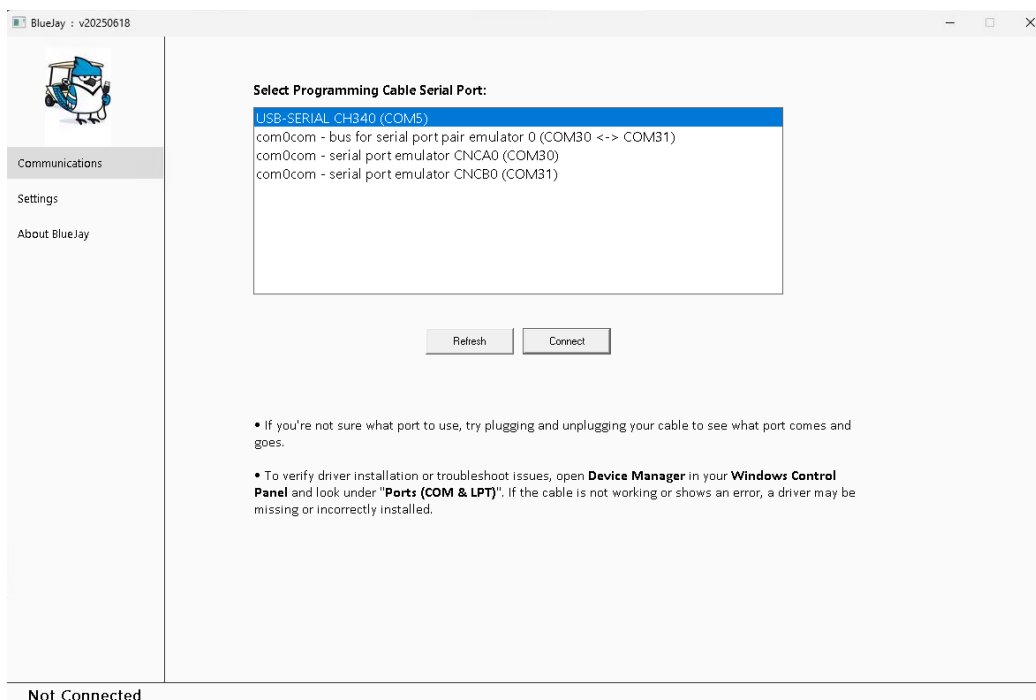
https://www.cartcables.com/pages/controller-id-guides

You can purchase a cable for your controller from Cart Cables or eBay or other sources.

USB Device Drivers

Most cables require a Windows Device Driver to be installed. If you purchased from Cart Cables, go here to find the appropriate driver:

https://www.cartcables.com/pages/drivers

Once you've installed the cable's device driver, you need to select the associated serial COM Port and click Connect

Controller Probing

BlueJay will attempt to identify your connected controller using the selections in the Settings section.

Once identified, BlueJay will query tuning parameters and load into the Tuning tables.

If BlueJay can't identify your controller:

- Make sure your cart is powered on. The controller must have power in order to communicate

- Make sure that you installed your cable's device driver

- Make sure your controller is supported by BlueJay

- Check the FAQs found at:
  https://bluejaytuning.lizard43.com/faqs.html

Saving

IMPORTANT!
Before making ANY changes to your controller's tuning, you should save a snapshot that can be used to recover if ever needed.

After making tuning changes, you should save again to a different filename, being careful not to overwrite previous save snapshots..

By default, BlueJay will save in your Windows APPDATA\BlueJay folder, using the controller's name:

- FJ/backups

- EV48-400-C/backups

- etc

The suggested save filename contains the controller name and today's date/time. You can edit the location and name as needed.

The saved files are text files and can be examined using a text editor like Notepad but DO NOT make changes to the saved files or they will not be able to be reloaded at a later time.

Loading

You can load 2 types of files into BlueJay:

- Backups

- Profiles

Backups

Backups are files that you previously saved and you now want to restore your controller to that previous parameter configuration.

You must only load backup files for your connected controller brand/model/type (exampe: only FJ for an FJ; not a EV48-400-C into a Tercel controller, etc).

By default, BlueJay will save in your Windows APPDATA\BlueJay folder, using the controller's name:

- FJ/backups
- EV48-400-C/backups
- etc

After loading, the Tuning tables will highlight any changes in yellow. This indicates differences of your current controller's configuration and what was in the loaded file.

- **Review the changes and ask yourself "do these make sense?"**

- **DO NOT write parameters that look wrong or out of normal.**

- **Be safe, be smart!**

You can make further edits as needed before writing to the controller or you can discard the changes.

To actually write the changes to your controller, you MUST press the Write button.

You can abandon any changes by clicking the Reset button.

Reset

You can abandon any changes loaded or manually edited by clicking the Reset button. After confirming that you want to discard changes, the controller will be read and the current configuration will be displayed in the tuning tables.

Profiles

Profiles are files that contain **suggested or community suggested** parameter settings. These will only change a handful or so of tuning parameters to make your cart faster/sportier, better with hills or smooth about town.

You must only load profile files for your connected controller brand/model/type (exampe: only FJ for an FJ; not a EV48-400-C into a Tercel controller, etc).

By default, BlueJay will look for profile files in the folder of the BlueJay.exe and in the controller's named folder (example FJ, EV-48-400-C, etc).

After loading, the Tuning tables will highlight any changes in yellow. This indicates differences of your current controller's configuration and what was in the loaded file.

- **Review the changes and ask yourself "do these make sense?"**

- **DO NOT write parameters that look wrong or out of normal.**

- **Be safe, be smart!**

You can make further edits as needed before writing to the controller or you can discard the changes.

To actually write the changes to your controller, you MUST press the Write button.

You can abandon any changes by clicking the Reset button.

Tuning

For details on individual parameters, refer to your specific controller brand/model/type in the separate document "**BlueJay User Guide**" Appendixes.

Tuning is not complicated but it does come with risks that MUST be understood and accepted:

- **Modifying the Motor Controller parameters can damage equipment, property and cause INJURY/DEATH to yourself/others.**
- **Modifications may VOID your WARRANTY**
- **Factory/Dealer settings should only be performed by trained technicians**

Use the Tuning page to review, edit, write, save, load parameters.

Before you make any changes, you should make a backup of the current parameters by clicking the Save button.

To change a parameter, double-click on the the "set" cell of the parameter row. Make sure your change is between the valid min and max for that parameter. After editing, the "set" cell will highlight in yellow to show that it has changed.

Changes are not written to the connected controller until you click the Write button.

If you want to discard changes before writing, click the Reset button.

You can return to a previous saved state by clicking the Load button and choosing a previously saved file for the connected controller. After loading, differences from the current state and the

loaded files will be highlighted in yellow. Be sure to review both the Tuning and Sink tables to see changes. Changes are not actually written to the controller until you click the Write button.

Common tuning areas are:

- Speed
- Acceleration/Deceleration
- Torque
- Everything else aka Kitchen Sink

Speed

Speed tuning controls how fast the golf cart can travel under various conditions. This involves adjusting the maximum RPM limits and forward vs. reverse and selected gear.

Acceleration/Deceleration

Acceleration and deceleration tuning determine how quickly the cart speeds up or slows down. This is managed by ramp rate settings in the controller. A smoother, slower acceleration may be ideal for comfort and safety, while a sharper ramp gives a snappier, sportier feel.

Deceleration tuning can also affect how aggressively the cart slows down when throttle is released - important for both driving feel and regenerative braking behavior (if supported).

Torque

Torque is the rotational force that the motor produces to turn the shaft. Think of it like how hard you twist a wrench - torque is that "twisting" force. Torque tuning affects how well the cart can climb hills, carry loads, or launch from a stop. Torque can be mapped across multiple ranges (e.g., low-RPM vs. high-RPM) or split between driving torque and regenerative torque. Adjusting torque levels can help balance power, efficiency, and battery life.

Everything Else (The Kitchen Sink)

This catch-all category includes all the less-obvious but available tuning options. The experienced/advanced tuner will find useful but uncommon tuning parameters here.

Trouble Shooting

BlueJay can't identify controller

- Make sure your cart is powered on. The controller must have power in order to communicate

- Make sure that you installed your cable's device driver

    - Most cables require a Windows Device Driver to be installed. If you purchased from Cart Cables, go here to find the appropriate driver:

        - https://www.cartcables.com/pages/drivers

- Make sure your controller is supported by BlueJay.

    - Identify your controller brand/model/type here:
        - https://www.cartcables.com/pages/controller-id-guides

Can't edit a parameter

- Make sure you are double-clicking the "set" cell of the parameter row.

- Grey Parameter rows are read-only and can not be edited.

Won't load backup

- Make sure you are loading the correct controller brand/model/type

- Make sure you haven't hand edited the backup file

Won't load profile

- Make sure you are loading the correct controller brand/model/type

- Make sure you have the parameter named spelled correctly

- Make sure the parameter value is within min/max range

Something Else

- Send email describing issue to: **BlueJayTuning@gmail.com**

FAQs

Why isn't BlueJay free?

Since the OEM controller programs like GEF12Host or Fj Programming tool are free, why isn't BlueJay also free?

- Actually those OEMs programs are NOT free. They are licensed applications that have been pirated and copied onto various download sites.

- BlueJay is supported multi-controller application that provides many features that the OEMs applications do not, such as:

  ○ Save/Restore

  ○ Profiles

  ○ User Guide

  ○ Every common tuning parameter defined and described in the User Guide

  ○ Email application support, bug fixes, new versions

Where can I find the latest BlueJay version?

- **Go to: https://bluejay.lizard43.com**

Where can I find a list of reported bugs?

- Go to: **https://bluejay.lizard43.com**

- Report bugs to: **BlueJayTuning@gmail.com**

Will you give me personal support to tune my controller?

- No, we offer application support via email and bug fix support but we cannot tell you what parameter values to use for tuning your controller.

- Read the user manual for general guidance

- Review suggested profiles for your controller

  ○ There is NOT a one size fits all. Use caution and intelligence

- Get community support by posting tuning questions for the various Golf / Utility Cart forums and sites.

Comments, questions, corrections? Send email to: **BlueJayTuning@gmail.com**