



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: support@bluejaytuning.com

Table of Contents

WARNING.....	1
What BlueJay Does.....	3
Getting Started.....	4
EULA End-User License Agreement.....	5
Licensing.....	5
Settings.....	6
Communications.....	6
USB Device Drivers.....	7
Controller Probing.....	7
Saving.....	9
Loading.....	9
Loading Backups.....	9
Reset.....	10
Loading Profiles.....	10
Tuning.....	11
Speed.....	12
Acceleration/Deceleration.....	12
Torque.....	12
Everything Else (The Kitchen Sink).....	13
Profile Creation/Editing.....	13
Create New Profile.....	14
Load from File.....	14
Write Profile.....	14
Trouble Shooting.....	15
BlueJay can't identify controller.....	15
Can't edit a parameter.....	15
Won't load backup.....	15
Won't load profile.....	15
Something Else.....	15
FAQs.....	16
Why isn't BlueJay free?.....	16
Where can I find the latest BlueJay version?.....	16
Where can I find a list of reported bugs?.....	16
Will you give me personal support to tune my controller?.....	16

What BlueJay Does

BlueJay is a DIY 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.com>

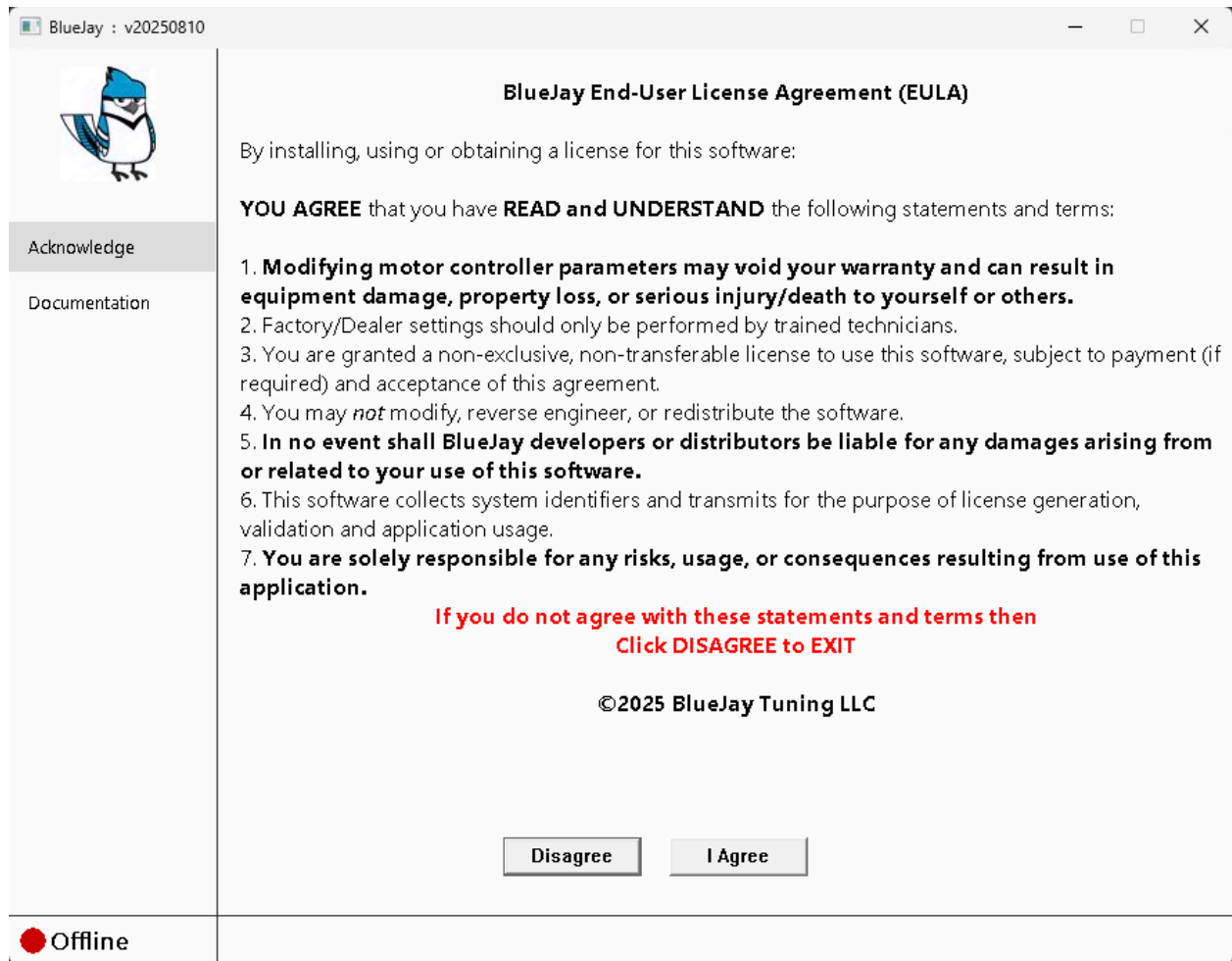
- **Automatic controller detection:** BlueJay queries your connected controller to detect the brand/model/type
- **One application for many controllers.** No manual guesswork of which Chinese OEM tuning application to use
- **Highlights the most important and commonly adjusted tuning parameters,** making 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:
 - Fast and Sporty
 - Prioritizes quick acceleration, higher torque across the rev range, and reduced torque drop at higher speeds for a more responsive, performance-oriented feel. Regen is stronger and more progressive for confident, controlled deceleration.
 - About Town
 - Tuned for smooth, predictable throttle response and moderate torque, making it easy to handle in stop-and-go traffic. Regen is light for gentle slowing, allowing for coasting between short trips.
 - Hill Climber
 - Optimized for climbing and holding on steep grades, with higher low-RPM torque and stronger hill-hold settings. Regen is balanced to maintain control when descending without abrupt stops.
 - Many other community supported

- Save these community provided profiles anywhere on your PC, load, review, edit to make yours!
- 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, Gotraxe, Gorilla, Moto Electric, Icon, PDG, Racka, Royal, Spartan, Star, Tao, Many others with FJ, EV48-400-C and Tercel/LVTong/JHL 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

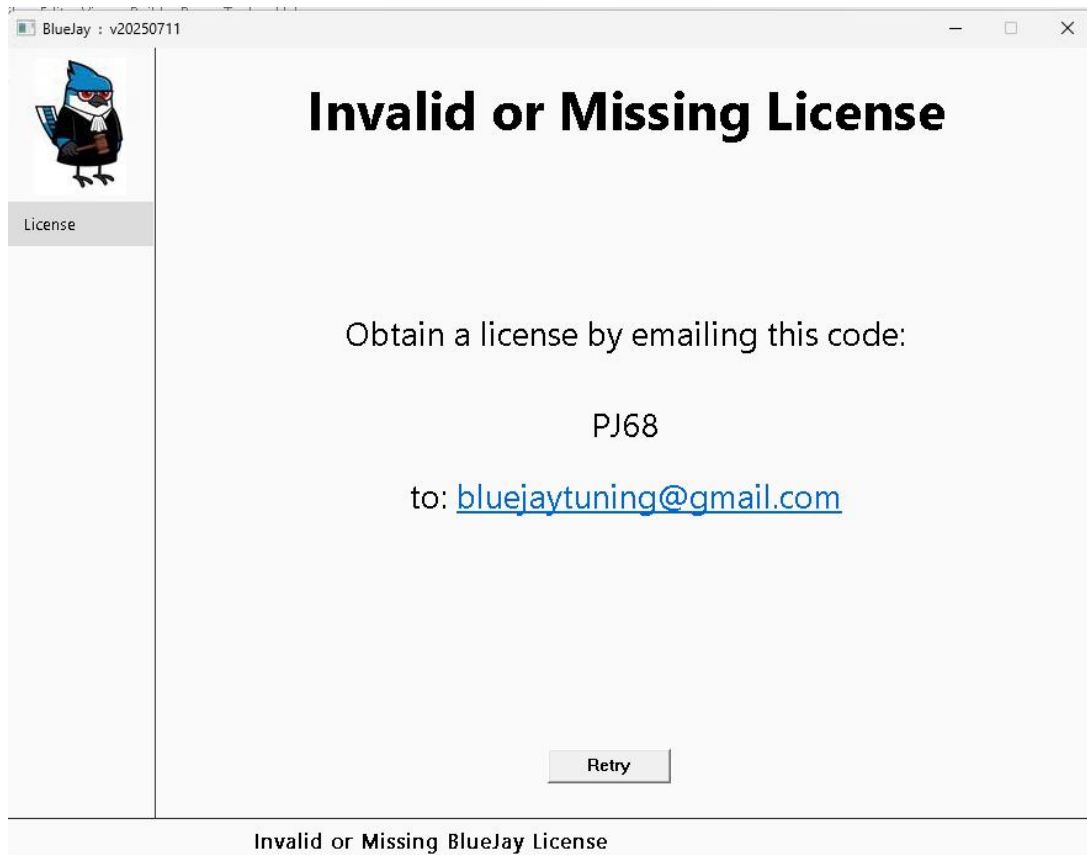
Before you can use BlueJay, you must review and agree to the EULA. If you disagree with these statement and terms, simply click the Disagree button and don't use BlueJay.

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 support@bluejaytuning.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:

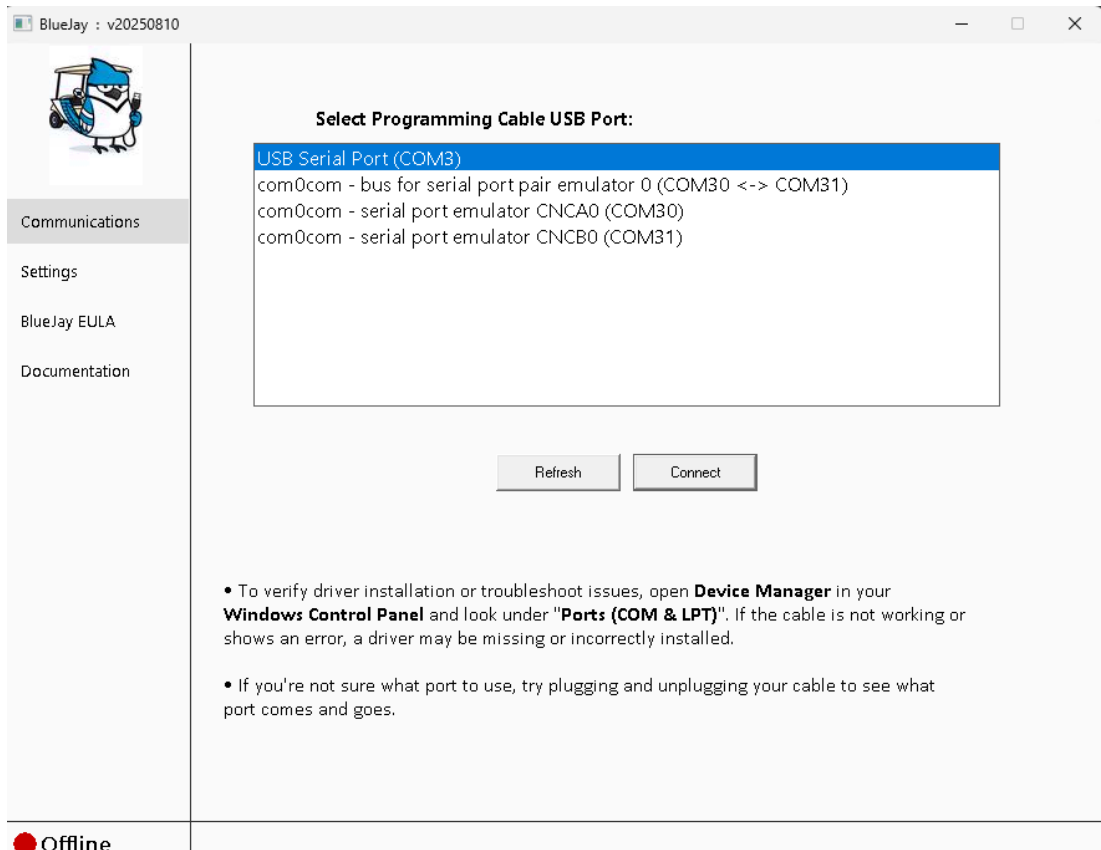
<https://www.cartcables.com/pages/controller-id-guides>

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>

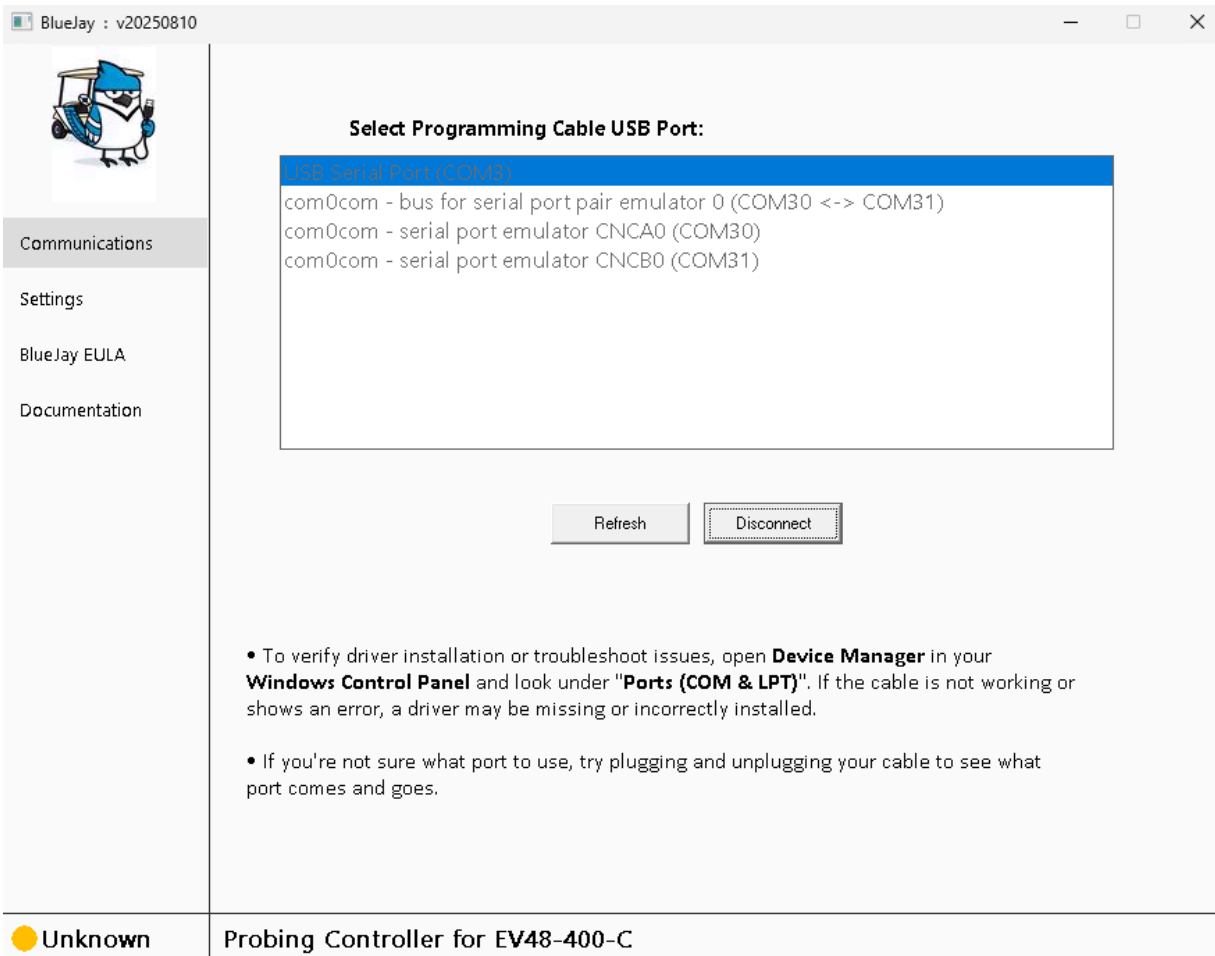


Once you've installed the cable's device driver, you need to select the associated serial COM Port and click Connect

Controller Probing

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

BlueJay Tuning Quick Start – v20250814



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.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

Loading 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 (example: 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.

Loading 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 (example: only FJ for an FJ; not a EV48-400-C into a Tercel controller, etc).

By default, BlueJay will look for profile files in Windows %APPDATA%\BlueJay folder 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.

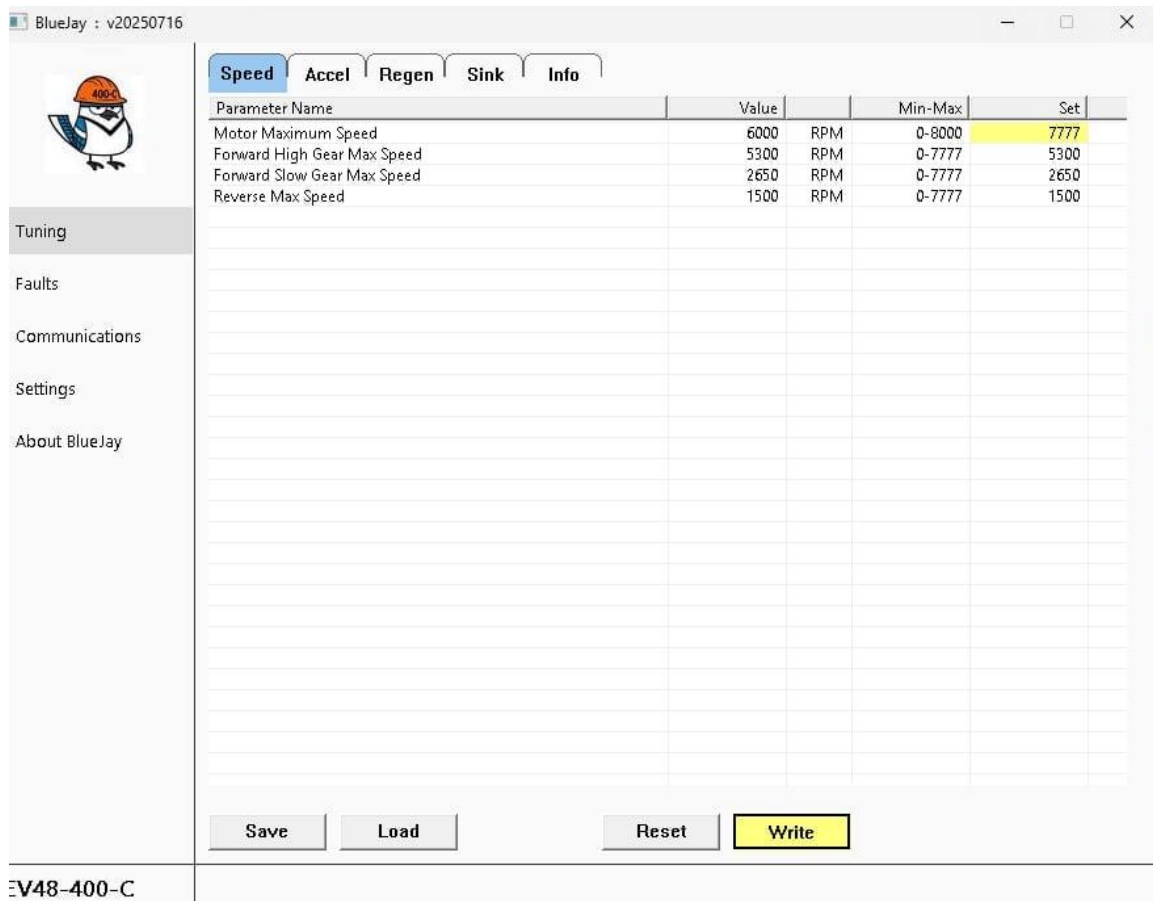
Tuning

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

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.



The screenshot shows the BlueJay Tuning software window titled "BlueJay : v20250716". The interface includes a sidebar with navigation options: Tuning (selected), Faults, Communications, Settings, and About BlueJay. The main area has tabs for Speed, Accel, Regen, Sink, and Info. The Speed tab is active, displaying a table with the following data:

Parameter Name	Value		Min-Max	Set
Motor Maximum Speed	6000	RPM	0-8000	7777
Forward High Gear Max Speed	5300	RPM	0-7777	5300
Forward Slow Gear Max Speed	2650	RPM	0-7777	2650
Reverse Max Speed	1500	RPM	0-7777	1500

At the bottom of the window, there are four buttons: Save, Load, Reset, and Write. The Write button is highlighted in yellow. The status bar at the bottom left shows "EV48-400-C".

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.

Profile Creation/Editing

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.

See the above Loading Profiles section for how to Load and Pre-existing Profile to your Controller.

The Profile Editor allows you to create new profiles from your controller's parameters or editing existing Profile files.

BlueJay : v20250814

Profile Editor
Create New Profiles - Edit Existing Profiles
Refer to the Quick Start PDF for Profile Editing Tips
Note: This does NOT Load a Profile to the Controller
Use the Tuning card to Load a Profile to Controller

☐ All/None

Parameter Name		Min-Max	Set
<input checked="" type="checkbox"/> Motor Maximum Speed	RPM	0-8000	7777
<input checked="" type="checkbox"/> Forward High Gear Max Speed	RPM	0-7777	7000
<input checked="" type="checkbox"/> Forward Slow Gear Max Speed	RPM	0-7777	3500
<input type="checkbox"/> Reverse Max Speed	RPM	0-7777	1500
<input type="checkbox"/> Forward Acceleration 0->500 RPM	RPM/S	0-100	30
<input type="checkbox"/> Forward Acceleration 500->1000 RPM	RPM/S	0-100	20
<input type="checkbox"/> Forward Acceleration 1000->2000 RPM	RPM/S	0-100	15
<input type="checkbox"/> Forward Acceleration 2000->3000 RPM	RPM/S	0-100	15
<input type="checkbox"/> Forward Acceleration 3000->4000 RPM	RPM/S	0-100	12
<input type="checkbox"/> Forward Acceleration 4000->5000 RPM	RPM/S	0-100	10
<input type="checkbox"/> Forward Acceleration 5000->MAX RPM	RPM/S	0-100	10
<input type="checkbox"/> Reverse Acceleration	RPM/S	0-100	12
<input checked="" type="checkbox"/> Driving Torque Factor 0->500 RPM	%	0-100	100
<input checked="" type="checkbox"/> Driving Torque Factor 500->1000 RPM	%	0-100	100
<input checked="" type="checkbox"/> Driving Torque Factor 1000->1500 RPM	%	0-100	98
<input checked="" type="checkbox"/> Driving Torque Factor 1500->2000 RPM	%	0-100	95
<input checked="" type="checkbox"/> Driving Torque Factor 2000->2500 RPM	%	0-100	90
<input checked="" type="checkbox"/> Driving Torque Factor 2500->3000 RPM	%	0-100	85
<input checked="" type="checkbox"/> Driving Torque Factor 3000->MAX RPM	%	0-100	80
<input type="checkbox"/> Forward Deceleration MAX->5000 RPM	RPM/S	0-100	6
<input type="checkbox"/> Forward Deceleration 5000->4000 RPM	RPM/S	0-100	6
<input type="checkbox"/> Forward Deceleration 4000->3000 RPM	RPM/S	0-100	6

Load from Controller **Load from File** **Write to File**

EV48-400-C

Create New Profile

The Load from Profile button loads your current controller settings into the Profile Editor. You can edit the values by double-clicking the Set column cell. This only changes the profile value and DOES NOT affect your connected controller's settings.

You can check/uncheck individual parameters and then only the Parameters that are checked will be written when you save.

Load from File

<Sorry! Load from File Feature is Temporarily Disabled>

The Load from File button allows you to load an existing Profile for your controller into the Profile Editor, make edits and save back to the same profile or create a new file/version.

Write Profile

The Write to File button will prompt you for a location and filename to write the Profile Editor contents to a Profile file. You can choose whatever location and name that you want. By default, BlueJay will suggest the %APPDATA%\BlueJay profile folder that matches your connected controller.

Only the Parameters that are checked will be written.

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: support@bluejaytuning.com

FAQs

Why isn't BlueJay free?

Since the OEM controller programs like GEF12Host, FJ Programming Tool, IconLive 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://bluejaytuning.com>

Where can I find a list of reported bugs?

- Go to: <https://bluejaytuning.com>
- Report bugs to: support@bluejaytuning.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: support@bluejaytuning.com

