

Scorpius User Manual

Version 1.0

Part 1: Controller

Part 2: Car Decoder

Part 3: Lane Brain

Part 4: Dongle





Sensitivity 0-9

SENSITIVITY

MENU

BRAKE

Brake 0-100%

Menu

The Homepage

The homepage shows Driver name, Driver ID 1-24, Sensitivity setting 0-9, Brake setting 0-100%

| | | |
|--------------|---|----|
| David | 1 | S5 |
| Brake = 100% | | |

Typical homepage display

1) ID Configuration

To change controller ID number:

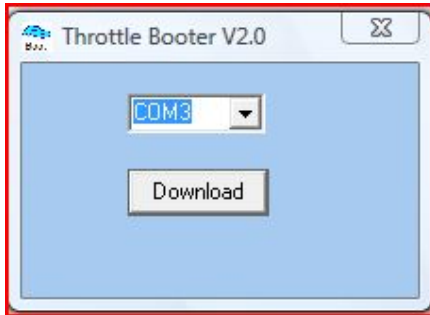
- i) Press Menu button for 2 seconds
- ii) Use menu knob to scroll to ID page
- iii) Press LC button once, this takes you to "Edit ID"
- iv) Use menu knob to scroll to desired ID number
- v) Press LC button to exit edit mode
- vi) Press menu button to escape

The controller ID is now set.

Menu screens:

1) Reflash from PC

Displays as follows:

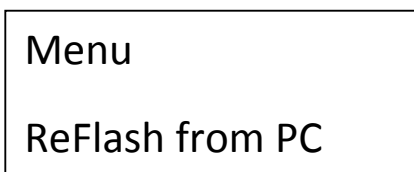


Scorpius Throttle Booter

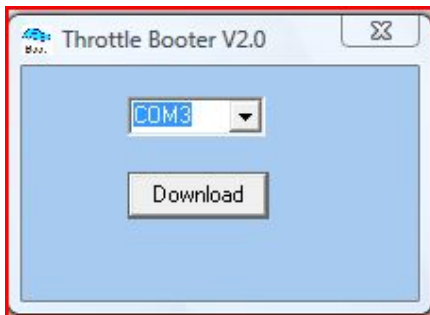
Reflashing updates the controller with the latest software.

To reflash controller:

- i) Click on Scorpius Throttle Booter program on PC.
- ii) Press Menu button for 2 seconds to activate menu on controller.
- iii) Use Menu knob to scroll to "Reflash from PC"

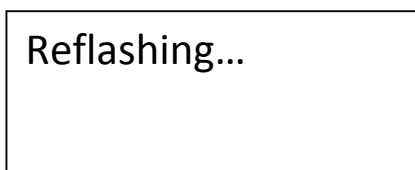


- iv) On PC press "Download" to prompt

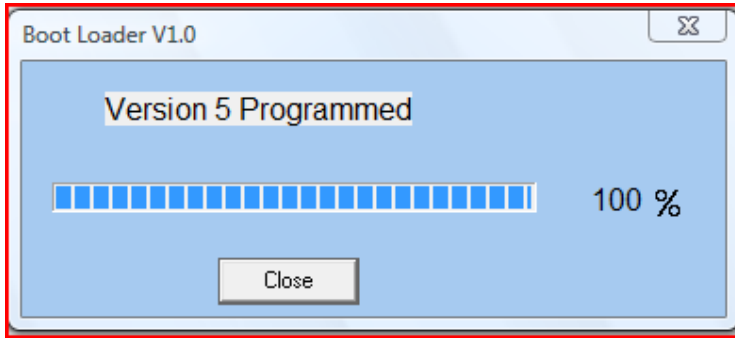


- v) On the controller press LC button to start download.

The controller screen will show like this:



On PC download progress bar should start filling from 0 to 100%



vi) Press “Close” once the progress bar is full.

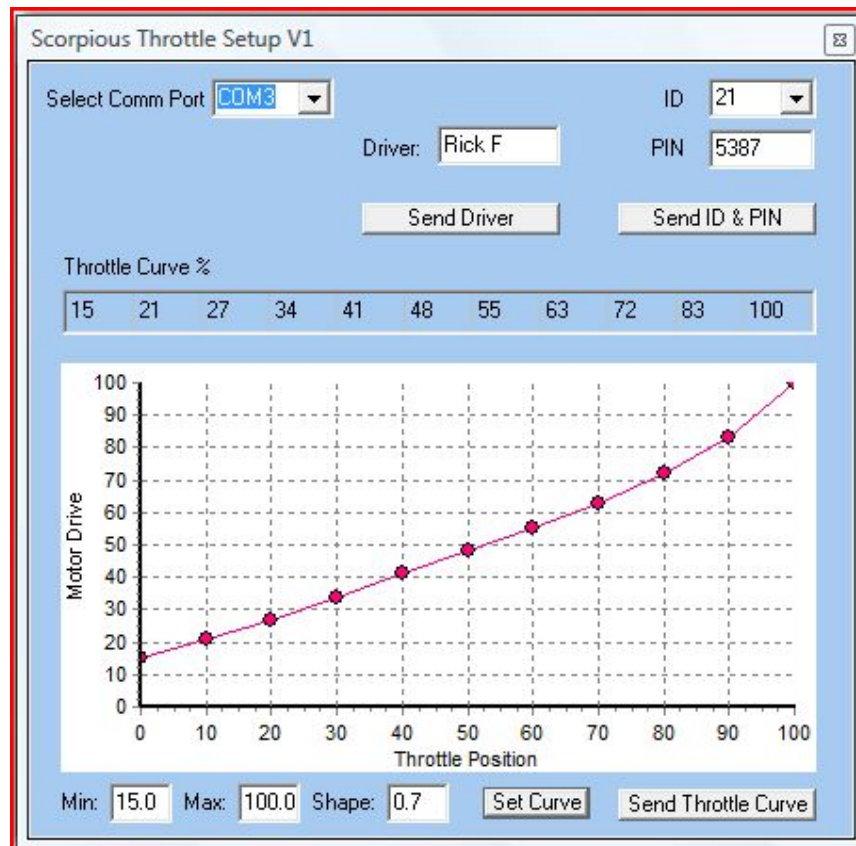
After 5 seconds controller screen will return to the home page.

vi) Close Scorpius Throttle Booter program

Your controller has now been reflashed (upgraded) wirelessly.

2) Configure from PC

Displays as follows:



Scorpius Controller Set Up Program

3 functions on your controller you can reconfigure from your PC

i) Reconfiguring Driver

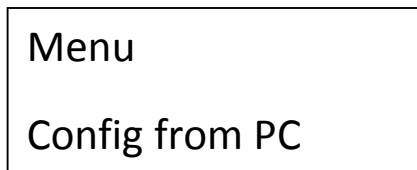
ii) Reconfiguring ID and/or PIN.

iii) Reconfiguring Throttle Curve

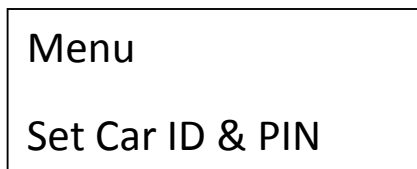
Click on “Send ID & PIN” or “Send Throttle Curve” or “Send Driver” depending on the requirement.

Press Menu button on controller for 2 seconds.

Use Menu knob to select “Config from PC”.



Press LC button. “Configuring...” will come up on controller screen.



Press OK on Scorpius Throttle Setup prompt box.

Controller screen returns to default setting. Controller ID and PIN have now been reconfigured.

ii) Driver name

Go to Scorpius Throttle Setup program on PC

Change driver name to requirements.

Click on “Send Driver”

Select "Reconfig from PC" on controller menu.

Press LC button. "configuring" will come up on screen.



Configuring...

Press OK on Scorpius Throttle Setup prompt box on PC.

After 5 seconds controller screen returns to home page.

Driver name has now been reconfigured.

iii) Throttle power curve.

Go to Scorpius Throttle Setup program on PC

Change throttle curve to requirements.

Click "Set Curve"

Click on "Send Curve"

Select "Reconfig from PC" on controller menu.

Press LC button. "Reconfiguring" will come up on screen.

Press OK on Scorpius Throttle Setup prompt box.

Controller screen returns to default setting. Controller power curve has now been reconfigured.

3) Version



Menu

Version = 5

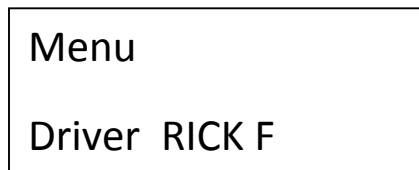
Shows the software version number for reference.

4) Driver name

To reconfigure from controller:

Press Menu button for 2 seconds to activate menu on controller.

Use Menu knob to scroll to Driver Name page.



Press LC button, use brake knob to scroll to letter. Press LC to lock it in.

Press LC button again to progress to the next letter.

Press LC button, use brake knob to scroll to letter. Press LC to lock it in.

Repeat for all letters.

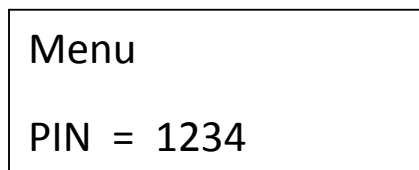
Press brake menu twice to escape.

5) PIN

To reconfigure from controller:

Press Menu button for 2 seconds to activate menu on controller.

Use menu knob to scroll to PIN page.



Press LC button, use menu knob to scroll to desired numbers. Press LC to lock it in.

Press LC button again to progress to the next number.

Press LC button, use menu knob to scroll to desired numbers. Press LC to lock it in.

Press menu button twice to escape.

6) Throttle power curve edit

To reconfigure from controller:

Press menu button for 2 seconds to activate menu on controller.

Use menu knob to scroll to "Edit Curve" page.

| |
|------------|
| Menu |
| Edit Curve |

Press LC button, use menu knob to scroll to desired point. There are 10 bands horizontally to choose from. Press LC to lock the band, use the menu knob to select value between 0-100.

| |
|---------------|
| Edit Curve |
| Point 5 = 50% |

Use LC button to lock value in. Use menu knob to select another point (band) and repeat for all bands.

Press menu button twice to escape.

7) Learner mode setting

To reconfigure from controller:

Press Menu button for 2 seconds to activate menu on controller.

Use menu knob to scroll to "Learn"

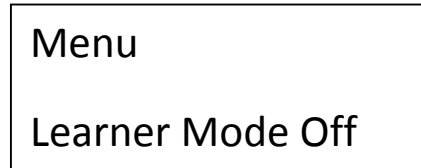
| |
|-----------------|
| Menu |
| Learn Max = 70% |

Press LC button. Use menu knob to dial value 0-100. 100 is 100% power, 50 is 50% of full power etc.

Press menu button twice to escape.

8) Learner mode on/off

Use brake knob to scroll to "Learn Mode On/Off"



Press LC button to select either on or off.

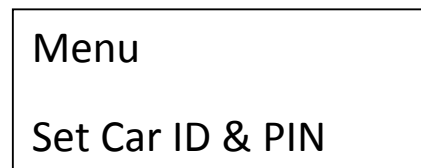
Press menu button once to escape.

9) Set Car ID & PIN

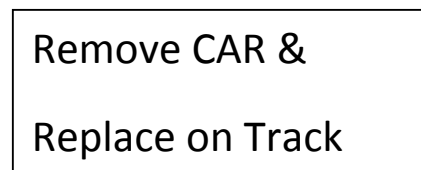
To transfer throttle ID and PIN to car from controller:

Press Menu button for 2 seconds to activate menu on controller.

Use Menu knob to scroll to "Set Car ID and PIN"



Press LC button. Controller prompt on screen reads :



Press LC button to return to menu.

Press Menu button to escape.

The car now has the same ID and PIN as the controller and are a matching pair.

Ensure no other cars are stationary on the track or they will receive the same settings.

10) Controller ID

To change ID of the controller:

Press Menu button for 2 seconds to activate menu on controller.

Use Menu knob to scroll to ID page.

Menu

ID = 9

Press LC button

Use menu knob to choose desired ID

Edit

ID = 10

Press LC button to lock it in.

Press Menu button once to escape.

11)Sensitivity

Simply use Sensitivity knob to scroll from 0-9 (10 preset curves)

Part 2: Car Decoder

Reflashing Car decoder

Select Scorpius Booter program. Press “download” button.

Lift car from rails for 5 seconds and replace.

The Scorpius car decoder now has the latest firmware.

Changing Car ID

See under Controller section, part 9

Part 3: Lane Brain

Reflashing Lane Brain

Select Lane Brain Booter program. Press “download” button.

Press the reset button on the Lane Brain.

Press OK on booter window or cancel to quit.

Flippers will now operate every 5 seconds, this confirms the Lane Brain has been reflashed.

Switch off system for 5 seconds, turn system back on.

Lane Brain now has latest firmware and is ready to use..

Reconfiguring Lane Brain

Select Lane Brain Set Up program on the PC.

Reconfigure the LB by adjusting parameters and boxes.

Press “Download”.

Press the reset button on the Lane Brain.

Press “OK” on Set Up program.

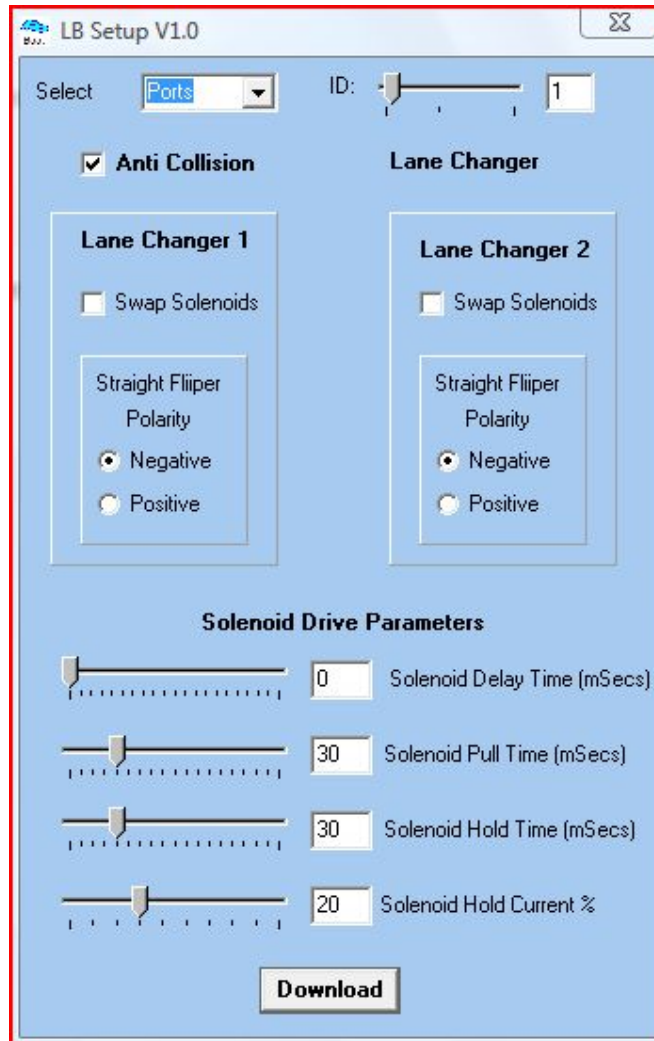
Flippers will now operate every 5 seconds, this confirms the Lane Brain has been reconfigured.

Switch off system for 5 seconds, turn system back on.

Lane Brain is now reconfigured and ready to use.

Changing parameters on the Lane Brain Set Up program

Setting parameters before sending to Lane Brain:



The Lane Brain Set Up program

Com Port select

Reconfigure communication port.

Press "Download" and follow the prompts.

Set Lane Brain ID

Set Lane Brain ID number from 0 to 24

Use slider to set ID

Set Lane Brain to ID 0 for lapcounting.

Set each Lane Changer and set the corresponding Lane Brain to the same ID.

Set Lane Brain IDs in numerical sequence starting at number 1 being the first LC after the start, 2 being the second LC, etc

Press "Download" and follow the prompts.

Anti Collision

Tick box to enable Anti Collision

Untick to disable.

Press "Download" and follow the prompts.

Spring Flipper

Tick this box if you are using Carrera, Ninco or any custom made flipper assembly where one solenoid is used in conjunction with spring or mechanical return mechanism.

Swap Solenoids

Incorrectly wired solenoids, example gate shuts when it should open and vice versa, can be reversed by ticking the box and reconfiguring.

Press "Download" and follow the prompt.

Swap Polarity

Swap polarity of live flipper if required

Press "Download" and follow the prompts.

Change solenoid drive parameters

Adjust the following:

Solenoid delay time

Used in situation where flipper opens and closes before car arrives at flipper. Increase value in 10 mSec increments until suitable.

Solenoid pull time

The pull time is the time that power is applied to the solenoid.

Sending new parameters to LB

Once you have chosen your new parameters press "Download" on the LB Set UP program.

Press reset button on LB.

Press OK on LB Set Up program

Flippers will operate every 5 seconds.

Turn system off for 5 seconds.

Turn system back on.

Lane Brain is now reconfigured.

Part 4: Dongle

Install the CP-210X program supplied.

Plug dongle into USB port.

Dongle is now ready to use.

END OF DOCUMENT