WireOrLess Controller V3.16

Set the ID to be used and pair to the wireless receiver

Switch off the controller. (Center position of the power switch.)

Select the desired ID on the Carrera receiver.

Keep the crossover button pressed down.

Move the power switch to the right (activation of wireless mode).

Receiver acknowledges programming with "7-segment round trip". Controller ready to start.

When switching on the controller, the number of flashes indicates which ID it is programmed to.

Activating the configuration mode

For configuration, the controller must first be paired with the receiver and the receiver must be active during configuration. Alternatively the controller can be set to cable mode including the cable being connected to the powered Control Unit.

Switch off the controller.

Keep the gas control knob completely pressed (full throttle) and the switch button pressed. Hold both and now switch on the controller via its power button. (In radio mode: switch to the right, in cable module: switch to the left).

LED lights up.

Release the switch button

Release the trigger

The configuration starts.

The configuration is based on the Speedflow Wireless programming

The controller shows the currently selected configuration by the number of flashes it emits. It continuously repeats the number of flashes, separated by a pause.

The desired configuration value is selected by briefly pressing the switch button. A short press of the button selects the next possible value for the configuration.

The selected value is stored by keeping the switch button pressed until the LED flashes quickly, confirming the storing of the configuration.

After storing, the next configuration option is displayed via the flashing LED. The following configuration options are available.

1. Number of speed steps

1 x flashing - original Carrera 16 speed steps

3 x flashing - Speedflow control 30 speed steps

4 x flashing - Speedflow control 44 speed levels

5 flashes - WOL 44Plus

Selection: press briefly. Save: press and hold until LED flashes quickly, then release again. Now the next configuration step can be performed.

2. Launch Control can be activated or deactivated

1 x flashing deactivated

2 x flashing Launch Control is available

Selection between these two options: press briefly\ Save: press and hold until LED flashes quickly, then release again.\ Continue to next configuration step.

3. Select performance curve

The performance curve defines how the pressing of the trigger get translated to the power delivered to the motor. The fine tuning is done via the trimmer on the side of the controller and can even be adjusted while driving.
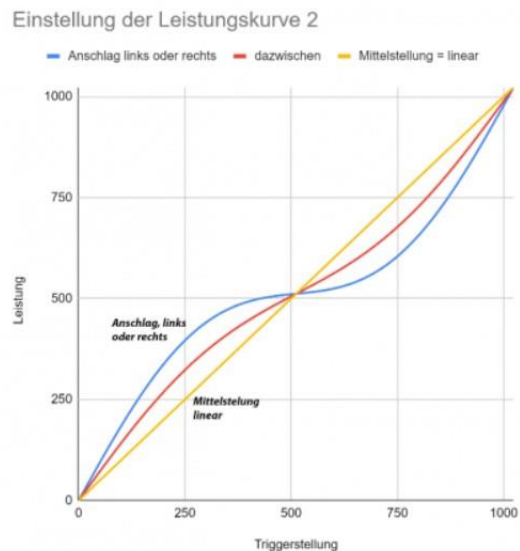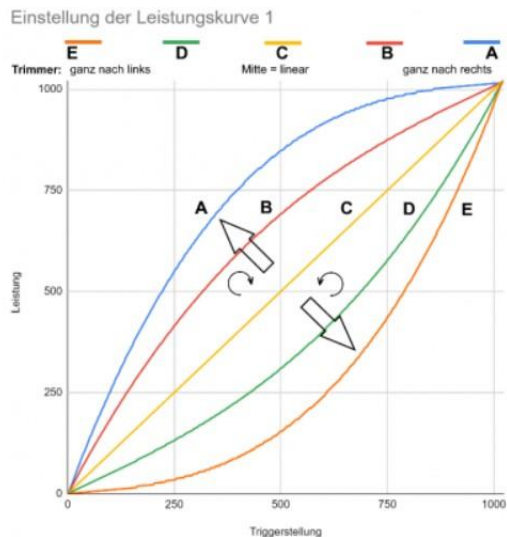
Here in the configuration menu the basic curve can be selected. The curve is not modified if the trimmer is in center position. Turning it left or right bends the curve. Simply try it.

1 x flashing simple curve is selected – preferred by most people.

2 x flashing the S-shaped curve is selected.

The number of flashes indicates which curve is selected.

Selection: press briefly\ Save: press and hold until LED flashes quickly, then release again.

Einstellung der Leistungskurve 1

E D C B A
Trimmer: ganz nach links   Mitte = linear   ganz nach rechts

1000
750
Leistung
500
250
0

A B C D E

0   250   500   750   1000
Triggerstellung

Einstellung der Leistungskurve 2

— Anschlag links oder rechts   — dazwischen   — Mittelstellung = linear

1000
750
Leistung
500
250
0

Anschlag, links
oder rechts

Mittelstelung
linear

0   250   500   750   1000
Triggerstellung

Turning the trimmer (the knob on the side oft he controller) bends the curve like you can see in the graph. Center position results in a straight line.

Continue to the next configuration step.

4. Set trigger position from which the car starts

In this configuration step, you can verify the start position of the trigger and set the position you want. For smaller hands it might be desirable to have the start position closer to the handle.

Verify configuration: psess the trigger slowly. As long as it is less pressed, than the start position the LED is off. Once you cross the start position (trigger is more pressed than the start position) the LED turns on.

Setting a new starting position: Move the trigger to the desired start position, hold it steady. While holding, press the switch button, until the LED flashes, confirming the saving of the start position..

5. Set trigger position from which the car runs at full throttle

Here you can verify and set the full throttle trigger position. Verification and configuration works just like for the trigger start position.

The LED switches on/off when you cross the full throttle position.

Setting the new full throttle position: hold the trigger at the desired position. While holding press the switch button until you see the LED flashing.

Congratulations you have finished configuration!

In case you do not want to program all options you can stop the programming sequence earlier. Just keep in mind, that each step is only stored after the fast confirmation flashes have been observed.

Quick menu -- NCE FET curve

There are original decoders in circulation, which have a very aggressive performance curve. The topic was intensively discussed in freeslotter in late 2019, early 2020. Our customers asked us if we could help and have an extra soft mode to reduce the aggressive behavior of these decoders.
To make driving with these decoders much easier, you can activate a compensation mode in the WireOrLess controller which neutralizes this behavior. All further settings of the power curves, as described above, are of course retained.

Activation/deactivation:

Switch off controller (middle position)

Keep the gas completely pressed through and

Move the On / Off switch to the right.

Release the trigger.

Current programming is displayed:

- 1 x flashing deactivated

2 x flashes NCE-FET compensation curve is active

Selection: press briefly\ Save: press and hold until LED flashes quickly.

Do not forget to save via a long press until you see the LED flashing!

Resetting to factory default settings

Switch off the controller. Keep trigger and turnout button pressed during power on and keep both pressed for about 10 seconds.

The controller acknowledges the reset after about 8 seconds with a steady flashing signal. Now the controller can be switched off and on again. It was reset to the factory settings (DEFAULT).

Afterwards it must be tuned in again to the desired receiver.

If you have reset the controller to its default settings, we recommend to configure the start and full throttle trigger point for your controller again for optimal operation. See "Set the trigger position from which the car starts" or "Set the trigger position from which the car runs at full throttle".

Standby / power saving mode

After 5 minutes without use, the controller goes into sleep mode. This reduces the power consumption to a tiny fraction. Saving battery power in case you forget to switch it off.

Cable operation

Switch off the controller. (Center position of the on/off switch.)

Plug the supplied cable into the bottom of the controller housing. The supplied cable has two different plugs. The plug with the central latch is plugged into the controller.

Plug the other end of the cable into the control unit or expansion box.

Set controller to cable operation

Move the On / Off switch to the far left.

The configuration menu and the quick menu can also be reached in cable mode - see above – in this case to switch on the controller move the on/off switch to the left.

In cable mode the controller also works without batteries.

Default values

The controller is ready for immediate use and only needs to be programmed to your wireless receiver. During the final test, we adjusted the start point and full-throttle point specifically for your controller.

Speed steps 44Plus

Launch Control active

Curve 1 active

Default starting point

Full throttle point preset

Questions

How do I find out on which channel my controllers are currently programmed?

Just count the slow flashing signals when switching on. The number corresponds to the channel number

How do I check the battery condition?

In wireless operation, the LED flashes regularly. The LED flashes the more often the battery is depleated. If it flashes about three times per second, the battery is slowly running down. Battery operation - see: "Can rechargeable batteries be used?"\ The controller switches off at 1.8V.

Can rechargeable batteries be used?

When using rechargeable batteries, you should consider recharging already at one flash per second, otherwise the batteries can be deeply discharged. The controller only switches off at 1.8V.

Is the battery required for cable operation?

In cable mode the controller power is supplied exclusively by the CU (power switch position to the left). No battery is consumed. They could also be removed.

How do I see that the wireless operation is active?

In wireless mode, the controller flashes regularly. The frequency provides information about the battery status. See "How do I check the battery status?".

How do I see that wired operation (cable mode) is active?

The LED only flashes once when the power is turned on (switch to the left). After that the LED is off. Power is supplied exclusively from the Control Unit or the expansion box. The internal battery is completely separated from the electronics.

Why does my controller react only after 2-3 seconds after switching on?

After switching on the wireless operation, the controller shows its channel number by flashing signals. Only after this is it ready to start.

How do I wake up the controller from sleep mode (power save mode)?

In order to achieve this significant reduction in power consumption, it was necessary to stop querying the throttle lever position in sleep mode. This means that only by pressing the switch button the controller wakes up again.

Alternatively the controller can be switched off and on again.