

#### **System Requirement**

USB Programmer #500804U

Application: PN Racing 500804C V4 Programmable Servo Board

Operating Voltage: USB (5V/500mA)

Software Download https://pnracing.com/download/PN-V2105.exe or

https://pnracing.com/download/PN-V2105.rar

Operating System: Windows XP/Windows Vista/Windows 7/Windows 8/Windows 20 32/64bit)

#### **Software Menu Instruction**

Display Window will display connection status as well as servo parameter writing and reading status

Servo	Programmer v21.05	PN Racins
V21.05		
	BASIC PARAMETERS	
Read	Servo Angle: 21	Soft Start
Write	Servo Neutral: 0	Inversion
Open	Damping Factor: 50	Narrow Band
Open	PWM Power: 39.2 %	SANWA SSR
Save	Sensitivity: High	Lose PPM Protection
UPF		Release
	Level 1: 1.5 S \$ 60.0 % \$	Servo Information Servo Name:
Deault	Level 2: 5.0 S 🗘 40.0 % 🗘	Manufacture:
Exit	Level 3: 10.5 S 🛟 29.0 % 🛟	Firmware:
		www.pnracing.co

## **Parameter Function Information**

- 1. Servo Angle: Set the servo rotation angle
- 2. Servo Neutral: Set the servo neutral position

Note: Set transmitter at neutral position, modify this value to adjust the servo horn to desired position.

3. PWM Power: Adjust the servo output power. The higher the power, the higher the servo torque and speed, current consumption will be high as well.

- 4. Damping Factor: Set the servo damping.
- 5. Sensitivity: Adjust the servo dead band (sensitivity).

6. Soft Start: Slowly restoration while power on the servo. Once power on, the servo will gently turn to the position of current input signal.

Note: This function is to prevent damage in case the servo is mounted incorrectly.

- 7. Inversion: Set normal and reverse rotation of the servo.
- 8. Narrow Band: FUTABA SR Mode
- 9. SANWA SSR: SANWA SSR Mode

Note: Enable this function to support SANWA SSR high speed mode. Servo angle needs to readjust.

- 10. Lost PPM Protect: Signal loss protection, there are three functions for selection,
- a. Release: Non-Protection
- b. Keep Position: Stay in the position before the signal loss
- c. Go Neutral Position: Back to Neutral position (1500uS position)

11. Over Load Protect: Set the servo blocking protection, there are 3 levels, Check the box to enable protection.

Note: The value on the left indicates when servo protection will turn on, the value on the right indicates max power output when servo protection is turned on.

12. Servo Information: Servo information. Including servo model, version date, firmware name.

- 13. Read: Read the servo parameter from the software interface.
- 14. Write: Write current parameter into servo.
- 15. Open: Open servo parameter file which saved on the computer.
- 16. Save: Save current servo parameter to the computer

- 17. UPF: Servo firmware upgrade function.
- 18. Default: Restore factory default setting.
- 19. Exit: Exit and close the configuration software

## **Parameter Function Instruction**

- 1. PWM Power: Adjust the servo output power. The higher the power, the higher the servo torque and speed, current consumption will be high as well.
- 2. Inversion: Set normal and reverse rotation of the servo
- 3. Servo Information: Servo information. Including servo model, version date, firmware name.

Servo Name: Servo model

Manufacture: Servo version date

Firmware: Servo firmware name

- 4. Read: Read the servo parameter from the software interface.
- 5. Write: Write current parameter into servo.
- 6. Open: Open servo parameter file which saved on the computer.
- 7. Save: Save current servo parameter to the computer
- 8. UPF: Servo firmware upgrade function.
- 9. Default: Restore factory defaults
- 10. Exit: Exit and close the configuration software

# **Default Setting**

After long time testing by PN team, we find out the best setting for the PNR2.5 and MR03 chassis.