

USER MANUAL FOR **AGF-SP** AGFRC SERVO PROGRAMMER



AGFRC SERVO PROGRAMMER SOFTWARE DOWNLOAD ADDRESS

<https://www.agfrc.com/index.php?id=download-center>

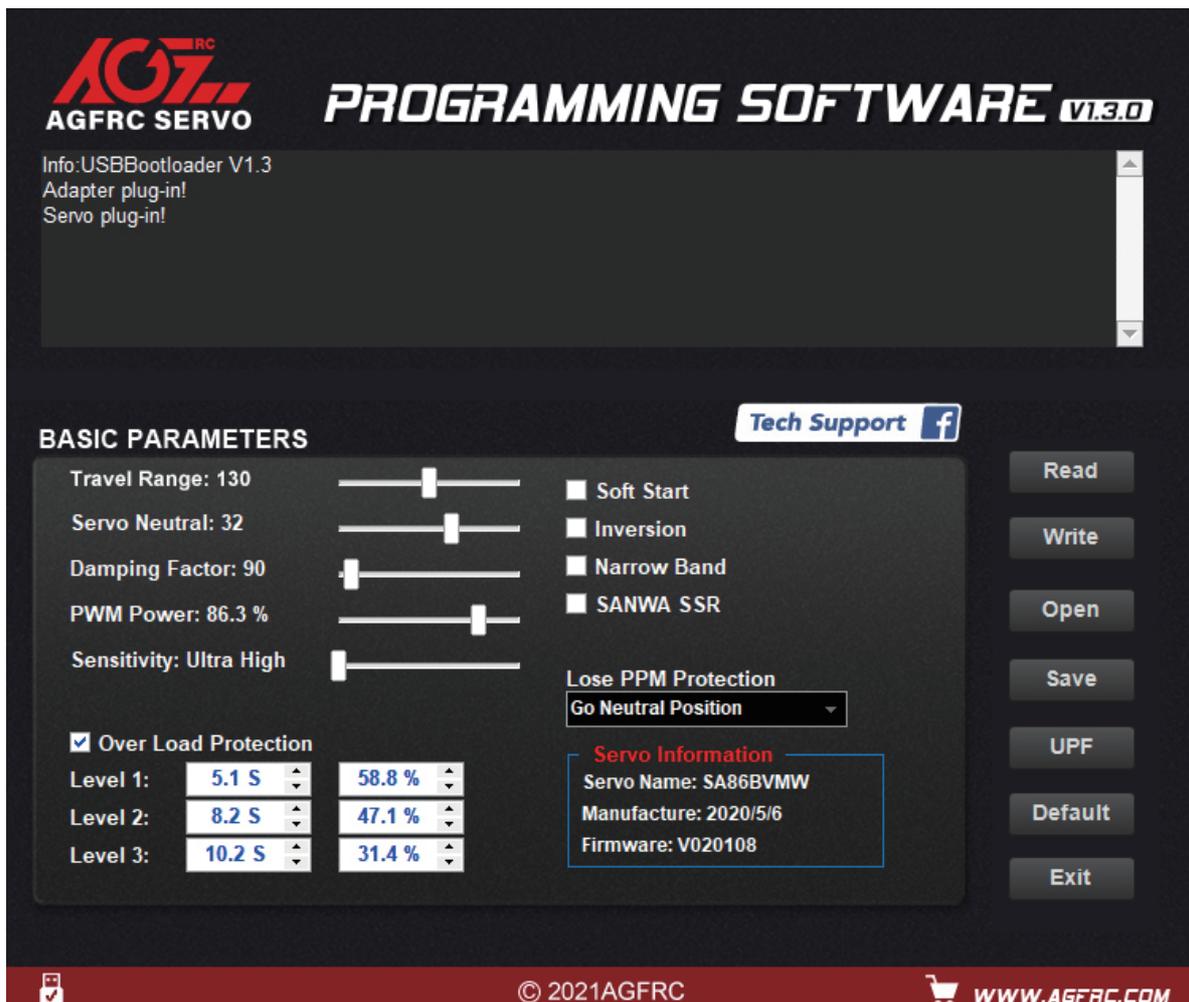
System Requirement

- 1 Operating Voltage: USB (5V/500mA).
- 2 Operating System: Windows XP/Windows Vista/Windows 7/Windows 8 /windows10 (32/64bit).
- 3 Application: AGFrc Servos with “” marked.

Software Menu Instruction

► Regular Servo

The centre part is for information display window, while connect/disconnect program card, or Write/ Read servo parameter, it will show information.



AGFRC SERVO **PROGRAMMING SOFTWARE V1.3.0**

Info:USBBootloader V1.3
Adapter plug-in!
Servo plug-in!

BASIC PARAMETERS Tech Support 

Travel Range: 130

Servo Neutral: 32

Damping Factor: 90

PWM Power: 86.3 %

Sensitivity: Ultra High

Over Load Protection

| | | |
|----------|--------|--------|
| Level 1: | 5.1 S | 58.8 % |
| Level 2: | 8.2 S | 47.1 % |
| Level 3: | 10.2 S | 31.4 % |

Soft Start

Inversion

Narrow Band

SANWA SSR

Lose PPM Protection
Go Neutral Position

Servo Information

Servo Name: SA86BVMW
Manufacture: 2020/5/6
Firmware: V020108

Read
Write
Open
Save
UPF
Default
Exit

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Parameter Function Instruction

- 1 **Travel Range:** Set the operating angle of the servo, the indicated value is not for the real servo angle.
NOTE: As different servo angle with different indicated value, users need to adjust as required.
- 2 **Servo Neutral:** Set the servo neutral position.
NOTE: While the transmitter turn to the neutral position, if the servo do not stay in the corresponding position, it can modify this value to adjust the servo horn. This is equivalent to the trimming of transmitter channel.
- 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 from servo incorrect mounting while power on.
- 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, it can support SANWA SSR high speed mode. Servo angle may be not accurate, it need to re-adjust.
- 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 three levels, ticked to enable protection.

Level 1: Set the starting time and power value of the primary protection.

Level 2: Set the starting time and power value of the secondary protection.

Level 3: Set the starting time and power value of the tertiary protection.

NOTE: Left side is to set the protection starting time, right side is to set output power value after Enable starting protection.

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

Servo Name: Servo model.

Manufacture: Servo version date.

Firmware: Servo 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.

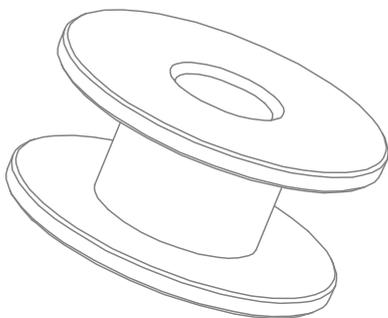
16 Save: Save current servo parameter to the computer.

17 UPF: Servo firmware upgrade function.

18 Default: Restore factory defaults.

19 Exit: Exit and close the configuration software.

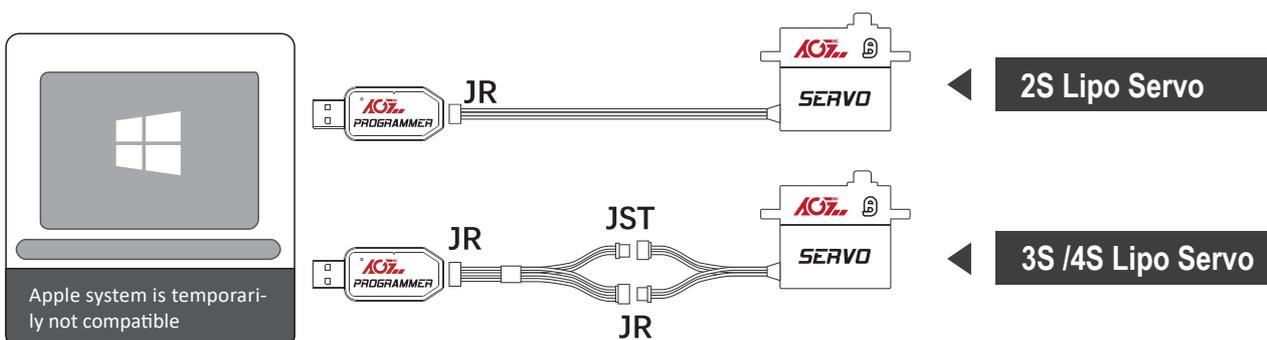
► Servo Winch



Parameter Function Instruction

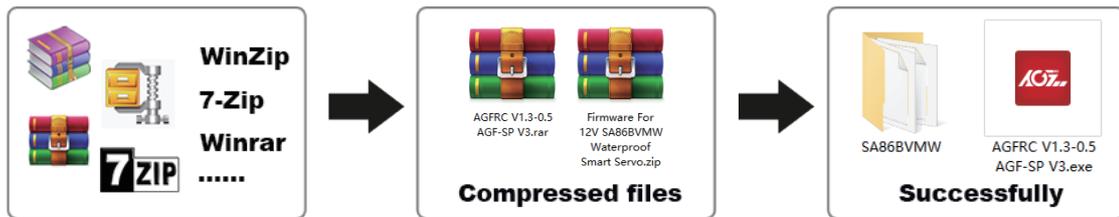
- 1 **PWM Power:** Adjust the servo output power. The higher the power, the higher the servo torque and speed, current consumption will be high as well.
- 2 **ProPTL:3.0s:** The starting time for servo blocking protection (unit: seconds), while the servo is blocked and last up to the setting value, the protection will be active, and servo will stop working.
- 3 **Inversion:** Set normal and reverse rotation of the servo.
- 4 **Servo Information:** Servo information. Including servo model, version date, firmware name.
Servo Name: Servo model.
Manufacture: Servo version date.
Firmware: Servo firmware name.
- 5 **Read:** Read the servo parameter from the software interface.
- 6 **Write:** Write current parameter into servo.
- 7 **Open:** Open servo parameter file which saved on the computer.
- 8 **Save:** Save current servo parameter to the computer.
- 9 **UPF:** Servo firmware upgrade function.
- 10 **Default:** Not available.
- 11 **Exit:** Exit and close the configuration software.

Wiring Diagram

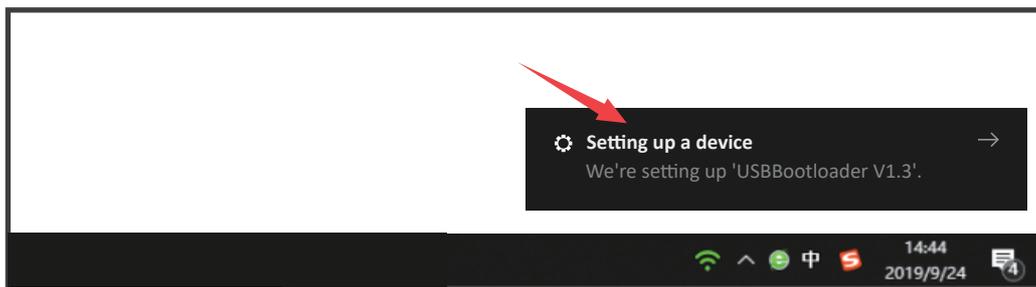


Usage Instruction

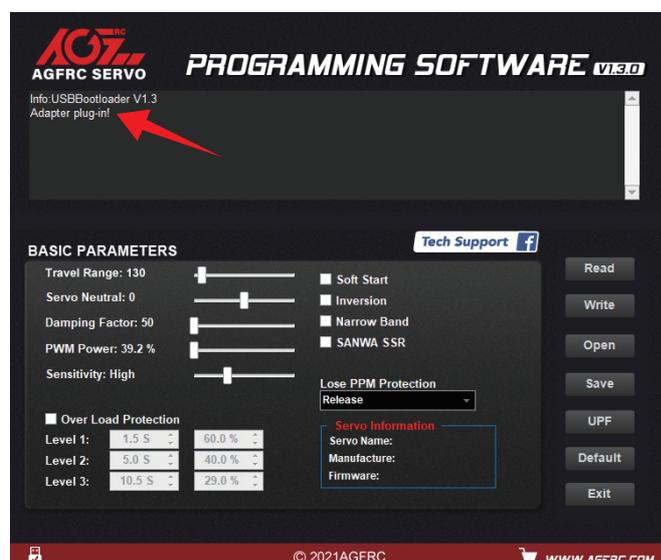
- 1 Download the programming software from AGFRC website which displayed at the bottom of manual home page, decompress the software file, open the software. (see below photo)



- 2 Plug USB program card into the computer, this program card is free driver installation, wait for system automatically install driver (around 5-10 seconds). While the hint as below pic appear at the bottom right corner, that means driver completed automatic installation.



- 3 Open the software, it will show program card plug-in successfully in the information window. Otherwise it need to pull out the program card and re-plug again.



- 4 Plug in servo, the software will recognize automatically and read servo parameter for current interface (as pic).

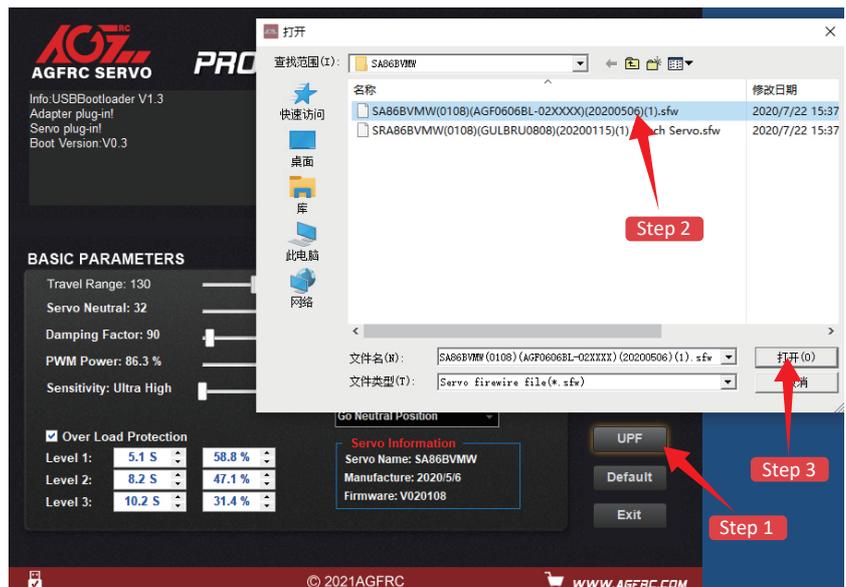
NOTE: If without hint, the servo and USB program card may be plugged in wrong way, re-plug and insert again the USB program card.



Servo Firmware Update Instruction

► Firmware Update for Regular Servo

- 1 While connected with the servo, click "UPF", select the upgrade firmware from the pop-up window, and click to upgrade (as pic).



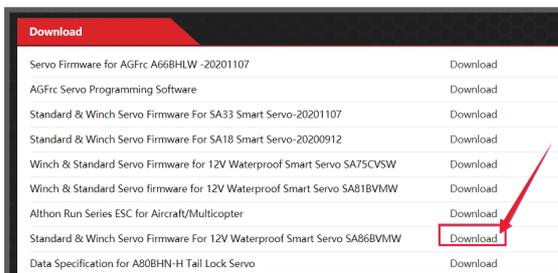
2 During upgrading, information window will hint upgrade process, it will shows "Success Update" once completed (as pic).



3 After finished updated the servo firmware, the servo parameter will be read automatically on the software interface.

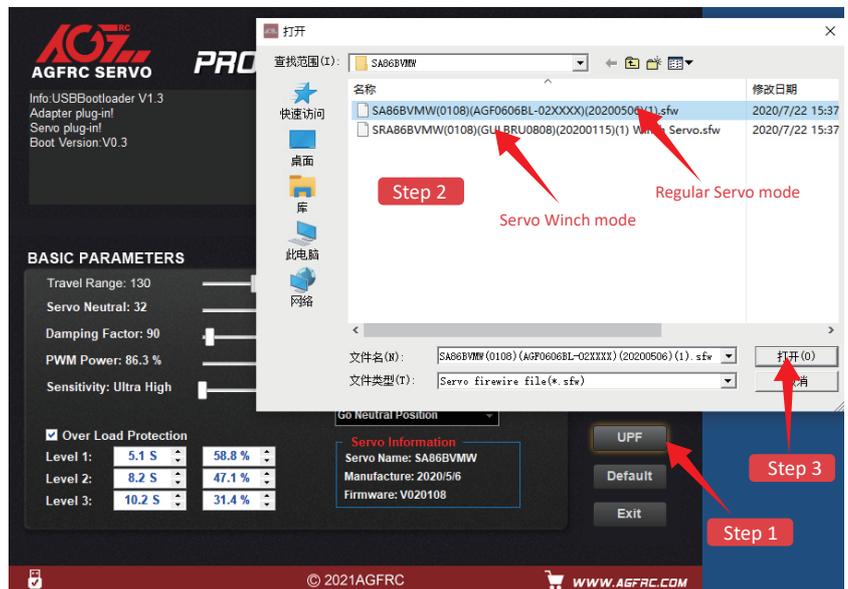
► Firmware Update and Switch for Smart Servo

1 Download the corresponding firmware compressed file of smart servo (please ensure your computer with compressing software like WinRZR, 7-Zip, Winzip), decompress file and save to your desktop (as below pic).



2 Click “UPF” to select the corresponding servo firmware, Regular Servo Mode or Servo Winch Mode (as pic).

NOTE: Each smart servo should be matched with corresponding unique firmware, not allow to common use for all smart servos.



3 During firmware updating or switching, process hints will be displayed on the interface, it will show “Success Update” once completed (as below pic).



Problem and Solution

► If it cannot be programmable, please take the following steps,

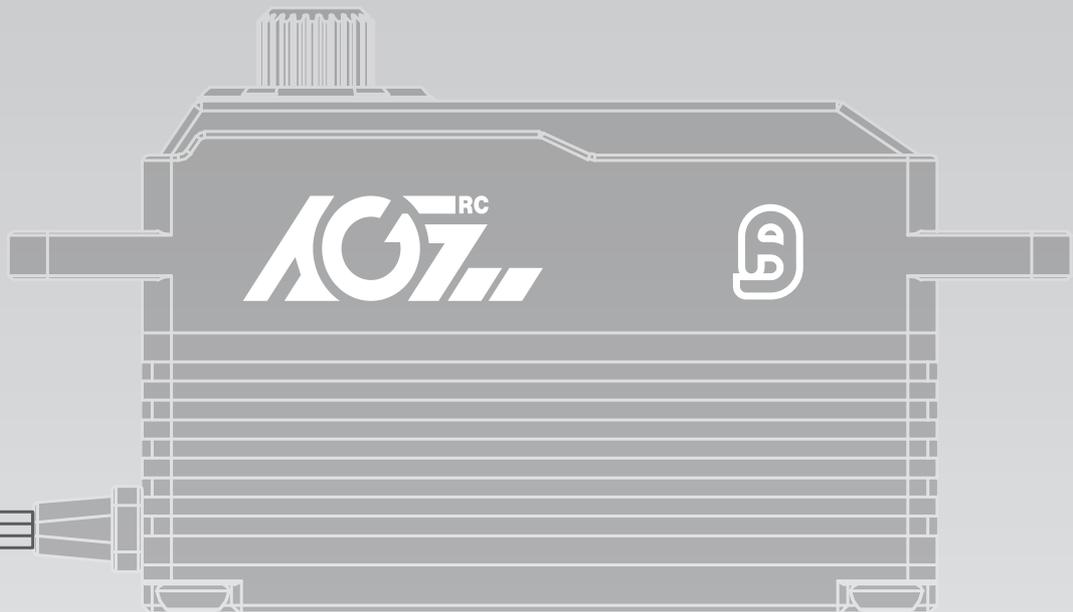
- 1) Check whether connection is proper or not;
- 2) Please check whether the programming software is latest version or not;
- 3) If connection is still failed, please email support@agfrc.com for assistance.



website



FB



THANK YOU FOR PURCHASING AGFRC PRODUCTS!

If any questions or problem, please contact us via support@agfrc.com for assistance.