BM RACING

BM V2 SERVO PROGRAMMER

BMRC SERVO PROGRAMMER SOFTWARE DOWNLOAD ADDRESS

http://www.bmracing.cc/

System Requirement

1 Operating Voltage: USB (5V/500mA).

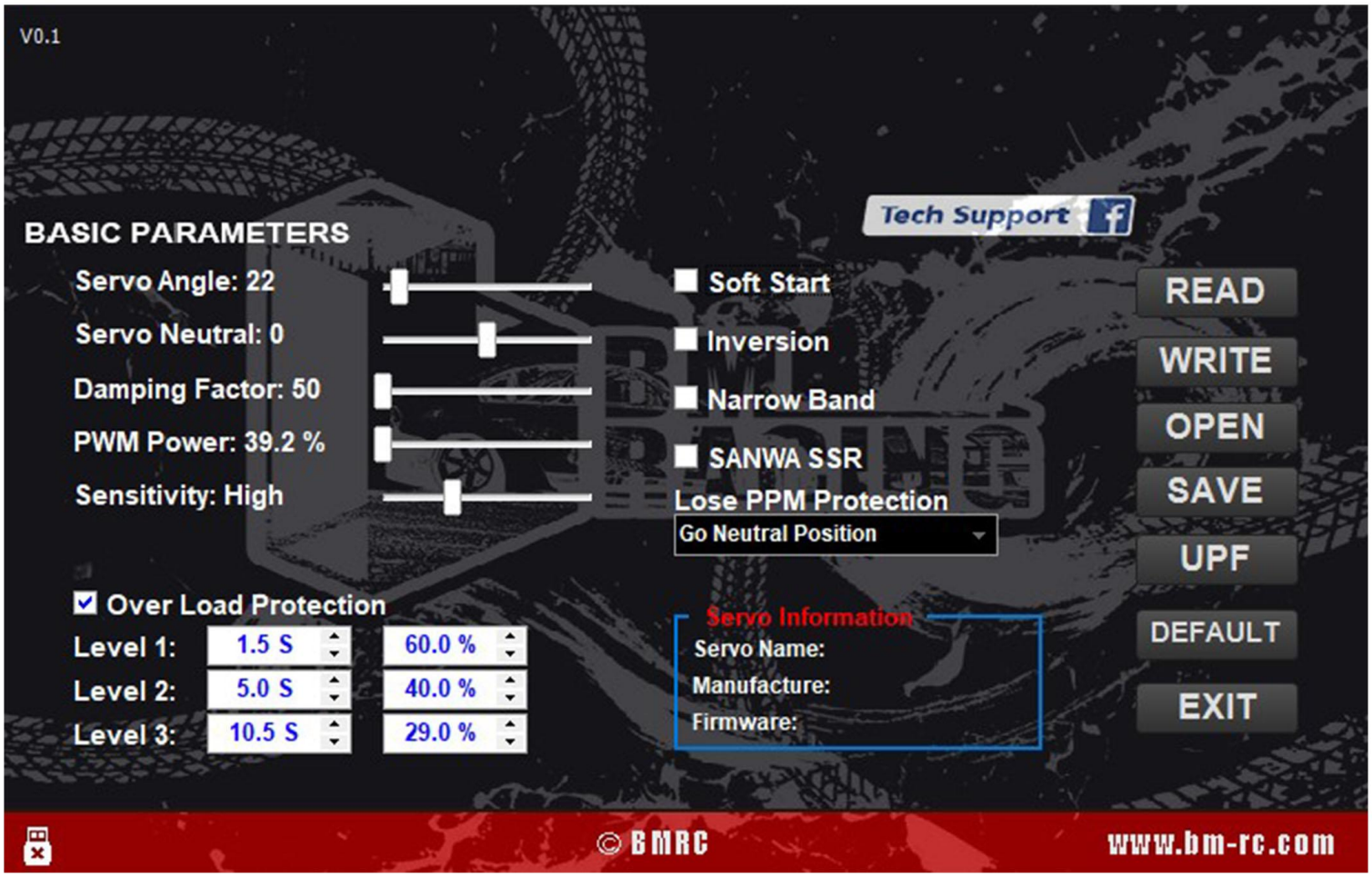
2 Operating System: Windows XP/Windows Vista/Windows 7/Windows 8 /windows10 (32/64bit).

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.



Parameter Function Instruction

1 **Servo Angle:** Set the servo rotation angle.

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.

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.

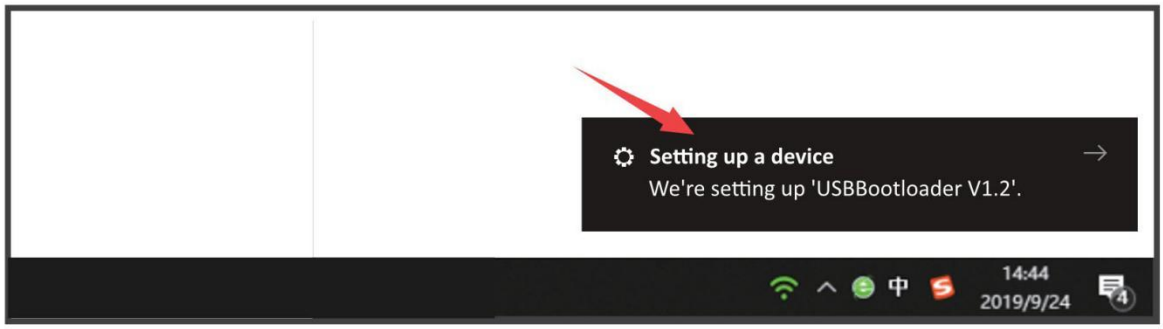
   Manufacture: Servo version date.

   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.

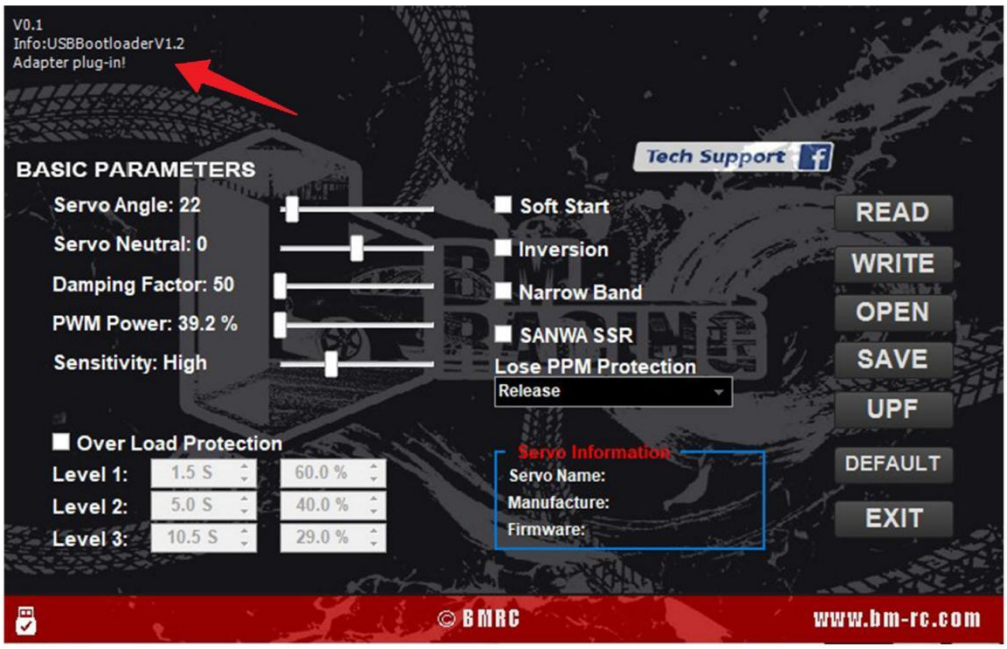
Usage Instruction

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 Connect the servo with USB program card, plug 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.

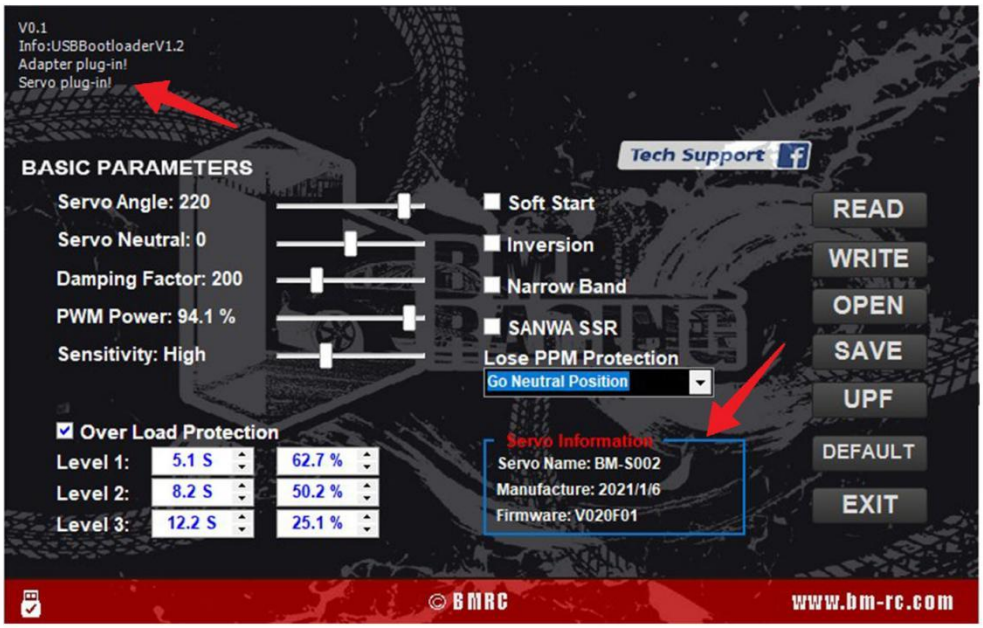


3 Open the software, it will show program card plug-in successfully in the information window. Otherwise it need to pull out the program card and re-plug again.



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

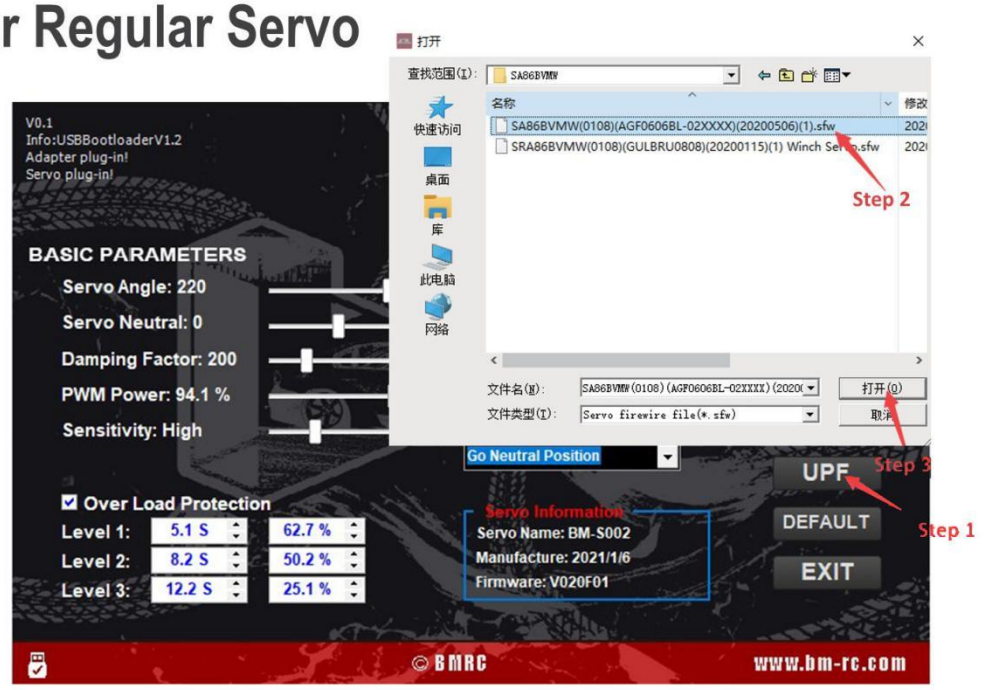
NOTE: If without hint, the servo and USB program card may be plugged in wrong way, re-plug and insert again the USB program card.



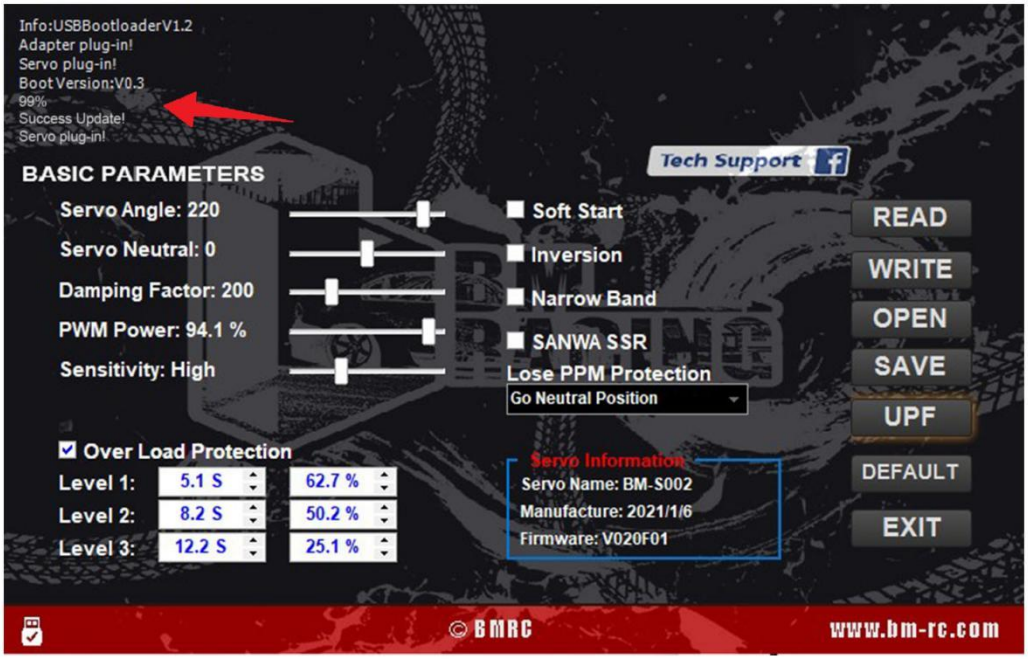
Servo Firmware Update Instruction

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).



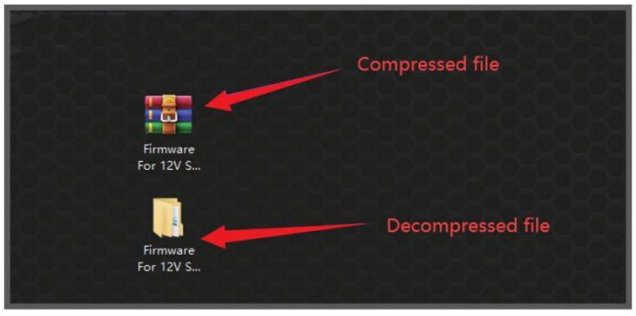
2 During upgrading, information window will hint upgrade process, it will shows “Success Update” once completed (as pic).



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

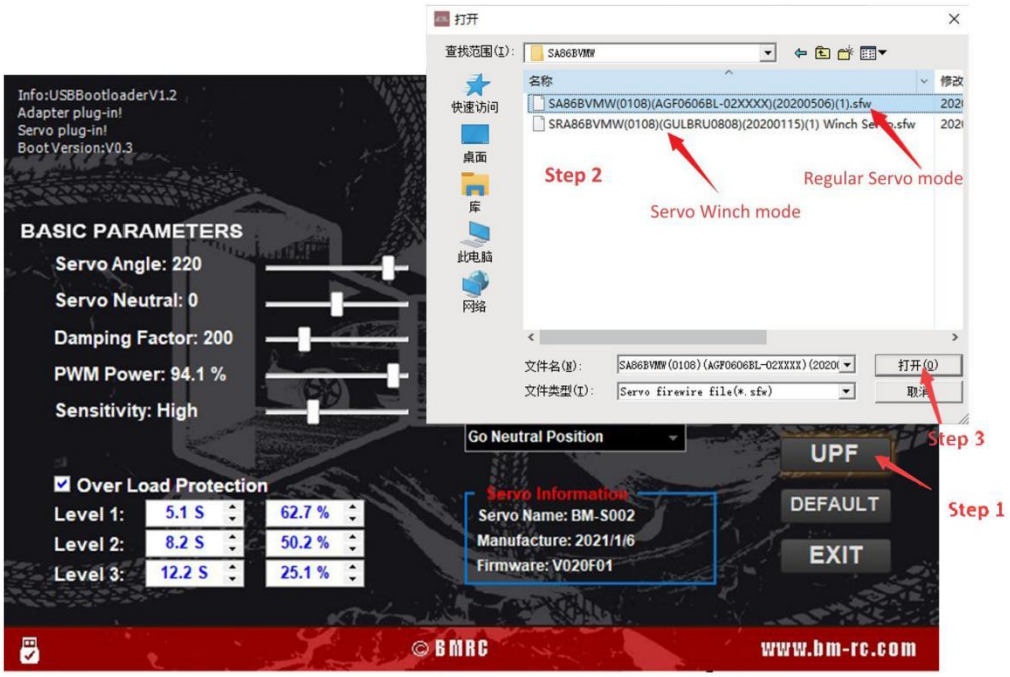
Firmware Update and Switch for Smart Servo

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

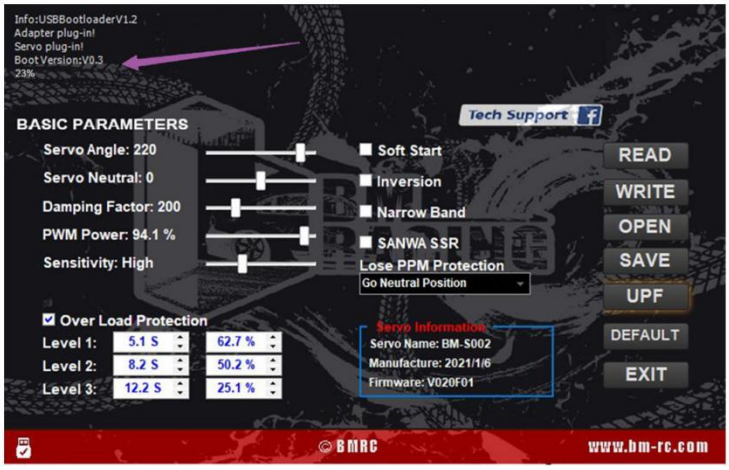


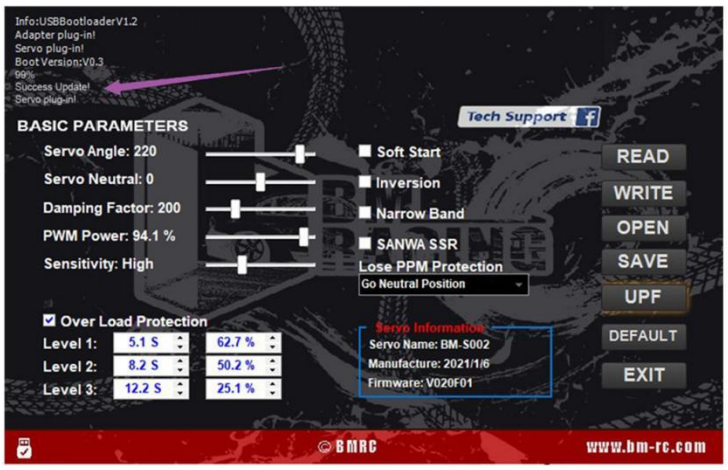
2 Click “UPF” to select the corresponding servo firmware, Regular Servo Mode or Servo Winch Mode (as pic).

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



3 During firwmare updating or switching, process hints will be displayed on the interface, it will shows “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

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BM RACING

舵机编程卡软件使用手册

BMRC SERVO PROGRAMMER 软件下载地址

http://www.bmracing.cc/

系统要求

1 工作电压：USB（5V/500mA）。

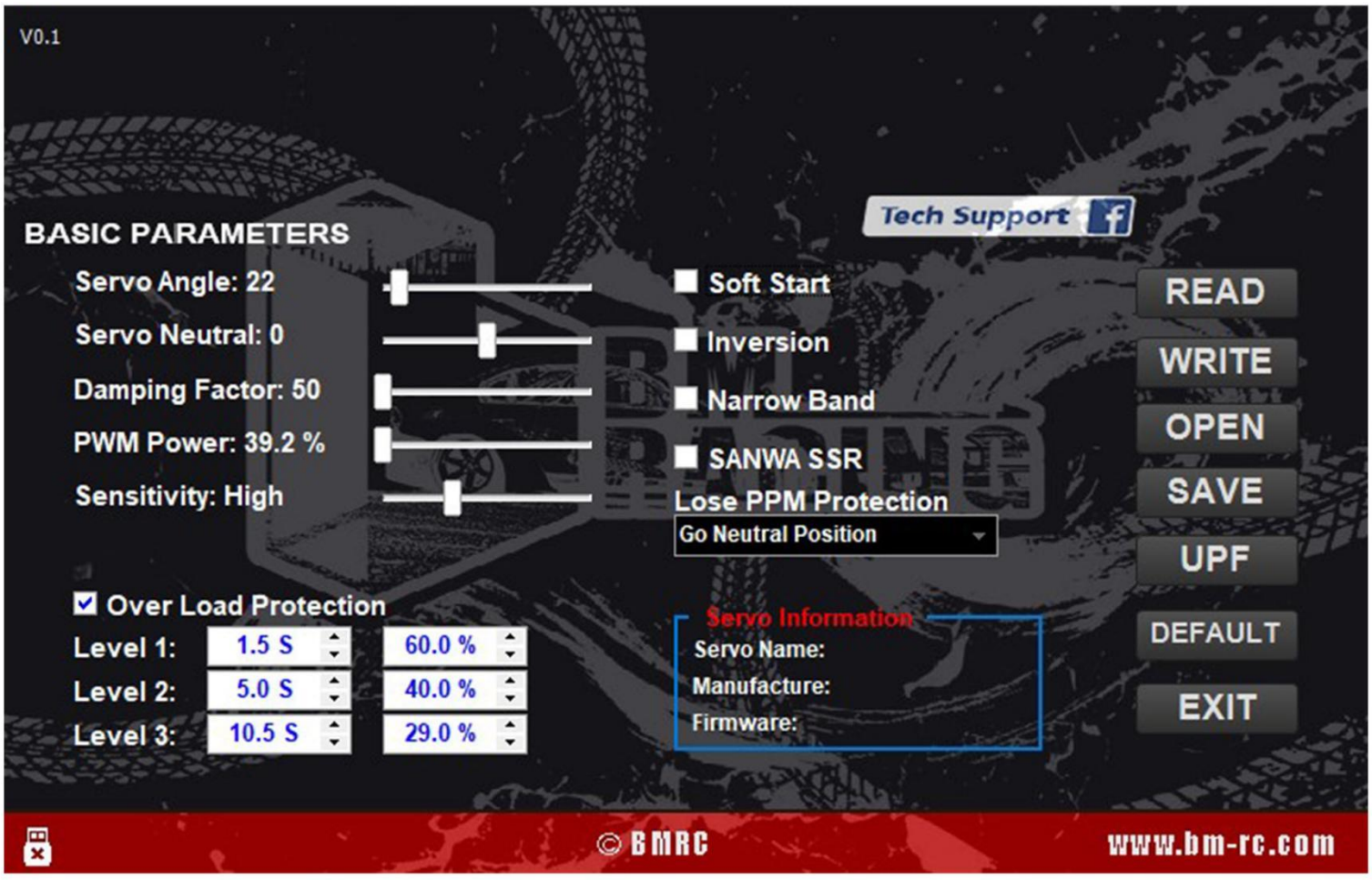
2 操作系统：Windows XP/Windows Vista/Windows 7/Windows 8/ windows10 (32/64bit)。

3 适用舵机：舵机上有“ ”标识。

软件菜单说明

常规舵机

软件中间部分为信息显示窗口，当进行配置卡插拔、舵机参数读写时都有信息进行提示。



参数功能说明

1 Servo Angle: 设置舵机转动角度大小。

2 Servo Neutral: 设置舵机中心点的位置。

注：如果当舵机在遥控器中点位时没有在对应位置上，可以修改此值，使舵机摆臂偏移，相当于遥控器通道的微调。

3 PWM Power: 调整舵机的输出功率。功率越大，舵机的扭力越大且速度越快，消耗电流也大。

4 Damping Factor: 设置舵机阻尼。

5 Sensitivity: 调整舵机死区（灵敏度）。

6 Soft Start: 舵机上电慢复位功能。通电后舵机会缓慢转到当前输入信号位置上。

注：上电慢复位功能是防止舵机安装位置不正确，上电时快速摆动造成设备损伤。

7 Inversion: 设置舵机旋转正反向。

8 Narrow Band: FUTABA SR 信号模式。

9 SANWA SSR: SANWA SSR 信号模式。

10 Lost PPM Protect: 丢失信号保护功能，有 3 个功能选项：

- Release: 不保护。
- Keep Position: 保持信号丢失前的位置。
- Go Neutral Position: 回到中心点位置（1500uS 位置）。

11 Over Load Protect: 舵机堵转保护设置，一共分 3 级，勾选后启动保护。

- Level 1: 设置第一级保护的启动时间和保护功率值。
- Level 2：设置第二级保护的启动时间和保护功率值。
- Level 3： 设置第三级保护的启动时间和保护功率值。

注：左边是设置启动保护的时间，右边是设置启动保护后，舵机的输出功率值。

12 Servo Infomation：舵机信息 ；包括舵机型号，版本时间，固件程序名称。

- Servo Name: 舵机型号。
- Manufacture: 舵机版本时间。
- Firmware: 舵机固件程序名称。

13 Read：把舵机的参数读出到软件界面。

14 Write：把当前参数写入舵机。

15 Open：打开电脑保存的舵机参数文件。

16 Save：保存当前舵机参数到电脑。

17 UPF：舵机固件升级功能。

18 Default：恢复出厂默认设置。

19 Exit：退出并关闭调参软件。

参数功能说明

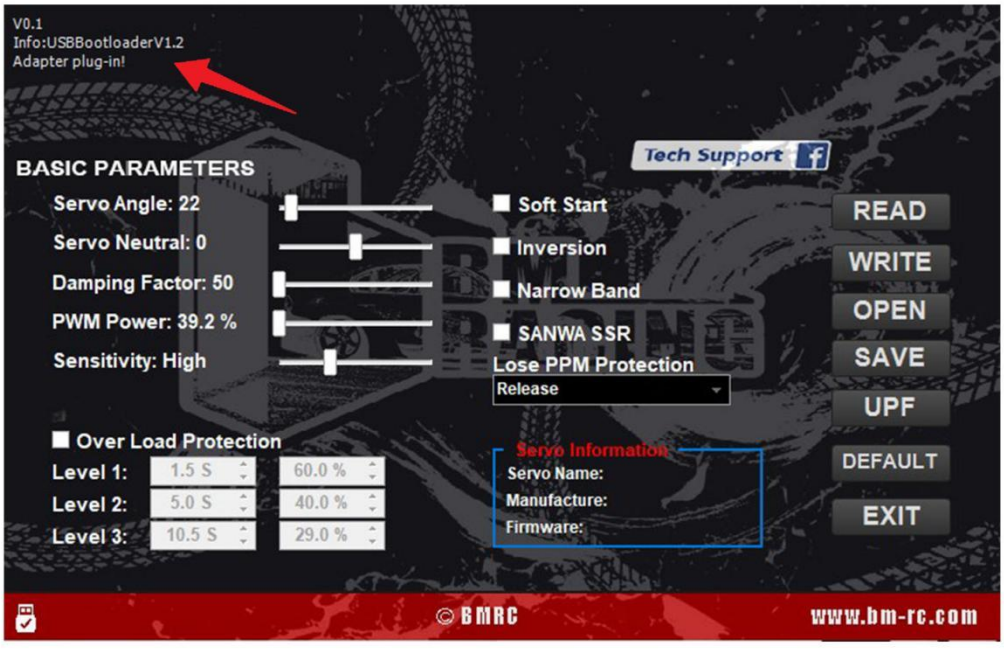
1. PWM Power: 调整舵机的输出功率，功率越大，舵机的扭力越大且速度越快，消耗电流也大。
2. ProPTL:3.0s: 舵机堵转保护启动时间（时间单位：秒），当舵机堵转时长达到这个设定值，舵机会启动保护，停止工作。
3. Inversion: 设置舵机旋转正反向。
4. Servo Information: 舵机信息。包括舵机型号，版本时间，固件程序名称。
   - Servo Name: 舵机型号。
   - Manufacture: 舵机版本时间。
   - Firmware: 舵机固件程序名称。
5. Read: 把舵机的参数读出到软件界面。
6. Write: 把当前参数写入舵机。
7. Open： 打开电脑保存的舵机参数文件。
8. Save： 保存当前舵机参数到电脑。
9. UPF： 舵机固件升级功能。
10. Default： ~~恢复出厂默认设置~~（绞盘舵机没有这个功能）。
11. Exit： 退出并关闭调参软件。

使用说明

1 根据说明书首页官方网址下载软件，解压后，进行下一步。
（软件下载地址见封面）

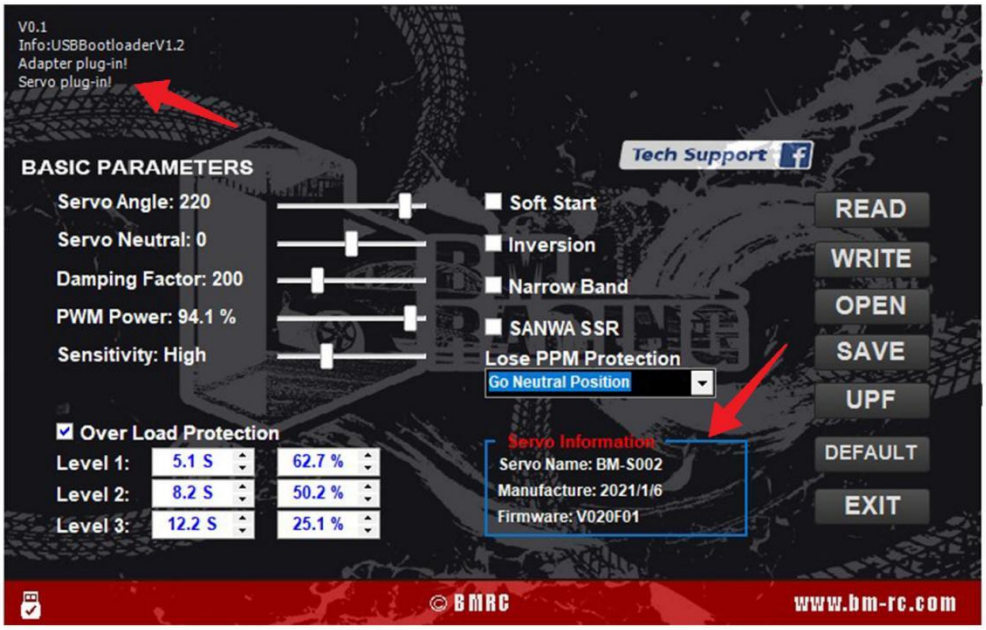
2 将舵机与 USB 配置卡连接后，插入电脑，本配置卡为免安装驱动，等待系统自动适应驱动程序（大约 5-10 秒钟）。当电脑右下角出现如下图提示后表示驱动自动安装完成。

3 打开软件，软件的信息界面会提示配置卡已经连接（如右图），如果没有提示可以重新插拔一次配置卡。



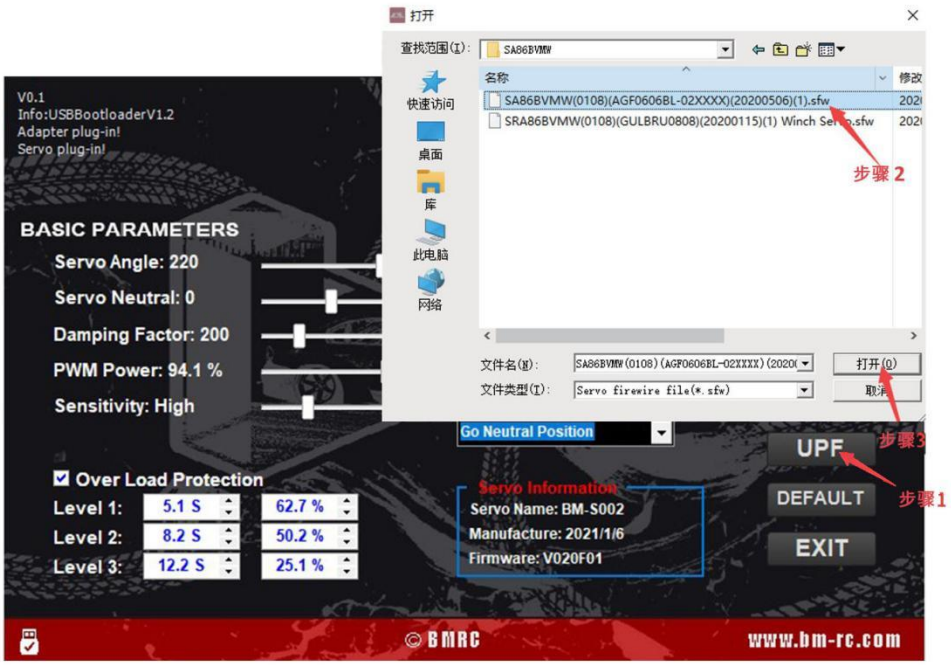
4 插入舵机，软件自动识别并把舵机参数读取到当前界面（如右图）。

注：如果没有提示可能是舵机连接 USB 配置卡插反了，可以重新反插并插拔一次配置卡。

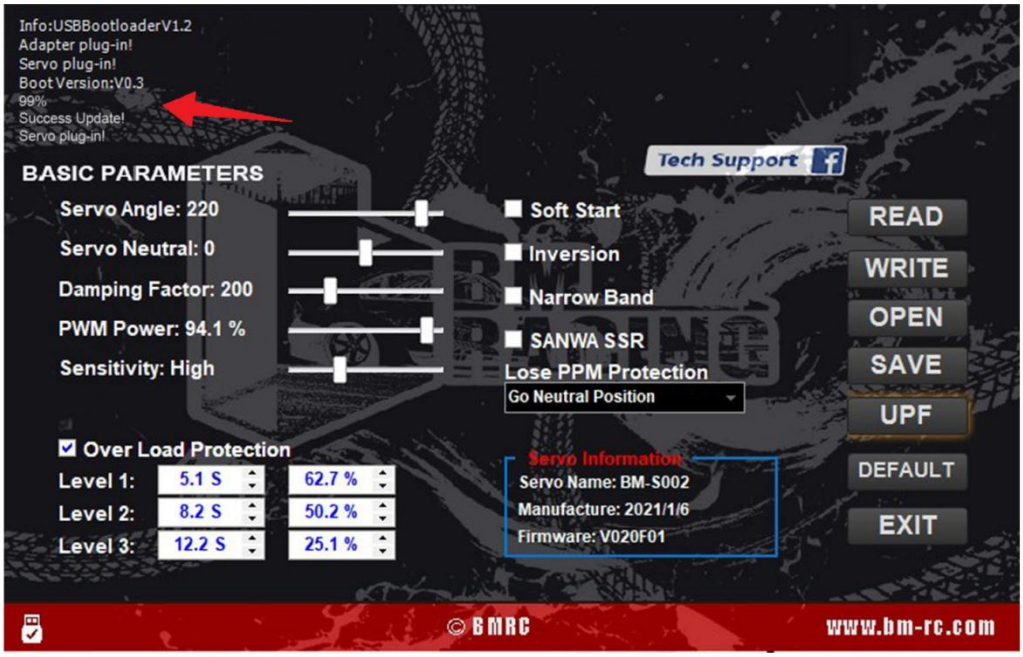


舵机固件更新说明

1 连接好舵机后，点击“UPF”功能，再弹出的窗口选择升级固件，并点击打开升级（如右图）。



2 升级过程中，软件的信息界面会提示升级进度，等待出现固件升级成功信息后，表示固件升级成功（如右图）



3 舵机固件升级后，自动把舵机参数先读取到软件界面。

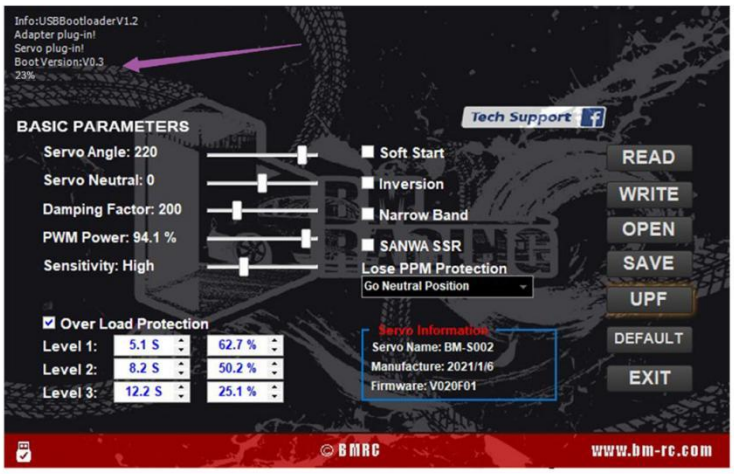
智能舵机固件升级与切换

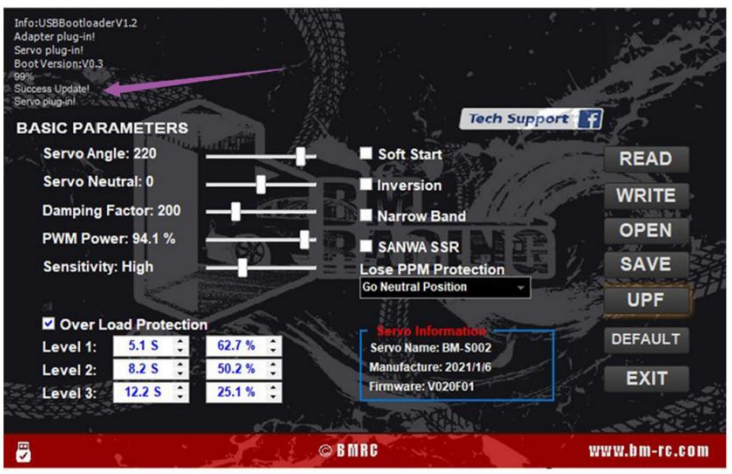
1 下载对应的智能舵机固件压缩文件（请确保你电脑有解压软件如WinRXR, 7-Zip, Winzip），解压文件并保存到电脑桌面。（如下图）

2 点击“UPF”选择对应的舵机固件，常规舵机模式或绞盘舵机模式。（如右图）

注：如果没有提示可能是舵机连接USB配置卡插反了，可以重新反插并插拔一次配置卡。

3 固件升级 / 切换过程中，软件的信息界面会提示进度，等待出现 Success Update 后，表示固件升级 / 切换成功。（如下图）





▶ 出现无法编程时，如何自检

1）检查接线是否正确

2）请检查编程软件是否最新版本

3）如还是不能编程，请联系 support@agfrc.com 协助解决。

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