



DSP-1 V2.0
Operation Manual

*The following Servos do not support the programming function, incompatibility for DSP-1.

HBL880
HBL980
HBL990
HBL669
HV777
HV9780
HV9930
HV93i
DS9910
DS760
DS760 mid-alu
DS8910A+
DS660A+
DS95i

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Software Installation

Download the software and the driver from www.mks-servo.com/DSP-1-Download

DSP SOFTWARE DOWNLOAD

PC Software

↓ MKS_DSP_Programmer_V2.0.0.8

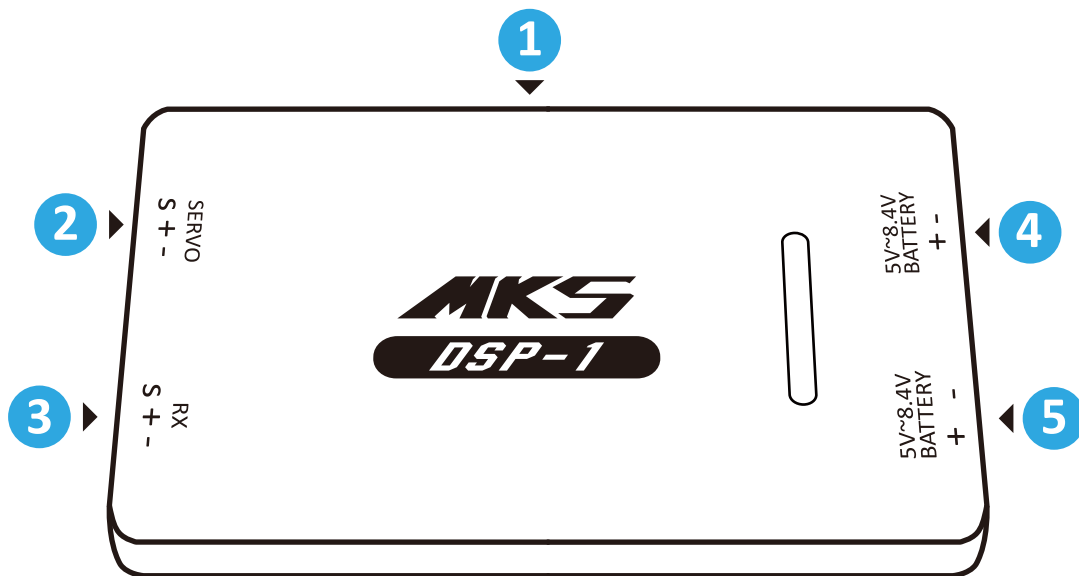
DSP-1Firmware Update

↓ DSP-firmware-Update

PC System Requirements

- 1 Microsoft Windows 7 and above
- 2 Microsoft .NET Framework 4.5

Connections

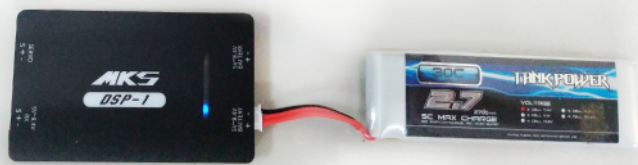


- 1 PC connection (USB Micro-B).
- 2 Servo connection (Dupont 2.54).
- 3 Connect the Receiver. It can control the Servo while calibrating.
- 4 Connect the 5V ~ 8.4V Battery with 2 pin connector.
- 5 Connect the 5V ~ 8.4V Battery with 3 pin connector.

Connections

1

Connect 5V ~ 8.4V battery to the DSP-1.

**2**

Connect the DSP-1 USB(Micro-B) to the computer.

**3**

Then connect DSP-1 to the servo.

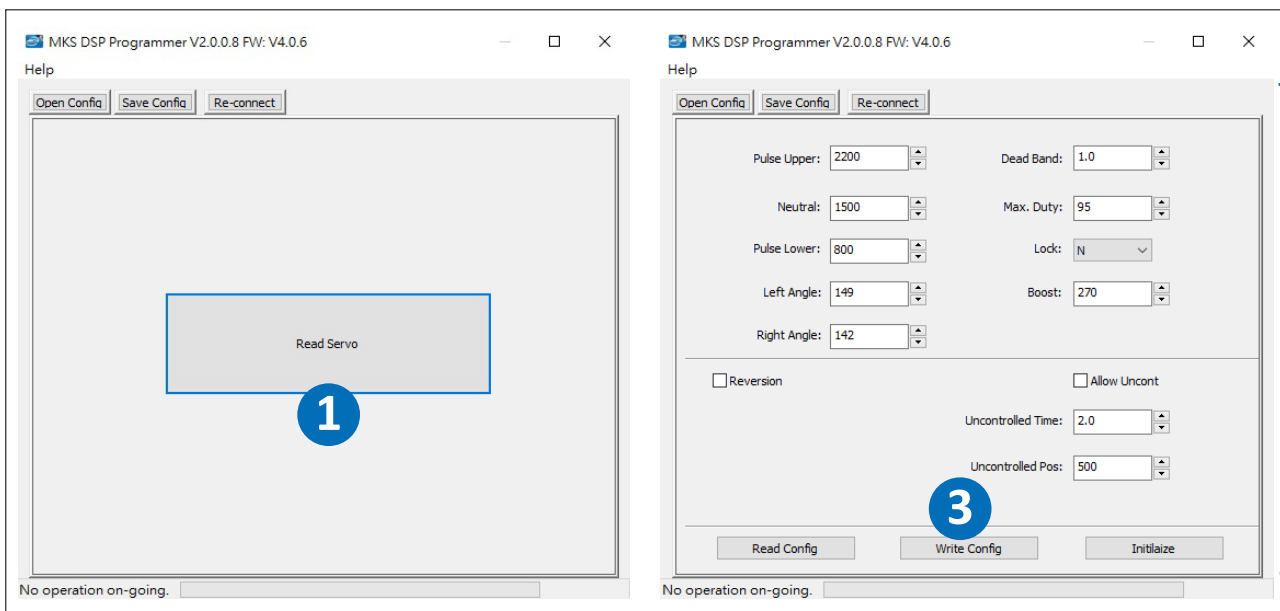
**Note:**

Connect the Receiver to control the Servo while calibrating.

Programming

MKS_USB Device
config V.1.2.0.5

Open the software “MKS_DSP_Programmer_V2.0.0.8”.



- 1 Press “Read” to read the setting.
- 2 Modify the parameters.
- 3 Press “Write Config” to start programming.

Functions Compatibility

Ver. 2022.08.26

Standard Functions				
Micro	Mini	Slim	STD	
HV69	HV747/R	HV6130/H	HBL388	HV1220
HV93	HV737	HBL6625	HBL3850	HV1230
HV6125E	HV9767	HBL6625MINI	HBL380	HV1240
HV6100			HBL850	HV1250
HV6110			HBL860	DS1220
HV75K/N/R			HBL550	DS1230
DS6125E			HBL550L	DS1240
DS6100			HBL550LX	DS1250
DS92A+			HBL599	DS1009
DS93			HBL599SX	DS1210
DS95			HBL599SL	
DS97			HBL575	
DS450			HBL575SL	
DS480			HBL960	
DS75K/N/R			HBL950	
DS65K			HBL665	

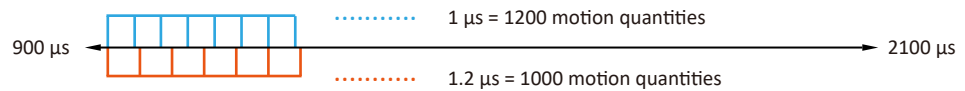
Advanced Functions				
Micro	Mini	Slim	STD	
HV70/H		HV6120/H	New	HV777A+
HS75/H		HV6160	New	HV9930
HV6150/H				
HV50P				

Standard Functions

Dead Band

The signal value can be allowed to change under the circumstance without affecting the angle of the output / servo arm.

*MKS Default = 1 μ s or 1.2 μ s



Lock

The setting when the servo does not receive the signal:

Yes: Keep at the last angular position.

No: The motor is released.

*MKS Default: No

Max. Duty

The duty cycle of the motor will be limited within this value.

Pulse Lower

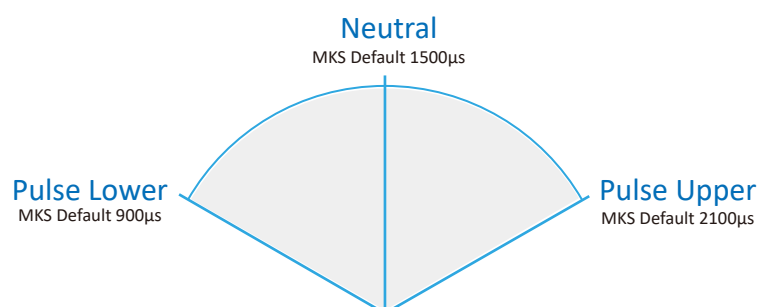
The minimum angular range will be limited within this command value.

Neutral

The setting of the neutral position.

Pulse Upper

The maximum angular range will be limited within this command value.



Advanced Functions

Left Angle	Max. Left angle adjust
Right Angle	Max. Right angle adjust
Reversion	Reverse of the PWM command.
Allow Uncont	The Servo move to the “Uncontrolled Position” when the PWM command is loss.
Uncontrolled Pos	If the “Allow Uncont” turns on.
Uncontrolled Time	The Servo will move to the “Uncontrolled Pos” after the “Uncontrolled Time” when the PWM command is loss.

Loading/Saving parameter

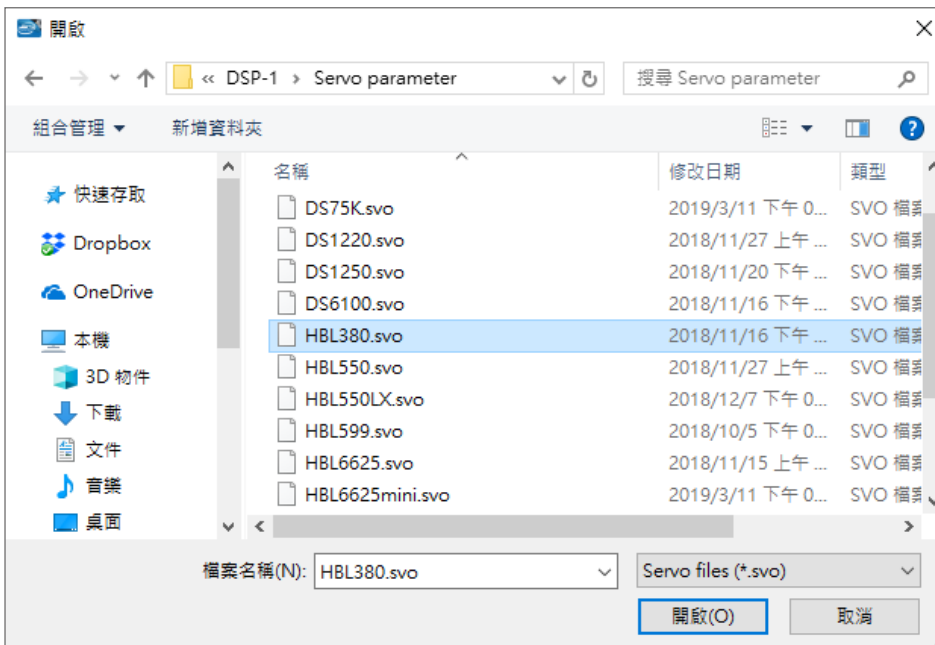
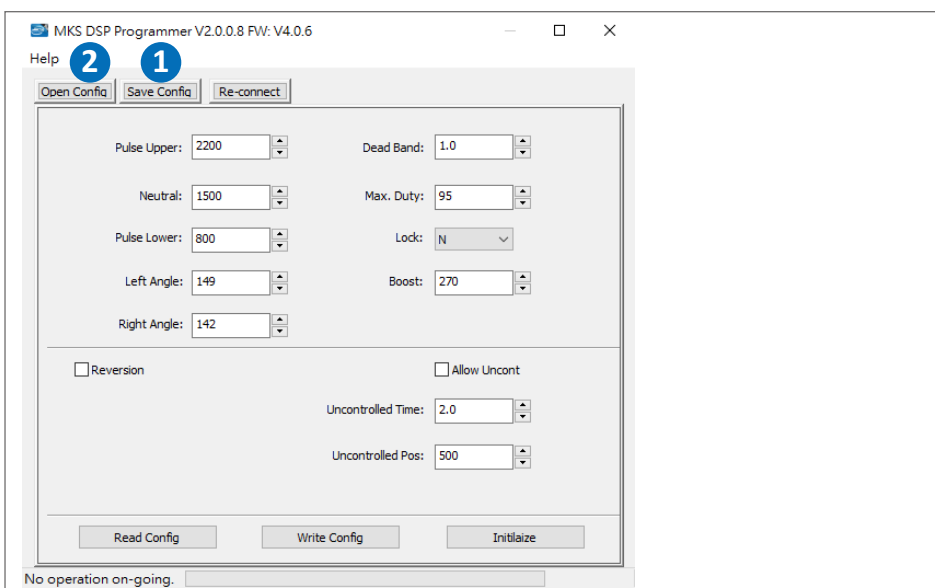
This function enables you to save your parameters into the file, which is much convenient to record a batch of servos with same parameters quickly at one time.

1 Save config

When you complete the servo programming with the setting, please click "Save Config" to open the window, select where to save the parameters, and then click "Save".

2 Open config

Please click "Open Config", select the file, and then click "Open" to read the parameters and change the current setting.



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