Thank you for choosing our Handheld Welding Wire Feed System. This user manual provides you with important safety, operation, maintenance and other information. Therefore, please read this user manual carefully before using this product.

To ensure safe operation and optimum product operation, please observe the following cautions and warnings,as well as other information in this manual.

1.Overview

This manual contains a general description of the basic installation, factory settings, operation, use, and service of this welding wire feeder.

Super welding wire feeding system is a wire feeding system launched in 2019. This product covers the self-developed control system, and is equipped with the function of drawing back and feeding wire. This product can be adapted to various handheld welding wire feeding systems.

1.1 Operating environment and parameters

Rated input	220±5% 50/60hz
Maximum power and current	150W/6.5A
Rated wire feed speed	15~600cm/min
Applicable welding wire	0.8/1.0/1.2/1.6 mm (single wire feed)
	1.6/2.0/2.5 mm (double wire feed)
Suitable for welding wire disc	Shaft diameter: MIN 50mm
	Outer diameter: MAX 300mm
	Width: MAX 105 mm
	Weight: < 20 kg
Net weight of product	30kg
Product size	575mm*250mm*670mm
Product name	SUP-AMF-D

1. Ensure reliable grounding before power supply.
2. the wire feeding wheel is matched with the wire warp and corresponds to the wire feeding pipe;
3. Do not bend the wire feeding tube.

2.Installation

2.1 Definition of circuit wiring

Two plugs are provided at the tail of the complete machine, which are defined as follows according to different models, and are directly connected to the control box.

2.1. 1 conventional wire feeder wiring

Interface	Definition	Remark	Remark
Two-core plug	1.Wire feeder signal line (start)	Short circuit is wire feeding, connect to pin 5/6 of wire feeding interface II of the control box	Conventional wire feeder
	2.Wire feeder signal line (GND)		
Three-core plug	1.Wire feeder power supply live wire (L)	Power line, 220V input	
	2.Power supply zero line of wire feeder (N)		
	3.Wire feeder power supply ground wire (PE)		

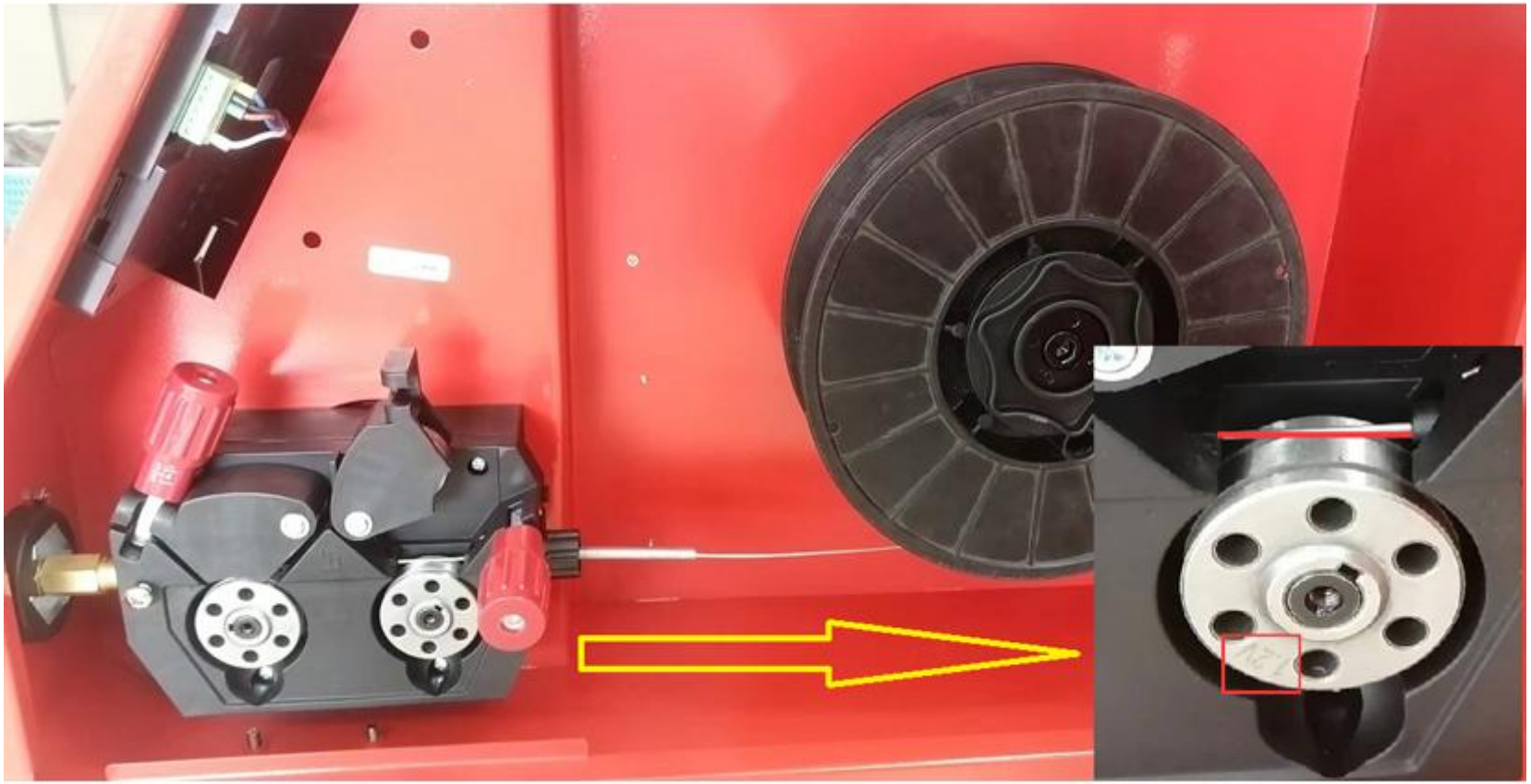
2.1. 2 Wire feeder wiring of process library

Interface	Definition	Remark	Remark
Three-core plug	1.Wire feeder power supply live wire (L)	Power line, 220V input	Process wire feeder
	2.Power supply zero line of wire feeder (N)		
	3.Wire feeder power supply ground wire (PE)		
Six-wire plug	1.Wire feeder signal line (start)	Short circuit is wire feeding, connect to pin 5/6 of wire feeding interface II of the control box	
	2.Wire feeder signal line (GND)		
	3.Grounding wire (PE)	Connect to the earth	
	4.485GND	485 signal line, connected to the signal interface IV of the control box	
	5.485TXD		
	6.485RXD		

Exceptfor customization, all models have the same power supply, 220V input (support110V input, need to replace the switching power supply), and the wire feedingsignal is a passive conduction signal. Please note that the main control boardof individual models distinguishes the wire feeder signal ±, please connectaccording to the line mark

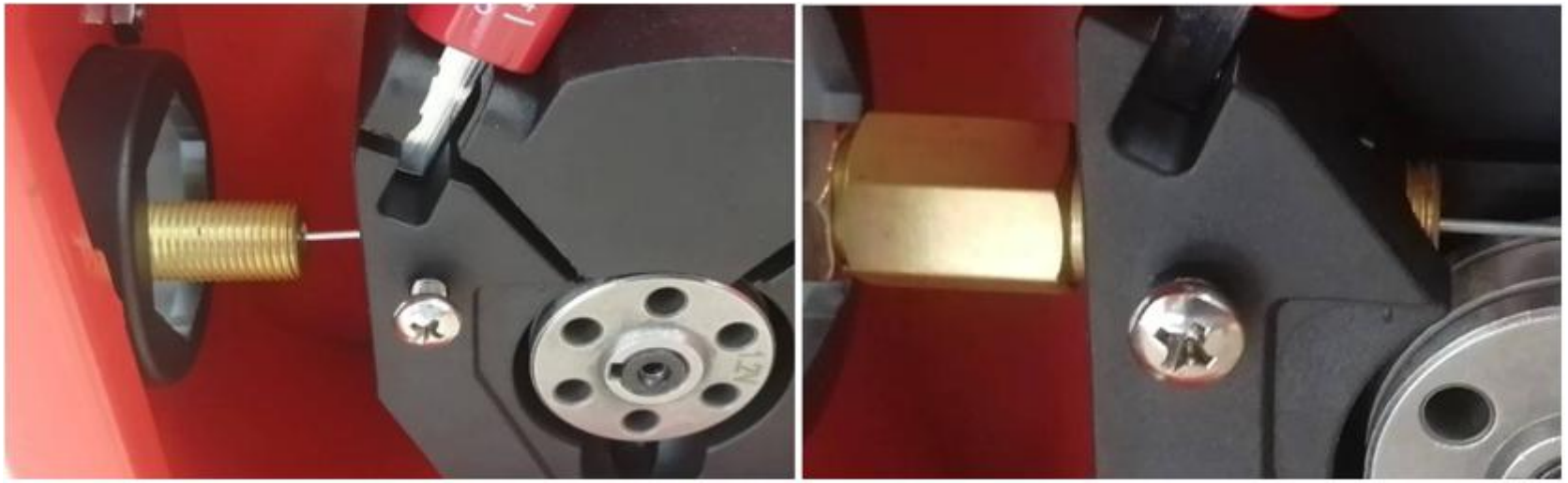
Installation of the welding wire disc/wire feeding wheel of 2.2

① It is forbidden to use flux-cored wire, and the selection of welding wire shall be consistent with the material to be welded.
② There are two wire feeding wheels in total. The two sides are of different models, corresponding to different core diameters. Please be sure to install them accordingly. If 1.2 welding wire is installed, the side of the wire feeding wheel marked with 1.2 is outside.
③ During installation, be sure to clamp the welding wire in the slot and then clamp it.



2.3. Installation of wire feed pipe

2.3. 1.Loosen the locking screw of the wire feeding tube, insert it into the appropriate position and then lock it.



3.2 Gun head end

3.2. 1After the above operations are linked, prepare the fittings at the nose end and assemble them

3.2.Please note that [connection block] distinguishes models, that is, different models use different connection blocks, and other accessories are the same.

① The connection blocks used for different focuses are different. Please use them accordingly.
② Additional connection blocks are required on some models

Installed as follow

If you use a graphite tube, you need an additional accessory on the graphite tube, which can be noted when you purchase.

4.Software operation

1. Motor selection: a single motor can be used for single wire feeding. For the standard version, the upper motor is [A]and the lower motor is [B]. If A/B is selected, double wire feeding is performed.

II. Speed adjustment: parameter range [15 ~600 cm/min].

3. Quick adjustment: Long press to quickly increase/decrease the mode switch.

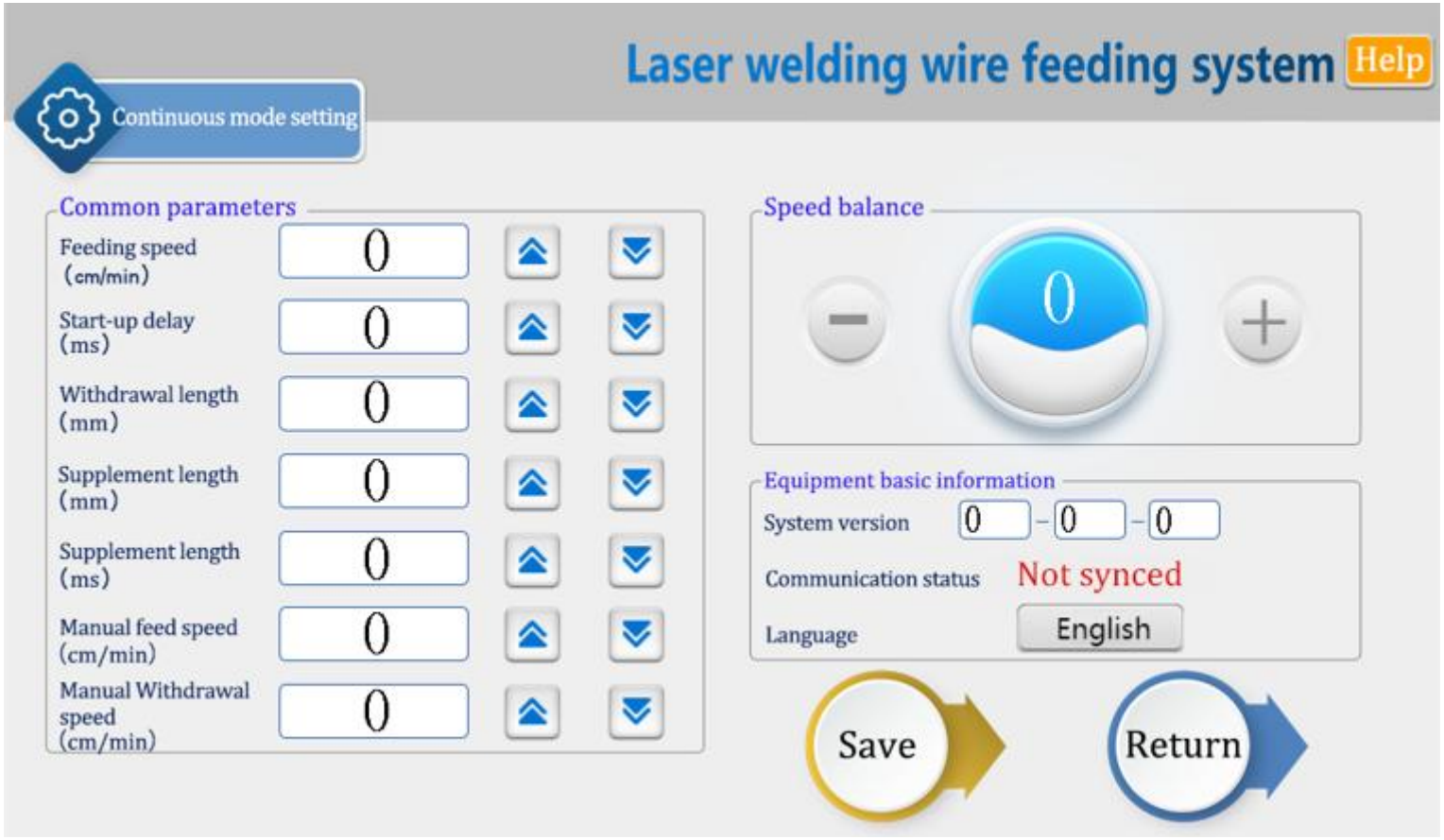
IV. Mode switching: Click to switch to[Pulse Mode].

V. Page switching: Click to switch to[Parameter Setting Page].

VI. Status switching: Click [Stop], and wire feeding is not possible; Click [Run] Normal Wire Feed.

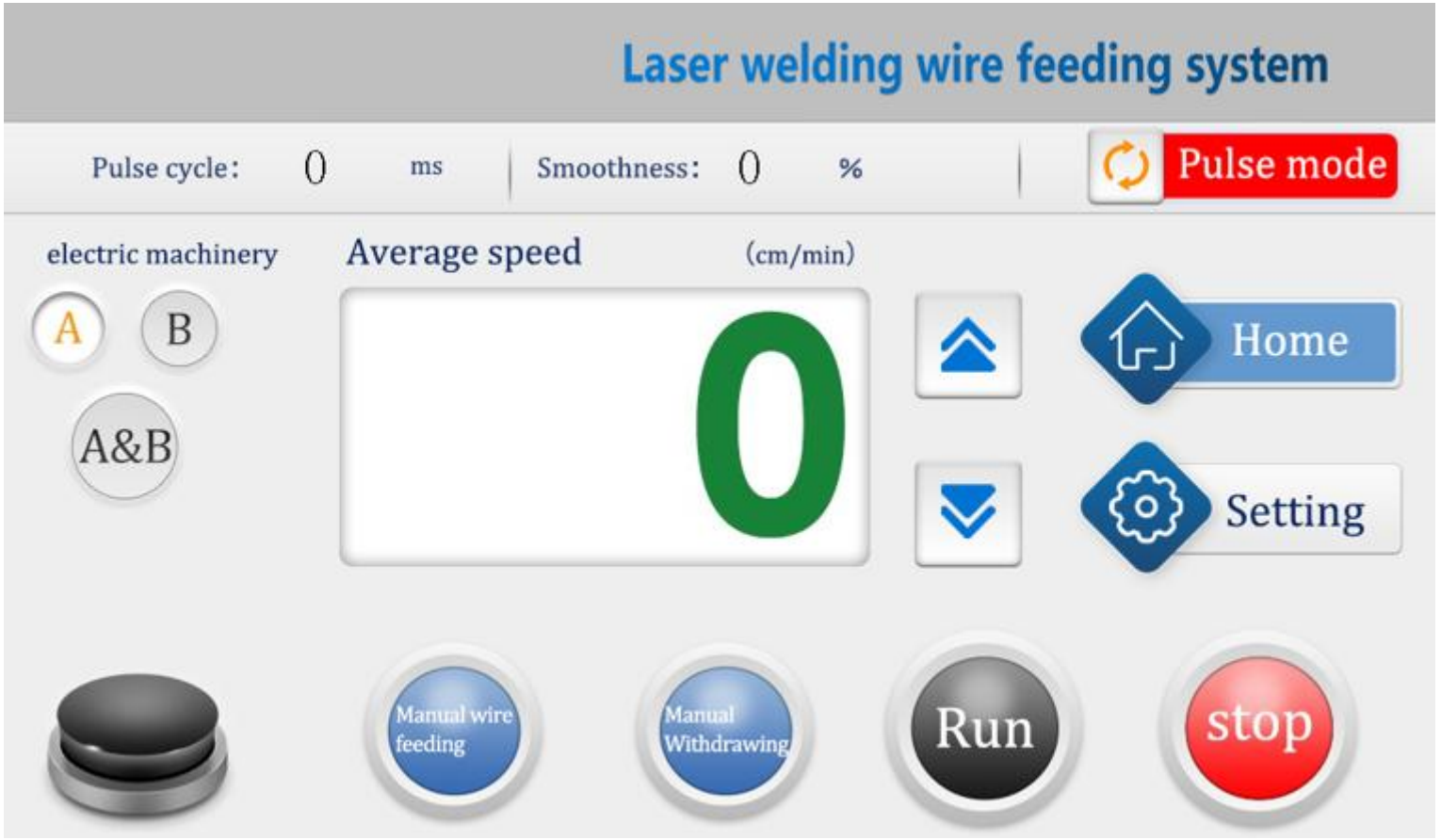
VII. Manual button: press and hold [Manual wire feeding], and the wire will come out from the motor; Press and hold[Manual Withdrawal] to withdraw the motor.

VIII. Operation indication: [Automatic wire feeding] is displayed in green, and other States are black.



1. Wire feeding speed: same as [Wire feeding speed] on [Home],control the wire feeding speed during welding, within the range of 15 ~ 600cm/min.
2. Start delay: control the start delay time of the wire feeder after pressing the trigger of the welding gun. Range 0 ~ 2000 ms, usually set to 0. For example, if the start delay is set to 1000ms, press the trigger of the welding gun and wait for 1s to start wire feeding.

3. Withdrawal length: control the withdrawal length when [broken wire] is used to help break the wire. The range is 0 ~ 100mm, usually set to10, which can be increased appropriately according to the thickness of the field welding wire and the length of the wire feeding pipe.
4. Wire filling length: the length of the wire to be fed after the[broken wire] is drawn back, which is used to compensate for the influence ofthe [drawn back length] and maintain the consistency of the joint in the next welding. The range is 0 ~ 100mm, which is consistent with the "pull back length" in principle. If the resistance of the wire feeding pipe on site is large, it can also be larger than the "pullback length"appropriately.
5. Wire filling delay: control the time interval between the wire feeder's compensation wire feeding and the wire drawing back during [wire breaking], so as to prevent the welding wire from adhering to the weld seam for the second time due to too early compensation wire feeding, so as to improve the effect of wire breaking. Range 0 ~ 2000 ms. Usually set to 0.
6. Speed balance: finely adjust the speed of [motor B] based on[wire feeding speed] to keep the two wires consistent. Range -10 to 10 cm/min,normally set to 0.
VII. System version: The hardware and software versions of the equipment are recorded and provided to the technicians during after-sales service.
VIII. Communication status: communication status between standard control boards. When normal, [Connected] is displayed. When a fault occurs,[Not Connected] is displayed and [Motor B] is not controlled.
9. Language: indicates the current interface language. Click to switch the language. The standard edition includes languages [Chinese][Traditional Chinese] [English] [Japanese] [Korean] [Russian] [German] [French][Latin].
10. Save: Save the change of parameters. Please click Save after[Modify Parameters], otherwise the previous parameters will be automatically restored after power failure and restart.



I. Special parameters of pulse: [Pulse period] and [Smoothness]only display parameters and cannot be modified.

2. Average speed: the [overall] wire feeding speed in a pulse cycle. "Average speed" is not affected by "pulse cycle" and"smoothness". Range 15 to 150 cm/min, usually set to 60 cm/min. You can click "Number" to input directly from the keyboard.


Laser welding wire feeding system
Help
Pulse mode setting
Pulse control mode parameters
Average speed (cm/min)
0
Pulse cycle (ms)
0
Smoothness (25%~80%)
0
Common parameters
Withdrawal length (mm)
0
Supplement length (mm)
0
Supplement length (ms)
0
Speed balance
0
Equipment basic information
System version
0 - 0 - 0
Communication status
Not synced
Language
English
Save
Return

1. Average speed: the [overall] wire feeding speed within a pulse cycle. "Average speed" is not affected by "pulse cycle" and"smoothness". Range 15 to 150 cm/min, usually set to 60 cm/min. You can click the "number" to input directly from the keyboard, or you can adjust it quickly through the "arrow". Note: The "average speed" is not equal to the "manual wire feeding speed".
2. Pulse period: control the [size] of a single [fish scale pattern]. The larger the period is, the larger the single fish scale pattern is. Range 100 ~ 1000ms, usually set to 500ms.
3. Smoothness: Control the [interval fluctuation] between two scales. The smaller the value, the more obvious the overall effect. Range 25%to 80%, usually set to 30.
4. Other parameters are consistent with the effect of continuous mode. Note: The [manual wire feeding/withdrawing speed] [start delay] [wire feeding delay] of the pulse mode is consistent with that of the continuous mode, which usually does not need to be modified, so no separate adjustment button is set.