B2010 Operating Manual (230306 V1.2)

Instructions on displays of the panel in the standby mode:		After the power-on initialization is completed, check the panel (press the confirm button, with one time for one of the followings) which displays the followings circularly. **Display of clock → display of ambient temperature → display of power supply voltage → display of gear/temperature setting → display of shell temperature → display of the failure code in case of a failure**
Instructions on button operating	Standby mode	Power button: short press to power on, and the panel displays ON.
		Up button: temperature / gear +
		Down button: temperature / gear -
		Confirm button: cyclically switch the displays.
		Setting button: set parameter.
	Power on mode	Power button: long press to power off, and the panel displays OFF.
		Up button: temperature / gear +
		Down button: temperature / gear -
		Confirm button: cyclically switch the displays.
		Setting button: set parameter.

Instructions on remote control code matching	Standby mode	Press the setting button and up button at the same time to enter the remote control code matching interface, and the panel displays -PE-; long press the ON/OFF button on the remote control for code matching. After the code matching is successfully finished, exit automatically or press the power button again to exit; it will automatically exit in case of no press for 20s.
Manual/constant-temperature/automatic start/stop mode switching operation instructions	Standby mode/power on mode	When selecting manual and constant-temperature modes in parameter settings, quick switching can only be performed between manual and constant-temperature modes. When selecting the automatic start/stop mode in the parameter settings, quick switching can only be performed between manual and automatic start/stop modes. The steps to switch between different modes are as follows: 1. Press and hold the up/down key simultaneously to switch between constant-temperature mode or automatic start/stop mode. The interface will display "27 ℃" and flash. Press again to switch to manual mode, and the interface will display "P-01" (default manual mode). 2. When the machine is powered on, press and hold the ON key on the remote controller for 3 seconds to cycle between manual or constant-temperature modes or manual and automatic start/stop modes. Each switch must be separated by more than 3 seconds before switching again.
Instructions on manual oil pumping	Standby mode	Press the setting button and the down button at the same time to enter the manual oil pumping interface which displays the time “020” for example. Press the setting button to set the number, press the up button to add the pumping time, and press the down button to reduce the pumping time (manual range of up to 999 seconds). Short press the confirm button to start/stop pumping, while pressing the power button to exit, or the pumping will automatically exit in case of no press for 20s.
Instructions on parameter setting **(Long press the setting button in the standby mode to enter the parameter setting interface)**	Clock setting	The initial time display is "00:00" and the first blank flashes. Press the up/down button to set the number. After the clock setting is finished, short press the confirm button to enter the next blank. The subsequent numbers are set in sequence, and short press the setting button to enter the next item.
	Timed start-up setting	The initial time display is "00:00" and the first blank flashes. Press the up/down button to set the number. After the clock setting is finished, short press the confirm button to enter the next blank. The subsequent numbers are set in sequence, and short press the setting button to enter the next item.
	Timed shutdown setting	The initial time display is "00:00" and the first blank flashes. Press the up/down button to set the number. After the clock setting is finished, short press the confirm button to enter the next blank. The subsequent numbers are set in sequence, and short press the setting button to enter the next item.

	Password input	Initially, it displays “ - - - - ” and the first blank flashes. Press the up/down button to change the number, and then press the confirm button to confirm it to enter the next blank. The subsequent numbers are set in sequence, and finally press the confirm button to enter the next setting when the password is correct.
	Display of P1H2 on the parameter setting interface	The first "P" indicates the manual mode, the first "t" indicates the constant-temperature mode, and the first "A" indicates the automatic start/stop mode, which can be cycled. After setting, briefly press the confirmation key to enter the next parameter.
		It displays “1” on the second blank for 12V accessories, while “2” for 24V accessories. Press the up/down button to switch to 24V accessories. 12V accessories and 24V accessories can be switched cyclically. After the setting, short press the confirm button to enter the next setting.
		It displays “H” on the third blank for 5KW, while “L” for 2KW. Press the up/down button to switch to 2KW. 5KW and 2KW can be switched cyclically. After the setting, short press the confirm button to enter the next setting.
		It displays “2” on the fourth blank for the 22mL pump, “8” for the 28mL pump and “1” for the 16ML pump. Press the up button to switch to the 28mL pump, while the down button to 16mL pump. The three types can be switched cyclically. After the setting, short press the power button to exit, or the setting will automatically exit in case of no press for 20s.
	Auto-start temperature setting	Select the automatic start/stop mode, press the power button to enter the startup temperature setting interface, and the initial display is "ON: 25"; Press the up/down key to adjust the flashing position, briefly press the confirmation key to enter the next parameter, set the values in sequence, and then briefly press the power button to exit the setting (range: 15 ℃ - 35 ℃); after returning to the main interface, press the up/down button to modify the automatic shutdown temperature; Note: Automatic shutdown occurs when the ambient temperature is higher than the shutdown temperature; after automatic shutdown, when the ambient temperature is lower than the starting temperature, it will start automatically.
	Note: After all parameter settings are finished, please press the power button to confirm and save the settings before exiting. No settings will be saved in case of automatic exit after timeout.	

Instructions on screen off	Standby mode	The screen will completely turn off after no press for more than 5 minutes.	
	Power on mode	The screen will turn off after no press for more than 5 minutes If the screen is off, there will be a breathing light prompt and it will display “  ”. Press any button to wake up the screen.	
Instructions on failures and how to deal with them	Under voltage	E-01	The voltage is too low: for 24V, lower than 18V, and for 12V, lower than 10V.
	Over voltage	E-02	The voltage is too high: for 24V, higher than 32V, and for 12V, higher than 17V.
	Spark plug failure	E-03/F1	Short circuit of spark plug
		E-03/F2	Open circuit of spark plug
		E-03/F3	Spark plug abnormality
	Oil pump failure	E-04/F1	Short circuit of oil pump
		E-04/F2	Open circuit of oil pump
	Overheating	E-05	The shell temperature exceeds 260℃. Check whether the air inlet and outlet are blocked.
	Motor failure	E-06/F1	Short circuit of fan
		E-06/F2	Open circuit of fan
		E-06/F3	Fan speed not recognized by Hall sensor
	Disconnection	E-07	Check whether the communication cable or plug between the power button and the controller is open or virtually connected.
	Flame failure	E-08	Check whether there is air or wax blockage in the oil circuit, resulting in poor oil supply.
	Sensor failure	E-09/F1	Short circuit of case temperature sensor
		E-09/F2	Open circuit of case temperature sensor
	Ignition failure	E-10	In case of two times of ignition failure, check the reasons such as blocked oil circuit, not smooth oil intake, stuck oil pump or blocked volatile net due to oil problems.
	Failures in ambient temperature sensors	E-11	Ambient temperature sensors are open or short-circuited.
	Controller overheating	E-12	The temperature of the controller exceeds 100℃. Check whether the air inlet and outlet are blocked, or whether the ECU is damaged.