

Frequent Asked Questions

Questions	Manifestation phenomenon	Cause	Inspection Method	Solution
Laser power reduction	The laser was very strong at the beginning but gradually becomes weaker/the light becomes weaker, resulting in the inability to fuse the wire.	The lens is damaged, or QEH damage (rarely)	Check the lens (inspection order: protective lens → focusing lens → reflective lens → collimating lens → QEH)	<p>Replace damaged lenses</p> <ol style="list-style-type: none"> 1. Use original lenses 2. Pay attention to preventing contamination when replacing 3. Do not weld vertically 4. Replace damaged protective glasses promptly 5. To prevent interference, ground the ground wire 6. Check the protective lens before welding 7. Before starting welding, use low power to test whether the light output is normal.
Protect lenses from damage in a short time	If the protective mirror is damaged within a short period of time, burning spots will appear, and the shiny surface of the protective mirror will be damaged like spots, appearing black or white spot.	Due to the influence of welding techniques, parameters, etc., damage caused by anti-slag	View protective lenses	<ol style="list-style-type: none"> 1. Increase the air pressure appropriately, usually the flow rate is not less than 25L/min 2. When welding, try to keep the welding gun and the plate at 45° and do not weld vertically. 3. Set parameters as slowly as possible, such as gas on/off delay 200-500ms, light on/off power 20%, light on/off gradual time 200-300ms 4. At high power, the loss of the lens will increase compared to low power. 5. Use laser cleaning function to prepare the material surface before welding. 6. Use smoke filter to remove the smoke during welding. 7. Choose 200mm focus lens and long graduated tube 8. Change lens in a dust free room or vacuum box.
Display alarm on screen	After the key switch is turned on, there is always an alarm on the screen.	The control box circuit is loose or the 15V power supply is damaged.	Check whether the control box circuit is loose and whether the 15V power supply is normal.	<ol style="list-style-type: none"> 1. Reconnect the black wire of the control box 2. If the 15V power supply is abnormal, please replace the 15V power supply.
Laser alarm	During the welding process, the laser source alerted.	QEH alert. The fiber optic connection is loose.	Connect to the laser monitoring software to view specific alarm causes	If it is a QEH alarm, please retighten the QEH and wrap the insulation tape
Device screen power supply abnormality	The device screen does not light up	The circuit is loose or the safety door plug is not connected.	Check screen wiring and safety door navigation	<ol style="list-style-type: none"> 1. Reconnect the line 2. Connect the safety door plug
Chiller alarm	When turned on for the first time, traffic alarm	Insufficient water or air inside	Check water level	<ol style="list-style-type: none"> 1. Increase the water volume and restart. 2. Drain the water from the chiller and refill it.
Damaged welding nozzle	Melting, overheating	Heat spreads to the copper nozzle causing damage	<ol style="list-style-type: none"> 1. Check whether the red light is centered (Polarized light will cause laser heat to adhere to the copper nozzle) 2. Check parameter settings 3. Check the scale of the scale tube 	<ol style="list-style-type: none"> 1. First, emit light on the carbon steel material and see if the copper tip is hot. If it is not hot, it means there is no problem with the lens and there is no astigmatism. If it is hot, the damaged lens needs to be replaced. 2. If the welding becomes hot under the above normal conditions, it means that the material conducts heat during welding. In actual use, the outer corner copper nozzle is more easily damaged than the inner corner, so a red copper nozzle can be used. 3. The welding method also affects the heating. Try to keep the welding head and the material at 45° < welding 4. Highly reflective materials such as aluminum plates can also cause the copper tip to become hot.
Abnormal filling of wire feeder	The wire is discontinuous or does not feed during welding	<ol style="list-style-type: none"> 1. Cass 2. Abnormality inside the wire feeder 	<ol style="list-style-type: none"> 1. Check whether the wire feeding tube is smooth 2. Check whether the wire guide nozzle is blocked 3. Check whether the wire feed wheel is jammed 4. Check whether the wire feed wheel is working normally 	<ol style="list-style-type: none"> 1. Clear the wire feed tube and wire guide nozzle 2. If the wire feed wheel is jammed, please reinstall the wire feed wheel and re-export the welding wire. 3. If other reasons cause the wire feeder to fail, please contact after-sales personnel
Does not emit laser	Press the trigger and the laser will not be emitted	Safety clip or trigger abnormality	<ol style="list-style-type: none"> 1. Press the laser torch trigger to check whether there is gas (if there is gas, there is a high probability of a laser problem or the laser has expired) 2. If there is no gas when pressing the button, the button/safety clip is faulty. 	<ol style="list-style-type: none"> 1. Short-circuit the safety lock pin of the control motherboard, and open the screen monitoring page to observe (if it is normal, it is a safety clip problem, or the wiring is loose. The Pro version machine may have an isolation board failure) 2. After short circuit, the laser switch on the detection page is not enabled and the green light is not turned on. It's a button failure
Red light not centered	The red light is offset and not in the center	Red light shift caused by newly installed/replaced parts. When replacing some parts, the red light may not be consistent with the previous part	Adjust the motor through software settings or manually to return it to normal.	<ol style="list-style-type: none"> 1. Software settings (left and right adjustment) Fine-tune by setting the laser center offset in the interface. Change the laser center offset value, with negative values to the right and positive values to the left. The maximum adjustment value is ±3}. This solution can be fine-tuned left and right. If adjustment still doesn't work this way, use mechanical adjustment. 2. Mechanically adjust the gun head motor (up, down, left and right) <p>Before mechanically adjusting the galvanometer motor, be sure to set the center offset of the setup to 0.</p>
Laser intermittent	In the welding state, the laser light is intermittent, and the wire feeding or air blowing is also intermittent.	The trigger button signal or safety lock signal is lost.	Go to monitoring page, perform laser welding and check whether the button signal and safety clip are normal	<ol style="list-style-type: none"> 1. The safety clip signal disappears. Check whether the connection port is loose. You can use a multimeter to measure whether the clip is normal 2. The button signal disappears. Press the gun tip button on the detection interface to check whether it is normal.
Gas emitted but no laser	In the welding state, after the trigger is pulled, the gas is released (wire feeder working), the red light is normally visible, and the protective gas is blown out, but there is no laser.	<ol style="list-style-type: none"> 1. Laser source alarm 2. Abnormal light signal from laser source 	<ol style="list-style-type: none"> 1. Check whether the wiring port and the signal line interface at the back of the laser are firm and not falling off. 2. Check whether there is an alarm on the laser source. 3. Can measure the signal interface voltage. 	<ol style="list-style-type: none"> ① Check whether the wiring port is firmly fixed and not falling off. ② Enter the laser software to check the laser status and whether there is an alarm. ③ Measure the voltage of the signal interface of the motherboard
The laser head motor does not swing	Under normal circumstances, the point should become a dotted line. If the motor does not swing, it will always be a point shape.	The software settings are incorrect, or there is a problem with the component.	<ol style="list-style-type: none"> 1. Swing width: 2-4 for welding system, 20-80 for remote cleaning 2. Check whether the motor wire is loose 3. Check whether the 15V power supply is normal 	<ol style="list-style-type: none"> 1. The power supply of the swing motor is 15V power supply. First, measure whether the power supply of the 15V switching power supply is normal. 2. Check the control box part and measure whether the voltage of each port is normal. The power must be unplugged during inspection! 3. Reinstall the aviation plug position of the motor cable
Wire feeder cannot feed wire automatically	During welding, only light is emitted without wire feeding.	<ol style="list-style-type: none"> 1. The signal line is disconnected 2. Internal damage to the wire feeder 3. The wire filling part of the control box is damaged 	<ol style="list-style-type: none"> 1. Click [Manual Wire Feed] on the front panel of the wire feeder to check whether the wire feed wheel is running. 2. Check whether the wire feeder signal line is normal 3. Use a multimeter to measure the wire filling port of the control box 	<ol style="list-style-type: none"> 1. Short-circuit the signal interface of the wire feeder motherboard to check whether the wire feeder roller is running. If it does not, it means there is a problem with the wire feeder. 2. Short-circuit the signal plug at the machine end. If the wire feeder moves, it means there is no problem with the signal line. If there is no movement, it means there is a problem with the signal line. 3. Use a multimeter to test whether the motherboard emits a continuity signal during soldering. If not, the motherboard is damaged.
No safety clip signal	When the welding gun is in contact with the workpiece, the detection page [Safety Ground Lock Signal] displays in blue.	<ol style="list-style-type: none"> 1. The connector is loose. 2. The machine's plug is loose. 3. The wire is broken. 	You can use a multimeter to measure continuity of the line.	<ol style="list-style-type: none"> 1. Short-circuit the signal interface on the motherboard. If it shows that the safety ground lock is connected normally, there is no problem with the motherboard. 2. Use a multimeter to measure the continuity of the ground clamp. 3. Open the detection interface and check whether it is normal during welding.
Laser red light abnormality	The red light becomes wider, there is a black spot in the center, and the light becomes weaker.	The focusing lens is damaged, or there is a problem with the QEH or optical fiber.	Check whether the lens is burned or dirty, and whether the optical fiber is damaged or stained.	<ol style="list-style-type: none"> 1. If the light output becomes wider, you need to check whether there is a problem with the focusing lens. 2. Check whether the QEH end is loose. 3. If there are black spots in the red light, check the entire lens system to see if there is any damage, and check the head end of the optical fiber to see if there is dust.
Laser temperature alarm	Laser alarm, high temperature alarm and low temperature alarm are displayed after linking to the detection software.	<ol style="list-style-type: none"> 1. Water temperature is lower than 20℃ 2. Water temperature is higher than 30℃ 	<ol style="list-style-type: none"> 1. Check the water temperature of the water cooler 2. Check whether the water pump and compressor of the water cooler are working properly 	<ol style="list-style-type: none"> 1. In the event of a high temperature failure, please check whether the water cooling system is turned on, whether the water temperature setting is correct, whether the water cooling machine is working normally, whether there are any abnormalities in the water connection, etc. When the water cooling system works normally and the water temperature drops below 30° C, try restarting the laser. 2. When a low temperature fault occurs, check whether the actual water temperature of the water cooler is too low. In addition, low ambient temperature may also cause a low temperature alarm. You need to wait until the water temperature of the water cooler rises above 20° C before restarting the laser.
Chiller alarm	Temperature continues to rise, high temperature alarm	The compressor does not start or the compressor is abnormal.	<p>Check if the compressor is working</p> <p>Check the alarm code sticker on the Chiller</p>	<ol style="list-style-type: none"> 1. Restart 2. Replace the compressor 3. According to code sticker instruction.
Aluminum welding surface turns black	The welding surface appears dark black	<ol style="list-style-type: none"> 1. Gas flow 2. Laser width is too large 	<ol style="list-style-type: none"> 1. Check gas and air pressure 2. Check the laser width 	<ol style="list-style-type: none"> 1. Use nitrogen 2. Gas flow rate is about 20L/min 3. The laser width matches the welding wire. It is recommended that the width be 0.4mm larger than the welding wire.
Aluminum welding surface is discontinuous	The welding surface shows a point shape	<ol style="list-style-type: none"> 1. Parameters do not match the material 2. The welding angle is incorrect 3. The air pressure is too high 	<ol style="list-style-type: none"> 1. Check the setting parameters 2. Check gas pressure 	<ol style="list-style-type: none"> 1. Adjust parameters 2. Keep the gas flow at 20L/min 3. Correct welding techniques
Welding wire cannot be disconnected	The wire cannot be disconnected at the end of welding	<ol style="list-style-type: none"> 1. Turning off power of laser is too small 2. The wire feeder parameters are incorrect 	<ol style="list-style-type: none"> 1. Check the off-laser power parameters 2. Check the wire feeder parameters 	<ol style="list-style-type: none"> 1. Turn off the optical power and set it to 500W 2. Withdrawal distance: between 15-25mm. The patching interval is 1000ms.
Pore in the welding Seam	See a lot of pores under Xray	<ol style="list-style-type: none"> 1. Gas pressure too high 1. Welding (Wire) Speed too high 	<ol style="list-style-type: none"> 1. Check the Gas pressure 2. Check welding or the wire feeding speed. 	<ol style="list-style-type: none"> 1. Lower Gas pressure a little 2. Slow down a little of welding speed
Laser head temperature increase	The handheld laser head temperature increase after a short time use	<ol style="list-style-type: none"> 1. Wobble motor loosen 2. Laser Beam shape change 3. Out of Gas 	<ol style="list-style-type: none"> 1. Check red dot shape and position 2. Check Gas pressure 	<ol style="list-style-type: none"> 1. If the red dot is not in a focused round spot, then need firstly check the protective lens, focus lens and collimation lens. 2. If the lens is not burnt, need remove the motor cover, use the screws on the motor to adjust the reflective lens. 3. Check Gas pressure see if run out of gas.