

Common troubles and advise THC300-3

➔ Problem: Common troubles;

Item	Problem	Reason	Solve solution
1	LED screen no value, blank screen	Multimeter has no voltage +5V	Check +5V VCC5
2	Motor can't rotate or rotate to one direction(limit is normal)	1. driver IR2104 damaged	Change IR2104
		2. driver voltage +15V, trouble	Check the driver voltage VCC4
		3. over current protection	D606 ∞ D609 (IRPF250) may damaged, or maybe mechanical stuck
3	When power on, the torch always up (NPN type switch IHS)	1. proximity switch installation problem, is open status.	Make sure proximity switch installation ok
		2. proximity switch is damaged	Change proximity switch(detection distance 2mm, NPN normally open)
4	Can't start arc after IHS	1. proximity switch is damaged, no signal return	Change proximity switch
		2. IHS time is too short, no signal return	Extend the IHS time
5	Arc voltage not stable	1.Check GND 2.Check if there plasma power source cooling water leakage 3.Sensitivity value is large	
6	Machine moves before pierce finishing	SET-PIERE set time is short	1.Extend SET-PIERCE time 2.Adopts arc feedback signal from plasma
7	Torch fire before IHS finishing	Adopts EXARCON, CNC IHS time too short	1.Extend CNC IHS time 2.Circuit fault
8	Torch cant fire	1.Make sure the plasma work status is normal 2.Check the height of pierce is proper 3.Check torch consumable 4.Retaining cap IHS, there is iron dross in electrode and nozzle, cause short connect	
9	Torch please arc can't go to workpiece	1.Check plasma cable connection 2.Check if there plasma consumable is damaged	

Service Support Spirit

10	Torch moves before pierce finishing	<ol style="list-style-type: none"> 1.Extend the pierce time in CNC 2.Extend SET-PIERCE time
11	CNC starts moving, torch down at once	<ol style="list-style-type: none"> 1.Extend set arc voltage value 2.Delay auto time in CNC 3.Check the corner signal or auto signal in CNC
12	Plasma arc die out after pierce	<ol style="list-style-type: none"> 1. Extend setting time (before machine moves, plasma arc will die out if wait formuch time after torch pierce, it often happens when cutting thin metal)
13	When IHS, torch touch metal not up	<ol style="list-style-type: none"> 1.IHS time too short 2.Induction cable connect to retaining cap not well 3.Circuit fault
14	Torch metal and always down, don't start arc	<ol style="list-style-type: none"> 1.Induction cable connect to retaining cap not well 2.Proximity switch is damaged 3.THC sample signal open circuit or connection not good
15	Torch shaking, not stable	<ol style="list-style-type: none"> 1.Sensitivity too large, please reduce it refer to 3.5 2.Circuit fault
16	THC auto follow too slow	Sensitivity too low, please increase it refer to 3.5
17	Arc break in cutting, arc enable continue to output, machine don't stop	<p>As THC detects the arc voltage signal, there still actual voltage after arc break, THC consider plasma is working</p> <p>Solve solution: adopts plasma arc feedback signal.</p>