

## How to set the machine to plasma mode

→ Problem : Set the machine to plasma mode-then cutting

Solution overview:

- 1. Plasma torch and signal connection to the machine;
- 2. Adjustment mode switch;
- 3. THC parameter debugging;
- 4. CNC parameter setting;
- 5. Cutting testing

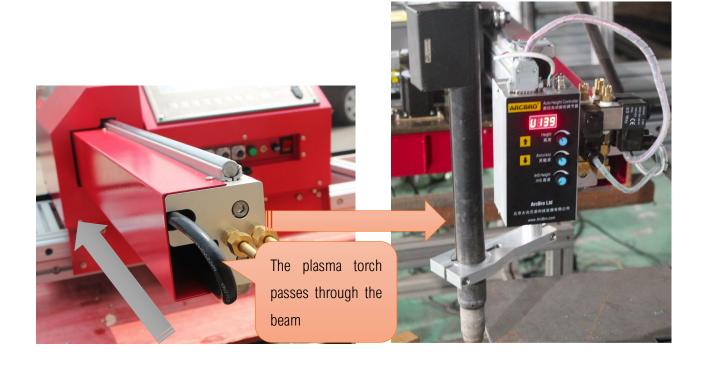
#### Problem analysis:

\* 1. Plasma torch and signal connection to the machine;

**Solution:** Step1. The plasma torch passes through the beam and then installs to the lifter holder.

Step2: Connect the plasma signal to the machine

There are six cables need to be connected: ARCSTART, ARCSTART; FEEDBACK, FEEDBACK; ARC+,ARC-; Please refer to the plasma connection solution.





### Problem analysis:

**Solution:** Step1. Adjust the mode switch to plasma mode. Flip the switch up;



#### Problem analysis:

**Solution:** Step1. The plasma torch passes through the beam and then installs to the lifter holder.



The first letter is "U" it means the THC

is working into plasma mode;

The first letter is "C" it means the THC

is working into flame mode.

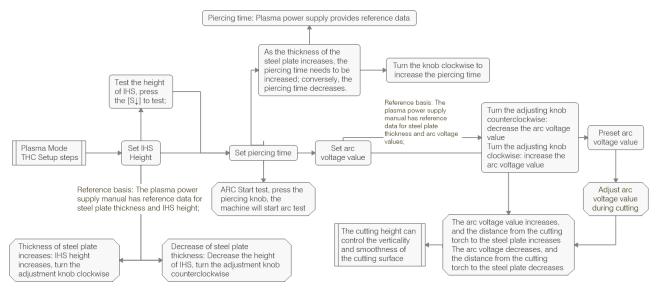


#### THC knob instruction:

- \* 【Height】 adjust the First knob, slight change the arc value and the height between torch and metal. Too low arc value can lead to shivering or broken arc. Too high arc value can the cutting quality or Cutting continuously
- \* 【Accuracy】 adjust the second knob to far left: it means the susceptiveness of THC is best; if try cutting process, found that the sensitivity is too higher, may be appropriately adjusted again. Too much sensitivity leads to tremors;
- \* 【IHS Height】 adjust the third knob to IHS Height (initial height) between torch and metal.

  Operating sequence of THC
- Step 1: Turn the second knob to the max in clockwise: the susceptiveness of THC is highest; during cut, if you found the THC self-adjustment is too sensitive, you need adjusted this knob again. Usually rotate 1/3.
- Step 2: Turn the third knob for the IHS Height (initial height of torch position for Pierce) between torch and sheet metal. Test IHS Height ,Keep Press  $[S \uparrow]$  on system panel or THC panel,  $\rightarrow$ Torch rise for some distance.  $\rightarrow$ Keep Press  $[S \downarrow]$  The torch down to touch the steel plate, and then automatically rises for some distance. This is IHS Height.
- Step 3: Turn the first knob to change the arc value and then the torch height between torch and metal will change accordingly while cut.

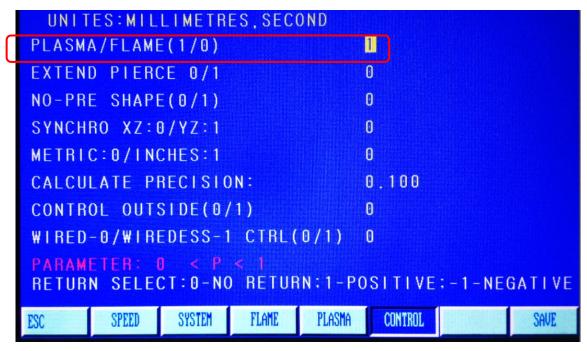
Notes: For plasma cutting, you should remove the flame sensor ring firstly. Logic diagram:





#### Problem analysis:

Solution: Step 1: press F5 【CONTROL】 → Set parameter as the red mark, Change to 1;



Step 2: Press F4 [SETUP] in the main interface  $\rightarrow$  F4 [PLASMA]  $\rightarrow$  Only need to set the piercing

time As picture;

UNITES:MILLIMETRES, SECOND								
LOCATE CHECK(0/1)						0		
LOCATE LOGIC (0-LOW/1-HIG)						θ		
TORCH LOCATE TIME						00.50		
TORCHUP TIME(M70)						02.00		
TEMPO DESCENTE (M71)						01.80		
ARC-FEEDBACK(0/1)						1		
MAX TIME FOR ARC-FEEDBACK(S)						10.0		
PIERCE TIME						00.30		
PARAMETER: 0 < P < 1 RETURN SELECT: 0-NO RETURN: 1-POSITIVE: -1-NEGATIVE								
ESC	SPEED	SYSTEM	FLAME	PLASMA	CONTROL		SAVE	



NOTES: The pierce time is 0.3, The pierce time due to the Steel Thickness, Steel is thicker, pierce time is longer. Dont change other parameters .

Step 3: Press F7(SAVE) and turn back the main interface.

#### Problem analysis:

★ 5. Cutting test;

Solution: Press F6 【LIBMIN】 → select one pattern → press the key "Enter" → press F6 【APPLY】 → press the key "ESC", return to the main interface → press F1 【AUTO】 → press the start key, and start cutting.