

How to adjust overload protection level of power source

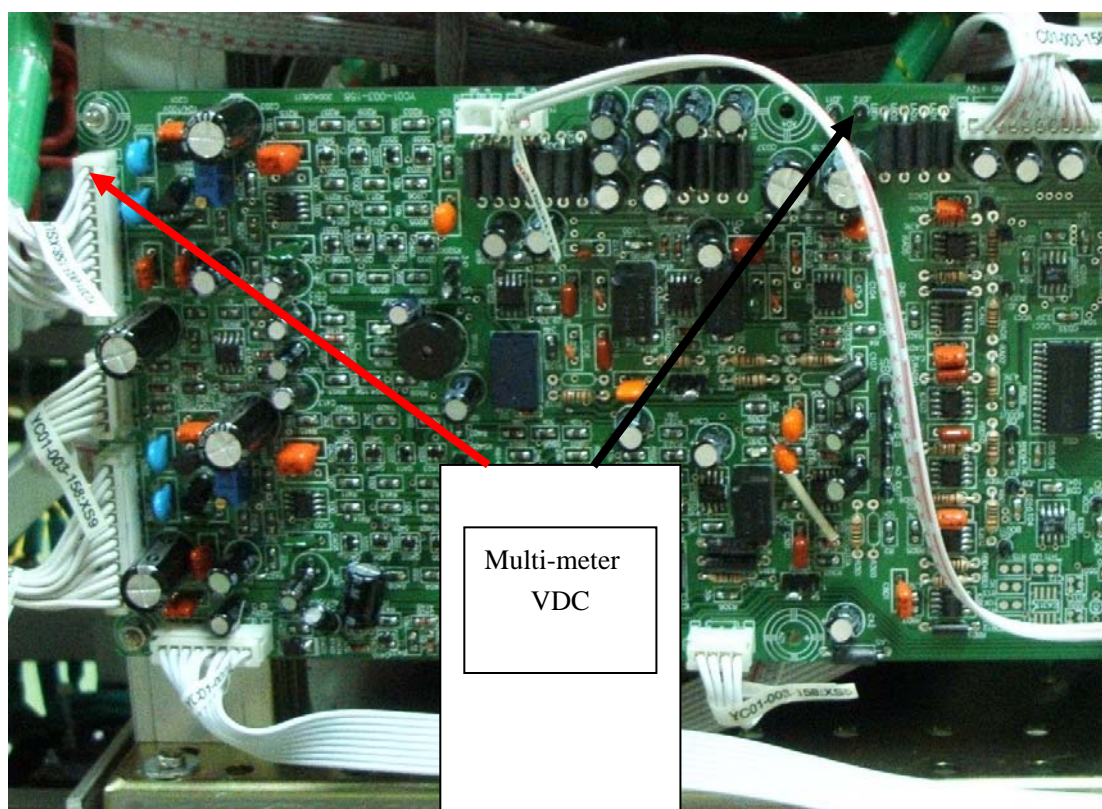
Power amplifier unit (PAU) is consist of two parts: voltage amplifier and current amplifier, therefore, adjustment of overload protection are separately.

And because of different power capacity, PAU has two kinds: PAU with sole radiator and PAU with double radiators. Different PAU with different adjustment, as described below:

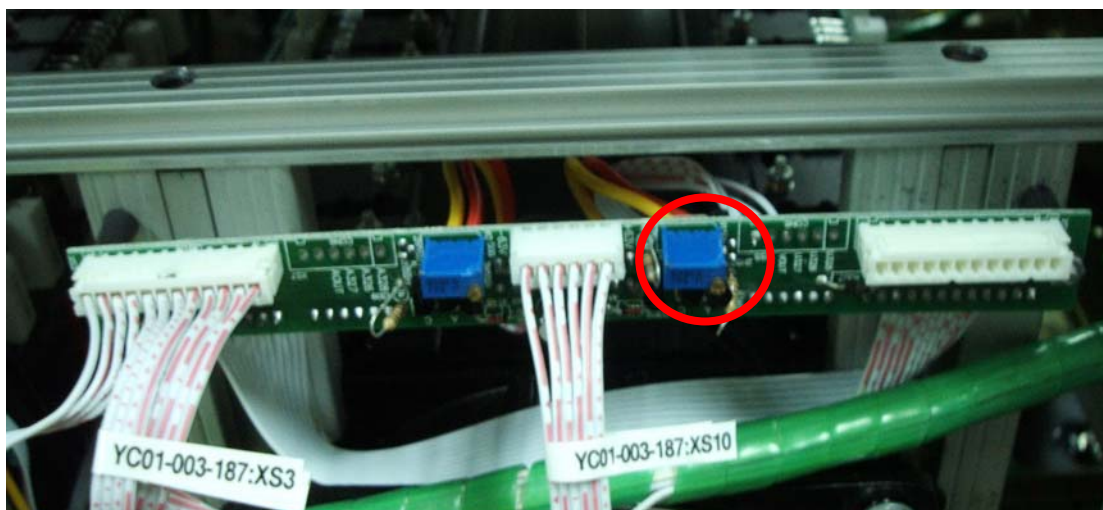
1. PAU with Sole radiator

1.1 Regulating the voltage output overload protection level

- A Connect the maximum load on terminal of voltage output
- B Switch on PAU but don't output voltage
- C Setting multi-meter on VDC range, red and black two pins connect separately to No.12 pin (the first pin) on XSUG1 of YC01-003-158 board and ground, the measured value is the protection level



- D Find out the YC01-003-187 board (on the above of radiator), adjust W1 (500Ohm) until the multi-meter's display data is 0VDC.

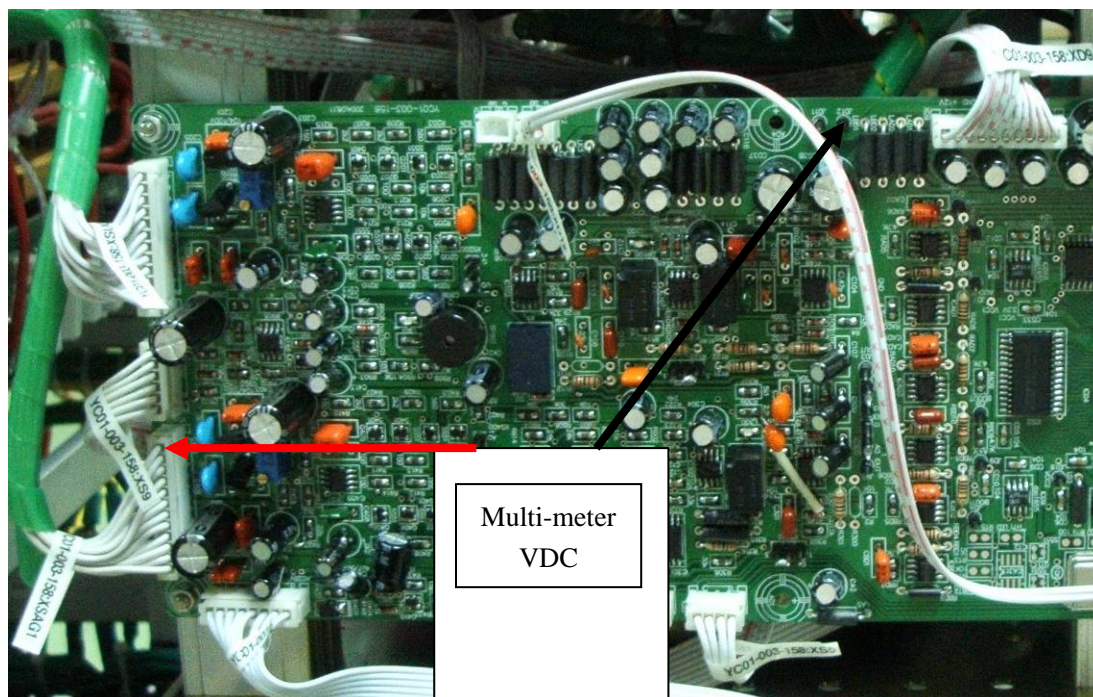


- E Setting the output voltage as rated voltage U_n (such as 220V, 240V etc.)
- F Adjust W1 (500Ω) until the multi-meter's display data is 2VDC.
- G Switch off voltage output and re-setting it to maximum value ($120\%U_n$), observe whether the protection is circuit action or not. If action, it needs to lower down the protection level slightly until protection circuit does not action when power source output maximum voltage.

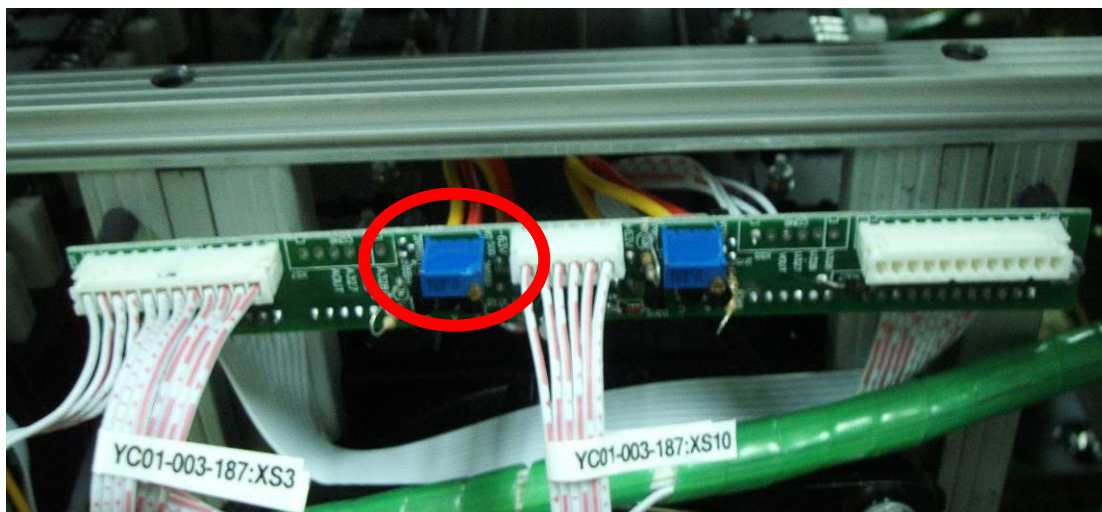
1.2. Regulating the current output overload protection level

Overload of the current output adjustment method just the same as voltage output of the adjustment method, as follows:

- A Connect the maximum load on terminal of current output
- B Switch on PAU but don't output current
- C Setting multi-meter on VDC range, red and black two pins connect separately to No.12 pin (the first pin) on XSAG1 of YC01-003-158 board and ground, the measured value is the protection level.



- D Find out the YC01-003-187 board (on the above of radiator), adjust W2 (500Ohm) until the multi-meter's display data is 0VDC.

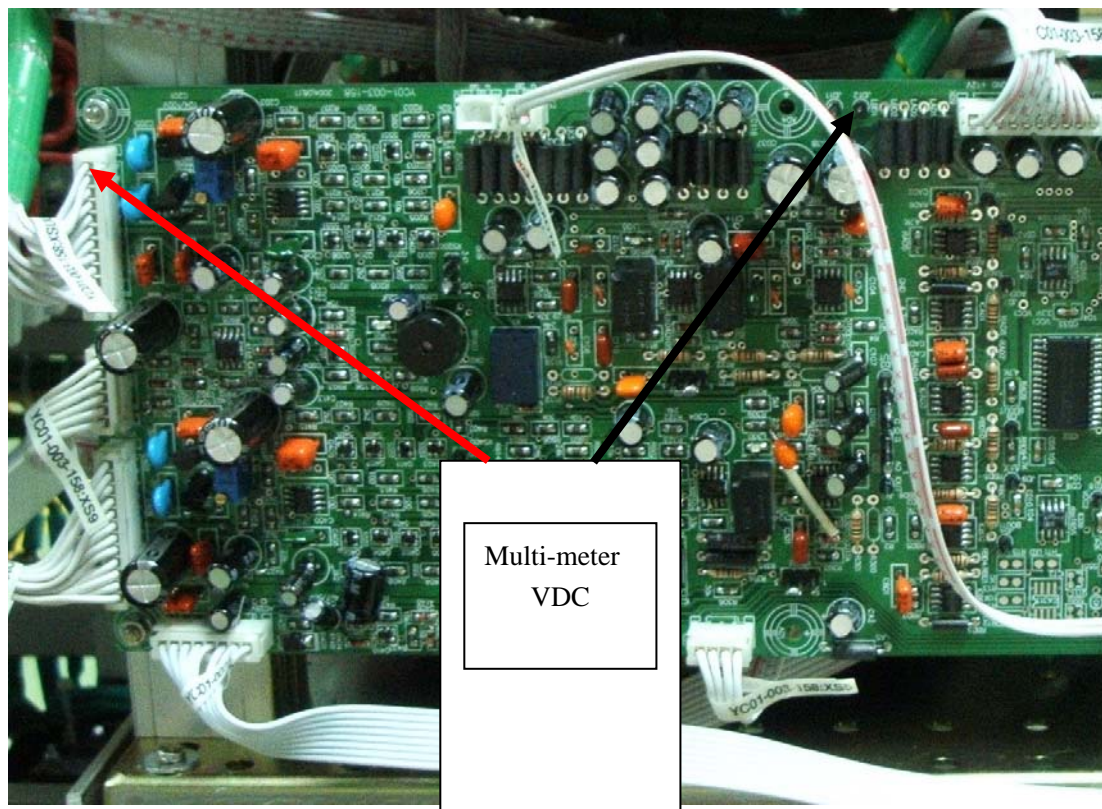


- E Setting the output current as 120A
F Adjust W2 (500Ohm) until the multi-meter's display data is 1VDC.
G Switch off current output and re-setting it to maximum value (120A) , observe whether the protection is circuit action or not . If action, it needs to lower down the protection level slightly until protection circuit does not action when power source output maximum current.

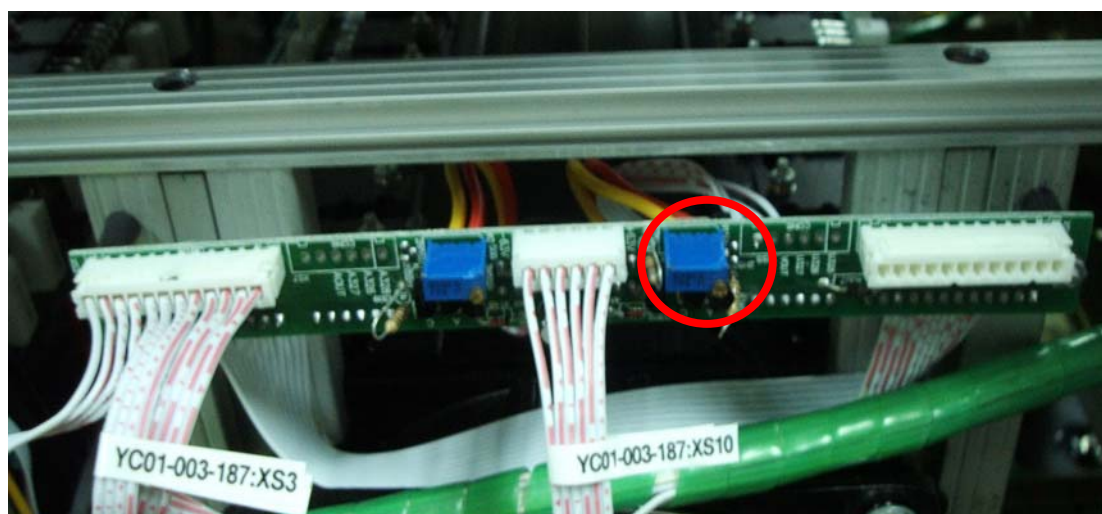
2. PAU with double radiators

2.1. Regulating the voltage output overload protection level

- A Connect the maximum load on terminal of voltage output
- B Switch on PAU but don't output voltage
- C Setting multi-meter on VDC range, red and black two pins connect separately to No.12 pin (the first pin) on XSUG1 of YC01-003-158 board and ground, the measured value is the protection level.



- D Find out YC01-003-187 boards on two radiators and adjust two W1(500Ohm) separately until the multi-meter's display data is 0VDC.



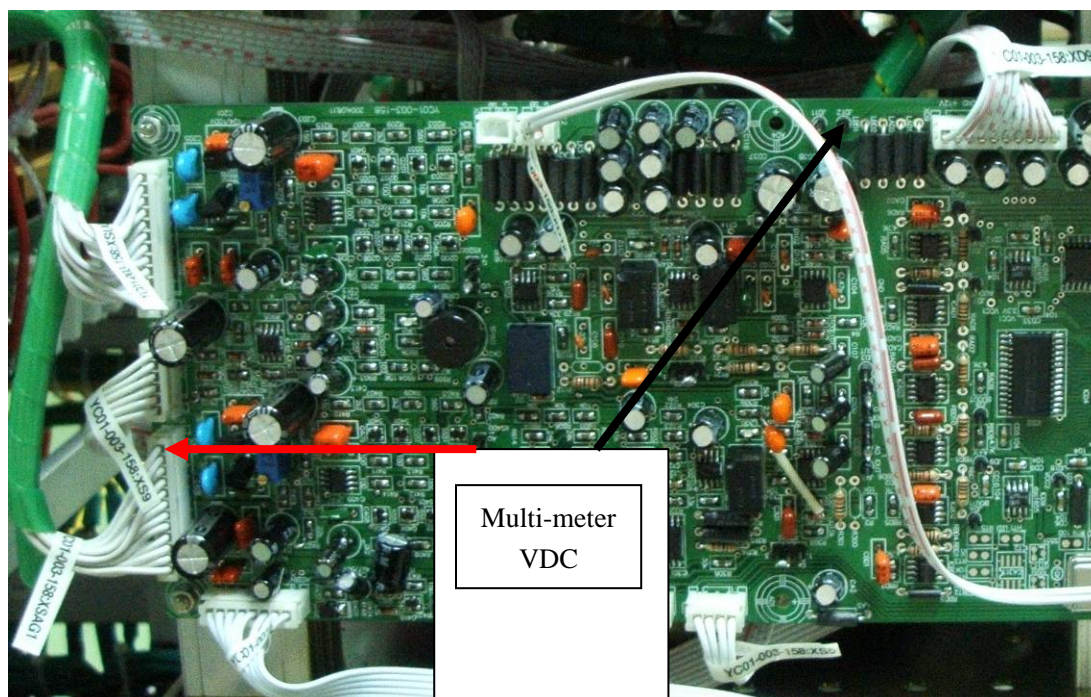
- E Setting the output voltage as rated voltage U_n (such as 220V, 240V etc.)

- F Firstly adjust W1 on #1 radiator and make the level increase to 1.0V, then adjust W1 on #2 radiator to 2.0V.
- G Switch off voltage output and re-setting it to maximum value (120%Un) , observe whether the protection is circuit action or not . If action, it needs to lower down the protection level slightly until protection circuit does not action when power source output maximum voltage.

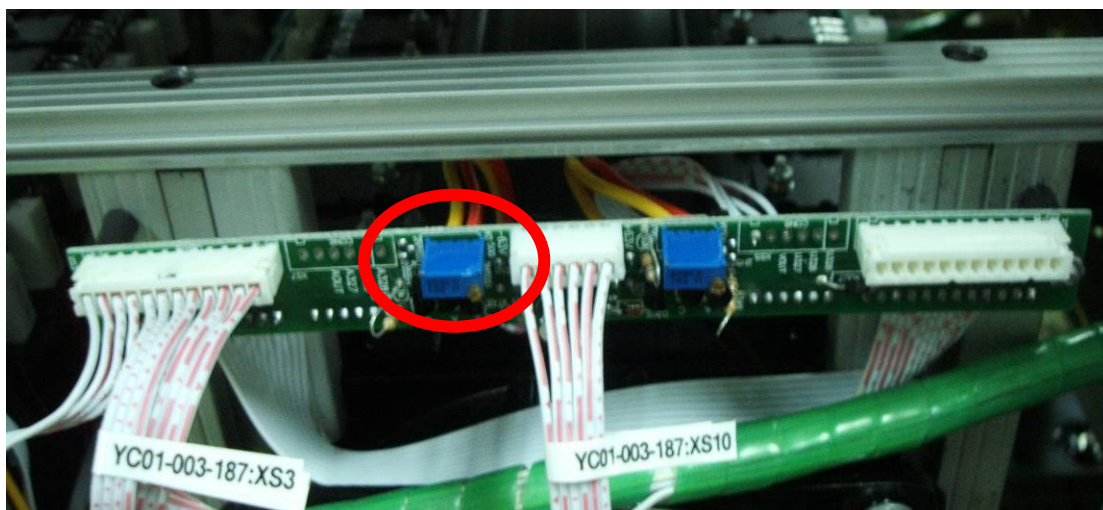
2.2. Regulating the current output overload protection level

Overload of the current output adjustment method just the same as voltage output of the adjustment method, as follows:

- A Connect the maximum load on terminal of current output
- B Switch on PAU but don't output current
- C Setting multi-meter on VDC range, red and black two pins connect separately to No.12 pin (the first pin) on XSAG1 of YC01-003-158 board and ground, the measured value is the protection level.



- D Find out YC01-003-187 boards on two radiators and adjust two W2(500Ohm) separately until the multi-meter's display data is 0VDC.



- E Setting the output current as 120A
- F Firstly adjust W2 on #1 radiator and make the level increase to 0.5V, then adjust W2 on #2 radiator to 1.0V
- G Switch off current output and re-setting it to 120A, observe whether the protection is circuit action or not. If action, it needs to lower down the protection level slightly until protection circuit does not action when power source output maximum voltage.