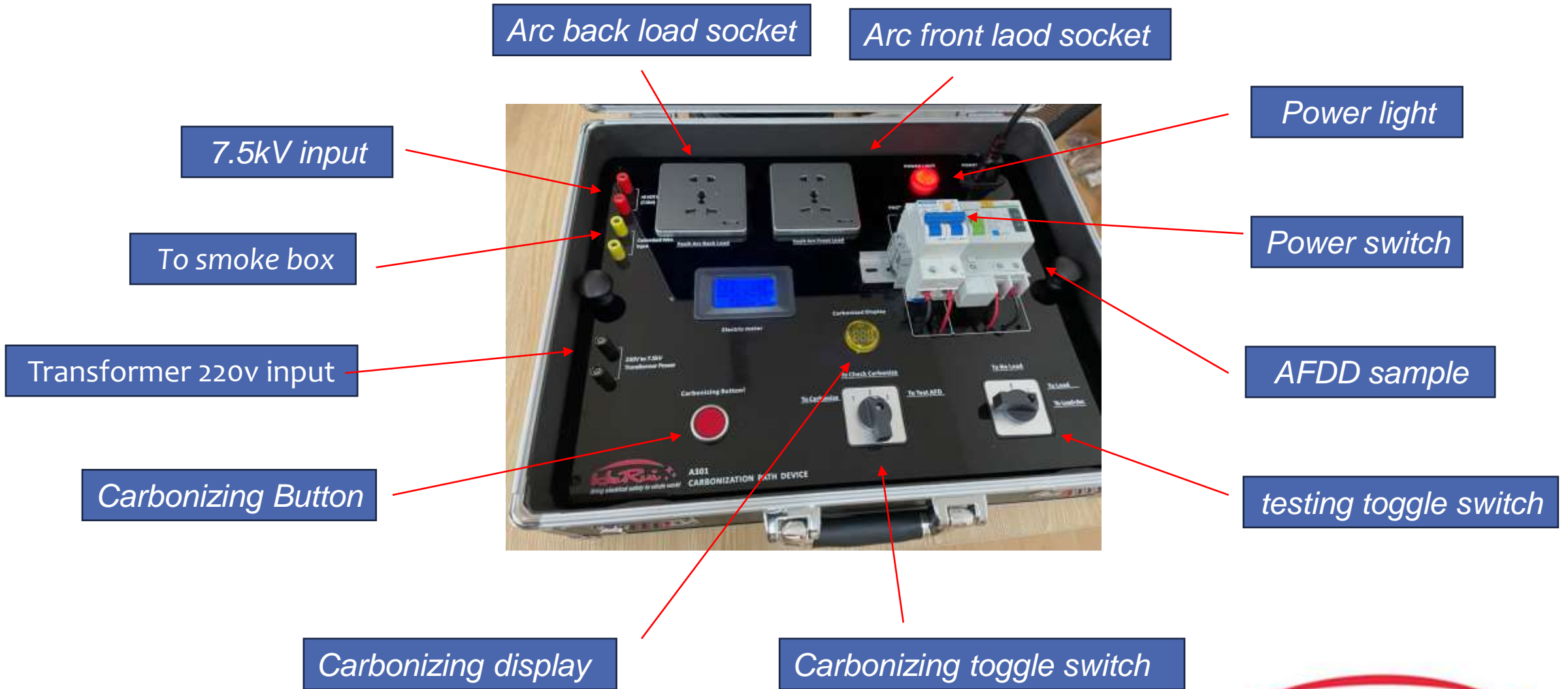


# *A301 Carbonization path tester Users manual*

# A301 Console panel diagram

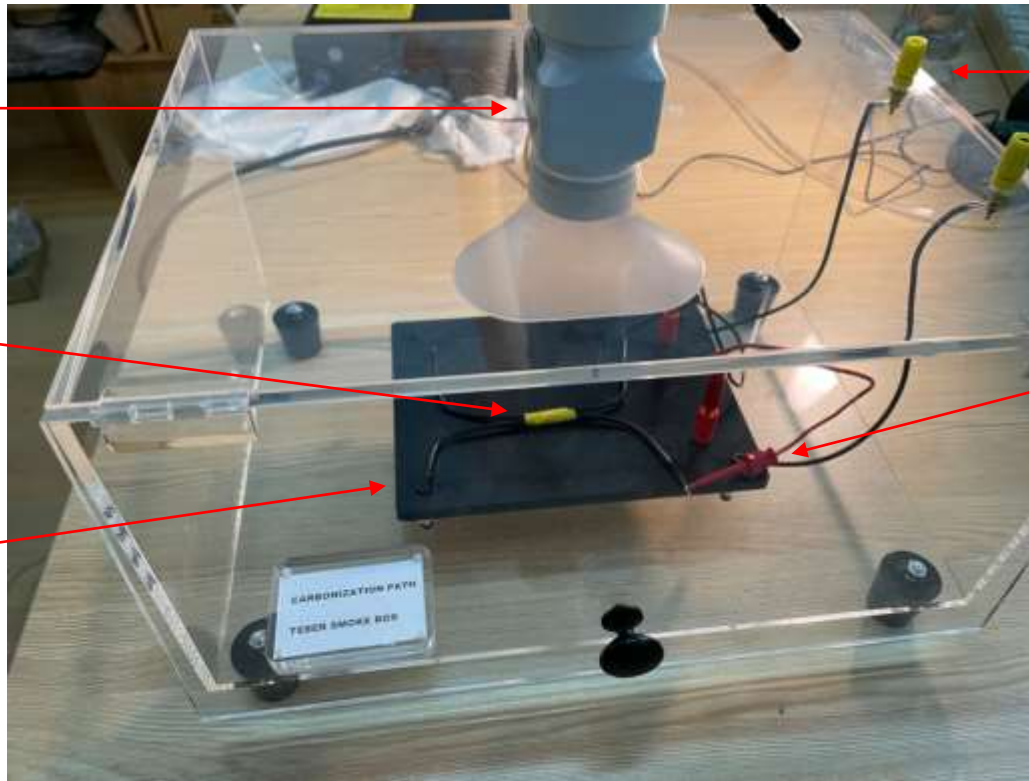


# A301 fault arc smoke box diagram

Fan motor

Carbon wire sample

Sample tray



Connect Terminal

Test hook

# A301 Console connect cable diagram

Arc smoke box

AFDD test load socket

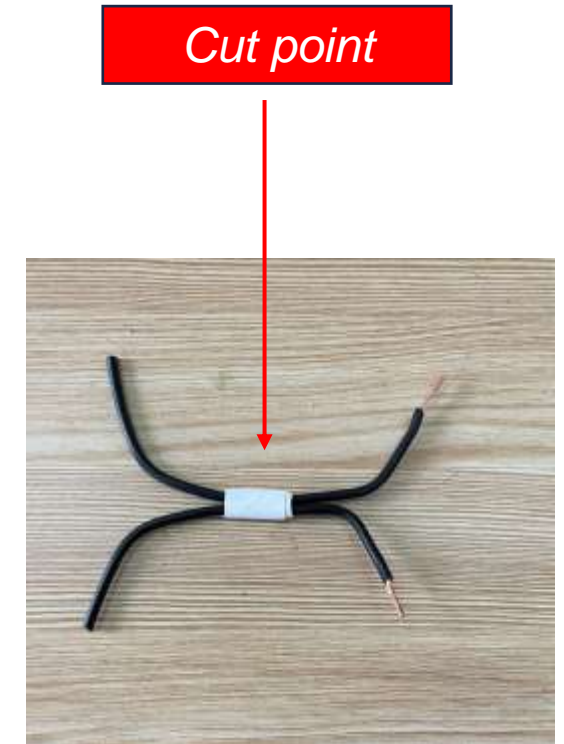
220/7500V transformer



# A301 Preparation of the cable specimens

Reference IEC62606 standard @ Page 53 9.9.2.6

- a ) The material and geometry of the specimen shall be appropriate to perform a sufficient carbonization between the conductors and initiate arcing by applying the rated voltage
- b ) The cable specimens are to be cut to a minimum length of 200 mm ( or 8 inches ) and the individual wires separated at each end of the cable specimen for 25 mm ( or 1 inch )
- c ) The insulation across both wires is to be slit 50 mm ( or 2 inches ) from one end to a dept to expose the conductors without severing any strands
- d ) The slit in the insulation is to be wrapped with a double layer of electrical grade black PVC tape and overwrapped with a double layer of fiberglass tape
- e ) The conductors are to be stripped at the end farthest from the slit approximately 12 mm( or 0 , 5 in ) for connection to the test circuits



# A301 Carbonizing operation method

- 1, confirm all cable connect is ok and correct
- 2, confirm the sample wire install is ok and power on the fan motor power adapter (in smoke box)
- 3, power on the power switch. (electric meter light)
- 4, carbon switch turn to <To Carbonize>

- 5, press the Carbonize Button about 10-15s (sample cable will have smoke)

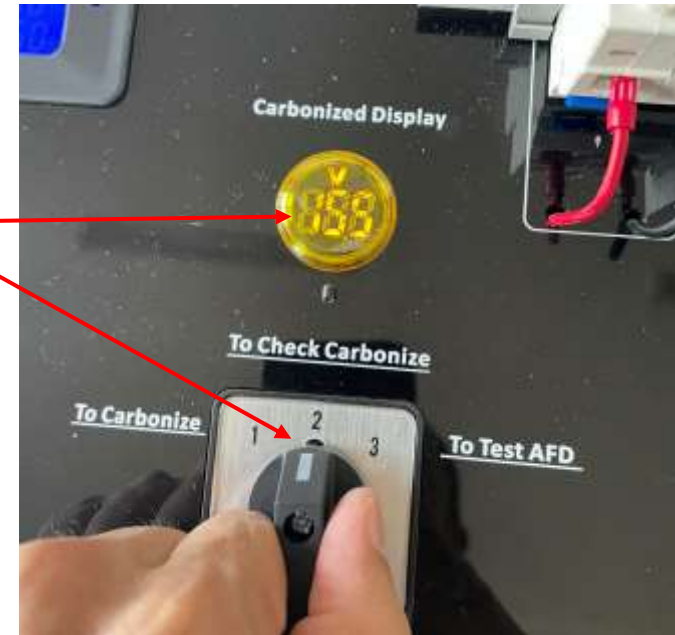
**pls notice if press the button the switch must be turn on to <To Carbonize>**



# A301 About Carbon cable check method

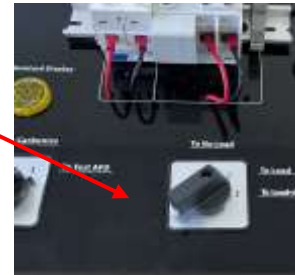
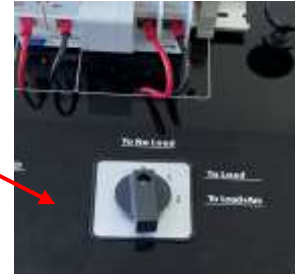
1, finished last step pls turn on the switch to <To Chech Carbonize>  
2, pls see <Carbonize Display> value

- if  $80 < \text{value} < 200$  it means the Carbonize cable is ok, pls switch ture on to <To Test AFD> prepare next step test
- If not display or  $> 200$  it means the carbonize cable is not ok if return last step to carbonize cable operation about 10-15s



# A301 Carbonize cable test AFDD method

- 1, pls turn on the switch to <No load >
- 2, pls connct the test load to <fault arc back load>. ex. 1-2kw resistor (reference iec standard)
- 3, power on the test AFDD
- 4, turn on switch to <To load> wait 2s.
- 5, fast turn on switch to <To load + arc> for finish 1 time test (see carbonize cable will have fault arc)
- 6, if test AFDD trip ,pls turn on the switch to <no load> and return last step to carbonize check if value at between 50-200 , means carbonize cable can again use otherwise need change new carbonize cable sample to carbonize





# *A301 Carbonize path tester uses manual*

*Thank you*

*Any question please connect us*

*Email: [AFCImaster@126.com](mailto:AFCImaster@126.com)*

*MianYang Herui electronic Co.,Ltd*