18W assembly Section 1

1. Turret Board assembly-
   a. Check parts:

b. Board assembly:
2. **Chassis Level assembly**

   - **Check parts needed for Chassis Level assembly**
     
     a. Front panel and top
     
     b. Back panel and wires
c. Transformers see wiring diagram below for detail spec for both PT and OT.
d. Tube sockets mount (Please notice the direction) and wire grummet:
e. Filament wiring:

- use a pair of twisted black/white wire to connect: (see below pic)
  Pin4&5 of 12AX7 No.1 to Pin4&5 of 12AX7 No.2; and Pin9 of 12AX7 No.1 to Pin9 of 12AX7 No.2;

- use a pair of twisted black/white wire to connect: (See below pic)
  Pin4&5 of 12AX7 No.2 to Pin4&5 of 12AX7 No.3; and Pin9 of 12AX7 No.2 to Pin9 of 12AX7 No.3;

- use a jumper to connect: Pin3 of 12AX7 No.2 to Pin8 of 12AX7 No.2; (see below pic)
-use a pair of twisted black/white wire to connect: (see below pic)
Pin4&5 of 12AX7 No.3 to Pin4 of EL84 No.1; and Pin9 of 12AX7 No.3 to Pin5 of EL84 No.1;
-use a 100K/1W resistor to connect Pin1 of 12AX7 No.3 to Pin6 of 12AX7 No.3; and
-use a jumper to connect Pin1 of 12AX7 No.3 to Pin7 of 12AX7 No.3;

-use a pair of twisted black/white wire to connect: (see below pic)
Pin4 of EL84 No.1 to Pin4 of EL84 No.2; and Pin5 of EL84 No.1 to Pin5 of EL84 No.2;
f. Front panel and back panel assembly: (see below pics and CAREFULLY/GENTALLY handle to put the parts on so you won’t break the acrylic panels)
-take the acrylic back panel, place it over the rear side of the aluminum main chassis. And put the fuse holder, the AC receptacle, output impedance selector, output jacks on to hold the acrylic panel to the aluminum chassis, and finally fasten the acrylic back panel with one M3 screw on the end side.
take the front acrylic panel, place it over the front of the aluminum chassis. And put these part over it to hold it to the aluminum chassis (from right to left): high&low input jacks, A500K Volume, A500K Tone, Input Jack and A1M MV, A500K Volume, B250K Treble, B25K Middle, A1M Bass, power switch, standby switch, indicator; (see below pics)

g. Put the hex threaded standoffs on for Turret board mount, see below pic 4 places:
h. Put the output transformer on: (see below pics)

i. Output transformer wiring to power tube and output jack(see below pics)
- solder the brown wire from primary winding of OT to Pin7 of EL84 No.1; and
- solder the blue wire from primary winding of OT to Pin7 of EL84 No.2;
-use two jumpers to connect both output jacks together as shown below:

-connect secondary windings from OT to Output Impedance Selector and Output jacks as below shown:
(we need only one side of the selector.)
j. Front panel Channel1 input jack wiring: (see below pics)
- connect Pin1 and Pin2 with a 1Mohm resistor;
- connect Pin1 and Pin7 with a jumper;
- connect Pin3 and Pin2 with a jumper;
- connect Pin3 and Pin6 with a jumper;

k. Front panel Channel2 input jack wiring: (see below pic)
- connect Pin1 and Pin2 with a 1Mohm resistor;
- connect Pin2 and Pin3 with a jumper;

l. Turret board loading: (see below pic)
- Screws (4 places green arrow pointer – make sure the 4 screw holes in the turret board are aligned up with the 4 threaded standoffs)
m. Power transformer mount: (see below pics)
We are going to use one of the (power transformer)mounting bolts as the GND point. Tighten up the other 3 bolts but leave this GND one loose at the moment because we are going to put some grounding lugs on later before we put a nut over it.

n. Wiring between rectifier tube 6CA4 and Power transformer: (see below pics)
- twist the blue and brown wires from the power transformer together; and
- connect the blue(0V) wire to Pin4 of 6CA4;
- connect the brown(6.3V) wire to Pin5 of 6CA4;
- Since we are using the 6CA4 rectifier tube, we don’t need the blue/red(5V) wire from power transformer, so please cut it short and wrap the end with a heat shrink tube and tuck it away to the corner of the chassis.
-twist both red color wires from the power transformer together; and
-connect one of the red wires to Pin1 of 6CA4;
-connect the other red wire to Pin7 of 6CA4;
-the red/yellow wire will be ended up with a metal lug and connect to GND point; (see below pics)
-connect the black wire(0) from the power transformer to the Neutral pin of the AC inlet module.

-connect the fuse holder to Live pin of AC inlet module (see below)
-twist both Green color wires from the power transformer together; and
-connect one of the Green wires to Pin4 of EL84 No.2;
-connect the other Green wire to Pin5 of EL84 No.2;
-the Green/Yellow wire will be ended up with a metal lug and connect to GND point; (see below pics)

-o. Grounding wires
-solder a metal ground lug to the end of the Red/Yellow wire from PT and a Yellow/Green wire; see below
-solder the other end of the Yellow/Green wire to the Earth pin of AC Inlet module;(see below)
-solder one end of a black wire to the fuse holder center pin, and a wire clip with insulated tube to the other end of it;
(We will then directly plug this black wire to the power switch “Off” pin.)