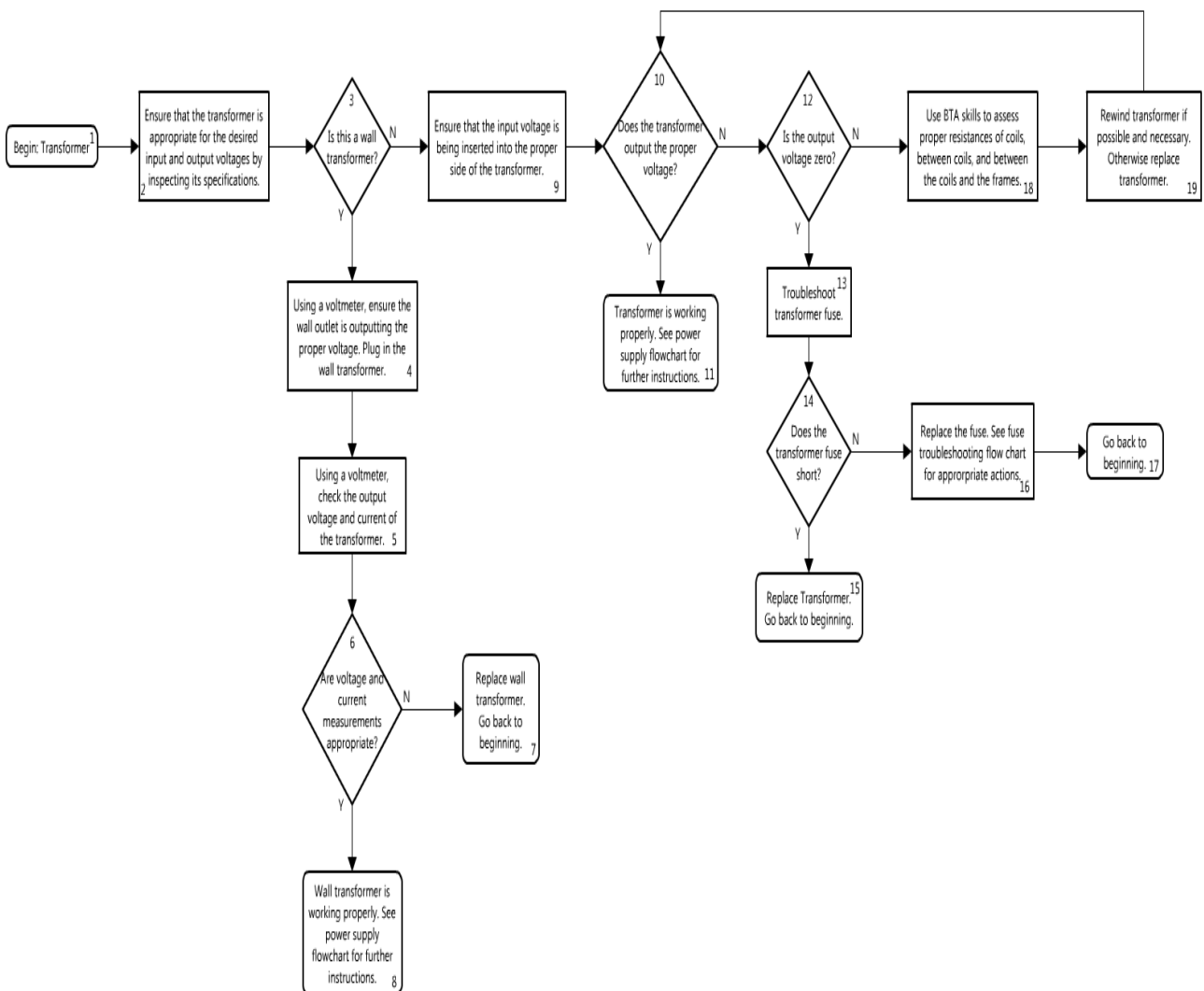



Power Supply (Transformer) Repair and Troubleshooting



Description

#	Text Box	Comments
1	Begin: Transformer	Begin diagnostic process for a work order on Transformer. Testing and maintenance is advised when a device using a transformer fails to turn on.
2	Ensure that the transformer is appropriate for the desired input and output voltages by inspecting its specifications.	Transformers typically print the required input and desired output voltages on its surface. It is necessary to adhere to these requirements for safety and appropriate transformer performance.
3	Is this a wall transformer?	A wall transformer converts AC input voltage to a DC output. It is also known as an "AC/DC adapter."
4	Using a voltmeter, ensure the wall outlet is outputting the proper voltage. Plug in the wall transformer.	As a precaution, it is always good to ensure that the input to the transformer is of the correct voltage before plugging it in.
5	Using a voltmeter, check the output voltage and current of the transformer.	After plugging in the transformer, place one probe from the voltmeter on the interior DC output connector, and one on the exterior of the connector. 
6	Are voltage and current measurements appropriate?	After checking, ensure that these measurements match the wall transformer's specifications.
7	Replace wall transformer. Go back to beginning.	If accurate voltage and current outputs are not obtained, replace the wall transformer.
8	Wall transformer is working properly. See power supply flowchart for further instructions.	Move on to the next step of the power supply flowchart if device still does not turn on. Always check with clinician before putting a piece of equipment back into use.
9	Ensure that the input voltage is being inserted into the proper side of the transformer.	It is absolutely necessary for the input voltage to enter the correct side of the transformer for safety and appropriate transformer performance.
10	Does the transformer output the proper voltage?	Using a voltmeter, check the output voltage. Ensure that these measurements match the transformer's specifications.
11	Transformer is working properly. See power supply flowchart for further instructions.	Move on to the next step of the power supply flowchart if device still does not turn on. Always check with clinician before putting transformer back into clinical use.

12	Is the output voltage zero?	If the voltage is zero, absolutely no potential is being emitted from the transformer. This is indication of further damage.
13	Troubleshoot transformer fuse.	Use a voltmeter to assess whether or not the fuse shorts. A shortage indicates a functioning fuse.
14	Does the transformer fuse short?	If the fuse shorts, it is still functioning and the transformer is not functioning.
15	Replace Transformer. Go back to the beginning.	If the voltage is zero and the fuse is working properly, the transformer is should not be repaired.
16	Replace the fuse. See fuse troubleshooting flow chart for appropriate actions.	Refer to the fuse troubleshooting guide to appropriately replace the transformer fuse.
17	Go back to beginning.	Troubleshoot entire transformer when fuse has been replaced.
18	Use BTA skills to assess proper resistances of coils, between coils, and between the coils and the frames.	If the voltage is not zero, but also not the appropriate voltage, use the BTA skills to assess the resistances within the transformer to determine which parts may need to be recoiled. Complete this step only if recoiling is possible. Otherwise, the transformer will need replacing.
19	Rewind transformer if possible and necessary. Otherwise replace transformer.	If resistances indicate that the transformer needs recoiling, rewind if coils are exposed. Otherwise, the transformer will need replacing.