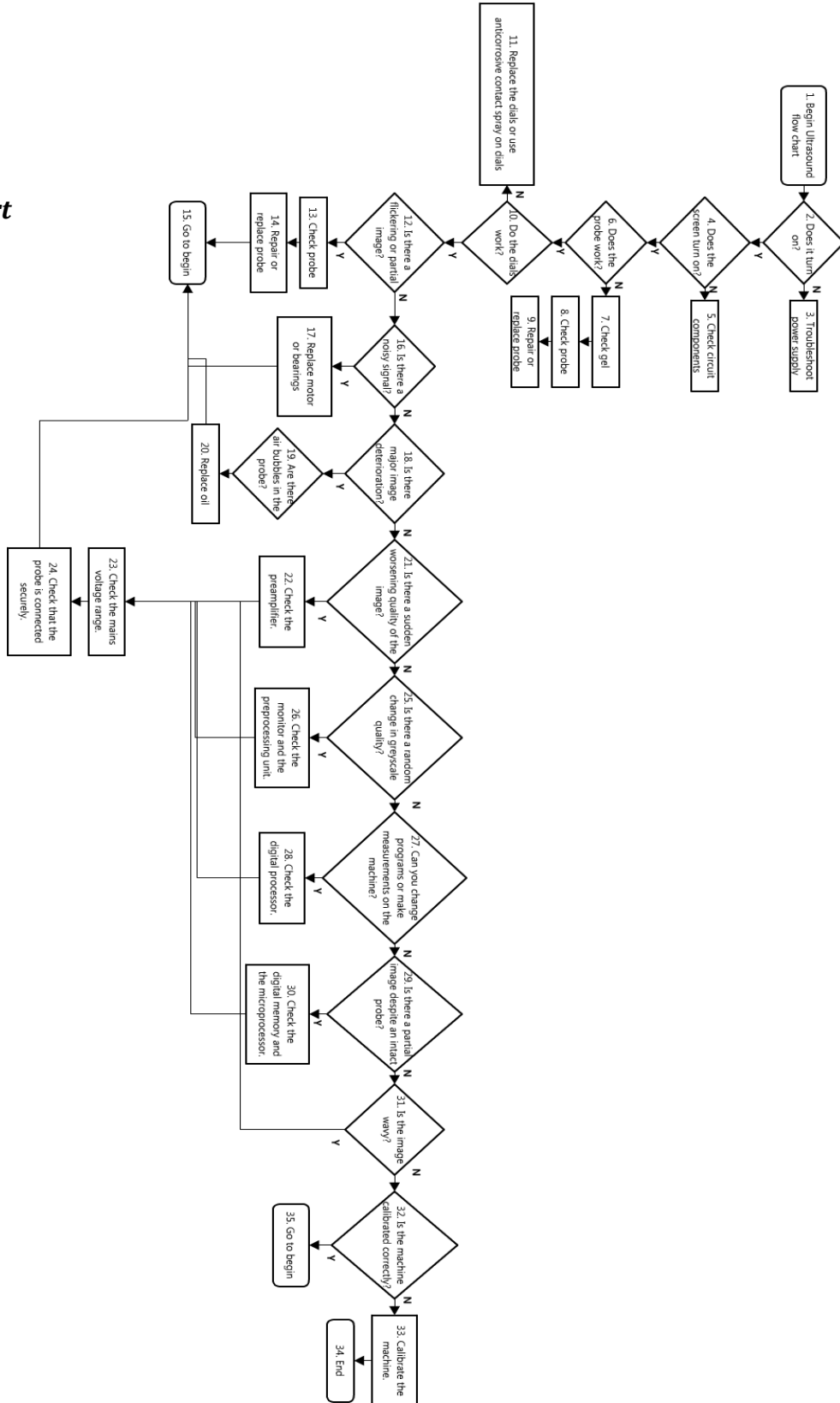


Ultrasound Repair and Troubleshooting



Flowchart

Description

| | |
|--|---|
| 1. Begin Ultrasound Flow Chart | Begin Ultrasound Flow Chart |
| 2. Does it turn on? | Does it turn on? |
| 3. Troubleshoot Power Supply | See power supply flowchart |
| 4. Does the screen turn on? | Does the screen turn on? |
| 5. Check circuit components | Troubleshoot the circuit (see troubleshooting guide) |
| 6. Does the probe work? | Does the machine show an image? |
| 7. Check gel. | Is there enough of the proper gel. |
| 8. Check probe. | Ensure that the probe is properly connected and undamaged. |
| 9. Repair or replace probe. | Solder the broken connections or replace the probe. |
| 10. Do the dials work? | Do the dials properly control the machine? |
| 11. Replace dials or use anticorrosive contact spray on dials. | Replace or use anticorrosive contact spray on dials. |
| 12. Is there a flickery or partial image | Does the image on the screen have missing sections? Does the screen flicker? |
| 13. Check probe. | Gently pull on the cable at different points to see when the image flickers. This is where the cable is broken. For composite probes wave a pencil across the transducer. If not seen, this is where the transducer is not |

| | |
|--|--|
| | connected. |
| 14. Repair or replace probe. | Solder the broken connections or replace the probe. |
| 15. Go to begin. | Go to begin. |
| 16. Is there a noisy signal? | Is there distortion in the produced image? |
| 17. Replace motor or bearings | Replace the motor or bearings if they are broken or damaged. |
| 18. Is there major image deterioration? | Is the image severely deteriorated? |
| 19. Are there air bubbles in the probe? | Does the oil in the probe have air bubbles in it? |
| 20. Replace oil. | Replace oil. |
| 21. Is there a sudden worsening quality of the image? | Does the image have sudden changes in quality? |
| 22. Check the preamplifier. | Check the preamplifier. |
| 23. Check the mains voltage range. | Check the outlet voltage range. |
| 24. Check that the probe is connected securely. | Check that the probe is connected securely. |
| 25. Is there a random change in greyscale quality? | Is there a random change in greyscale quality? |
| 26. Check the monitor and the preprocessing unit. | Check the monitor and the preprocessing unit. |
| 27. Can you change programs or make measurements on the machine? | Can you change programs or make measurements on the machine? |

| | |
|---|---|
| 28. Check the digital processor. | Check the digital processor. |
| 29. Is there a partial image despite an intact probe? | Is there a partial image despite an intact probe? |
| 30. Check the digital memory and the microprocessor. | Check the digital memory and the microprocessor. |
| 31. Is the image wavy? | Is the image wavy? |
| 32. Is the machine calibrated correctly? | Is the machine calibrated correctly? |
| 33. Go to begin. | Got to begin. |
| 34. Calibrate the machine. | Calibrate the machine. |
| 35. End | End |