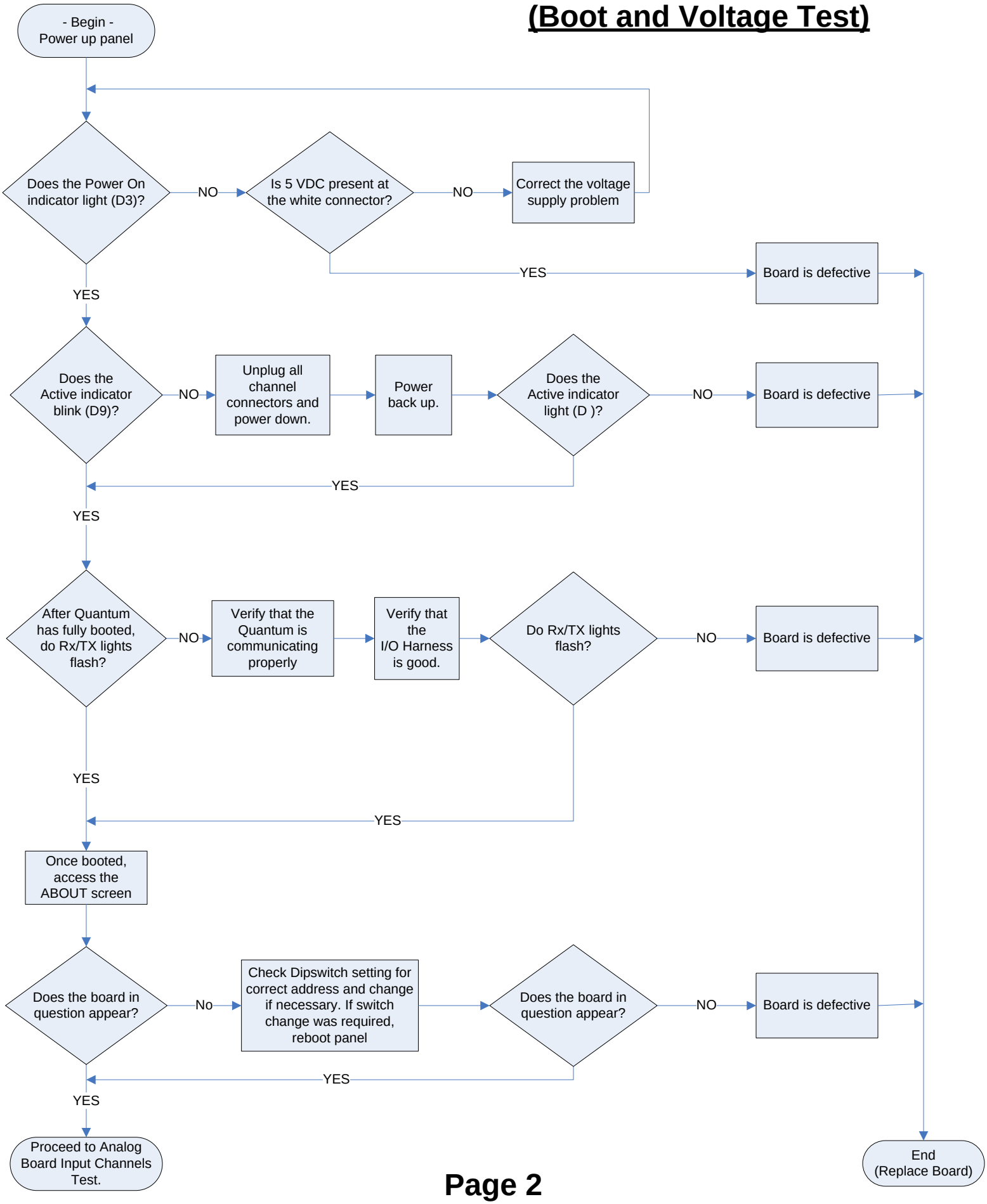
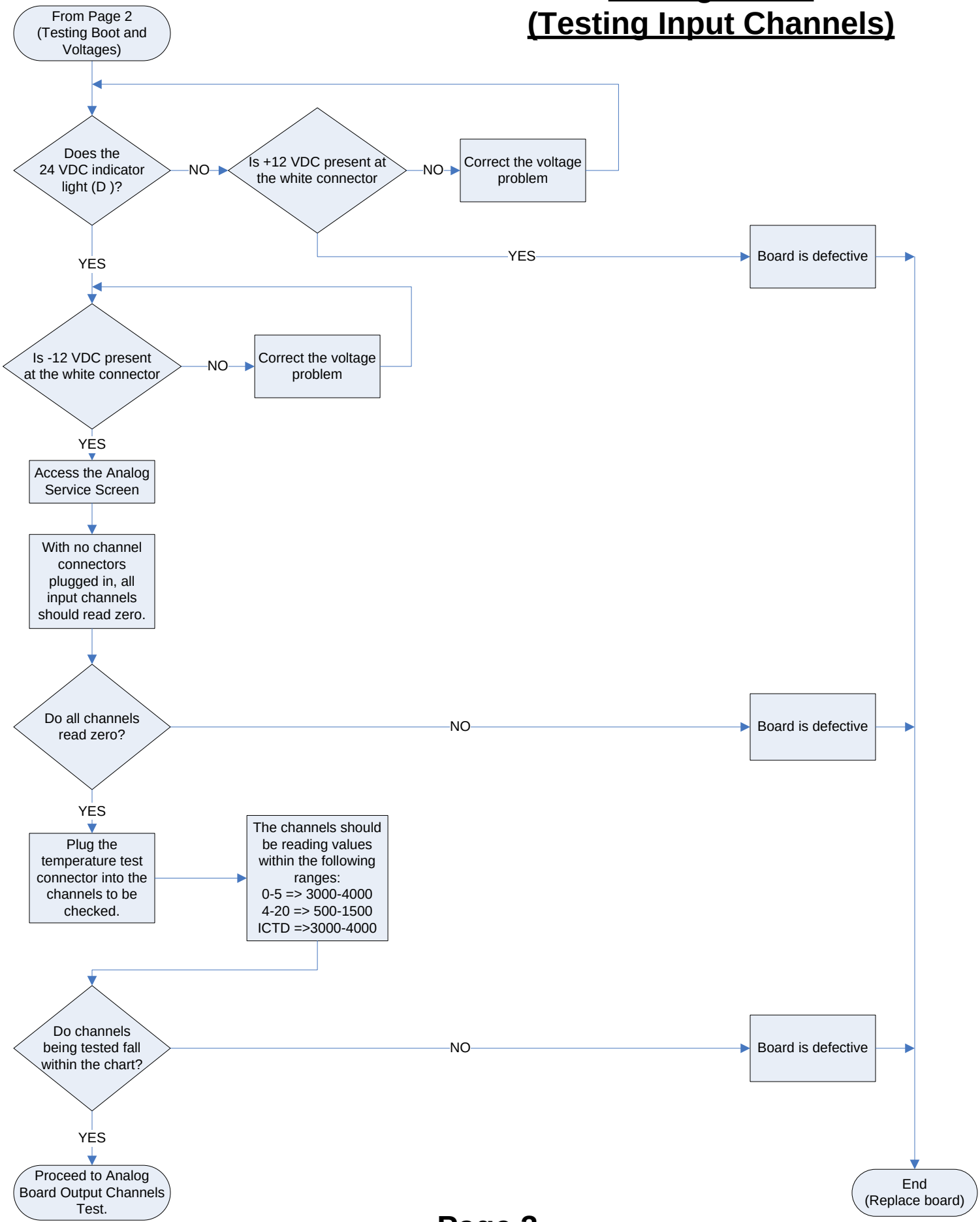
QUANTUM LX CONTROL COMPONENT TESTING FLOWCHART

INDEX

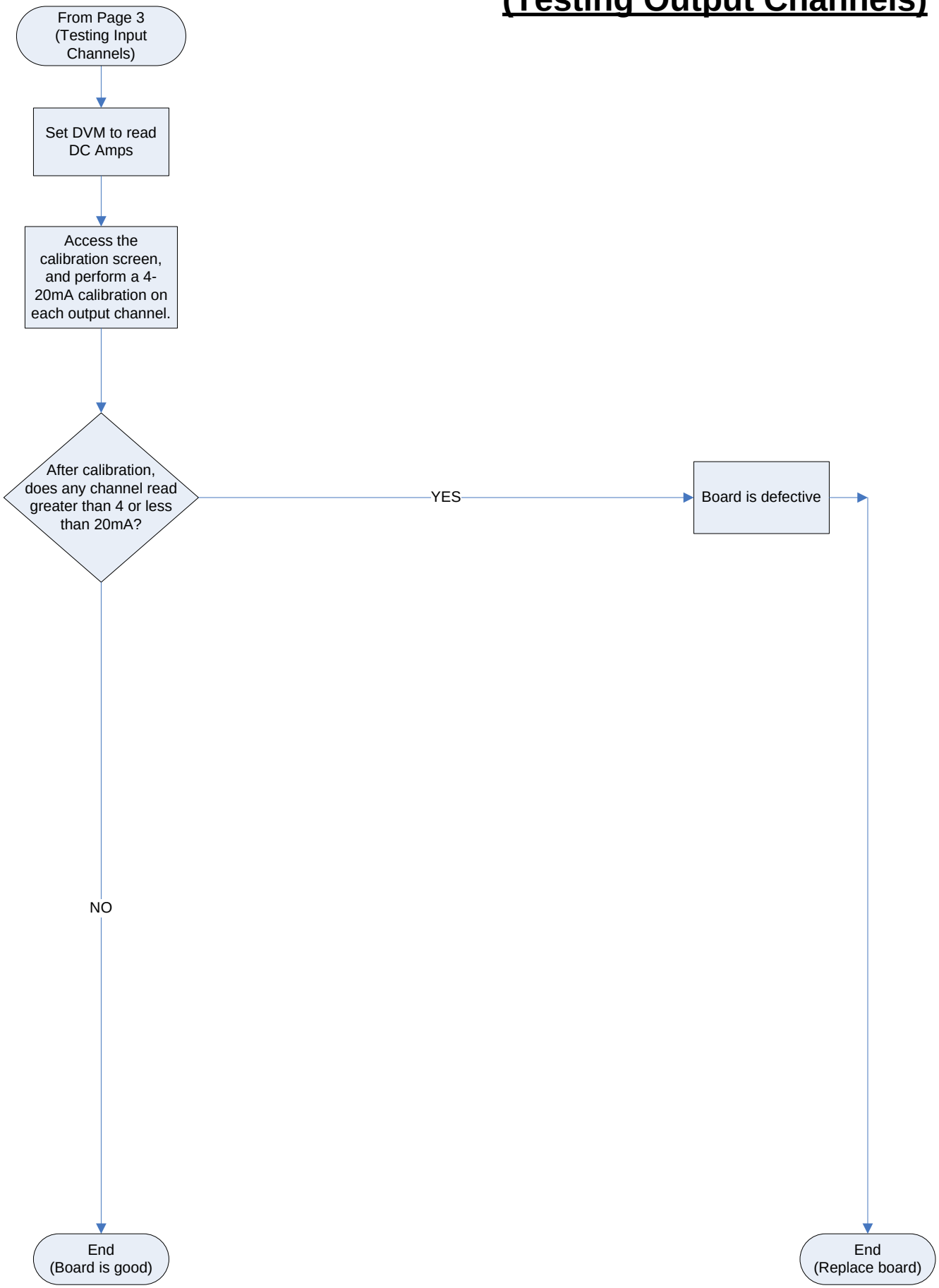
Analog Board
(Boot and Voltage Test)



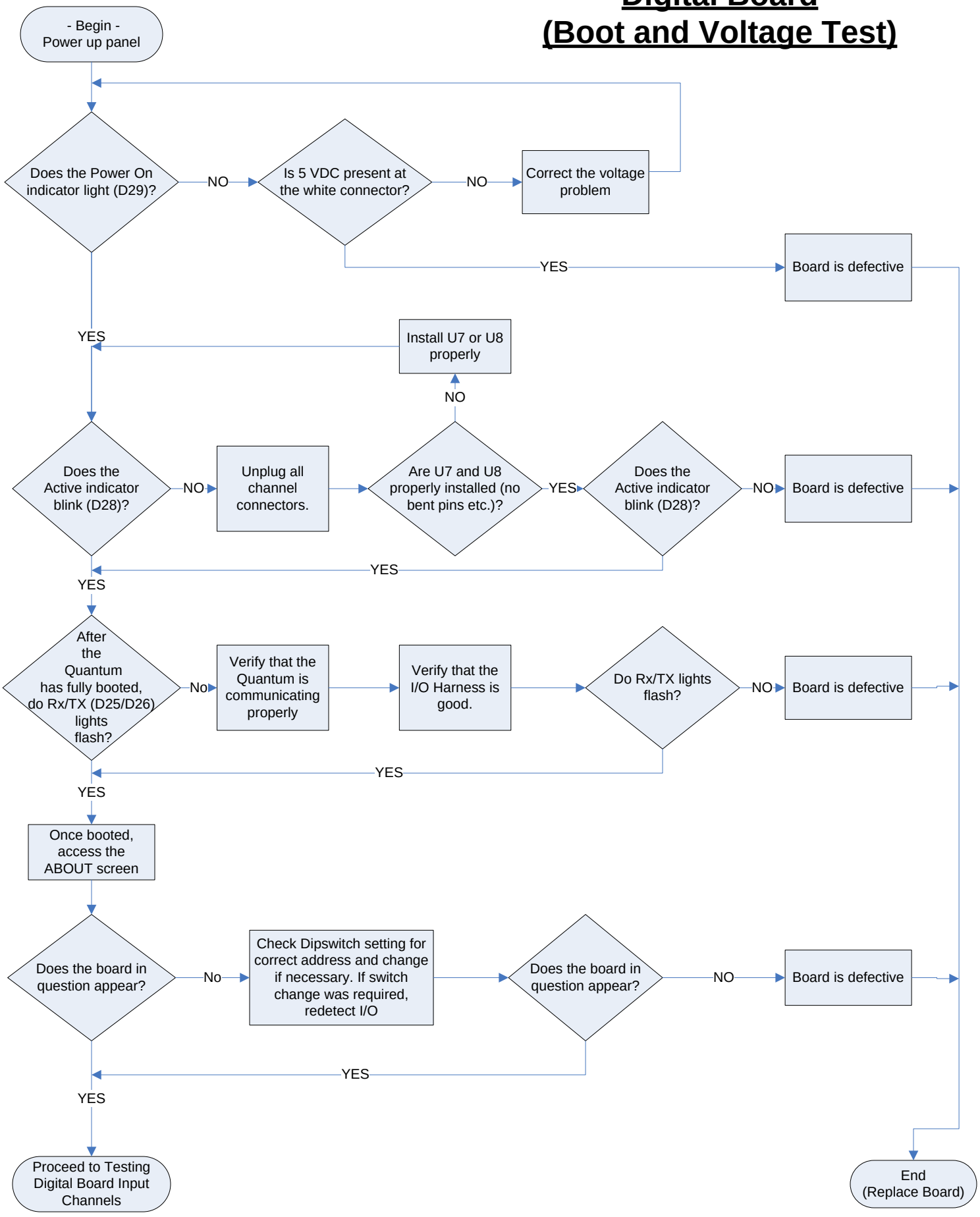
Analog Board
(Testing Input Channels)



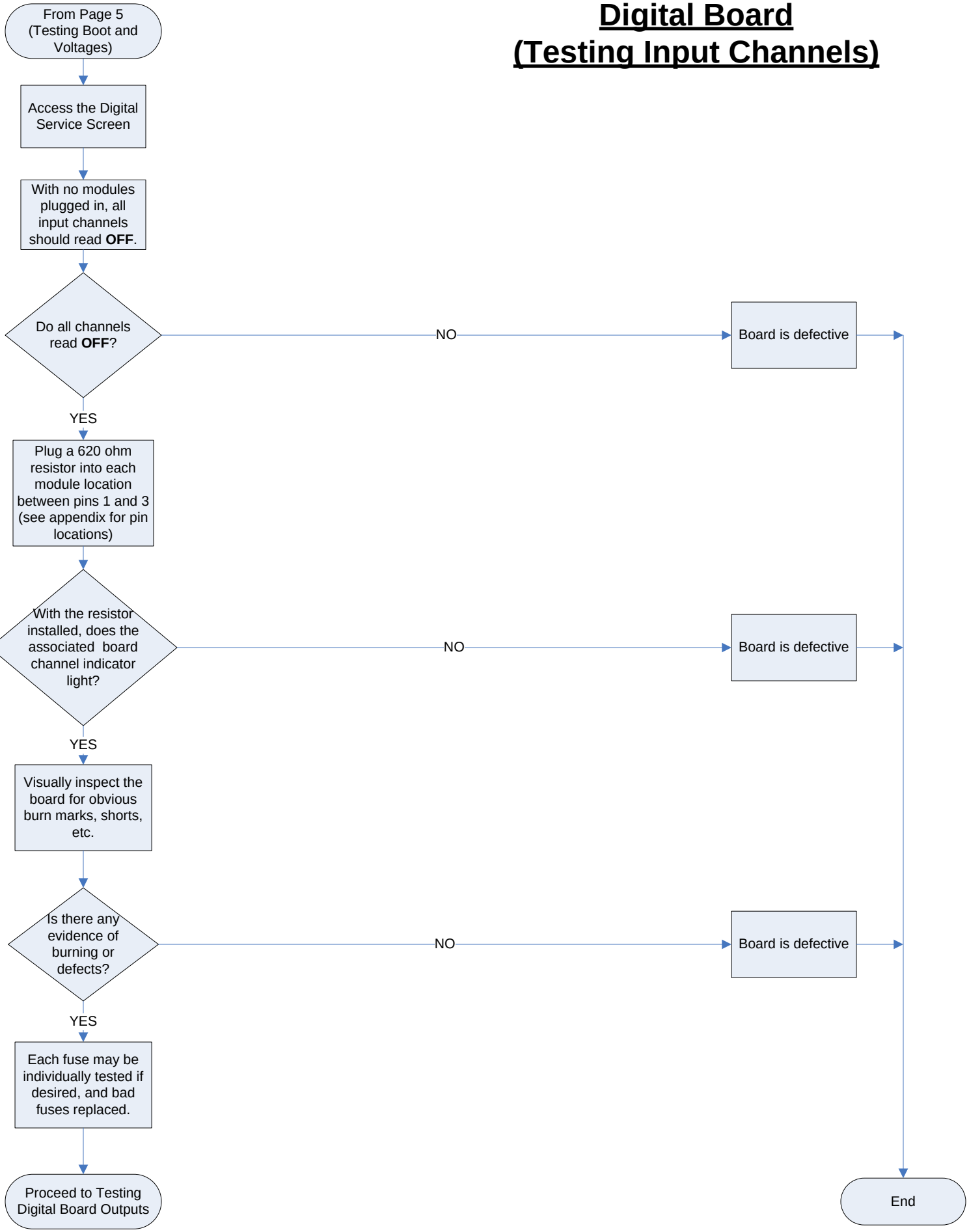
Analog Board
(Testing Output Channels)



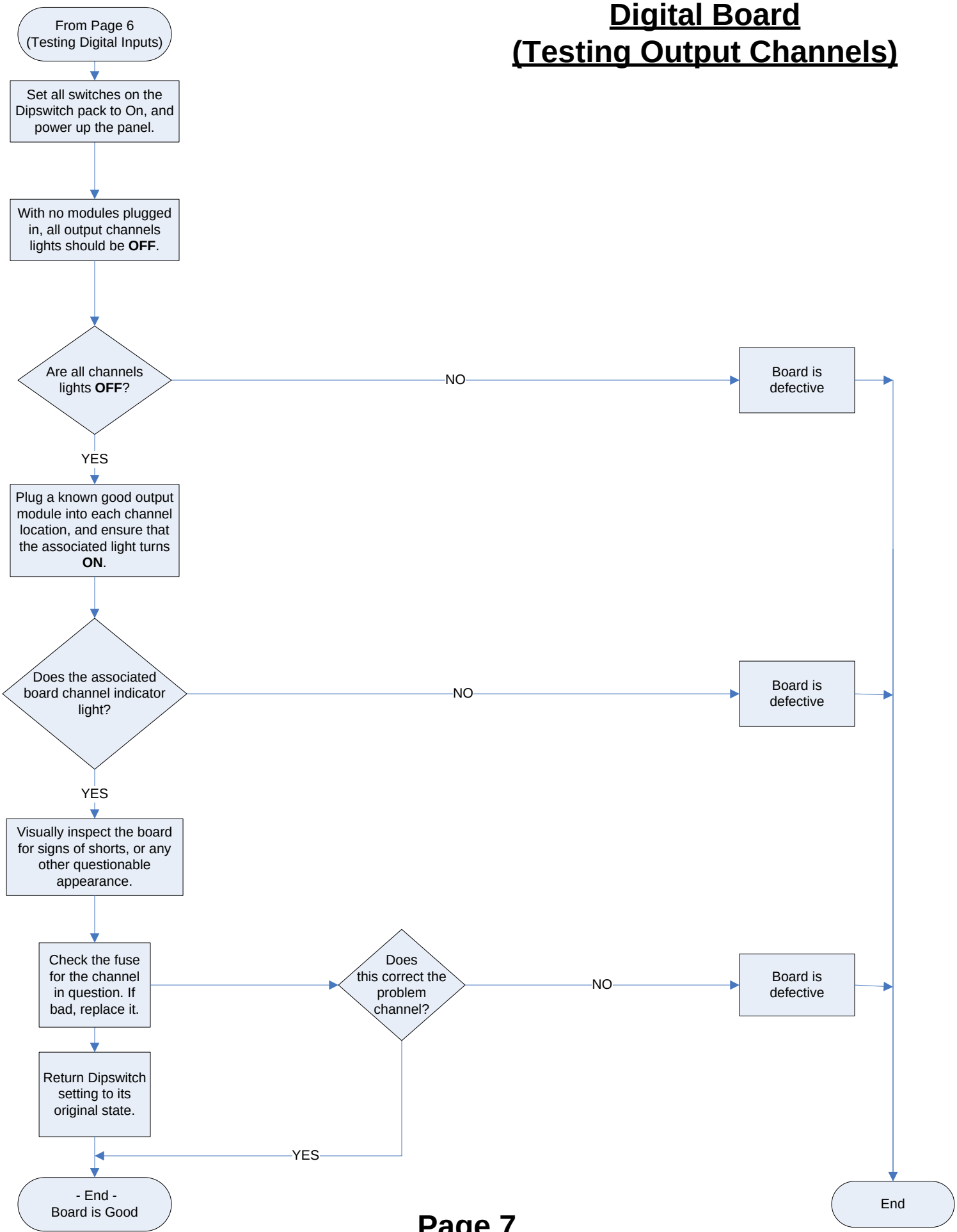
Digital Board
(Boot and Voltage Test)



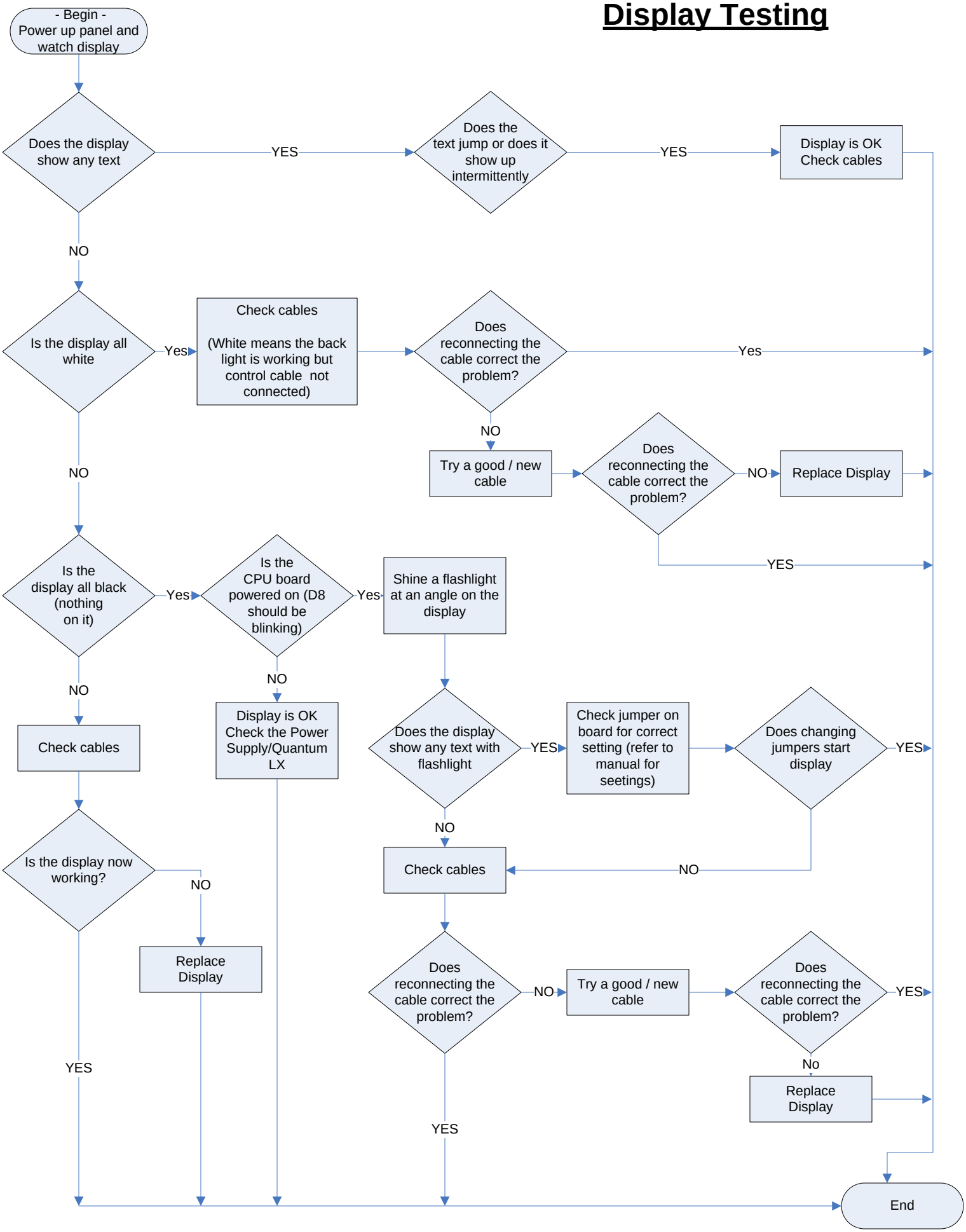
Digital Board
(Testing Input Channels)



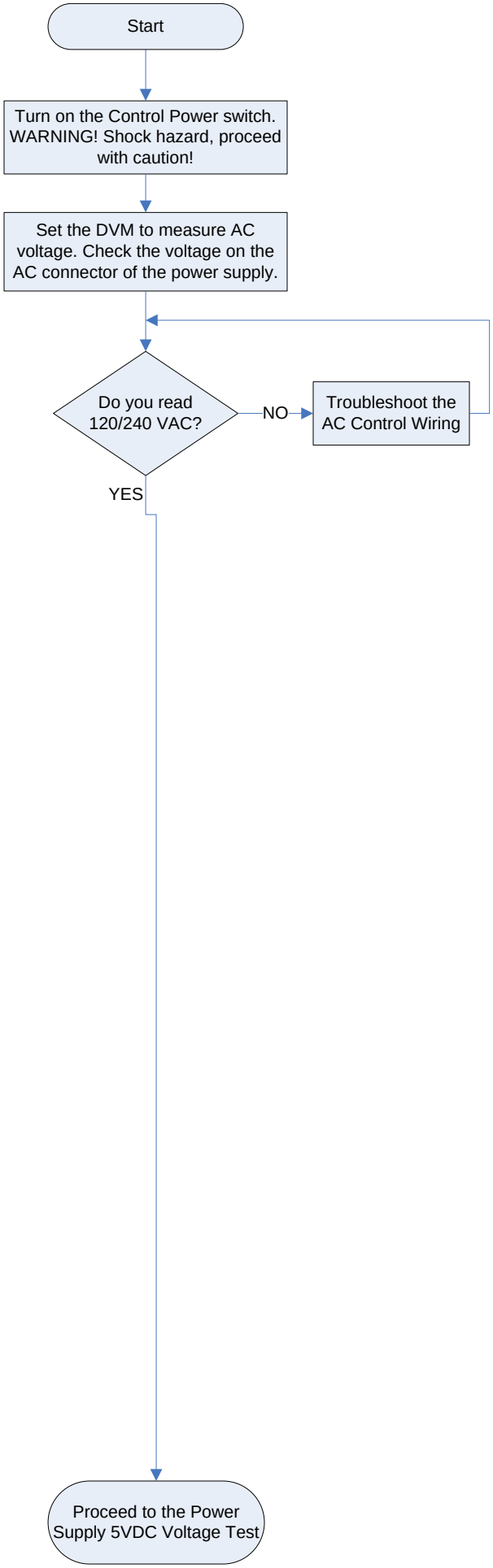
Digital Board
(Testing Output Channels)



Display Testing

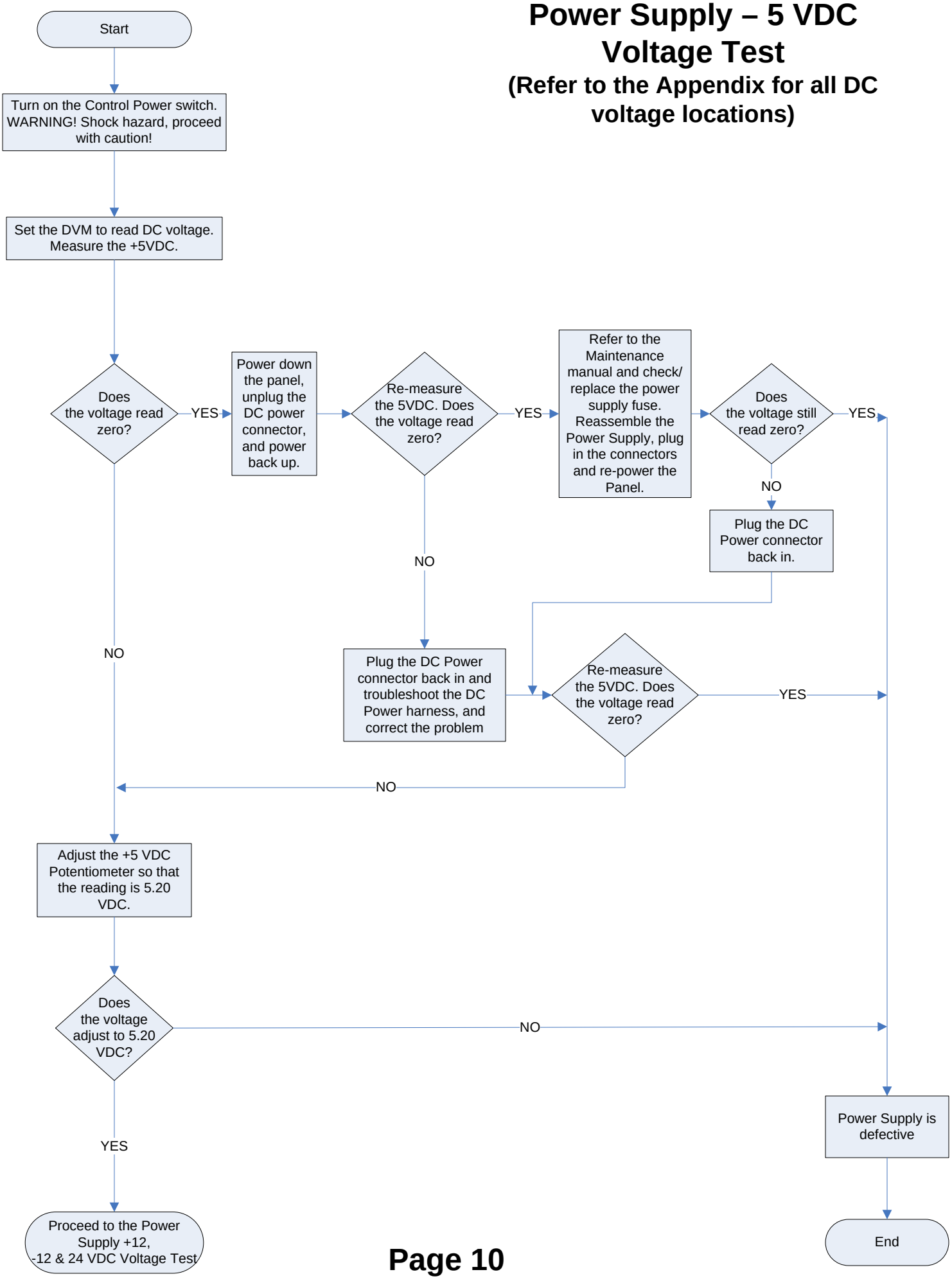


Power Supply – AC Voltage Test



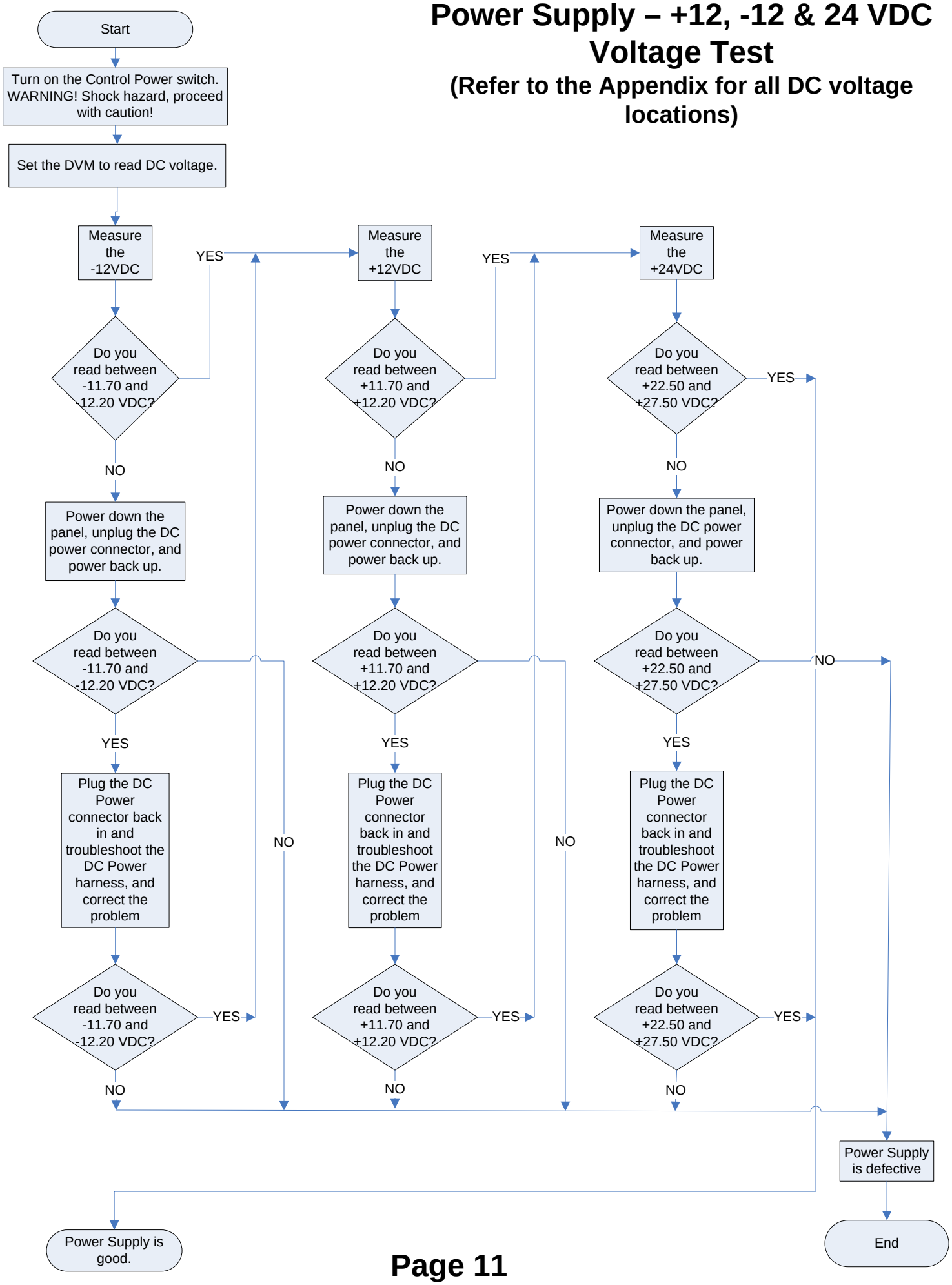
Power Supply – 5 VDC Voltage Test

(Refer to the Appendix for all DC voltage locations)

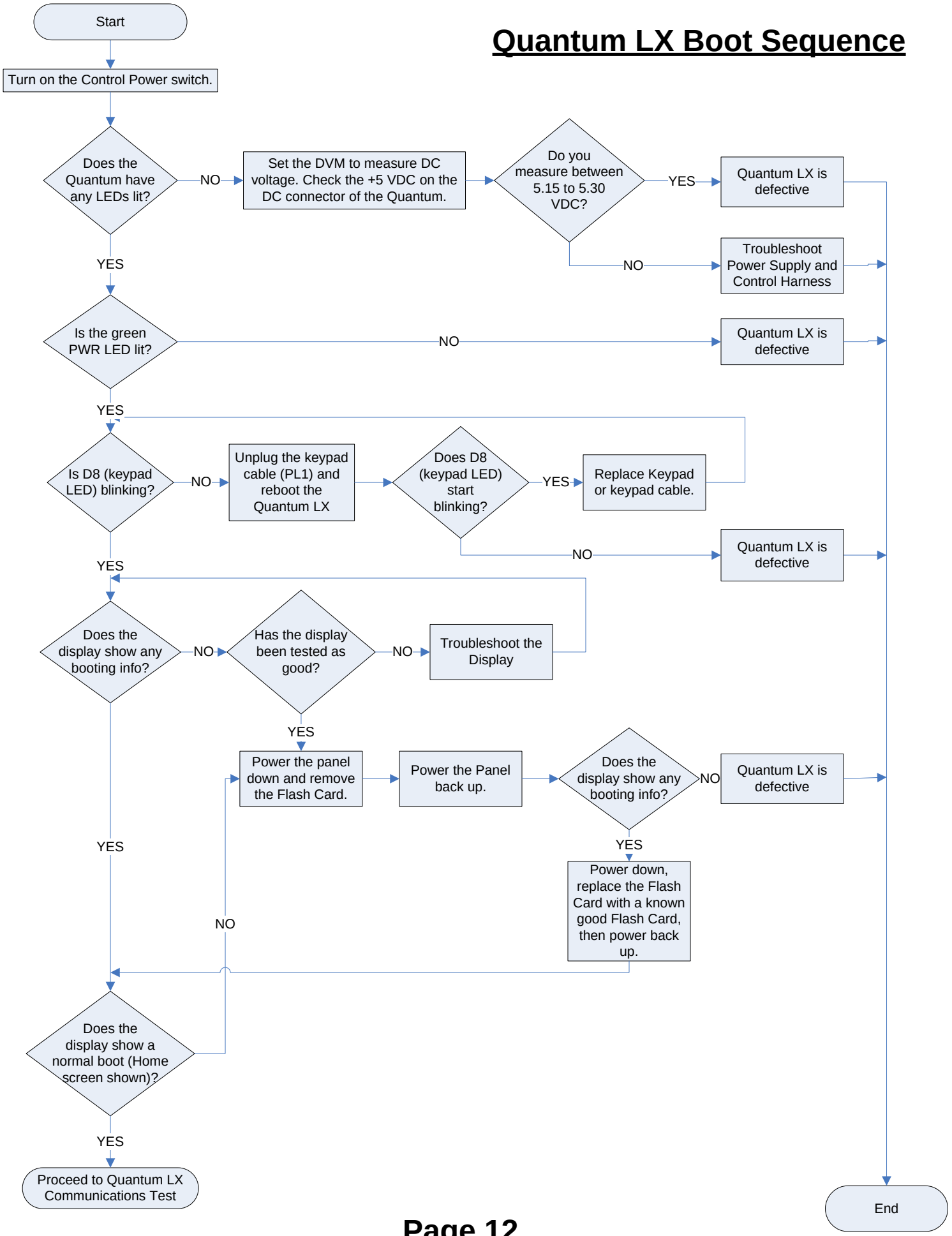


Power Supply – +12, -12 & 24 VDC Voltage Test

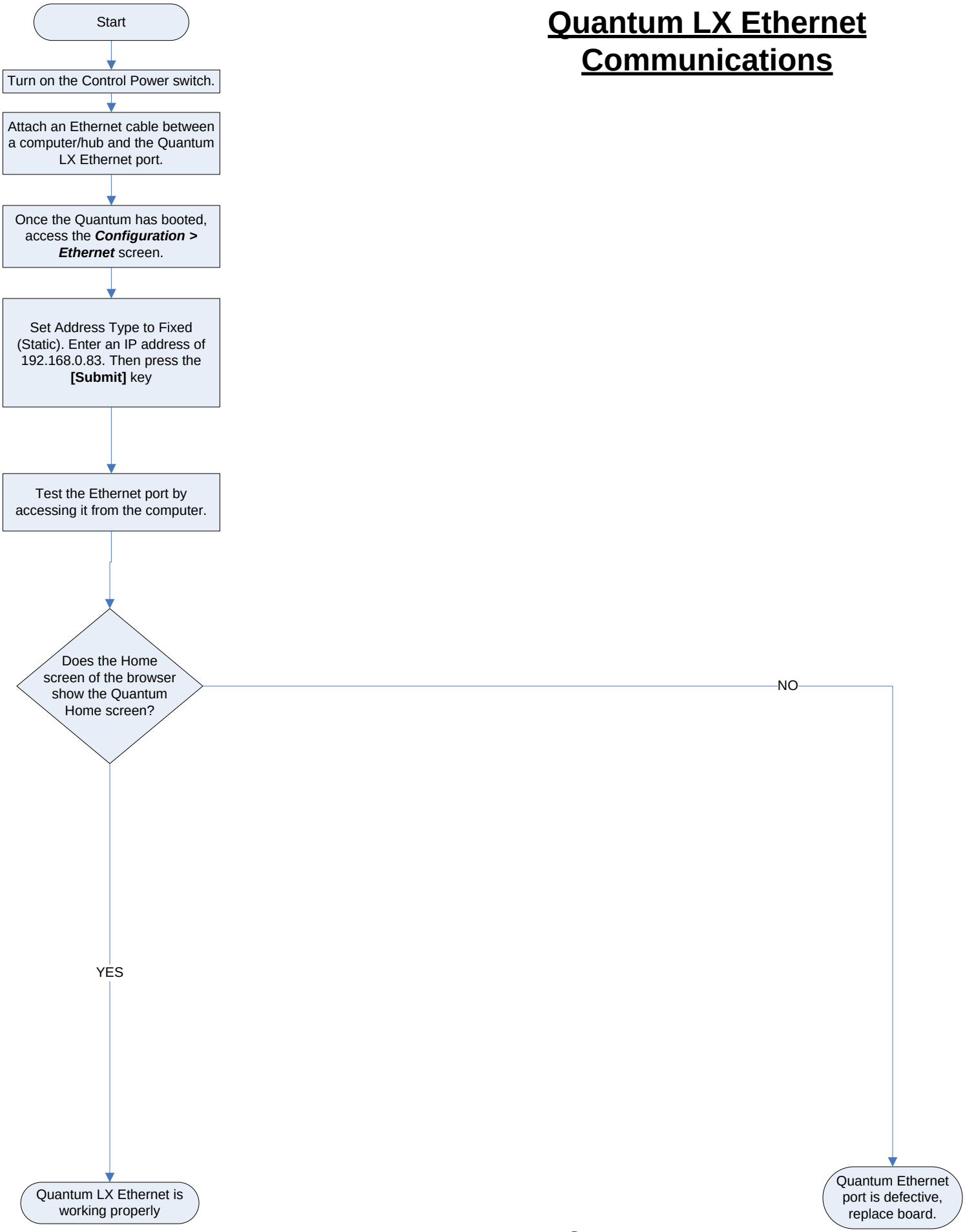
(Refer to the Appendix for all DC voltage locations)



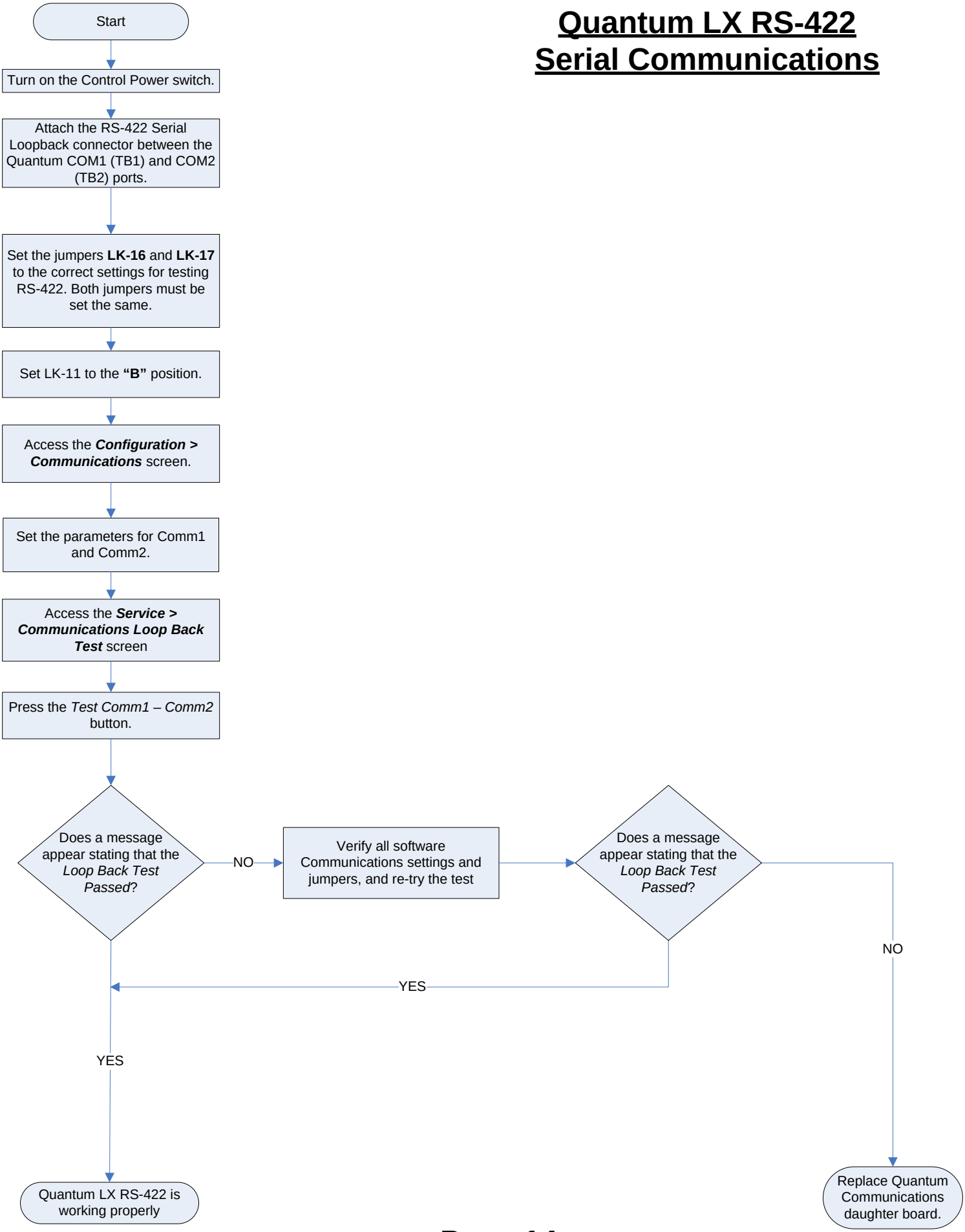
Quantum LX Boot Sequence



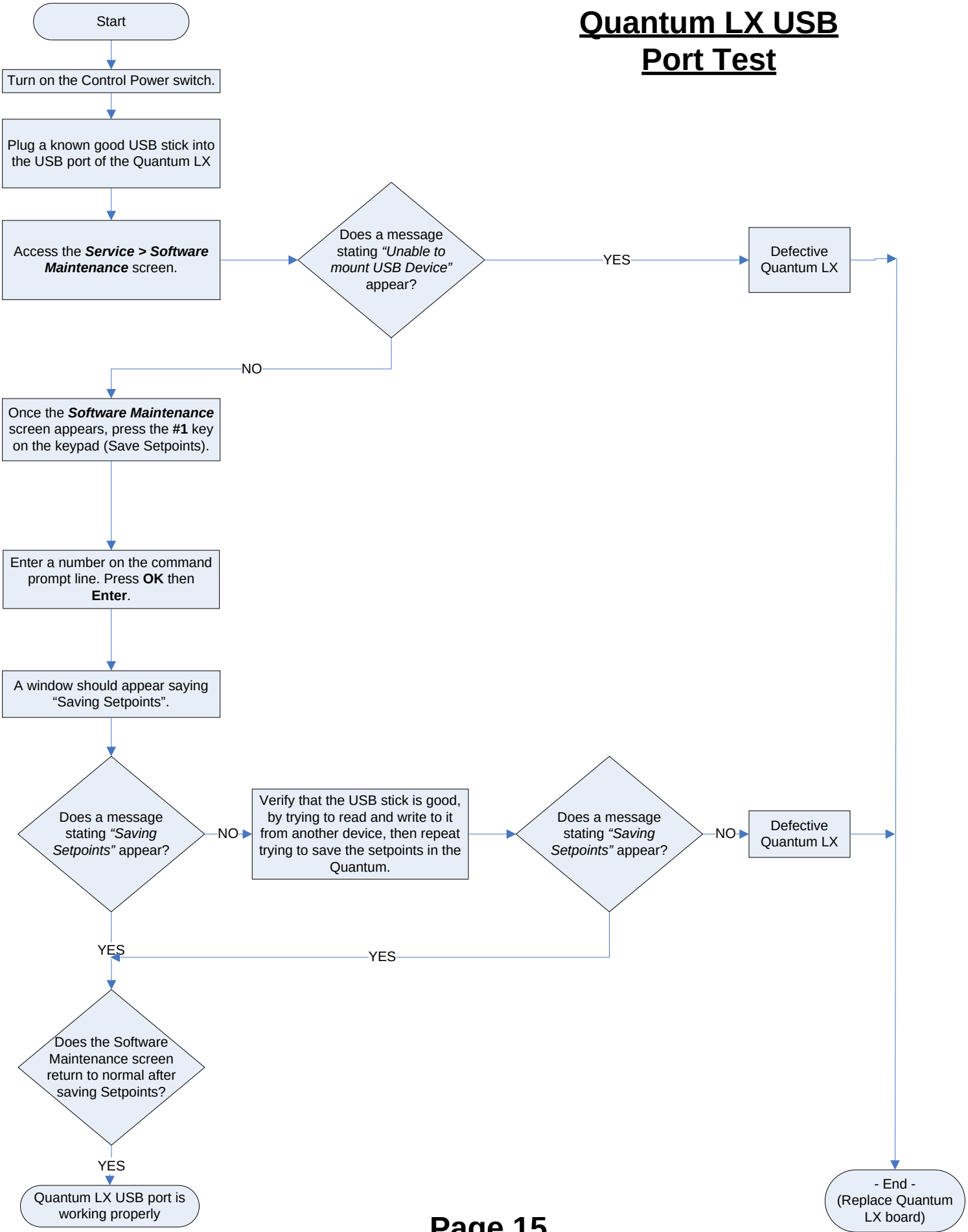
Quantum LX Ethernet Communications



Quantum LX RS-422 Serial Communications



Quantum LX USB Port Test



APPENDIX - A

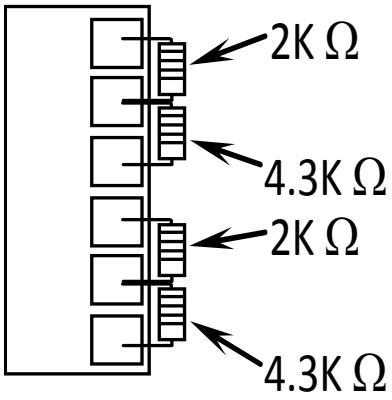
Temperature Test Block

This block is constructed using resistors for the purpose of simulating Temperature values.

The following parts are used in the construction:
Two 2K ohm, 1/4 watt resistor.
Two 4.3K ohm, 1/4 watt resistor.
1 six position terminal block, Frick P/N 333Q0001258

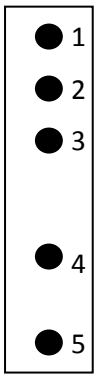
Construction:

- Bend the leads of all resistors approximately 90 degrees.
- Insert a 2K ohm resistor into the first and second positions of the terminal block.
- Tighten the screw for the first position. Insert a 4.3K ohm resistor into the second and third positions of the terminal block. Notice that terminal position 2 has two resistor leads inserted.
- Tighten the screw for the third position.
- Tighten the screw for the second position.
- Insert a 2K ohm resistor into the fourth and fifth positions of the terminal block.
- Tighten the screw for the fifth position. Insert a 4.3K ohm resistor into the fifth and sixth positions of the terminal block. Notice that terminal position 5 has two resistor leads inserted.
- Tighten the screw for the sixth position.
- Tighten the screw for the fifth position.



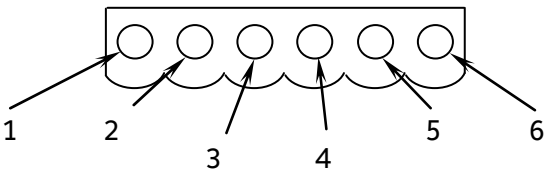
Digital Module Pinout

Refer to the drawing at right to determine the pin numbers of the digital I/O module.



Digital I/O Connector Pinout

Refer to the drawing at right to determine the pin numbers of the digital I/O connector.



APPENDIX - B

DC Power Supply Connector Pinout

The drawing to the right shows the pinouts for the DC power connections to the power supply.