-LCD TV Display failure symptoms and possible causes-

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Case 1-Abnormal Display. T-Con, Solder defect, 1 or more cable connector Broken or with bad solder connections.
Case 2-Abnormal Display. T-Con, Solder defect, 1 or more cable connector Broken or with bad solder connections.
Case 3-Abnormal Display. T-Con, Solder defect, 1 or more cable connector Broken or with bad solder connections.
Case 4-Abnormal Display. T-Con, Solder defect, 1 or more cable connector Broken or with bad solder connections.
Case 5-Abnormal Display. T-Con, Solder defect, 1 or more cable connector Broken or with bad solder connections.
Case 6 - Abnormal Display. Bad components in power section of t-con.
Case 7 - Noise. Solder defect or shorted components on t-con.
Case 8 - Abnormal Display. Bad components in power section of t-con.
Case 9 - Noise. Solder defect or shorted components on t-con.
Case 10 - Abnormal Display. Bad components in power section of t-con.
Case 11 - Abnormal Display. Bad components in power section of t-con.
Case 12 - Noise. Bad solder connections, shorted or open components on t-con.
Case 13 - Noise. Bad solder connections, shorted or open components on t-con.
Case 14 - No display and back lights are lit. T-con Fuse Open or Bad components in power section of t-con. No voltage to t-con from main board or power supply (main board or power supply failure).
Case 15 - No back light. Inverter failure or power supply failure.
Case 16 - Dim back light. Inverter failure.
Case 17 - Dim back light. Inverter failure.
Case 18 - Dim back light. Inverter failure.

Replace or repair T-con/LCD controller board (also possibly main or PSU board for case 14) for cases 1-14.

Replace or repair inverter and or PSU board for cases 15-18.
Case 19-Uneven display. cell defect.
Case 20-Uneven display. cell defect.
Case 21-Damage from applied pressure to panel. Bad panel
Case 22-Crosstalk. cell defect.
Case 23-Crosstalk. cell defect.
Case 24-Panel cracked.
Case 25-Vertical block. Failed driver IC, TCP/COF failed ACF bonding to panel bad connection from driver IC to TCP/COF.
Case 26-Vertical line. Failed driver IC, TCP/COF failed ACF bonding to panel, bad connection from driver IC to TCP/COF.
Case 27-Vertical block. Failed driver IC, TCP/COF failed ACF bonding to panel, bad connection from driver IC to TCP/COF.
Case 28-Vertical block. Failed driver IC, TCP/COF failed ACF bonding to panel, bad connection from driver IC to TCP/COF.
Case 29-Horizontal block. Failed driver IC, TCP/COF failed ACF bonding to panel, bad connection from driver IC to TCP/COF.
Case 30-Horizontal block. Failed driver IC, TCP/COF failed ACF bonding to panel, bad connection from driver IC to TCP/COF.
Case 31-Horizontal line. Driver IC abnormal output. Failed driver IC, TCP/COF failed ACF bonding to panel, bad connection from driver IC to TCP/COF.
Case 32—Horizontal block. Failed driver IC, TCP/COF failed ACF bonding to panel bad connection from driver IC to TCP/COF.

Case 33—Horizontal block. Failed driver IC, TCP/COF failed ACF bonding to panel bad connection from driver IC to TCP/COF.

Replace LCD panel for cases 19-24.

Replace LCD panel or devise a technique for repairing bonding failure of TCP/COF for cases 25-35.

List of acronyms and abbreviations used and their meanings:

COF= Chip on film/flex
TCP= Tape carrier package
IC= Integrated circuit
T-con= Timing controller(board)
LCD= Liquid crystal display
ACF= Anisotropic conductive film
Suggested reading:

- LCD TV Repair Guide
- LCD Monitor Repair
- LCD TV Repair Case Histories
- Troubleshooting and Repairing Switch Mode Power Supplies
- Testing Electronic Components
- How To Find Burnt Resistor Value
- My Best Collection of Electronics Repair Articles
- Electronic and Electrical Servicing Consumer and Commercial Electronics 2nd edition
- Electronic and Electrical Servicing Consumer and Commercial Electronics Level 3 2nd edition
- Digital Electronics Demystified
- Teach Yourself Electricity and Electronics, Fourth Edition
Suggested websites:

preher-tech.com

tvrepairinfo.com

electronicrepairguide.com

jestineyong.com

LCD TV Repair Membership Site

Plasma TV Repair Membership Site

Projection TV Repair Membership Site

Electronics repair tips

Preher-Tech blog

Preher-Tech newsletter

fastrepairguide.com

Tools and test equipment

Electronics books

Mail in electronics repair services (USA Only)

For any questions or comments please email us at contactus@preher-tech.com