

IFR A-7550 Computron 115DMX CRT Board

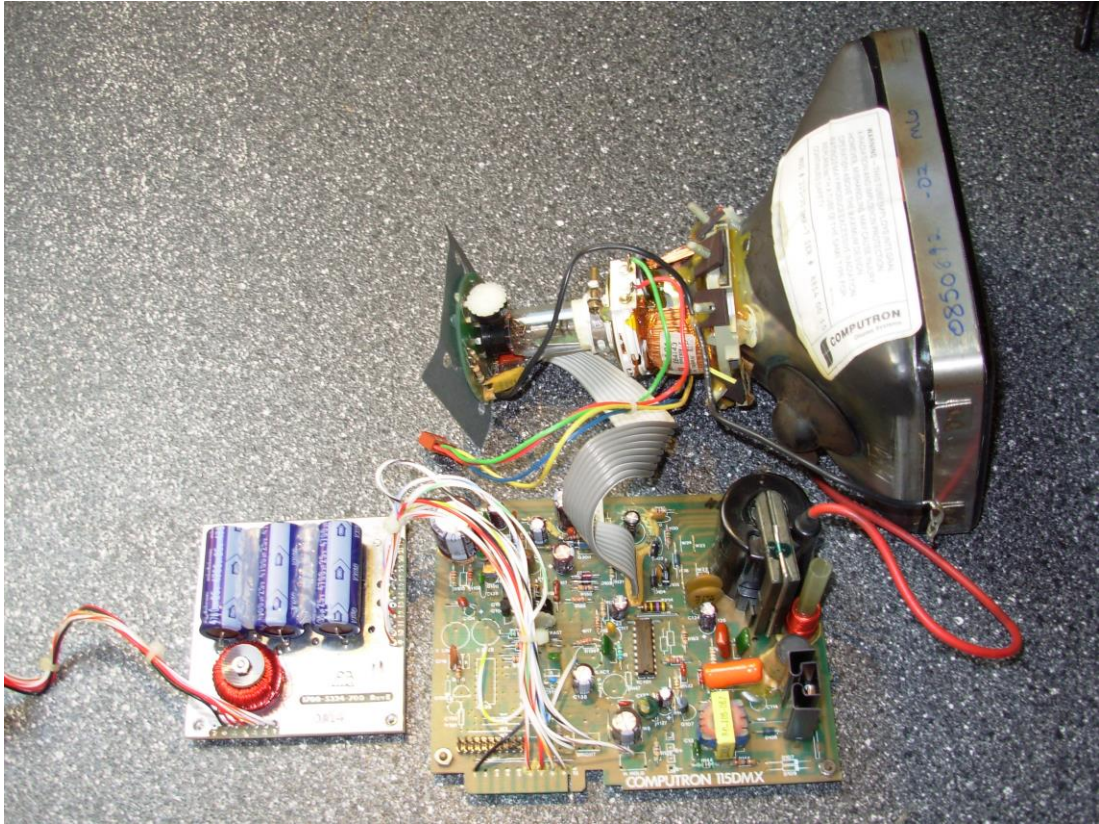
Electrolytic Capacitor Renewal

By: Alex, KD6VPH

This guide was put together to aid in renewal of the electrolytic capacitors in your IFR A-7550 Computron 115DMX CRT Board. Electrolytic capacitor replacement is easily accomplished using a de-soldering station such as a Hakko 472D, JBC 1D, Weller WR3000, etc. but not absolutely necessary. Removal and handling of the IFR A-7550 CRT assembly should only be done by those familiar with proper handling of a CRT and CRT yoke assembly. The CRT and CRT yoke are quite delicate in nature and can be damaged or even implode by improper handling. Please do not attempt to work on your CRT Assembly if you are unsure of your ability to do so. **DO NOT** handle or attempt to work on an energized CRT Assembly as **DEATH or SERIOUS INJURY** could result due to high voltage present on portions of this assembly.

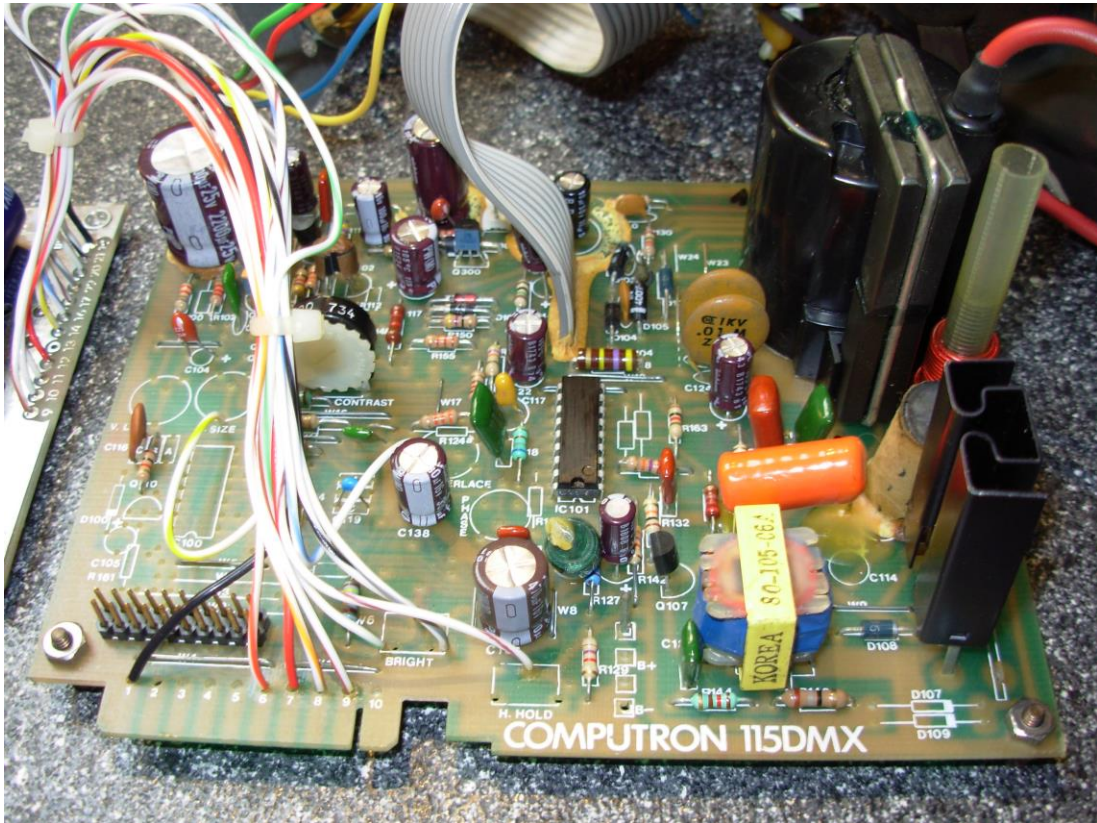


As pictured above the Computron CRT Display Module is one chassis with one coax cable (speaker audio cable) and one wire harness connector connecting it to the main body of the IFR A-7550. The CRT module can be removed after removing the front panel of your A-7550, unplugging the two keyboard ribbon connectors, Speaker SMB connector, and front panel SMA connectors, and removing 5 screws that hold the CRT module (as pictured above) in the body of the A-7550.



Once the A-7550 CRT Module is removed from the main chassis of the A-7550 the entire assembly can be disassembled further. There are 4 screws holding the CRT to the frame, 4 screws holding the Computron 115DMX board to the chassis, and 4 screws holding the IFR CRT Filter PC board to the chassis. Once all 12 screws are removed you can slide everything out the front of the frame and lay the boards out for capacitor removal.

IFR A-7550 Computron 115DMX CRT Board Capacitor List



*****OLD STYLE BOARD AS PICTURED ABOVE (12 Electrolytic Capacitors Total)*****

C100- 2200uF, 25V, 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
Replacement Part Number: UPW1E222MHD6
Quantity on Board: 1

C106- 1000uF, 16V, 20%, Radial Lead, 105deg
(UPM Series was used due to Body Size and Lead Spacing)
Replacement Manufacturer: Nichicon
MFG: P/N: UPM1A102MPD1TD
Quantity on Board: 1

C135- 470uF, 16V, 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
Replacement Part Number: UPW1C471MPD1TD
Quantity on Board: 1

C138- 330uF, 16V, 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
Replacement Part Number: UPW1C331MPD
Quantity on Board: 1

C301- 100uF, 16V, 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
Replacement Part Number: UPW1C101MED1TD
Quantity on Board: 1

C110, C122, C126- 47uF, 50V, 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
Replacement Part Number: UPW1H470MED
Quantity on Board: 3

C112- 22uF, 100V, 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
Replacement Part Number: UPW2A220MPD
Quantity on Board: 1

C125- 4.7uF, 50V, 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
MFG: UPW1H4R7MDD
Quantity on Board: 1

C115- 1uF, 50V (Used 1uF, 160V), 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
Replacement Part Number: UPW2C010MED
Quantity on Board: 1

C113- 10uF, 50V, 20%, Radial Lead, 105deg ***BI-POLAR***
(Some Units Originally used either 10uF, 25V or 16uF, 25V, ***BI-POLAR***)
Replacement Manufacturer: Nichicon
Replacement Part Number: UEP1H100MED
Quantity on Board: 1

*****NEW STYLE BOARD [NOT PICTURED] (10 Electrolytic Capacitors Total)*****

1000uF, 16V, 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
MFG: P/N: UPW1C102MPD
Quantity on Board: 4

330uF, 25V, 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
Replacement Part Number: UPW1E331MPD
Quantity on Board: 1

47uF, 50V, 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
Replacement Part Number: UPW1E470MDD
Quantity on Board: 1

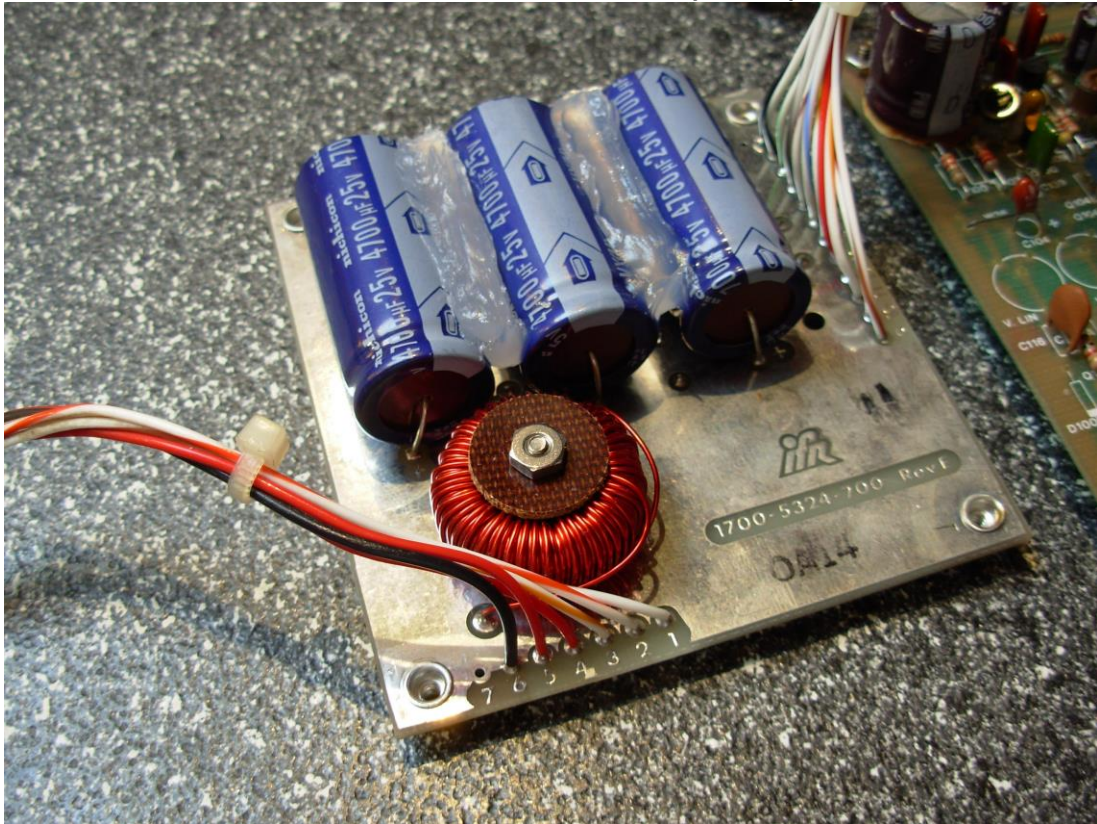
C125- 4.7uF, 50V, 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
MFG: UPW1E4R7MDD
Quantity on Board: 1

3.3uF, 50V, 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
MFG: UPW1H3R3MDD
Quantity on Board: 1

C115- 1uF, 63V (Used 1uF160V), 20%, Radial Lead, 105deg
Replacement Manufacturer: Nichicon
Replacement Part Number: UPW2C010MED
Quantity on Board: 1

C113- 10uF, 50V, 20%, Radial Lead, 105deg ***BI-POLAR***
(Some Units Originally used either 10uF, 25V or 16uF, 25V, ***BI-POLAR***)
Replacement Manufacturer: Nichicon
Replacement Part Number: UEP1H100MED
Quantity on Board: 1

***** IFR CRT Filter PC Board Used On BOTH New and Old Style Computron Boards/Modules*****



IFR CRT Filter PC Board (IFR Board P/N: 1700-5324-700)

****Silicone Sealant was Used to Keep Capacitors Stable as Pictured (In Lieu of Plastic Zip-Tie)****

****Renewal of these Axial Lead Capacitors is Optional but Recommended****

C1, C2, C3- 4700uF, 25V, 20%, Axial Lead, 85deg

Replacement Manufacturer: Nichicon

Replacement Part Number: TVX1E472MCD

Quantity on Board: 3