Tatung VS-14428, VT-1440S, Merit Type 66
Monitor repair guide

GENERAL INFORMATION

VGA Resolution

Capkit information:

Electrolytic capacitors on neck board:

C924 22 uf @ 160 volt (high failure)
C921 Not installed, leave empty
C920 Not installed, leave empty
C917 100 uf @ 25 volt
C915 100 uf @ 25 volt
C906 100 uf @ 25 volt
C905 4.7 uf @ 50 volt
C904 4.7 uf @ 50 volt
C903 4.7 uf @ 50 volt
C901 4.7 uf @ 50 volt

Electrolytic capacitors on main board:

C117 1000 uf @ 35 volt
C115 1000 uf @ 35 volt
C182 1000 uf @ 25 volt
C118 100 uf @ 160 volt
C120 100 uf @ 160 volt
C19 4.7 uf @ 50 volt, Bi-Polar (high failure)
C712 2200 uf @ 35 volt
C706 470 uf @ 35 volt
C109 1 uf @ 50 volt
C106 100 uf @ 50 volt
C705 100 uf @ 25 volt
C720 100 uf @ 35 volt
C704 100 uf @ 35 volt

REMOTE BOARD TRIMPOTS:

All are 9mm knob, vertical mount. Circuit board is drilled so you can also use horizontal mount pots if desired.
VR2 Horizontal Size (width) 50 k
R773 Vertical Position 10 k
R772 Vertical Size 50 k
R770 Vertical Hold 200 k

R670 Horizontal Hold 5 k
R671 Horizontal Position (main) 2 k
R871 Brightness 5 k
R958 Contrast 10 k

MAIN BOARD TRIMPOTS:

R111 B+ Voltage Adjust 5 k
R714 Vertical Linearity 10 k
VR1 Dynamic Pincushion Control (D.P.C.) 10 k
VR3 Horizontal Phase 5 k
R652 Horizontal Position (sub) 5 k
R650 Horizontal Frequency 3 k

NECKBOARD TRIMPOTS:

R938 Red Cutoff 500 Ω
R937 Green Cutoff 500 Ω
R936 Blue Cutoff 500 Ω
R952 Blue Gain 500 Ω
R951 Green Gain 500 Ω
R950 Red Gain 500 Ω

Note: Schematic may be labeled wrong for these trimpots. R952 may be shown as R950. R951 may be shown as R952. R950 may be shown as R953. Capacitor C924 may not be shown on the schematic. The positive side connects to the junction of resistor R947 and inductor L905. Negative side to ground.

NECKBOARD CONNECTORS:

P901 (9 position):
1 Blue video input
2 Ground
3 Red video input
4 Ground
5 Green video input
6 Ground
7 Ground
8 Horizontal sync pass-through
9 Vertical Sync pass-through

P902 (6 position):
1 +12 volts DC (blue wire)
2 Q901, Q902, Q903 emitters (green wire)
3 Clamp (red wire)
4 Ground (white wire)
5 Horizontal sync pass-through (brown wire)

6 Vertical sync pass-through (black wire)

P903 (3 position, to remote contrast control):
Brown
Red
Orange

P904 (3 position):
1 B+ 100 volts DC (orange wire)
2 Ground (black wire)
3 Heater (yellow wire)

IC901 is the video & color processing chip. It is an LM1203N which crosses to an NTE 7081.

FLYBACK INFORMATION:

Flyback T602 is painted with this marking: TLF 087-04-55A (8Y2 OH). The paper label on the flyback itself was illegible on the monitor I repaired so I could not get the Tatung part numbers. It is also not listed in the manual.

PICTURE TUBE INFORMATION:

14” - 0.28 Dot Pitch, type # M34AEP60X16. Test with B&K rejuvenator CRT socket adapter # CR-23 and set heater voltage to 6.3 volts.

20” - 0.78 Dot Pitch, type # 510UEB22-TC57. Test with B&K rejuvenator CRT socket adapter # CR-23 and set heater voltage to 6.3 volts.

IMPORTANT NOTE:

Never ever attempt to power up this monitor with either the remote adjustment board or the yoke disconnected! Damage to the monitor will occur.