



## Test Equipment List: Consumer Electronics

### Required Equipment

AC Leakage Tester  
Anode Cap remover, 500uA capability  
Anti-Static mat and/or bench floor pad, W/Wrist or leg strap  
Audio Oscillator  
Color Monitor or Monitor Receiver w/RF tuner  
DC power supply; 0-18V DC, 20AMP & 0-50V DC, 3AMP  
Degaussing Coil  
Desolder Station, grounded metal tip and hot air; Solder Station (ESD), temp-controlled, grounded tip; temp range: 400 F-800 F and hot air type  
Digital Volt/Ohm/mA meter w/Diode and Cap Checker, .1V DC to 1000V DC; sensitivity 1 mV, .5% accuracy  
Dual Trace Oscilloscope, triggered with time delay; Bandwidth: DC – 100 MHz; sens.: 2mV/cm  
Hex nut drivers, std. and metric assortment; hex wrenches, std. and metric assortment  
Hi-Fi Stereo Amplifier, 25 W w/AC3 Dolby Digital Decoder; DTS/Digital Dolby receiver  
High Voltage probe  
Isolation Transformer, Volt amp rating must equal or exceed highest power rating of products serviced  
Klein gauge; microscope (for viewing CRT convergence)  
NTSC Pattern Generator, 1 V pp; Color Bar with 75% saturation, 100% white bar, RGB composite out – capable of supplying a composite signal or a composite signal source  
PC computer, Pentium or better w/SVGA monitor/SCSI adaptor  
Test Speakers, 0-100W  
VARIAC, isolation type; 0-140 V AC; >=7.5 Amps with line monitor

### Tools & Supplies

Conventional Hand Tools  
Teresso Oil  
Tension Gauge  
Torx Drivers  
Compass (Used on large Kinescopes)

### Optional Equipment

AC Analog Volt/Ohm Meter  
ATSC/HDTV Pattern Generator - 1H,2H & 2.4H capable with standard YprPb component signal output & SMPTE color pattern or 1H/2H DVD with equivalent test disc.

Distortion Analyzer  
Filters, Cloudy fine, fluorescent, red blue, hoya 0.1 and 1.0  
Hitazol Grease  
IEEE1394 Cable and interface card  
Inclinometer  
Light Box with slides or Halogen Quartz Light, 3200 Degrees K  
Light Meter, 1,000 lux  
Light Test Charts, NTSC color II step logarithmic gray scale, back and auto focus, resolution and registration  
Logic Probe  
Molytone Grease  
NTSC Vectorscope. Some LCD projectors include cameras  
Pal/Secam Pattern generator, 1 V V pp; Color Bar with 75% saturation, 100% white bar, RGB composite out  
PC pattern generator, CGA, EGA, MDA, VGA, SVGA and XGA  
Spectrum analyzer, 1 MHz to 1 GHz  
Surge Protector  
Video Monitor with composite inputs  
Wow and Flutter Meter, Standards: JIS (Japan), NAB (US) < CCIR, DIN, WOW/flutter measurement .003-3%  
Y/C RBG, Computer pattern generator  
Satellite system complete, Including dish, feed-horn, LNB(F), actuator (if C/Ku serviced), IRD receiver  
**FINAL: September 26, 2002** Reviewed by Television RTE Task Force and CSC Board