

Test Equipment List: Audio Video

Required Equipment

- Audio Oscillator, range 10 HZ to 100kHz, output 0-6 Volt AC, Distortion + Noise: Less than 0.005%
- A/V Bench-Receiver
- Magnifier-microscope– minimum power 10x, recommended power variable 5x to 30x plus illumination
- Cassette head demagnetizer
- Cassette test tapes
- Cassette torque meter
- CD test discs – for checking level, HF, LF and channel separation (such as Philips 444 or Sony YEDS 7)
- Color monitor or Monitor Receiver with composite, S-Video, component, DVI and HDMI inputs.
- Distortion Analyzer, THD
- Dual Trace Oscilloscope triggered with time delay, bandwidth: DC to 100 MHz, vert. sensitivity: 2mV. with curser readouts.
- Dummy Load Speakers, 8 ohms, 250 W, non-inductive (4 each)
- DVD test disc – dual layered with video test signals such as 100% color bars, 5-step staircase & modulation pulse and bar; and audio test signals for linear pcm (96/48 KHz), Dolby 5.1 and DTS check levels, channel separation, S/N, deviation. Range, and frequency response
- Frequency Counter, sensitivity: 10 mV, Display: 10 digit, Range: 10 Hz to 2 GHz
- Stereo Generator, L and R channel separation: greater than 50 dB; Stereo distortion: less than .2%; 19 KHz pilot: calibrated at 10% of total modulation; RF level attenuator: calibrated
- Head band or bench light magnifier– minimum power 2x, recommended power 5x
- Laser Power Meter, range: 14 mW minimum input for full scale deflection/reading
- Test speakers (minimum 2, 7 to 9 preferred)
- Variable DC power supply
- Variac
- VCR tension/special tools
- Volt-Ohm-Current Meter
- Wow-flutter meter

Tools & Supplies

- Air compressor or canned air
- Alcohol – cleaning chemicals
- Anti-static equipment
- Chiller chemical
- Hand tools – torx wrenches
- Lubricants (Molytone & Hitazol grease)
- Power and battery drills
- Soldering station or iron – flux
- Vise

Safety Items

- Ear protection (plugs, domes, muffs)
- Fire extinguisher
- First aid kit
- Gloves
- Safety glasses

Optional Equipment

- Color temperature meter
- Equivalent Series Resistance (ESR) meter – accuracy +5%, capacitor range: 0.01 uF to 20 F
- Fixed auto test antenna
- Laptop computer with VGA monitor – Pentium or better– USB, IEEE 1394 and additional COM port that is not used by mouse or other permanent equipment
- Large format printer – to allow for printout of schematics
- Light Meter 0.1-19K lux – for checking the illumination of camera charts
- ROM/EEPROM writer – for firmware upgrades
- Telephone crimpers – CAT5 tools
- Telephone line analyzer
- Vectorscope – NTSC Component or SDI
- Wall fish – cabling installation tools