



Service Technician Tool Requirements

All ETC Authorized Service Providers are required to carry all of these tools to all ETC startups and/or warranty service calls.

Required Hand Tools

- 6-12" Channel Lock Pliers
- Cat 5e, Cat 6, and Cat6a Fault tester - with these features: tests continuity, wire sequence/pairs, and wire length
- Diagonal cutting pliers (fine)
- DMX Test device with "flicker finder" function. (The base DMX tester is required, but one with RDM features is recommended) Examples include:
 - Doug Fleenor Gizmo <http://www.dfd.com/gizmo.html>
 - Goddard Design MiniDMXter https://www.goddarddesign.com/mini4_09.html
 - Goddard Design DMXter4A <https://www.goddarddesign.com/dmxter4a.html>
 - Swisson XMT-120A <https://www.swisson.com/de/produkte/light-control/dmx-tester>
 - Swisson with RDM XMT-350A <https://www.swisson.com/de/produkte/light-control/rdm-controller-dmx-tester>
 - City Theatrical DMXcat <https://www.citytheatrical.com/dmxcatquickstartguide>
- DMX cables for the DMX test device.
- Knife (X-Acto, utility knife)
- Needle Nose Pliers (fine)
- Paper & Pencil/Pens/fine tip Sharpies
- Punch-down tool with #110 blade
- Small Ethernet Switch (preferably equipped with PoE) with network cables
- Standard L-Allen Wrenches
- Triple Tap or tap set, with the following sizes: 4-40, 6-32, 8-32, 10-32
- T-Strippers 8-18 AWG, 16-26 AWG, 22-30 AWG
- 8" Crescent Wrench
- Crimper (Example: Klein 6-in-1 Multi-Purpose Tool)
- Disposable lighter, at least 2
- Flashlight (you may find a headlamp to be handy)
- Machinist scribe
- Needle Nose vise grip
- Precision Screwdriver Set (Jeweler's Screwdrivers or Controls Screwdrivers)
- Screwdriver set (large and Small Phillips and flat blade)
- Socket Set (1/4" ratchet, driver and extender, socket size: 3/16" to 1/2")
- Tone/Probe Kit
- True RMS Voltmeter
- Telescopic inspection mirror
- Wire labeler
- Two SD cards, minimum capacity of 512MB, maximum capacity of 1GB
- SD card reader (Internal or external to PC)
- MicroSD card and reader (Echo products update via this format)
- Several USB Thumb Drives (minimum of 2 required)

Recommended Hand Tools

- 5" Hemostat
- Linesman Pliers (Klein)
- Master MT-10 Micro-Torch
- Multi-Tool
- Stubby Hammer
- Paint Brush, Natural Bristle (for cleaning racks)
- RevMark permanent white ink marker (works great for labeling dark jacketed cable)
- Rotary stripper for UTP/STP cable
- Slip Joint Pliers (6-8")
- Tweezers
- Wireless capable device with aRFR/iRFR/ETCnomad Software (useful for ringing out circuits in conjunction with the site's console)
- Small Wireless Router (required to run the aRFR/iRFR/ETCnomad Software)
- Extendable pocket pen magnet
- USB to Serial adapter
- USB extension cable
- Serial extension cable
- RS232 Null Modem or cable
- 0-10v Potentiometer
- Roll of colored electrical tape for marking damaged equipment
- Scissors

Required Software

Note: ETC software will be given to anyone attending the New Technician Training. Software must be kept up to date. ETC software is available through MyETC.

- Light Designer
- Control Designer
- Concert
- UpdaterAtor
- sACNView
- EchoAccess
- PDF reader
- Spreadsheet and Document Viewer

Recommended Software

- StringTheory
- Wireshark
- A network IP switcher
- ETCnomad