

Arizona Department of Education

Career and Technical Education

Recommended Equipment List

Program: Automotive Technologies
CIP#: 47.0300.40

NOTE: The following items and descriptions are the recommended equipment guidelines for each **CTE Automotive Technologies** program. Please note that this list of recommended items does not necessarily need to be supported financially by Federal Perkins or State Priority funding sources. In many cases, local school district funds are used to purchase items on a regular basis (i.e. furniture, consumables, etc.) Further, please understand that this is not an exhaustive list. Local program and business needs may necessitate the purchase of additional equipment and software resources, as may the rapidly-changing nature of the industry-specific technologies used in the program.

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Recommended Equipment and Software

Item	Notes
Air Blow Gun (meeting OSHA requirements)	
Allen (Wrench or Socket) Set - Standard (.050" - 3/8")	
Allen (Wrench or Socket) Set - Metric (2mm - 8mm, 10mm, 12mm)	
Battery Post Cleaner	
Battery Terminal Pliers Battery Terminal Puller Chisels:	
Cape 5/16"	
Cold 3/8", 3/4"	
Chisel Holder Claw Type Pickup Tool Combination Wrenches:	
Standard (1/4" – 1 1/4")	
Metric (7mm - 24mm)	
Crowfoot Wrench Set - Metric	
Crowfoot Wrench Set – Standard	
Ear Protection	
Feeler Gauge (Blade Type)	
→ .002"	
→ .040"	
→ .006mm	
→ .070mm	
Files:	
→ Coarse 6" and 12"	
→ Fine 6" and 12"	
→ Half Round 12"	
→ Round 6" and 12"	
Flare Nut (tubing) Wrenches:	
→ 3/8"	
→ 3/4"	
→ 10mm	
→ 17mm	
Flashlight	
Fuse Puller	
Fused Jumper Wire Set (with various adapters)	
Hack Saw	
Hammers:	
→ 16 oz. Ball Peen	
→ Brass	
→ Dead Blow Plastic Mallet	
→ Plastic Tip	
→ Rubber Mallet Inspection Mirror Magnetic Pickup Tool Pliers:	
→ Combination 6"	
→ Hose Clamp → Locking Jaw	
→ Needle Nose 6"	

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Item	Notes
→ Side Cutting	
→ Slip Joint (Water Pump) Pry Bars:	
→ Rolling Head	
→ Straight Punches:	
→ Center	
→ Brass Drift	
→ Pin 1/8", 3/16", 1/4", 5/16"	
→ Taper 3/8", 1/2", 5/8" Safety Glasses (meeting OSHA requirements) Scrapper:	
→ Carbon 1"	
→ Gasket 1"	
Screwdriver - Blade Type:	
→ Stubby	
→ 6", 9", 12"	
→ Offset	
Screwdriver - Phillips:	
→ Stubby #1, #2	
→ 6" #1, #2	
→ 12" #3	
→ Offset #2	
→ Screwdriver - Impact Driver Set	
Screw Starter:	
→ Phillips	
→ Standard	
Socket Set - 1/4" Drive:	
→ 1/4" - 1/2" Standard Depth	
→ 1/4" - 1/2" Deep	
→ 6mm - 12mm Standard Depth	
→ 6mm - 12mm Deep	
Flex/Universal Type	
3", 6" Extensions Ratchet	
Socket Set - 3/8" Drive:	
→ 5/16" - 3/4" Standard Depth (6 point)	
→ 3/8" - 3/4" Deep (6 point)	
→ 10mm - 19mm Standard Depth	
→ 10mm - 19mm Deep	
→ 3", 5", 10" Extensions Flexhead Ratchet	
Spark Plug Sockets 5/8", 13/16"	
Speed Handle	
Universal Joint	
Flexible Socket Set 3/8" - 3/4" Flexible Socket Set 10mm - 19mm Socket Set - 1/2" Drive:	
→ 7/16" - 1 1/8" Standard Depth	
→ 7/16" - 1 1/8" Deep	

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Item	Notes
→ 10mm - 24mm Standard Depth	
→ 10mm - 24mm Deep	
→ 3", 6", 12" Extensions	
Flex Handle (Breaker Bar)	
Ratchet	
Spark Plug Feeler Gauge (Gap Tool)	
Tape Measure – Standard and Metric	
Test Light (12V and self-powered)	
Tire Pressure Gauge	
Tire Tread Depth Gauge	
Torque Wrench:	
→ 3/8" Drive (10 - 250 lb. in.) → 3/8" Drive (5 - 75 lb. ft.)	
→ 1/2" Drive (50 - 250 lb. ft.) Torx®	
Set (screwdrivers and/or sockets):	
→ T-8 to T-60 Wire	
Brush	
Air Chisel Set (various bits)	
Air Compressor and Hoses	
Air Pressure Regulator	
Air Ratchet (3/8" drive)	
Automotive Stethoscope (electronic recommended)	
Axle Stands (Jack Stands)	
Axle Support Stands (Screw Jacks)	
Battery Charger	
Battery/Starter/Charging System Tester	
Battery Conductance Tester (recommended)	
Bearing Packer (hand operated)	
Belt Tension Gauge	
Bench or Pedestal Grinder	
Compression Tester	
Coolant/Combustion Gas Detector (Recommended)	
Coolant Tester	
Cooling System Pressure Tester and Adapters	
Creeper	
Cylinder Leakage Tester	
Dial Indicator with Flex Arm and Clamp Base	
Digital Multimeter with various lead sets	
Digital Storage Oscilloscope (DSO)	
Drain Pans	
Drill - 3/8" variable speed, reversible Drill	
- 1/2" variable speed, reversible	
Electric Heat Gun	

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Item	Notes
Engine Coolant Recovery Equipment or Recycler or Coolant Disposal Contract Service	
Extension Cords	
Face Shields	
Fender Covers	
Floor Jack (1½ Ton Minimum)	
Graphing Multimeter (GMM) Hand	
Held Vacuum Pump	
Hoist(s)	
Hood Prop	
Hydraulic Press with adapters	
Impact Socket Sets - 3/8" Drive (Standard and Metric)	
Impact Sockets	
→ 1/2" Drive (7/16" - 1 1/8")	
→ 1/2" Drive (12mm – 24mm)	
→ 1/2" Drive Deep (30 mm, 32 mm, 36mm) Impact Wrench	
→ 1/2" Drive	
→ 3/8" Drive Jumper Cables	
Master Puller Set	
Micrometer (Depth)	
Micrometers - 0-1", 1-2", 2-3", 3-4", 4-5" (Outside Type)	
Oil Can - Pump Type	
Oil Filter Wrench	
Oxy-Acetylene Torch Set	
Parts Cleaning Tank and Gloves (non-solvent based cleanser suggested) Remote Starter Switch	
Scan Tool (OBDII w/CAN capability) or Personal Computer (PC) with equivalent Interface capability	
Screw Extractor Set	
Seat Covers	
Serpentine Belt Tensioner Tools	
Snap Ring Pliers Set - external	
Snap Ring Pliers Set - internal	
Soldering Gun	
Soldering Iron (Pencil Tip) Spark Plug Boot Puller	
Tap and Die Set	
→ Standard	
→ Metric	
Temperature Sensing Device	
Thread Repair Insert Kit	
Tire Inflator Chuck	
Trouble/Work Lights (Fluorescent Preferred)	
Tube Quick Disconnect Tool Set	

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Tubing Bender	
Tubing Cutter/Flaring Set (Double-lap and ISO) Twist Drill Set → 1/64" - 1/2"	
Ultra Violet Leak Detection Device (Black Light)	
Used Oil Receptacle with extension neck and funnel	
Valve Core Removing Tool Vernier Calipers → 0 - 6"	
→ 0 - 125mm Wheel Chocks	
Workbenches with vises	
Ball Joint Press and other Special Tools	
Brake Pedal Depressor	
Bushing Driver Set	
Coil Spring Compressor Tool	
Constant Velocity Joint (CV) Service Tools:	
Boot Installation Tool	
Boot Clamp Pliers or Crimping Ring	
Chassis Ear (recommended)	
Hand Grease Gun	
Inner Tie Rod End Tool	
Pitman Arm Puller	
→ Power Steering Pump Pulley Special Tool Set (appropriate for units being taught)	
→ Power Steering Pressure Gauges (recommended)	
Shock Absorber Tools	
Strut Spring Compressor Tool	
Steering Column Special Tool Set (appropriate for teaching units being utilized)	
Tie Rod Puller	
Tire Mounting Machine (rim clamp type)	
Tire Patching Tools and Supplies	
Wheel Alignment Equipment-4 wheel (including alignment tools)	
Wheel Balancer - Electronic Type	
Wheel Weight Pliers	
Tire Pressure Monitor System (TPMS) (servicing tools)	
Bearing Seal and Race Driver Set	
Brake Bleeder, Pressure or Vacuum	
Brake Disc Micrometer	
Brake Drum Micrometer and Calibration Equipment	
Brake Lathe (bench with disc and drum service attachments)	
Brake Lathe (on car)	
Brake Shoe Adjusting Gauge	
Brake Spring Remover/Installer	
Brake Spring Pliers	
Brake Spoon	

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Piston Retraction Set	
A/C Compressor Clutch Service Tools	
A/C Service Port Adapter Set	
Dye Injector	
Hygrometer	
Leak Detector (SAE Standard)	
Manifold Gauge Set or equivalent (HFC-134a)	
Refrigerant Charging Station (HFC-134a) or equivalent	
Refrigerant Identification Equipment	
Refrigerant Recovery/Recycling Machine (HFC-134a)	
Thermometer	
Four or Five Gas Exhaust Analyzer (Five Gas Recommended)	
Fuel Injection Pressure Gauge Sets with Adapters	
Injector Pulse Tester	
Leak Detector (Smoke or Nitrogen)	
Logic Probe (suggested)	
Oxygen Sensor Socket	
Pinch-off Pliers	
Sending Unit Socket(s)	
Spark Plug Thread Tap	
Spark Tester	
Timing Advance Light	
Vacuum/Pressure Gauge	
Differential Setup Tools (appropriate for units being taught)	
Hydraulic Pressure Gauge Set	
Front Wheel Drive Engine Support Fixture	
Transaxle Removal and Installation Equipment	
Transmission Jack(s)	
Transmission/Transaxle Flushing Equipment (recommended)	
Transmission/Transaxle Holding Fixtures	
Transmission/Transaxle Special Tool Sets (appropriate for units being utilized)	
Axle Nut Socket Set (or equivalent)	
Clutch Alignment Set	
Clutch Pilot Bearing/Bushing Puller/Installer	
Differential Setup Tools (appropriate for units being taught)	
Front Wheel Drive Engine Support Fixture	
Rotating Torque Wrench (beam-type or equivalent)	
Transaxle Removal and Installation Equipment	
Special Tools for Transmissions/Transaxles (appropriate for units being taught)	
Transmission/Transaxle Holding Fixtures	
Transmission Jack(s) Universal Joint Tools	
Connector Pick Tool Set	

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Door Panel Trim Tool(s)	
Headlight Aimer or Screen	
Heat Gun (or equivalent for heat shrinking operations)	
Wire and Terminal Repair Kit	
Ball (Small Hole) Gauges	
Cam Bearing Driver Set (suggested)	
Camshaft Holding Tool (appropriate for units being taught)	
Cylinder Deglazer	
Dial Bore Indicator	
Antifreeze/Coolant Tester Engine Stands/Benches	
Inside Micrometer Set:	
→ 0 - 6"	
→ 0 - 125mm Oil Pressure Gauge Outside Micrometer Set:	
→ 0 - 6"	
→ 0 - 125mm	
Portable Crane - 1/2 Ton	
Ring Compressor	
Ring Expander	
Ring Groove Cleaner	
Straight Edge	
Telescopic Gauge Set	
Torque Angle Gauge	
Transaxle Removal and Installation Equipment	
V-Blocks	
Valve Spring Compressor	
Valve Spring Tester	