



Custom Built
TRAINING AIDS

2024

SERVICE TRAINING AIDS

Freightliner® and Western Star®

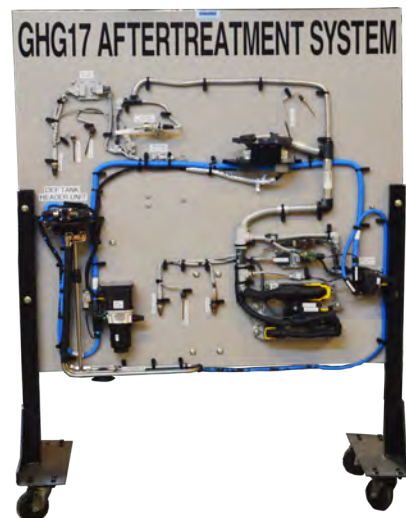
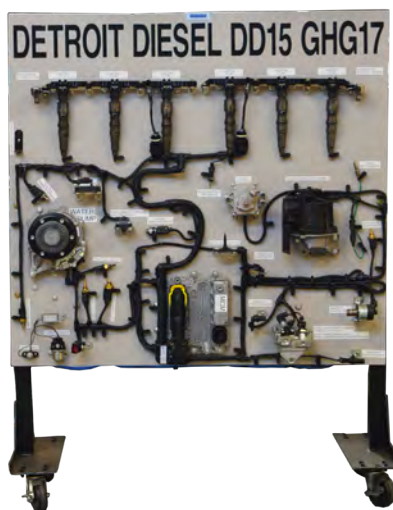
Vehicle Training Simulation Equipment for Classroom Environments





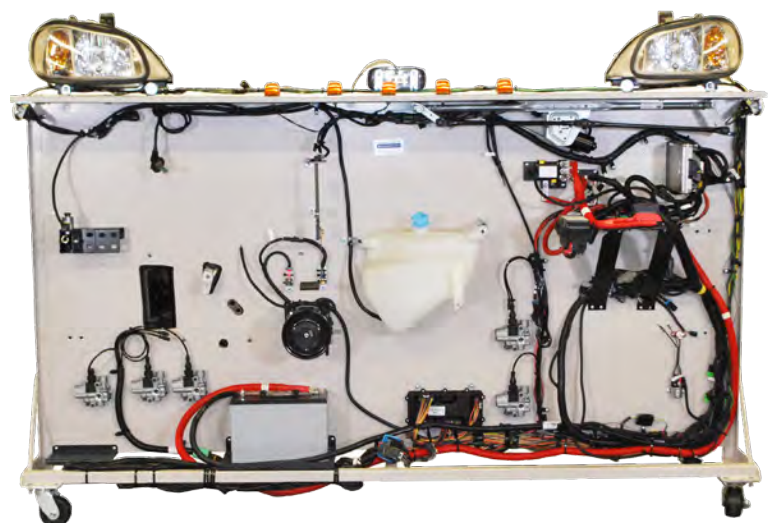
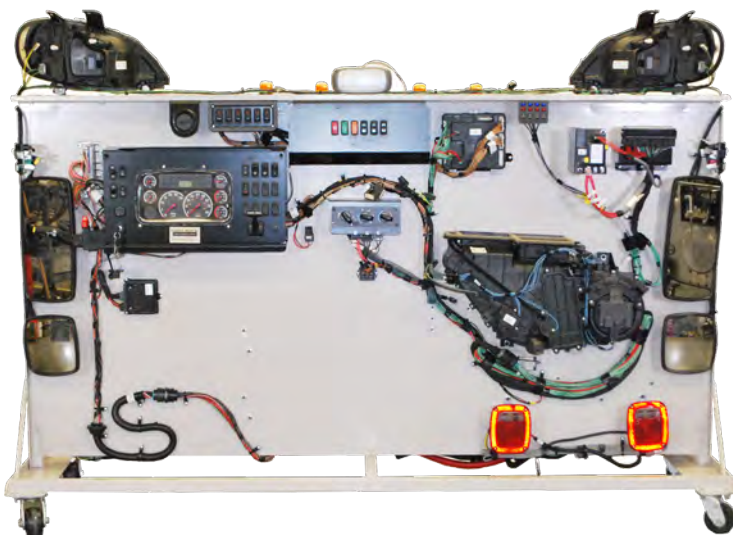
TA-VEH-2210 - GHG17 Engine / ATD Interface Board

This package includes a complete electrical system of a fully-functioning engine and aftertreatment device (ATD). All engine and ATD components are clearly labeled on the board. All wiring is exposed, allowing for clear understanding of the wiring schematics. The simulator may be used in place of or as a supplement to a GHG17 engine and ATD on New Cascadia vehicles/simulators for training purposes. The simulator includes all electrical components on the board, making it ideal for engine and ATD training.



TA-VEH-2310 - Freightliner M2 Truck Simulator with SmartPlex™

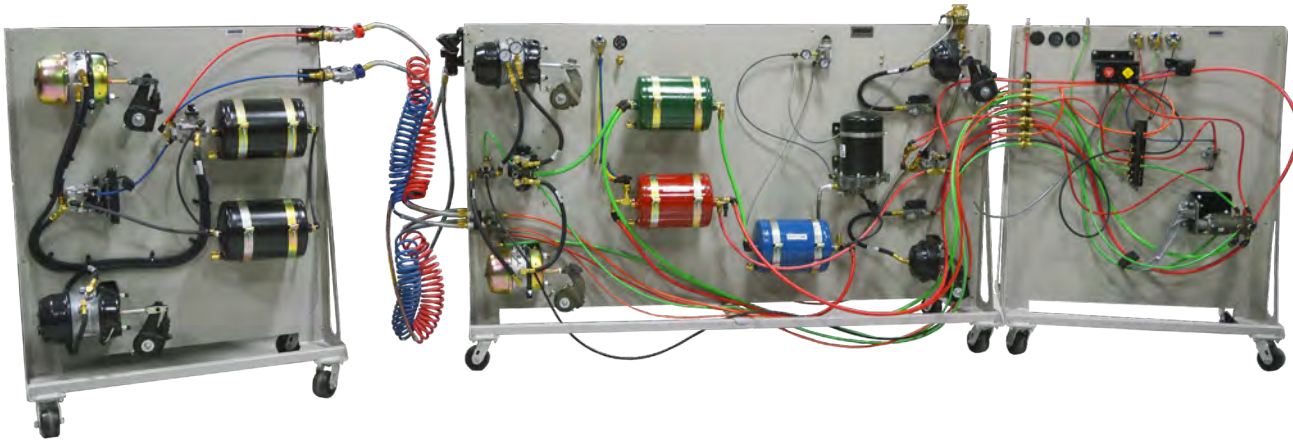
Simulator package has complete electrical system with fully functioning electronics, including the SmartPlex multiplex expansion system, lighting, and HVAC with A/C compressor. The board also features air switches, WABCO ECU with modulators, and a power take-off (PTO) AAVA solenoid.





TA-VEH-2330 - New Tractor and Trailer Dual Air Brake System Simulator

Package equipped with fully functioning supply system (without the air compressor), primary air system, secondary air system, and parking brake system. Also included are dashboard air gauges, quick connect fittings on all air lines, trailer glad hands, functioning brake slack adjusters, and trailer system with WABCO ABS.



TA-VEH-2460 - Battery Power HVAC System

Complete running BPHS (Battery Powered HVAC System) unit mounted on heavy duty cart with controller. Live working unit allows technicians to diagnose, identify, and access unit components. Displays refrigerant state during demonstration and diagnostic operations with sight glasses and restriction valves. Batteries not included.



REAL WORLD DIAGNOSTIC AND REPAIR SCENARIOS

NOW IN YOUR TRAINING ENVIRONMENT



TA-VEH-2340 - Dual Clutch Simulator

Includes Eaton Solo Advantage® hydraulic clutch and Easy-Pedal Advantage® mechanical clutch. Capable of demonstrating DD15 rear seal installation and flywheel timing procedures, proper parts installation, and clutch assessment and adjustment procedures. **Includes clutch adjustment tools.**

Clutch Adjustment Tools



TA-VEH-2360 - Solo Advantage Clutch Reset Tool

Used to move a cam to a new position during the resetting procedure.
Eaton RR1005CL Solo Advantage Clutch Reset Tool



TA-VEH-2370 - Release Bearing Travel Tool

Part number A02-12419; necessary for clutch adjustments as per DTNA service manuals.



TA-VEH-2380 - Release Yoke Free Travel Tool

Part number A02-12254; necessary for clutch adjustments as per DTNA service manuals.

TA-VEH-2350 - Hydraulic Clutch Jack

Floor type; 300 lb. capacity. Used to remove, install and transport (in the lowered position) both 14" & 15-1/2" heavy duty clutches and flywheels. 1-3/4" Diameter Spline Shaft for use with Eaton Clutches on DTNA clutch stand.

NORCO 72030B 300 lb. Floor Type Hydraulic Clutch Jack



CUSTOM BUILT BY SERVICE TRAINING ACADEMY USING FACTORY FREIGHTLINER® AND WESTERN STAR® COMPONENTS.

Height Adjustable Dual Brake Axle Stand

Dual brake stand with 24" to 31.5" adjustable height, simulating vehicle conditions and facilitating demonstration and interaction. Capabilities include complete brake jobs, wheel seal installations, wheel bearing adjustments, as well as kingpin and tie rod end R/R. Can be connected to 90 psi shop air system to simulate service brake applications and slack adjuster operation.

The following configurations are available: One or two disc brakes / One or two drum brakes / One disc and one drum brake / Brake stand only

TA-VEH-2410 Dual Brake Stand Only

TA-VEH-2420 Disc Brake Only (each)

TA-VEH-2430 Drum Brake Only (each)



TA-VEH-2430 Drum Brake End



TA-VEH-2420 Disc Brake End

TA-VEH-2440 - Brake Drum Handler

Designed for removing, installing and transporting outboard mounted brake drums and inboard mounted drums with disc wheel hubs. Requires the Front Axle Adapter (TA-VEH-2450) for compatibility with the Height Adjustable Brake Stand (TA-VEH-2410).

NORCO 72040B Brake Drum Handler



TA-VEH-2450 - Front Axle Adapter

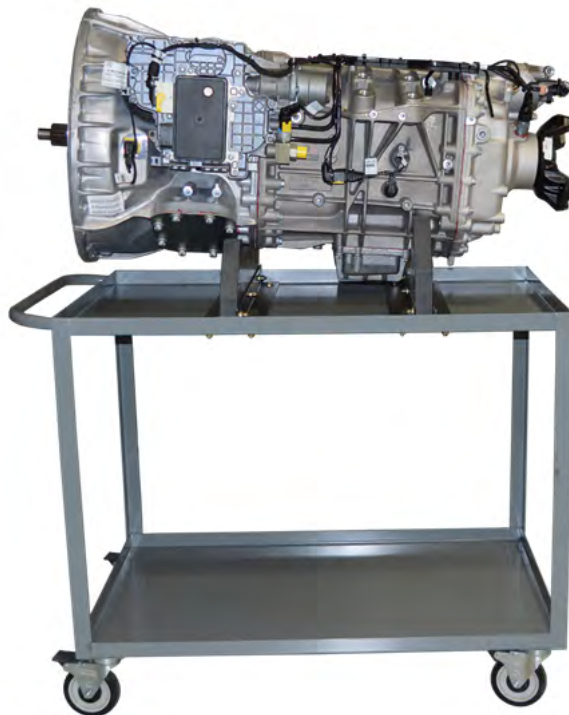
Custom adapter used in conjunction with the NORCO brake drum handler to remove front axle hub disc or drum brakes. It is designed to work with dual brake stands or vehicles.





TA-VEH-2415 - DT12 Transmission Training Kit

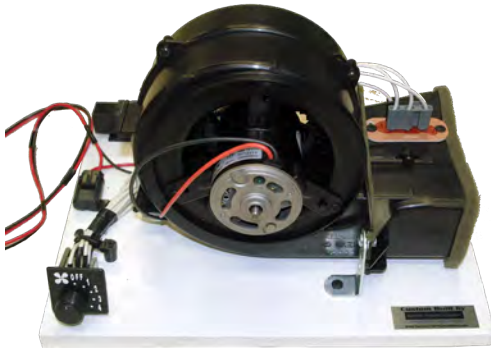
Includes the DT12 C-Box 2020 Transmission and heavy duty cart. The DT12 automated manual transmission is designed for maximum efficiency and durability. This transmission is ideal for tear down and demonstration purposes in the classroom or shop. PTO not included.



TA-VEH-2400 - Drive Line Simulator Kit

Includes the simulator, a second drive line attachment, digital angle meters, shims to customize angles, all packaged in a custom built case (included) to facilitate portability and storage. Capable of demonstrating non-uniform velocity (impact of various drive line angles on speed), vibration and wear effects (including troubleshooting and practical corrective actions), audible and visual indicators of phasing, angle measurement, and U-joint behavior.



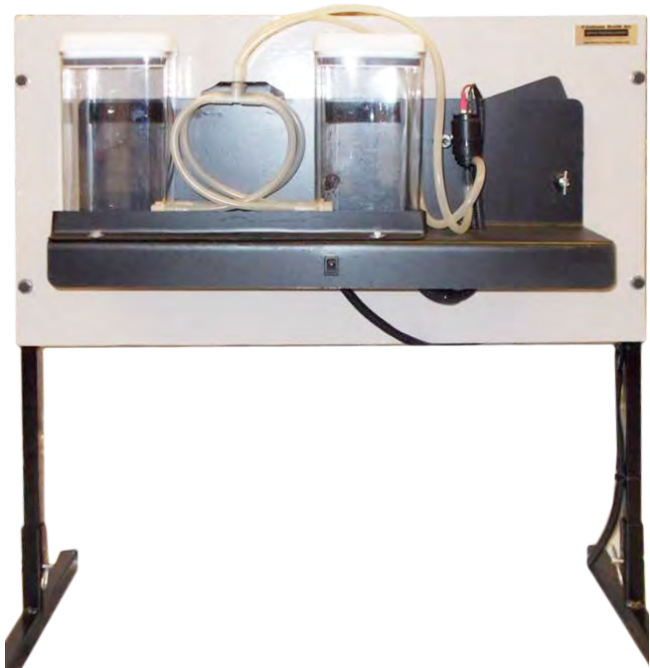


TA-VEH-2480 - Brush-Type Blower Motor Simulator

Allows students to identify and diagnose voltage and current throughout the blower motor circuitry. It can be used to support the HVAC instructor led training course, and add additional learning opportunities for electrical theory and troubleshooting.

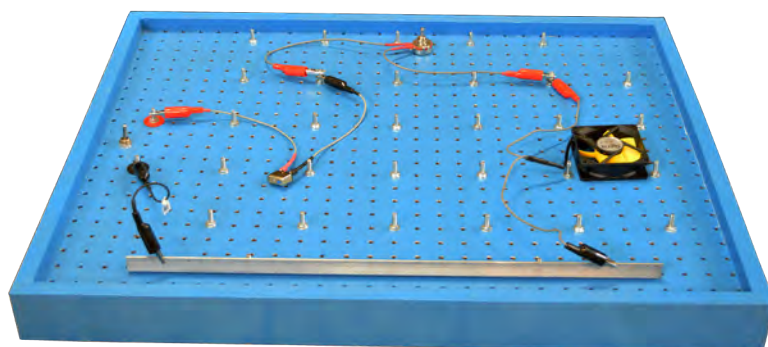
TA-VEH-2390 - EquiFlo® Fuel System Simulator

Simulates the functionality of the EquiFlo fuel system, designed to pump fuel to and from the engine while equalizing the fuel levels in the tanks. Equipped with plug vents, pinch lines, and electric pump.



TA-VEH-2500 - Student Electrical Learning Board

Student electrical learning board enables quick and easy setup of electrical circuits for understanding and diagnosis.





TA-VEH-2490 - Electronic Systems Class Kit

Kit supports the Electronic Systems instructor-led training course, and includes an AAT bug harness, and four sets of each of the following: low coolant level sensor, CEEA+ low coolant level sensor w/ float, hall effect throttle position sensor, PWM throttle pedal, camshaft sensor, ABS sensor and tone ring, toggle switches, 3v/5v/12v supplies, and FET circuit board. Electrical learning boards not included.



TA-VEH-2495 - Daimler Truck Diagnostic Bug Kit

This kit supports instructor-led training courses on mechanical/electrical systems, and provides a wide range of bugs for Cascadia, Business Class M2, and Western Star vehicles. These bugs are adaptable to a variety of troubleshooting scenarios, and provide flexibility in creating your own exercises. The kit includes the following components:

- One two-sided storage container with bugs for Cascadia vehicles
- One two-sided storage container with bugs for M2 and Western Star vehicles
- Instructor manual with full bug list, setup instructions, exercise suggestions, and examples of real-life situations where these bugs could occur
- Student worksheets to be completed while performing the exercises
- Storage tote for all bug components

Please note that fault codes and associated software effects may change over time as software develops. Make sure to qualify and test the bugs prior to each class, and always check DTNA Service Literature for updated service procedures.



TA-VEH-2510 - Electrical Troubleshooting Kit

Electrical Troubleshooting kit includes relays with harnesses, toggle switches, momentary switches, light bulb harness, type I and II circuit breakers with harnesses, red/black jumper leads, power supply harness, switch/fuse harness, carrying case, and a variety of connectors and hardware to set up each student electrical learning board. 12v power supply not included.



TA-VEH-2520 - Electrical Troubleshooting Bug Kit

Instructor bug kit contains bugged red & black attaching harnesses with alligator clips (open and resisted), bugged light harnesses (open and resisted), bugged relay & type II circuit breaker, faulty light bulbs, bugged switch harnesses (open and resisted) and tail light jumper harness (resisted). Each kit serves one student electrical learning board.





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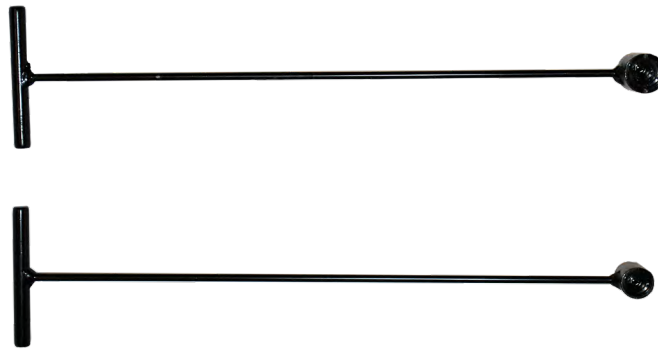


TA-VEH-2530 - Ride Height Suspension Adjustment Blocks

21K/40K and 23K/46K/69K Axle Blocks used to demonstrate and adjust ride height suspension. Includes 66.7mm (part # H16-14907-000) and 76.2mm (part # H16-17580-000) blocks.

TA-VEH-2540 - Axle Steering Stops

Used for power steering diagnostics to determine poppet pressure, as outlined by Daimler Truck North America service literature. Includes ST 10 stop (M2 only) and ST 20 stop (all others) used in the Heavy Duty Truck Systems course.



TA-VEH-2550 Trammel Bar

Trammel Bar Toe Gauge is designed for quick, accurate toe readings. The legs are adjustable on the bar. May be used with the vehicle on the floor to check toe in adjustment.





Custom built training aids by Daimler Truck North America's Service Training Academy simulate real world diagnostic and repair scenarios in the classroom learning environment.

Each training aid is built with the same factory, aftermarket, and re-manufactured components used on Freightliner and Western Star trucks, ensuring that technicians are familiar with the exact setups seen in the service bay. From complete, working HVAC systems to brake slack adjusters, all functioning components of a truck are available.

Prices listed are manufacturer's suggested retail and do not include tax, crating or shipping costs. All components are new unless otherwise noted. All items are intended for training use only and are subject to availability. Contact Service Training Academy Custom Built Training Aids with custom item inquiries.

For copies of the Vehicle Training Aid Cost Sheets, Order Forms, and most up-to-date pricing, please visit the Training Aids section on the Aftermarket Resource Center (dtnaarc.com).

FREE INDUSTRY-LEADING TRAINING!



Get Ahead is a partnership program between Daimler Truck North America (DTNA), technical schools and DTNA's service network locations. Through the Get Ahead program, technical schools gain access to free DTNA online training.

Students at Get Ahead partner schools earn course credits and certifications recognized by the employers in DTNA's service network.

For more information on Get Ahead, please visit www.trucktechs.com/getahead.