

4210 Jean-Marchand St, Quebec City, PQ G2C 1Y6 Canada Phone: 418-688-9067 / 800-567-0791 Fax: 418-843-3444 Email: info@consulab.

# **CUTAWAY STARTING SYSTEM TRAINER**







The EM-200-19 Starting System Trainer allows for the demonstration of a complete starting system using real-world components. Key areas of the starter have been cutaway to allow visual observation of major components while still being functional.

### **EDUCATIONAL ADVANTAGES**

- Fully functional cutaway starter.
- Allows students to view all internal starter components during live starter operation.
- Starter is enclosed in plexiglass to ensure student safety.
- Demonstrates starter planetary gear reduction.
- Ability to test and verify a basic starting circuit.
- Four operational faults can be inserted to promote student diagnostic troubleshooting competencies.
- The starter solenoid can also be bridged with a remote starter switch (not included) using the solenoid primary terminals.

### **FEATURES**

- Ford Modular starter (cutaway)
- Ford Modular solenoid (cutaway)
- Ignition switch
- Clutch pedal safety switch
- Crank relay
- Electrical test points for crank relay
- Lockable fault box with four manually selected operational faults
- Electrical test points for testing and diagnosis
- Battery circuit breaker with reset

### **APPLICATION**

· Ford Modular

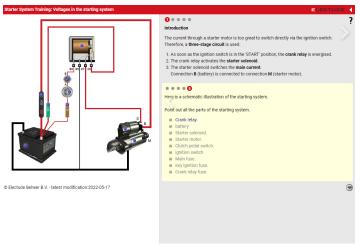
### **TECHNICAL INFORMATIONS**

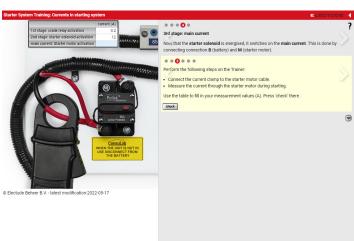
- Requires a 12V battery or jump box to operate.
- **Dimensions**: 22 x 22 x 5.5 inch (55.9 x 55.9 x 14 cm) / 24 x 24 x 13 inch (61 x 61 x 33 cm) with packaging
- Weight: 28 lbs (12.7 kg) / 31 lbs (14.1 kg) with packaging



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# Measurements of clutch pedal switch Now that you have established that the crank relay is not receiving the correct votages, you go further back into the system to find the cause. The next part is the clutch pedal switch. You are going to check the clutch pedal switch. Perform the next steps: - Connect the relative to measure DC voltage (VDC) - Connect the rel measuring pin to connection B of the clutch pedal switch. Now measure the voltage during starting and enter the value.





## **CUTAWAY STARTING SYSTEM TRAINER**

# ELECTUDE

THE CONSULAB EM-200-19 CUTAWAY STARTING SYSTEM TRAINER IS NOW AVAILABLE WITH ELECTUDE COURSEWARE (SOLD SEPARATELY).

The Starting System Trainer consists of a practical set up and the accompanying E-learning. The practical set up consists of a complete working starting system. The starting motor is exposed allowing the system operation to be viewed. The trainer is equipped with measurement connections, a main fuse and a lockable fault box that allows four different faults to be activated.

Through preparatory theory and practical assignments, the participant learns to:

- · Recognize system components.
- Learn the function and applications of the system components.
- Take measurements on the system with a multimeter and current clamp.
- Analyze measurement results and thus relate them to system operation.
- Evaluate measurement results in relation to workshop documentation.
- Analyze and evaluate measurement results in order to make a conclusion regarding system operation, system defects, possible cause, follow-up measurements or repair advice.

Includes 14 learning modules for a total of 11.5 hours of instruction.