

Bench Top Calibration

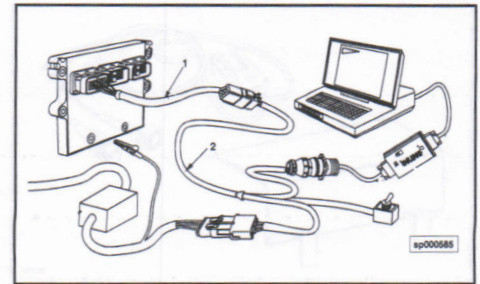
3163151

Bench Calibration Parent Cable

Engine Series: ALL

This calibration parent cable is used with the appropriate calibration adapter cables along with INSITE and INLINE to calibrate various ECMs prior to installation on the engine. Use with power supply 3825102.

Ref. No.	Part No.	Description
1	3163151	Bench Calibration Parent Cable
2	3163062	Bench Calibration Cable - ISB - Chrysler (Included in Kit 3163152)
2	3163063	Bench Calibration Cable - ISB - All Others (Included in Kit 3163152)
2	3163149	Bench Calibration Cable - ISC/ISL (Included in Kit 3163152)
2	3163090	Bench Calibration Cable - ISX



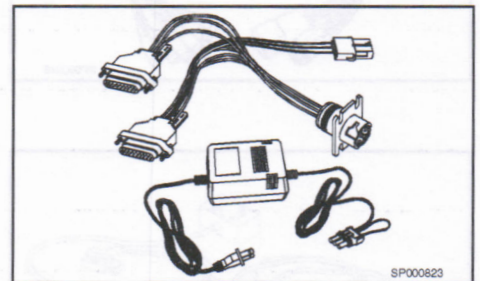
3825000

Benchtop ECM Plus Calibration Unit

Engine Series: Celect Plus, N14, L10, M11

This unit is used to calibrate CELECT Plus ECM modules without having to install them on engines. It includes a power supply that will power either 12 or 24 volt ECM's and a Compulink.

Part No.	Description
3825101	Connector Harness
3825102	Power Supply

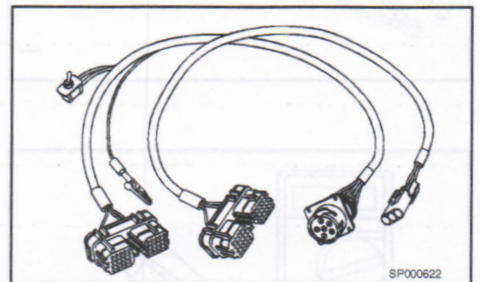


3162870

Benchtop Calibrator

Engine Series: QSK19

This is used to download a calibration to a QSK19 ECM through an INLINE Adpater. It has no power unit but can use the 3825102 Power Supply which provides 12 volts up to 1.5 amps.



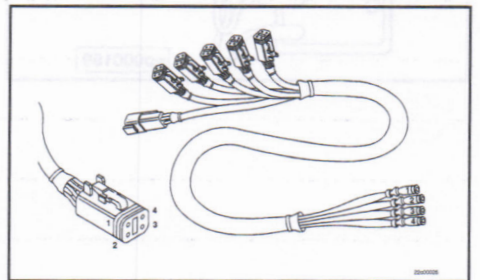
Cables

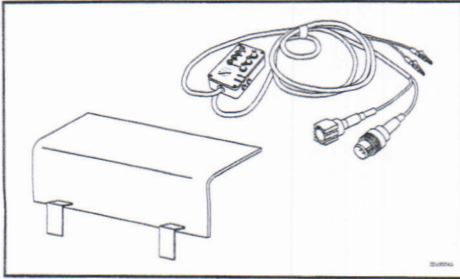
3162898

Sensor Breakout Cable

Engine Series: ISC, ISX, CELECT, NT/N14, L10/M11

Part No.	Description
3162898	Sensor Breakout Cable - ISX
3162982	Sensor Breakout Cable - ISC
3824774	Sensor Breakout Cable - CELECT,NT/N14,M11/L10 Air Pressure (included in it 3824773)
3824775	Sensor Breakout Cable - CELECT,NT/N14,M11/L10 Oil Pressure (included in kit 3824773)
3824776	Sensor Breakout Cable - CELECT,NT/N14,M11/L10 Boost Pressure (included in 3824773)

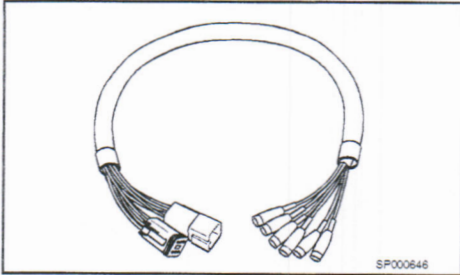




3163150
Brake Breakout Cable Kit

Engine Series: ISX

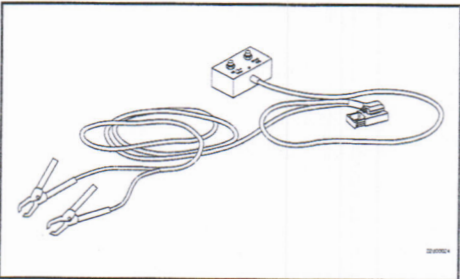
This cable allows technicians to break into the Engine Brake System to diagnose problems. Includes 3162991 (Brake Breakout Cable) and 3163092 (Brake Testing Shield).



3824892
Throttle Breakout Cable

Engine Series: All

This cable is used to aid in trouble shooting and adjusting throttle pedals on engines with throttle connected by Deutsch DT04-6P or DT06-6S connectors.

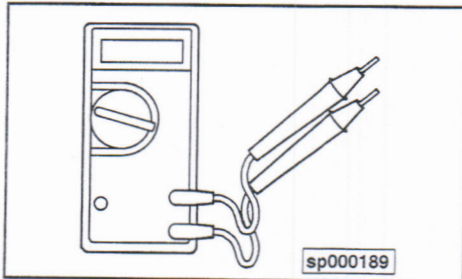


Diagnostic Devices

3163834
Fuel Pump Diagnostic Tool

Engine Series: ISB, QSB

This tool allows the technician to check the operation of the VP44 injection pump without removing the pump from the engine.



3377161
Digital Multimeter

Engine Series: All

This digital multimeter is a multi-purpose meter used to test various electrical circuits. Voltage range is 1000 VDC and 750 VAC. Also is used to test resistance. Kit is complete with test leads and alligator clips.

3824648
Automotive Meter

Engine Series: All

This multimeter does many things related to testing L10 CNG engines. The meter incorporates a tachometer that is driven by an inductive pick-up from the spark plug wire, a continuity beeper, a touch/hold feature allowing the saving of readings for later review, dwell measurements, AC and DC voltage and amperage, resistance and also record minimum and maximum readings. This part is normally part of 3824718 CNG Kit but can be used for many things.

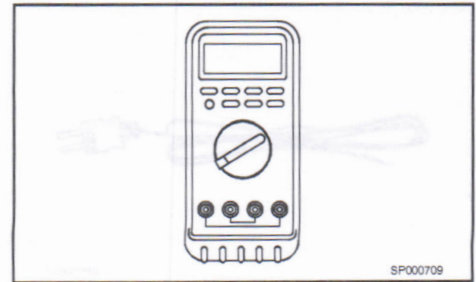
Use of the following accessories make the 3377161 and 3824968 Digital Mutimeters more universal.

3823574
Clamp On Current Probe

Engine Series: All

This special adapter is a battery powered clamp-on current probe used to measure DC currents from 1 to 1000 amps or AC currents from 1 to 700 amps. This unit must be used with 3377161 Digital Multimeter.

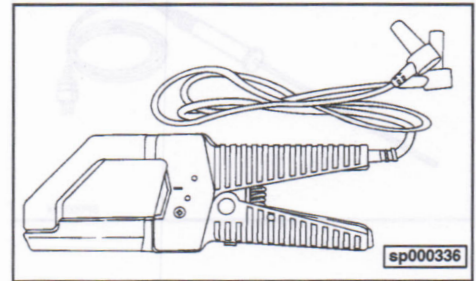
The unit includes the 2 permanently attached test leads, with banana jacks, 2 1.5 V AAA batteries, and operators instruction guide.



3824645
Pressure/Vacuum Module

Engine Series: All

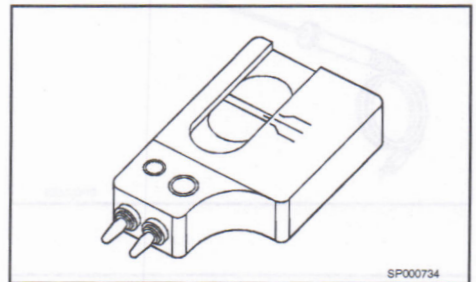
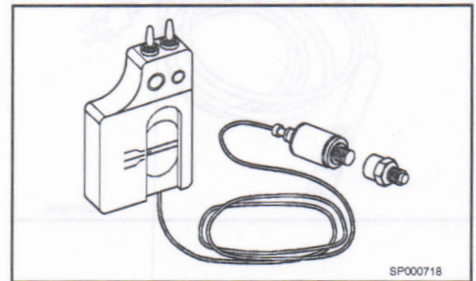
This is a pressure/vacuum transducer that must be used with 3377161 Digital Multimeter or 3824648 Automotive Meter. The pressure transducer range is 500 psi. and the vacuum range is 29.92 in. hg.. The multimeters provide the display values produced by the signal from the transducer. This transducer is normally included as part of 3824718 CNG kit, but by using the transducer and multimeter as specified, this is an excellent way to obtain digital pressure or vacuum readings in many applications within the range mentioned.

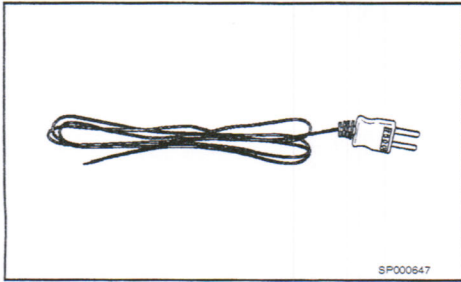


3824963
Thermocouple Module

Engine Series: All

This module converts the digital multimeter into a thermometer via standard banana plugs. Uses type K thermocouple with mini-connectors. Switch selectable for degrees C or F. Use with interchangeable thermocouples described below. (1 3824964 Bead Probe included.) Basic Accuracy: 0.5% +/- 2° C (0.5% +/- 3.6° F).

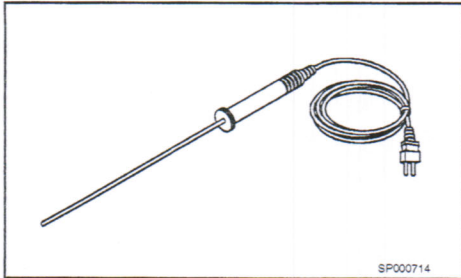




**3824964
Bead Probe**

Engine Series: All

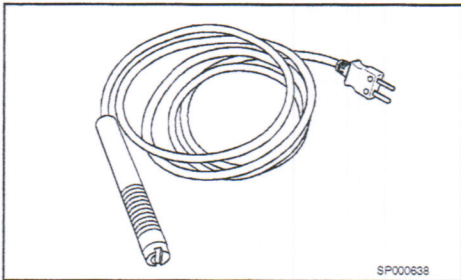
This is a general purpose application probe for use with digital multimeters and 3824963 Thermocouple Module. Teflon tape insulation. Not suitable for liquid immersion. Measurement range: -40° C to 260° C (-40° F to 500° F).



**3824965
Immersion Probe**

Engine Series: All

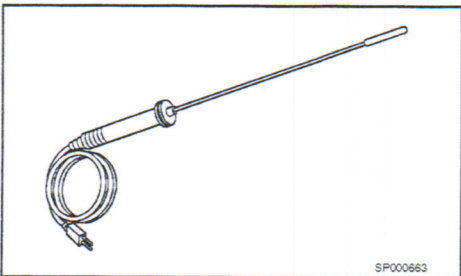
This is a probe for liquids and gels. Use with digital multimeters and 3824963 Thermocouple Module. Protected from tip to handle by an Inconel sheath, can be used in most general temperature measurement applications. Measurement range: -196° C to 1090° C (-320° F to 1994° F).



**3824966
Surface Probe**

Engine Series: All

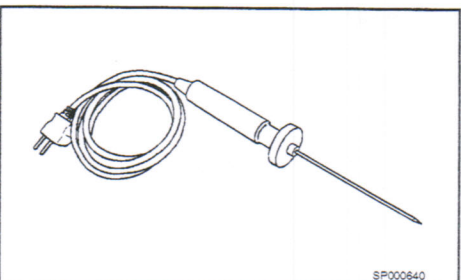
This is a probe for flat or slightly convex surfaces. Use with digital multimeters and 3824963 Thermocouple Module. Ideal for measurement of hot rollers and plates. Measurement range: 0° C to 260° C (32° F to 500° F).



**3824967
Air Probe**

Engine Series: All

This is a probe for air and gases. Use with digital multimeters and 3824963 Thermocouple Module. Measurement bead is protected by perforated stainless steel baffle. Not for immersion in liquid. Measurement range: -196° C to 816° C (-320° F to 1500° F).



**3824968
Piercing Probe**

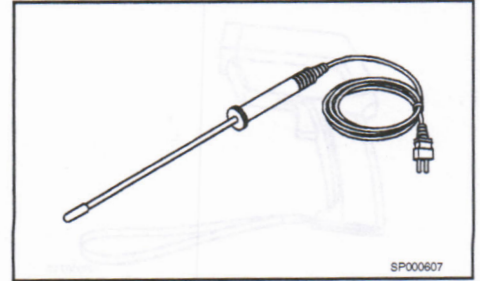
Engine Series: All

This is a probe suitable for food service. Use with digital multimeters and 3824963 Thermocouple Module. Made of 316 stainless steel. Also suitable for liquids and gels. Measurement range: -196° C to 816° C (-320° F to 1500° F).

3824969
Exposed Probe

Engine Series: All

This is a probe for air and gas measurements. Use with digital multimeters and 3824963 Thermocouple Module. This is an exposed bead attached to a 6 inch sheath. Measurement range: -196° C to 816° C (-320° F to 1500° F).

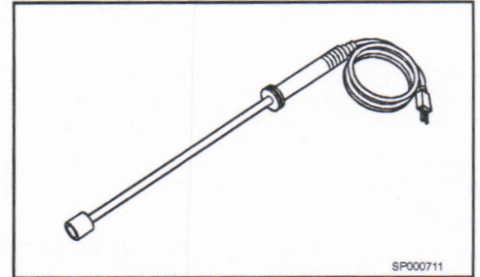


SP000607

3824970
High Temperature Surface Probe

Engine Series: All

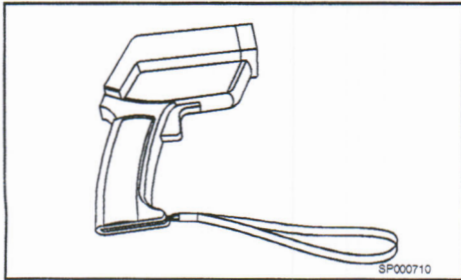
This probe is a ruggedized high temperature surface probe with new ribbon sensor. Use with digital multimeters and **3824963 Thermocouple Module**. Shaft can be permanently bent to reach difficult contact points. Measurement range: -127° C to 600° C (-197° F to 1112° F).



SP000711

Part No.	Description
3823945	Engine Dynamometer Control, CELFCO Inlet
3823990	Control Panel and 3823945, Wiring Harness
3823945	Engine Dynamometer Control, OER164280





**3824941
 Infrared Thermometer**

Engine Series: All

Overview

This small hand held infra red digital thermometer is an excellent instrument to measure surface temperatures without actually making physical contact with a temperature probe.

Point and Read

To use this, just point the meter at the subject and pull the trigger and view the display reading. This can even be used in the dark. The distance to the object is not critical. With laser sighting, a small red dot is projected and shows where the temperature pick up point is measuring.

Built To Last

This digital temperature meter optics and electronics are rugged build to withstand the harshness conditions and is an excellent meter to measure exhaust manifold surface temperatures, tire surface temperature and or anything else that a surface temperature measurement is needed.

Specifications

Temperature Range: 0 to 1600° F. (-18 to 870° C.)

Accuracy: +/- 1% of reading or +/- 1.5° F (+/- 1° C) whichever is greater @ 73 +/- 9° F. (23 +/- 5° C) ambient operating temperature.

Emissivity: Fixed @ 0.95

Laser Sighting (Ls): Meets FDA Class III A requirements

Repeatability: +/- 0.5% of reading or +/- 1° F. (+/- 0.5° C) whichever is greater

Response Time: 95% Response) 350 mssc

Spectral Response: 8-14 microns, thermopile detector

LCD Backlight: Standard

Temperature Display: ° F or ° C (selectable), 4 digit LCD

Display Resolution: 1 ° F or ° C

Ambient Operating Range: 32 to 120° F (0 to 50° C)

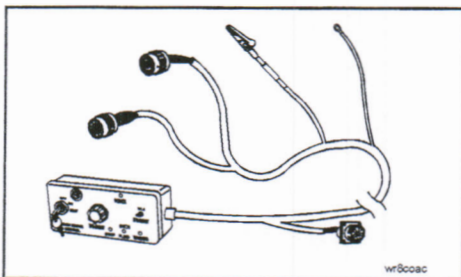
Relative Humidity: 10-95% RH noncondensing, @ up to 86° F

Storage Temperature: -4 to 120° F (-20 to 50° C) without battery

Power: 9 VDC Alkaline battery

Dimensions: (LxWxH) 5.5 x 1.75 x 7 inches (140 x 44 x 178 mm)

Weight: 1 lb. 4 oz. (06 kg)



Engine Controllers

**3823948
 Engine Dynamometer Control**

Engine Series: Select, QSK19/45/60

The Engine Dynamometer Control is a portable hand held electronic control used to start, control the speed and monitor faults of an engine when operated in an engine dynamometer test cell.

Part No.	Description
3823948	Engine Dynamometer Control, CELECT (Includes 3823990, Control Panel and 3823949, Wiring Harness)
3162245	Engine Dynamometer Control, QSK19/45/60

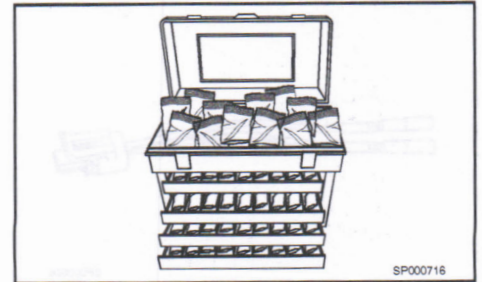
Wiring Repair Kits

3824904

Wiring Repair Kit - Master

Engine Series: Celect/Pace/Pacer/Centry/Cense/Quantum

This is a universal wiring repair kit containing various connectors and tools to repair wiring harness as required on CELECT, CELECT Plus, C-Brake, Pace, Pacer, CENTRY, Advanced Engine Monitor (AEM), HHP and Quantum HHP engines. Order contents sheet 3377690 for list and picture of contents. Contents Sheet is included in kit.

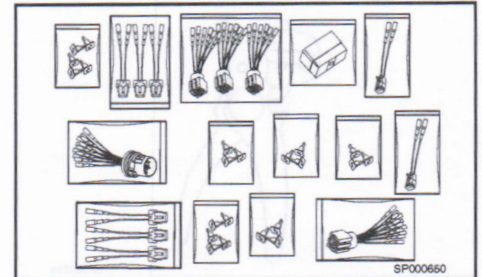


3162899

Wiring Repair Kit - Various

Engine Series: See Below

Below are Wiring Repair Kits for specific engines. Order specific contents sheet for list and picture of contents. Contents sheet is included with each kit.



Part No.	Description
3162899	Wiring Repair Kit - ISM/ISX Contents Sheet - 3886212
3162999	Wiring Repair Kit - CENSE Contents Sheet - 3163013
3163042	Wiring Repair Kit - QST30 Industrial Contents Sheet - 3377778
3163073	Wiring Repair Kit - ISB/ISC/ISL Contents Sheet - 3886144-01
3163074	Wiring Repair Upgrade Kit - ISB/ISC/ISL. Upgrades obsolete 3162268 Repair Kit to a 3163073 Wiring Repair Kit. Contents Sheet - 3886199
3163652	Wiring Repair Kit - Icon Contents Sheet - 3396587 (box 1 of 2) Contents Sheet - 3396589 (box 2 of 2)
3824720	Wiring Repair Kit - Natural Gas Contents Sheet - 3377739
3824873	Basic Wiring Repair Kit A general, lower cost kit that is not an engine specific kit. Contents Sheet - 3377757
3824903	Wiring Repair Kit - Centry/Cense/Quantum Contents Sheet - 3824246
3825189	Wiring Repair Kit - QST 30 G-Drive Contents Sheet - 3886096

ALSO AVAILABLE:

3407501 Wiring Harness Splice Kit Contents Sheet - 3886151

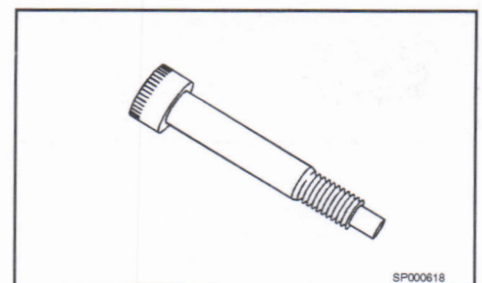
3162862

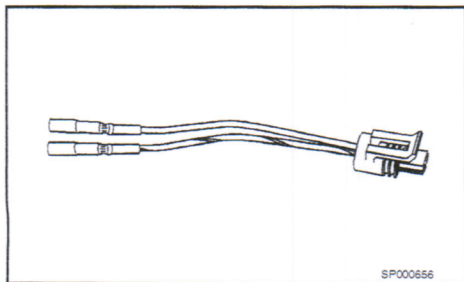
Deutsch Connector Jack Screw

Engine Series: -

This tool is used to service Deutsch 40 and 50 contact connectors. **NOT INCLUDED IN ANY WIRING REPAIR KIT.**

Part No.	Description
3162862	Deutsch Connector. Jack Screw (50 contact connectors)
3162863	Deutsch Connector Jack Screw (40 contact connectors)
3162864	Deutsch Jack Screw Clip



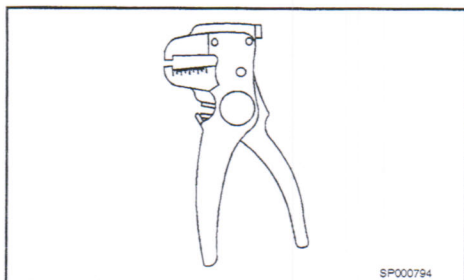


3163610
Electrical Repair Connector

Engine Series: ISC, ISL

Connector assemblies to repair CAPs pressure (Kostal) and temperature (Packard) sensors. **NOT INCLUDED IN ANY WIRING REPAIR KIT.**

Part No.	Description
3163610	Repair Connector - Packard
3163626	Repair Connector - Kostal



3400045
Wire Stripping Tool

Engine Series: All

Automatic adjustable wire stripper strips insulation off the ends of wire without damaging copper strands. **NOT INCLUDED IN ANY WIRING REPAIR KIT.**