

PERFORMANCE YOU CAN COUNT ON!

Analog Gauges...
...and much more



Stewart Warner

PRODUCT CATALOG



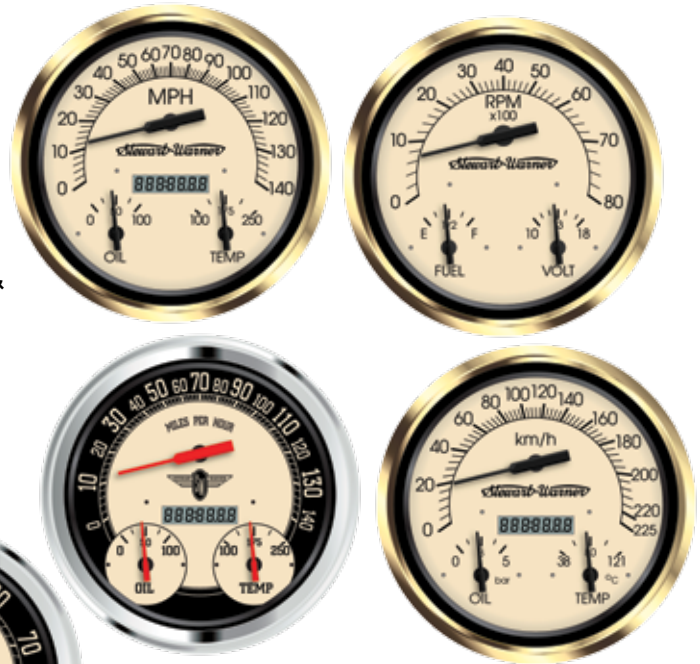
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What's **new** from Stewart Warner:

3-in-1 Gauges

NEW 3-in-1 gauges combine *three* essential functions into *one* 4-3/8" diameter instrument:

- Speedometer/oil pressure/water temperature (U.S. or Metric scales)
- Tachometer/fuel level/voltmeter
- Styles: Vintage (gold-plated bezel, tan face) & Nostalgic (polished bezel, black & tan face)



See Specialty Products section for more information.



LED Lighting

NEW rugged, commercial grade LEDs are easy-to-install and offered in several configurations, with a variety of beam patterns and available in 12 or 24 VDC models:

- Great for SUVs, rec. vehicles including 4x4s, moving or stationary equipment and more
- Beam patterns: Wide Flood, Flood, Narrow Flood, Trapezoidal, Spot, Hybrid and High-Low Beam (Driving)
- Available flush mounted LEDs are ideal when minimal protrusion is desirable



See Lighting section for more information.



Deluxe™

EXCITING NEW additions:

- Clock to match Deluxe gauges
- Motor Minder vacuum gauge with color-band operating ranges
- new 160 MPH speedometer
- 180 MPH reverse-sweep “Cobra” speedometer
- a trio of new 6-instrument boxed gauge sets, including 2 “Cobra” kits
- Sidewinder 8,000 RPM tachometer

See *Deluxe* section for more information.



Heavy Duty Plus™

EXCITING NEW additions:

- 160 MPH / 240 km/h speedometer
- 8,000 RPM battery/ignition tachometer

See *Heavy Duty Plus* section for more information.

new
items!

Wings™

EXCITING NEW additions:

- Clocks to match Wings gauges
- Motor Minder vacuum gauges with color-band operating ranges (black & white dials available)

See *Wings* section for more information.



Green Line™

EXCITING NEW additions:

- Motor Minder vacuum gauge with color-band operating ranges and classic silver-disc center
- a pair of new 6-instrument boxed gauge sets

See *Green Line* section for more information.

new
items!



IntelliSensor™

NOW AVAILABLE from Stewart Warner! IntelliSensor™ non-contact type sensors are sealed units with no moving parts. They accommodate irregular tank shapes and measure with superior accuracy, either by level or volume.

See *Senders, Sensors & Tubing* section for more.



INTELLISENSOR®

new
item!

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Deluxe™

Gauges, Speedometers & Tachometers

Electrical & mechanical instruments with classic white-on-black graphics, patented light rings for night-time illumination, white pointers, low-profile stainless steel corrosion-resistant bezels and 12-volt lamps. Marine Deluxe products include brass cases and non-ferrous hardware. Deluxe Metric products include metric-scale dials. 2-5/8" diameter gauges are available.

THIS PRODUCT LINE IS A STEWART WARNER ORIGINAL THAT IS IDEAL FOR SPECIALTY VEHICLES, ON- & OFF-HIGHWAY AND THE STREET ROD & CLASSIC CAR MARKETS! FOUR 6-INSTRUMENT KITS ARE NOW OFFERED, ALONG WITH A NEW 180 MPH REVERSE-SWEEP "COBRA" SPEEDO, NEW 160 MPH SPEEDO, CLOCK AND MOTOR MINDER...PLUS THE RETURN OF OUR LEGENDARY SIDEWINDER TACH!



Heavy Duty™ & Heavy Duty Plus™

Gauges, Speedometers & Tachometers

Electrical & mechanical instruments with bold white-on-black graphics, patented light rings for night-time illumination, white pointers, raised black bezels with distinctive bright aluminum rims and 12-volt lamps. Heavy Duty Plus™ instruments feature easy-to-read green & white-on-black English or metric-scale graphics (with SAE or ISO symbols), green-tinted light rings for night-time illumination and low-profile black bezels.

THESE "LEGACY" PRODUCTS ARE ESPECIALLY POPULAR WITH ON- AND OFF-HIGHWAY CUSTOMERS, A CLASSIC STEWART WARNER OFFERING!

Standard™ & Standard Plus™

Gauges only (no Speedometers or Tachometers)

Electrical & mechanical instruments with classic white-on-black graphics, white pointers and flat stainless steel corrosion-resistant bezels. Standard Plus™ gauges are available in 1-, 2- & 3-gauge mounting panels with external lighting.

PRODUCTS ARE IDEAL FOR INDUSTRIAL APPLICATIONS, ENGINE-POWERED EQUIPMENT, POWER TURF EQUIPMENT & SPECIALTY VEHICLE APPLICATIONS, ESPECIALLY WHERE PRICING IS A FACTOR!



Wings™

Gauges, Speedometers & Tachometers

Electrical & mechanical instruments with classic 1940s "retro" styling: white-on-black or black-on-white English-scale graphic dials with contrasting Wings™ logo and distinctive "teardrop" style pointers. Wings products also feature gleaming bright chrome bezels, domed (convex) lenses and 12-volt lamps.

THESE PRODUCTS ARE IDEAL FOR STREET RODS, CLASSIC CARS, AUTOMOTIVE ENTHUSIASTS, CLASSIC & CURRENT TRUCKS! SEVERAL 5- AND 6-INSTRUMENT KITS ARE OFFERED ALONG WITH NEW CLOCKS AND MOTOR MINDERS, ALL AVAILABLE IN BOTH WHITE & BLACK DIAL VERSIONS.





Power Series™ Instruments

Gauges, Speedometers & Tachometers

Electrical & mechanical instruments with authentic '60s styling – a refinement of the original SW Custom-Deluxe product line used on Big 3 muscle cars. Available with burgundy, titanium or blue/gray accent colors, Power Series features silver on black graphics with a unique silver insert in the dial, specially designed white & black pointer, chrome SAE step bezel and 12-volt lamps. Units are sold in 5- or 6-gauge kits with senders – or individually.

THESE PRODUCTS ARE PERFECT FOR MUSCLE CARS AND THEY'RE JUST LIKE THE ORIGINALS. SEVERAL 5- AND 6-INSTRUMENT KITS ARE OFFERED IN ALL THREE COLOR SCHEMES.



Green Line™

Gauges, Speedometers & Tachometers

You can't get more genuine than our original Custom Deluxe™ Green Line™ gauges! Original 1960s dial artwork was used to recreate our most requested line: polished stainless steel stepped bezel, brushed silver center, mechanical gauges have red pointers with silver hub, ammeters even feature the original crescent pointer slot! Gauges are available in 2-1/6" and 2-5/8", speedos and tachs in 3-3/8" with full dial sweep.

PRODUCTS ARE PERFECT FOR MUSCLE CARS, AND THEY ARE THE ORIGINALS! SHELBY GTS AND YENKOS HAD THEM – SO CAN YOU! TWO NEW 6-INSTRUMENT KITS AND A MOTOR MINDER ARE OFFERED!



Specialty Products

3-in-1 Gauges, Instrument Panels, Hand-held Tachometer

NEW 3-in-1 gauges combine 3 essential functions into one 4-3/8" diameter instrument. Speedo has oil pressure & water temperature gauges, tach has fuel level gauge & voltmeter. Two styles available: Vintage (gold-plated bezel, tan face) and Nostalgic (polished bezel, black & tan face). Speedo clusters are available with either U.S. or Metric scales, tach clusters have universal-scale instruments. Pre-assembled 4-gauge panels are available in vertical & horizontal configurations: illuminated voltmeter, fuel level, water temperature and oil pressure gauges, in water- and dust-resistant, front-serviceable housing with snap-on bezels and lenses. (And, individual replacement gauges are available!) The hand-held 4,000-RPM tach is 3" diameter and 4" long, used for direct measure of a clockwise or counterclockwise rotating shaft. 2 shaft extensions/2 rubber tip styles are available.

HANDY ARRAY OF PRODUCTS APPEALS TO MULTIPLE MARKETS!



Hourmeters

Stewart Warner Hourmeters & Accessories

83000 Series Stewart Warner round DC hourmeters are rated for 10-50 VDC (rectangular unit is 10-80 VDC) and offer styles that cosmetically match our Deluxe and Heavy Duty lines. 86000 Series SW LCD hourmeters are sealed severe duty units with high-accuracy Quartz movements, designed from the ground-up for reliable performance in 7-56 VDC applications.

RUGGED AND RELIABLE, WE HAVE AN HOURMETER FOR VIRTUALLY EVERY DC APPLICATION!

Senders & Sensors

Fuel Level, Pressure, RPM, Speed & Temperature
Senders & Sensors, Mechanical Tubing and Accessories

Two choices are offered for fuel level monitoring – non-contact type sensors and float-type senders, both of which use SAE standard flange mounting.

Fuel sensors: IntelliSensor™ sealed units have no moving parts, can accommodate irregular tank shapes and measure with superior accuracy, either by level or volume.

Fuel senders: our traditional float-arm/thick-film resistors deliver high accuracy and will perform reliably for more than twenty million cycles.

Pressure senders: our thick film pressure senders will last up to five times longer than senders with wire-wound resistors.

Temperature senders: corrosion-resistant, outstanding electrical and thermal conductivity, shock and vibration resistant for maximum durability.

Speed/RPM sensors: magnetic, Hall Effect & mechanical pickups/tips.

Tubing: kits for mechanical pressure gauges.

THESE HEAVY DUTY SENDERS AND SENSORS ARE GENUINE STEWART WARNER PARTS – AND THEY CAN BE USED WITH MANY OTHER BRANDS OF FUEL AND PRESSURE GAUGES, SPEEDOMETERS AND TACHOMETERS.



Pressure & Temperature Switches

Featuring Stewart Warner 5000 Series

Stewart Warner 5000 series pressure switches are available in single or dual circuit configurations, with factory set points from 1 to 100 PSI and operating pressures of 150 PSI for 1-24 PSI set point range and 250 PSI for 25-100 PSI set point range. Outstanding design features durable construction, compact size and enhanced set point integrity.

Standard SW temperature switches offer excellent accuracy and repeatability, normally open gold-plated contacts and are voltage independent. They are also voltage independent.

IDEAL FOR EXTENDED DUTY APPLICATIONS, THESE DURABLE UNITS ARE DESIGNED TO OPERATE WITH AIR, MOTOR OILS, TRANSMISSION OILS, JET FUELS AND OTHER SIMILAR HYDROCARBON MEDIA.



Lighting Products

Halogen Lamps, LEDs & Heavy Duty Flashers

Rugged, easy-to-install Halogen and LED illumination products are available in 12 or 24 VDC versions, with a variety of configurations and beam patterns. Portable work lights are also offered. Flashers utilize a spring mass motor (for up to ten times the service life of conventional thermal flashers), have forgiving voltage ranges and exceed SAE J-590B and J-945 specifications.

STEWART WARNER LIGHTING - ALWAYS BRILLIANT!





Fuel Pumps

Fuel Pumps & Service Kit

12 VDC fuel pumps are offered in ranges of 4-8 PSI and 20-43 GPH (75-162 LPH). A 24 VDC unit is offered with 8 PSI/43 GPH capacities. Units can self prime (dry lift) more than 120 cm (48"), are reverse-polarity-protected up to 60 minutes, transient-voltage-protected to 100 volts and dry-run-capable up to 4 hours. U.S. Coast Guard 16623-1 and 16623-2 approved, European CE standards EN 61000-6-2 and EN 6-3-2100 approved.

STEWART WARNER FUEL PUMPS PROVIDE OUTSTANDING VERSATILITY AND DURABILITY, COMPATIBLE WITH TODAY'S COMMERCIALY AVAILABLE PUMP GRADE GASOLINE, ETHANOL BLENDS (INCLUDING E85), DIESEL AND BIO-DIESEL.



Accessories

Genuine Stewart Warner

We are your source for genuine Stewart Warner light kits, mounting panels, 24-to-12-volt voltage adapters, ammeter shunts, and a selection of warning devices (lights and buzzers.)

FINISH THE JOB WITH GENUINE STEWART WARNER PARTS!



Merchandising

Stewart Warner Kitting, Packaging & P.O.P. Support

Our products are packaged for convenience, completeness and ease of identification. Kits generally include items needed for a typical retrofit.

BACKED BY STEWART WARNER'S 2-YEAR WARRANTY!



What makes a Stewart Warner gauge *heavy duty*?

At the heart of every heavy duty Stewart Warner instrument is the gauge motor – our patented Magna-Torque™ air-core movement.

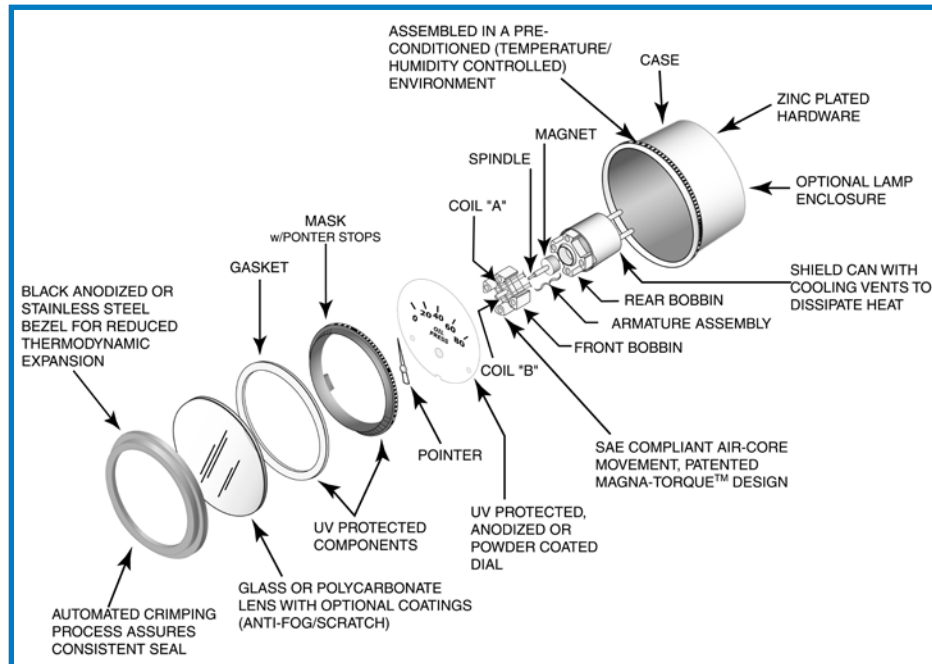
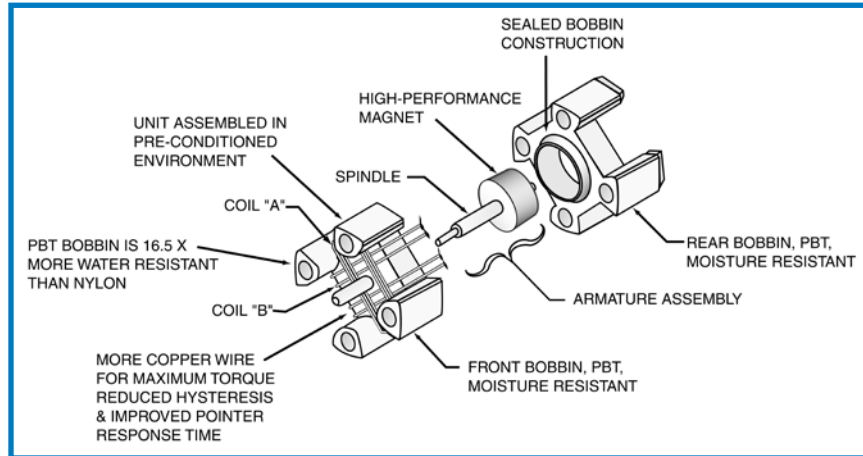
The system features sealed bobbin construction, thereby preventing dampening fluid from leaking out (a problem that is fairly common to marginally constructed gauges).

Dampening fluid is injected into the assembly using an automated process to ensure that the correct amount is distributed, thus optimizing the system's intended relationship between desired pointer response time and negligible pointer "flutter" from heavy shock or vibration.

The design (in a Stewart Warner match of 240-33.5 ohms) also accommodates more "turns" of copper wire around the coils, thus maximizing the system's torque output (compared to other systems). As a result, hysteresis is minimized (i.e. erratic pointer behavior or a floating pointer) while desired pointer response time is maintained (relative to real-time sender inputs).

A high-performance magnet augments the system's aim of obtaining maximum torque and response time.

Of particular note, the unit is assembled in a pre-conditioned environment – temperature and humidity-controlled – to ensure that no moisture is artificially introduced into the assembly.



Distributor Warranty Policy

maximatecc shall warrant its products against defects in workmanship and materials for a period of twenty-four (24) months from the date of purchase, provided that these products are installed and operated according to the purpose for which they were intended, designed, and specified.

This warranty excludes items that are incorrectly installed, misused, or abused by the customer as would be uncovered upon examination. If a suspect product is returned to maximatecc for inspection, upon which it is determined that the product is in fact defective, maximatecc will replace the product free-of-charge or issue a credit for the customer.

maximatecc will not assume responsibility for labor costs associated with the removal of suspect product or the cost of equipment downtime, or any other costs associated with concerns that are not specifically related to workmanship or materials.

In order to qualify for warranty coverage, customers must use maximatecc's Returned Goods Authorization (RGA) process and provide proof of purchase (as verification of the start date of the warranty coverage period.)

Products which are returned to maximatecc that are determined to be OK shall not qualify for warranty coverage.

Returned Goods Policy

ANY PRODUCT TO BE RETURNED TO MAXIMATECC FOR ANY REASON MUST INCLUDE A RETURNED GOODS AUTHORIZATION (RGA).

The RGA must be obtained in advance from a maximatecc quality representative who will determine whether to process the request.

maximatecc's quality personnel will assign an RGA number and the customer must identify this

information on the package(s) to be returned to maximatecc.

All returns must be shipped pre-paid with traceability to maximatecc.

Upon receipt of suspect material, maximatecc's quality personnel will provide appropriate disposition, in which case our warranty policy may or may not apply.

maximatecc.

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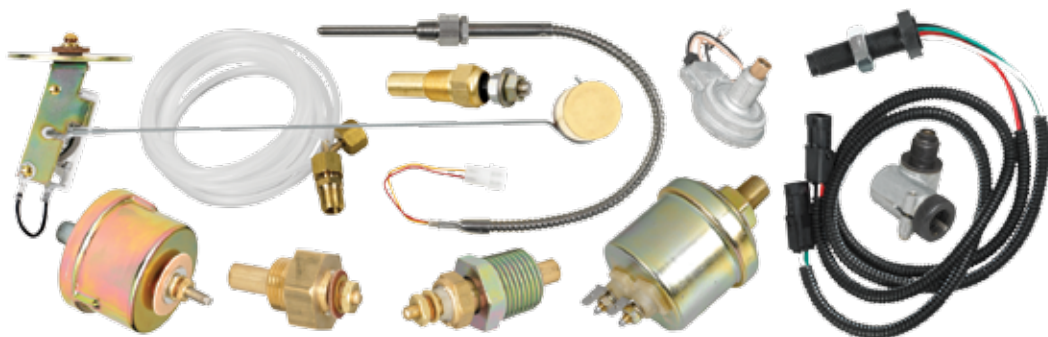
Classic Deluxe oil pressure, water temperature, tachometer, speedometer, volt and fuel gauges

The Original. Accept No Substitutes.

Stewart Warner Deluxe™ gauges set the industry standard in classic gauge design almost 50 years ago. Ideal for heavy duty and automotive applications alike, iconic Deluxe gauges combine distinctive styling with robust construction, including a fully sealed bobbin assembly to house the gauge motor.

Match with Stewart Warner senders for a perfectly tuned “system solution.”

- Classic, easy-to-read, white-on-black graphics – the standard in the industry for nearly 50 years
- Polished stainless steel SAE step bezel
- Unique light ring for superior night-time illumination
- Protected from overvoltage and reverse polarity
- Front-sealed, dust-proof in rear



General Specifications:

Physical:

- Sizes:
 - Gauges:* either 2-1/16" (52 mm) or 2-5/8" (67 mm) nominal diameters;
 - Tachometers/Speedometers:* 3-3/8" (85.7 mm) diameter nominal;
 - 5" (127 mm) *Speedometers also available*
- Movement:
 - Electrical Gauges:* High-torque air-core type, 90° pointer sweep
 - Mechanical Gauges:* Bourdon tube type, 270° pointer sweep
 - Tachometers & Speedometers:* High-torque air-core type or electro-mechanical, 270° pointer sweep
- Bobbin: Sealed, reinforced PBT, internally dampened
- Case Construction:
 - Gauges:* steel, plated (corrosion-protected)
 - Tachs & Speedos:* rugged polymer
- Dials: Aluminum, painted, black
- Pointers: Aluminum, painted white tip, black hub
- Bezels: Polished stainless steel SAE step

Electrical:

- System voltage: 12V (10-16 VDC) or 24V nominal (20-32 VDC – requires adapter)
- Ohms/resistance: 240-33.5Ω standard Stewart Warner match; 73-10 and 0-90Ω also available
- Lighting: 12V, patented light ring
- Connections: #8-32 studs
- Protected from over-voltage & reverse polarity

Performance:

- General specifications: compliant with SAE and ISO standards
- Accuracy: Per SAE, +/- 1.5 angular degrees at primary calibration points and +/- 3 angular degrees at secondary calibration points based on nominal input

Environmental:

- Operating temperature: -40°C to +85°C
- Storage temperature: -55°C to +85°C
- Sealing: Front sealed IP 66, dustproof in rear
- Compliant: SAE J1810, typical standards for vibration, salt spray

Installation:

- Mounting kit: bracket and hardware
- Panel cut-outs:
 - 2-1/16" (52 mm) *Gauges:* 2.098" +/- .02";
 - 2-5/8" (67 mm) *Gauges:* 2.603" +/- .02"
 - 3-3/8" (85.7 mm) *Tachometers/Speedometers:* 3.4" +/- .02"

Clock Specifications:

- Operating Voltage: 12-24 VDC
- Power Consumption: < .3 watts at 12 VDC
- Accuracy: Better than +/- .02% (Quartz Crystal for accurate timing)
- Operating Temperature: -30°C to +65°C
- Storage Temperature: -55°C to +85°C
- Vibration Resistance: Withstands 10-75 Hz at 1-8 Gs
- Protected From: Alternator load dump, inductive switching, reverse polarity
- Hands: Plastic
- Life Expectancy: 100,000 hours

Graphics:

- Color scheme: White-on-black graphics with English scale (color keyed dials available on select units)
- Configuration: English graphics on most; dual scale English and Metric on select units

Also Available:

- Matching 5" speedometer, tachometer
- Matching clock and Motor Minder vacuum gauge (2-1/6" diameter)
- Stewart Warner senders for electrical gauges
- Genuine Stewart Warner accessories

GAUGE Part Numbers:

Ammeters						
P/N	Model	Scale	Ø in	Type	Bezel	Shunt
82310	Deluxe	30-0-30	2-1/16"	Standard	Polished	Internally Shunted
82311	Deluxe	60-0-60	2-1/16"	Standard	Polished	Internally Shunted
82108 ^{*1}	Deluxe	60-0-60	2-1/16"	Marine	Polished	Internally Shunted
82109 ^{*1}	Deluxe	60-0-60	2-1/16"	Marine	Polished	813489
82313	Deluxe	100-0-100	2-1/16"	Standard	Polished	Internally Shunted
82343	Deluxe	100-0-100	2-1/16"	Standard	Polished	407616
82110 ^{*1}	Deluxe	100-0-100	2-1/16"	Marine	Polished	407616
82404	Deluxe	60-0-60	2-5/8"	Standard	Polished	Internally Shunted

NOTES:

*1 = This Marine version includes additional corrosion protection.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.



82310



82311



82313



82109



82108



82404

Clock						
P/N	Model	Scale	Ø in	Volts	Bezel	Time Adjustment
82783	Deluxe	1-12 hours / 0-60 seconds	2-1/16"	12-24	Polished	Front Rotary Knob

NOTES:

Clock kit above includes mounting hardware.

Replacement wedge-base light kits are available (Order Datcon brand P/N 71224-00 for 12-volt or 71224-01 for 24-volt applications.)

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.



82783

SENDING UNIT Part Numbers:



82111



82303



82413



391D-D

Fuel Level GAUGES

P/N	Model	Scale	Ø in	Ω Ohms	Volts	Bezel	Type/Sender
82111 *1	Deluxe	E-1/2-F	2-1/16"	240-33.5	12	Polished	See Sender Table
82303	Deluxe	E-1/2-F	2-1/16"	240-33.5	12	Polished	See Sender Table
82341	Deluxe	E-1/2-F	2-1/16"	0-90	12	Polished	See Sender Table
82342	Deluxe	E-1/2-F	2-1/16"	73-10	12	Polished	Use Ford Sender
82413	Deluxe	E-1/2-F	2-5/8"	240-33.5	12	Polished	See Sender Table

NOTES:

*1 = This Marine version includes additional corrosion protection.

See Fuel Level Senders Table below for commonly used senders. For other sending unit options, please see Fuel Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.

NOTE: When power to an electrical gauge is turned off, pointer may come to rest at any point on the dial.

Fuel Level SENDERS

P/N	Tank Depth	Flange Position *1	Ω Ohms	Ground Type *2
385AB-P	4.5-24"	RH	240-33.5	Common (Stud)
385B-F	6-12"	LH	240-33.5	Common (Stud)
385C-F	6-12"	RH	240-33.5	Common (Stud)
391A-F	10-15"	LH	240-33.5	Common (Stud)
391B-F	10-15"	RH	240-33.5	Common (Stud)
391C-D	15.5-24"	LH	240-33.5	Common (Stud)
391D-D	15.5-24"	RH	240-33.5	Common (Stud)
391PX-D	27-36"	RH	240-33.5	Common (Stud)
439361-F	10-15"	LH	0-90	Common (Stud)
392A-F	10-15"	LH	0-90	Packard Type
439362-F	10-15"	RH	0-90	Common (Stud)
439363-D	15.5-24"	LH	0-90	Common (Stud)
439364-D	15.5-24"	RH	0-90	Common (Stud)

NOTES:

*1 = Fuel sender installations support either a right hand (RH) or left hand (LH) configuration. Fixed arm senders may be available for a custom solution.

*2 = Custom units available for isolated ground, consult with salesperson.

For other sending unit options, please see Fuel Sender section.

GAUGE Part Numbers:

Pressure Gauges – AIR							
P/N	Model	Scale (PSI)	Ø in	Ω Ohms	Volts	Bezel	Type
82346	Deluxe	0-150	2-1/16"	240-33.5	12	Polished	Electrical ^{*1}
82329	Deluxe	10-150	2-1/16"	N/A	N/A	Polished	Mechanical, Single ^{*2}
82332	Deluxe	10-150	2-1/16"	N/A	N/A	Polished	Mechanical, Dual ^{*2}
82393	Deluxe	70-1000 kPa	2-1/16"	N/A	N/A	Polished	Mechanical, Single ^{*2}
82408	Deluxe	10-100 psi	2-5/8"	N/A	N/A	Polished	Mechanical, Single ^{*2}



82346



82329

NOTES:

*1 = Use sender P/N 279C or 82894.

*2 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.



82408



82393



82332

Pressure Gauge – AIR SUSPENSION (mech.)						
P/N	Model	Scale (PSI)	Ø in	Bezel	Type	Features
82396	Deluxe	2-100	2-1/16"	Black	Mechanical ^{*1}	Waterproof case, Non-illuminated.

NOTES:

*1 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

Gauge kit above includes gauge mounting hardware.

No light kits are available for this gauge.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.



82396

GAUGE Part Numbers:



82319



82320



82325



82405



82333

Pressure Gauges – FUEL							
P/N	Model	Scale (PSI)	Ø in	Ω Ohms	Volts	Bezel	Type/Sender *1
82319	Deluxe	1-10	2-1/16"	N/A	N/A	Polished	Mechanical/NA *1
82320	Deluxe	2-30	2-1/16"	N/A	N/A	Polished	Mechanical/NA *1
82325	Deluxe	10-200	2-1/16"	N/A	N/A	Polished	Mechanical/NA *1
82405	Deluxe	1-15	2-5/8"	N/A	N/A	Polished	Mechanical/NA *1
82333	Deluxe	0-16	2-1/16"	240-33.5	12	Polished	Electrical/ 82504-F

NOTES:

*1 = Use tubing kit P/N 82553-F (6") or 366HM-F (16") with mechanical pressure gauges.

For other sending unit options, please see Pressure Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.



82321

Pressure Gauge – MANIFOLD (mechanical)						
P/N	Model	Scale (PSI)	Ø in	Volts	Bezel	Type
82321	Deluxe	2-30	2-1/16"	N/A	Polished	Mechanical *1

NOTES:

*1 = Use tubing kit P/N 82553-F (6") or 366HM-F (16") with mechanical pressure gauges.

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.

GAUGE Part Numbers:

Pressure Gauges – OIL								
P/N	Model	Scale (PSI)	Ø in	Ω Ohms	Volts	Bezel	Type	Sender
82113	*1 Deluxe	0-80	2-1/16"	240-33.5	12	Polished	Elec.	279A or 82892 ^{*2}
82304	Deluxe	0-80	2-1/16"	240-33.5	12	Polished	Elec.	279A
82116	*1 Deluxe	0-100	2-1/16"	240-33.5	12	Polished	Elec.	279B-F or 82893 ^{*2}
82305	Deluxe	0-100	2-1/16"	240-33.5	12	Polished	Elec.	279B-F or 82893 ^{*2}
82387	Deluxe	0-700 kPa	2-1/16"	240-33.5	12	Polished	Elec.	279B-F or 82893 ^{*2}
82322	Deluxe	5-80	2-1/16"	N/A	N/A	Polished	Mech.	N/A ^{*3}
82323	Deluxe	5-100	2-1/16"	N/A	N/A	Polished	Mech.	N/A ^{*3}
82324	Deluxe	10-200	2-1/16"	N/A	N/A	Polished	Mech.	N/A ^{*3}
82406	Deluxe	5-100	2-5/8"	N/A	N/A	Polished	Mech.	N/A ^{*3}

NOTES:

*1 = This Marine version includes additional corrosion protection.

*2 = Use 82892 and/or 82893 sender(s) with appropriate gauges for marine applications.

*3 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

For other sending unit options, please see Pressure Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.



82113



82304



82116



82305



82387



82322



82323



82324



82406

GAUGE Part Numbers:



82136



82120



82121



82335

Pressure Gauges – TRANSMISSION OIL

P/N	Model	Scale (PSI)	Ø in	Ω Ohms	Volts	Bezel	Type
82136 *1	Deluxe	0-400 / 0-2800 kPa	2-1/16"	10-180 *2	12	Polished	Electrical
82120 *1	Deluxe	20-300	2-1/16"	N/A	N/A	Polished	Mechanical *3
82121 *1	Deluxe	25-400	2-1/16"	N/A	N/A	Polished	Mechanical *3

NOTES:

*1 = This Marine version includes additional corrosion protection.

*2 = This gauge requires use of VDO sender #360406

*3 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

For other sending unit options, please see Pressure Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.



Pyrometer

P/N	Model	Scale (°F)	Scale Graduation	Ø in	Volts	Bezel	Sender
82335	Deluxe	300-1500	°F x 100	2-1/16"	12	Polished	82505

NOTES:

Thermocouple/lead wire and extensions sold separately. For available options, please see the Senders & Sensors section.

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.

GAUGE Part Numbers:

Speedometers (electrical & mechanical)						
P/N	Model	Scale	Ø in	Type	Notes	Sender
82637	Deluxe	5-85 MPH / 0-130 km/h	3-3/8"	Electrical	Programmable; Odometer	82623B (Hall Effect)
82656	Deluxe	0-140 km/h / 5-85 MPH	3-3/8"	Electrical	Programmable; Odometer	82623B (Hall Effect)
82896	Deluxe	0-120 MPH	3-3/8"	Electrical	Programmable; Odometer	82623B (Hall Effect)
82961	Deluxe	0-160 MPH	3-3/8"	Electrical	Programmable; Odometer	82623B (Hall Effect)
82962	Deluxe	0-180 MPH*1	3-3/8"	Electrical	Programmable; Odometer	82623B (Hall Effect)
82698	Deluxe	0-160 MPH	5"	Electrical	Programmable; Odometer	82623B (Hall Effect)
82692	Deluxe	0-80 MPH / 0-130 km/h	3-3/8"	Mechanical	Programmable; Odometer	N/A
82677	Deluxe	5-85 MPH / 0-130 km/h	3-3/8"	Mechanical	Odometer	N/A
82697	Deluxe	0-140 MPH	3-3/8"	Mechanical	Odometer	N/A
550BP-D	Deluxe	0-160 MPH	3-3/8"	Mechanical	Programmable; Odometer	N/A

NOTES:

*1 = Speedometer with reverse-sweep pointer & graphics (pointer moves counterclockwise from zero).

For sending unit options, please see the Senders & Sensors section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See next page for matching tachometers and other pages in this section for matching 2" gauges.



82637



82656



82896



82961



82962



82698



82692



82697



82677



550BP-D

GAUGE Part Numbers:



82620



82622



82635



82636

(Other Tachometers shown on following page.)

Tachometers (electrical & mechanical)

P/N	Model	Scale (RPM)	Ø in	Type	Notes	Sender
82620	Deluxe	0-3,500	3-3/8"	Electrical	RPM x 100; Selectable Ratio: .5, 1, 1.5, 2	82623B (Hall Effect) *1
82622	Deluxe	0-3,500	3-3/8"	Electrical	RPM x 100; Hours 1/10; Selectable Ratio: .5, 1, 1.5, 2; Hourmeter	82623B (Hall Effect) *1
82635	Deluxe	0-3,500	3-3/8"	Electrical	r/min x 100; Selectable Ratio: .5, 1, 1.5, 2; Alternator Application	Alternator
82636	Deluxe	0-3,500	3-3/8"	Electrical	r/min x 100; Flywheel Application	82646 (Magnetic Pickup)
82162B	Deluxe	0-6,000	3-3/8"	Electrical	RPM x 1,000; 4, 6, 8 Cylinder; 12 Pole	Ignition Coil
82163	Deluxe	0-8,000	3-3/8"	Electrical	RPM x 1,000; 4, 8, 12 Cylinder; 20 Pole	Ignition Coil
82170	Deluxe	0-8,000	3-3/8"	Electrical	RPM x 1,000; 4, 6, 8 Cylinder; 12 Pole	Ignition Coil
82181	Deluxe	0-8,000 *2	3-3/8"	Electrical	RPM x 1,000; 4, 6, 8 Cylinder; 12 Pole	Ignition Coil
82699	Deluxe	0-10,000	5"	Electrical	RPM x 1,000; 4, 6, 8 Cylinder	Ignition Coil
82689	Deluxe	0-3,500	3-3/8"	Mechanical	RPM x 100; .5:1 Ratio	N/A
82691	Deluxe	0-3,500	3-3/8"	Mechanical	RPM x 100; 1:1 Ratio	N/A
82688	Deluxe	0-3,500	3-3/8"	Mechanical	Engine Hours RPM x 100; .5:1 Ratio; Hourmeter	N/A
82690	Deluxe	0-3,500	3-3/8"	Mechanical	Engine Hours RPM x 100; 1:1 Ratio; Hourmeter	N/A
551AKM-D	Deluxe	0-5,000	3-3/8"	Mechanical	5:1 Ratio	N/A

NOTES:

*1 = Programmable for alternator.

*2 = "Sidewinder" tachometer with dial graduations rotated 90° counterclockwise from vertical center.

For sending unit options, please see the Senders & Sensors section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See previous page for matching speedometers and other pages in this section for matching 2" gauges.

GAUGE Part Numbers:



82162B



82163



82170



82181



82699



82689



82691



82688



82690



GAUGE Part Numbers:



82345

Temp. Gauge – HYDRAULIC OIL (electrical)							
P/N	Model	Scale (°F)	Ø in	Match	Volts	Bezel	Sender
82345	Deluxe	100-240	2-1/16"	SW	12	Polished	280EA

NOTES:

For other sending unit options, please see Temperature Sender section.

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.



82115

Temperature Gauges – OIL							
P/N	Model	Scale (°F or °C)	Ø in	Match	Volts	Bezel	Type/Tubing/Sender
82115 *1	Deluxe	100-280°F	2-1/16"	SW	12	Polished	Electrical/M/280ED-F
82308	Deluxe	140-320°F	2-1/16"	SW	12	Polished	Electrical/280EE-F
82327-60	Deluxe	140-325°F	2-1/16"	N/A	N/A	Polished	Mech./60" Tubing *2
82327-72	Deluxe	140-325°F	2-1/16"	N/A	N/A	Polished	Mech./72" Tubing *2
82327-96	Deluxe	140-325°F	2-1/16"	N/A	N/A	Polished	Mech./96" Tubing *2
82327-144	Deluxe	140-325°F	2-1/16"	N/A	N/A	Polished	Mech./144" Tubing *2
82327-216	Deluxe	140-325°F	2-1/16"	N/A	N/A	Polished	Mech./216" Tubing *2
82395-72	Deluxe	60-160°C	2-1/16"	N/A	N/A	Polished	Mechanical/1.83m Tubing *2
82395-96	Deluxe	60-160°C	2-1/16"	N/A	N/A	Polished	Mechanical/2.44m Tubing *2
82410-60	Deluxe	140-325°F	2-5/8"	N/A	N/A	Polished	Mech./60" Tubing *2
82410-72	Deluxe	140-325°F	2-5/8"	N/A	N/A	Polished	Mech./72" Tubing *2

NOTES:

*1 = This Marine version includes additional corrosion protection.

*2 = Tubing included with mechanical gauge kits above. Part number suffix = tubing length (inches) included with gauge (e.g. -72 = 72" tubing.) **WARNING: The tubing on mechanical temperature gauges is gas-filled and cannot be field-altered without damaging the gauge.**

For other sending unit options, please see Temperature Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.



82308



82327



82395



82410

GAUGE Part Numbers:

Temp. Gauge – TRANSMISSION OIL (electrical)							
P/N	Model	Scale (°F)	Ø in	Match	Volts	Bezel	Sender
82344	Deluxe	150-350	2-1/16"	SW	12	Polished	280EE-F

NOTES:

For other sending unit options, please see Temperature Sender section.

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.



82344



82114



82307



82389



82326-48

Temperature Gauges – WATER							
P/N	Model	Scale (°F or °C)	Ø in	Match	Bezel	Type/Tubing/ Sender	
82114 *1	Deluxe	100-240 °F	2-1/16"	SW	Polished	280EA	
82306	Deluxe	100-240 °F	2-1/16"	SW	Polished	280EA	
82307	Deluxe	100-280 °F	2-1/16"	SW	Polished	280ED-F	
82389	Deluxe	40-115 °C	2-1/16"	SW	Polished	280EC	
82326-48	Deluxe	100-265 °F	2-1/16"	N/A	Polished	Mech./48" Tubing *2	
82326-60	Deluxe	100-265 °F	2-1/16"	N/A	Polished	Mech./60" Tubing *2	
82326-72	Deluxe	100-265 °F	2-1/16"	N/A	Polished	Mech./72" Tubing *2	
82326-96	Deluxe	100-265 °F	2-1/16"	N/A	Polished	Mech./96" Tubing *2	
82326-120	Deluxe	100-265 °F	2-1/16"	N/A	Polished	Mech./120" Tubing *2	
82326-144	Deluxe	100-265 °F	2-1/16"	N/A	Polished	Mech./144" Tubing *2	
82326-216	Deluxe	100-265 °F	2-1/16"	N/A	Polished	Mech./216" Tubing *2	
82326-288	Deluxe	100-265 °F	2-1/16"	N/A	Polished	Mech./288" Tubing *2	
82326-360	Deluxe	100-265 °F	2-1/16"	N/A	Polished	Mech./360" Tubing *2	
82394-144	Deluxe	40-130 °C	2-1/16"	N/A	Polished	Mech./3.66m Tubing *2	
82409-60	Deluxe	100-265 °F	2-5/8"	N/A	Polished	Mech./60" Tubing *2	
82409-72	Deluxe	100-265 °F	2-5/8"	N/A	Polished	Mech./72" Tubing *2	
82409-144	Deluxe	100-265 °F	2-5/8"	N/A	Polished	Mech./144" Tubing *2	

NOTES:

*1 = This Marine version includes additional corrosion protection.

*2 = Tubing included with mechanical gauge kits above. Part number suffix = tubing length (inches) included with gauge (e.g. -72 = 72" tubing.) **WARNING:** The tubing on mechanical temperature gauges is gas-filled and cannot be field-altered without damaging the gauge.

For other sending unit options, please see Temperature Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.

GAUGE Part Numbers:



82328



82411

Vacuum Gauges (mechanical only)

P/N	Model	Scale *1	Ø in	Type	Bezel	Tubing *2
82328	Deluxe	0-30 In-Hg	2-1/16"	Mechanical	Polished	(Tee may be required)
82411	Deluxe	0-30 In	2-5/8"	Mechanical	Polished	(Tee may be required)

NOTES:

*1 = 82328 dial is marked "In-Hg". 82411 dial is marked "Inches". (All gauges above measure vacuum in In-Hg.)

*2 = Use tubing kit P/N 82553-F (6') or 366HM-F (16'). Tee fitting may be required.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.



82175

Vacuum Fuel Economy Gauge "Motor Minder" (mechanical)

P/N	Model	Scale *1	Ø in	Type	Bezel	Tubing *2
82175	Deluxe	0-30 In-Hg / Color Band	2-1/16"	Mechanical	Polished	(Tee may be required)

NOTES:

*1 = Dial is marked "Vacuum in Inches" (Gauge measures vacuum in In-Hg.) Generalized fuel economy/engine speed ranges are indicated on the scale.

*2 = Use tubing kit P/N 82553-F (6') or 366HM-F (16'). Tee fitting may be required.

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.

GAUGE Part Numbers:

Vacuum/Boost Gauge (mechanical only)						
P/N	Model	Scale *1	Ø in	Type	Bezel	Tubing *2
82340	Deluxe (red pointer)	0-30 In-Hg/ 0-15 PSI	2-1/16"	Mechanical	Polished	(Tee may be required)

NOTES:

*1 = Scale indicates vacuum in In-Hg and boost in PSI, as measured by gauge.

*2 = Use tubing kit P/N 82553-F (6') or 366HM-F (16'). Tee fitting may be required.

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.



82340

Voltmeters						
P/N	Model	Scale	Ø in	Volts	Bezel	Type/Notes
82112 *1	Deluxe	10-16	2-1/16"	12	Polished	Volts Only
82309	Deluxe	10-16	2-1/16"	12	Polished	Battery Charge Volts / Color Band
82391	Deluxe	10-16	2-1/16"	12	Polished	Battery Charge Volts
82347	Deluxe	20-32	2-1/16"	24	Polished	Battery Charge Volts / Color Band

NOTES:

*1 = This Marine version includes additional corrosion protection.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages B9-B11 for matching tachometers and speedometers.



82112



82309



82347



82391

DELUXE GAUGE KITS:



82218

Dashboard in a Box!

Stewart Warner Deluxe automotive gauge sets are available in convenient kit form for automotive applications. Each kit contains the essential instrument panel gauges. Other matching gauges available...please see previous pages.

And they're matched with Stewart Warner senders for a perfectly tuned "system solution."

- Classic, easy-to-read, white-on-black graphics – the industry standard for nearly 50 years
- Low-profile SAE step bezel
- Unique light ring for superior night-time illumination
- Protected from overvoltage and reverse polarity
- Front-sealed, dust-proof in rear

GAUGE KIT Part Numbers:

Deluxe 6-Gauge Kit (Mechanical Speedometer) kit contents: 82218

Gauge Type	P/N	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Mechanical Speedometer	550BP-D	0-160 MPH	3-3/8"	Polished	Use Existing Mechanical Cable Connection to Transmission (<i>mechanical take-off may be req'd.</i>)
Electric Tachometer	82170	0-8,000 RPM	3-3/8"	Polished	Use Existing Electrical Tach Connection
Electric Oil Pressure	82305	0-100 PSI	2-1/16"	Polished	Electrical Pressure Sender
Electric Water Temperature	82307	100-280 °F	2-1/16"	Polished	Electrical Temperature Sender
Electric Fuel Level	82303	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (<i>float arm type, 240-33.5 Ohms</i>)
Electric Voltmeter	82309	10-16 VDC	2-1/16"	Polished	Use Existing Connection

NOTES:

Gauge kit above includes gauge mounting hardware and applicable senders/tubing, except where otherwise noted.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See preceding pages for matching gauges.

GAUGE KIT Part Numbers:

Deluxe 6-Gauge Kit (Electrical) kit contents: 82262					
Gauge Type	P/N	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Electric Speedometer	82961	0-160 MPH	3-3/8"	Polished	Use Existing Connection or Included Hall Effect Sensor
Electric Tachometer	82170	0-8,000 RPM	3-3/8"	Polished	Use Existing Electrical Tach Connection
Electric Oil Pressure	82305	0-100 PSI	2-1/16"	Polished	Electrical Pressure Sender
Electric Water Temperature	82307	100-280 °F	2-1/16"	Polished	Electrical Temperature Sender
Electric Fuel Level	82303	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (float arm type, 240-33.5 Ohms)
Electric Voltmeter	82309	10-16 VDC	2-1/16"	Polished	Use Existing Connection

Deluxe 6-Gauge "Cobra Kit" (Electrical, w/Reverse-Sweep Speedo) kit contents: 82263					
Gauge Type	P/N	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Electric Speedometer	82962	0-180 MPH *1	3-3/8"	Polished	Use Existing Connection or Included Hall Effect Sensor
Electric Tachometer	82170	0-8,000 RPM	3-3/8"	Polished	Use Existing Electrical Tach Connection
Electric Oil Pressure	82305	0-100 PSI	2-1/16"	Polished	Electrical Pressure Sender
Electric Water Temperature	82307	100-280 °F	2-1/16"	Polished	Electrical Temperature Sender
Electric Fuel Level	82303	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (float arm type, 240-33.5 Ohms)
Electric Voltmeter	82309	10-16 VDC	2-1/16"	Polished	Use Existing Connection

Deluxe 6-Gauge "Cobra Kit" (Mechanical, w/Reverse-Sweep Speedo) kit contents: 82264					
Gauge Type	P/N	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Electric Speedometer	82962	0-180 MPH *1	3-3/8"	Polished	Use Existing Connection or Included Hall Effect Sensor
Electric Tachometer	82170	0-8,000 RPM	3-3/8"	Polished	Use Existing Electrical Tach Connection
Mechanical Oil Pressure	82323	0-100 PSI	2-1/16"	Polished	82553-F (6 ft. tube)
Mechanical Water Temperature	82326-72	100-280 °F	2-1/16"	Polished	Mechanical/72" Capillary
Electric Fuel Level	82303	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (float arm type, 240-33.5 Ohms)
Electric Voltmeter	82309	10-16 VDC	2-1/16"	Polished	Use Existing Connection

NOTES:

*1 = Reverse-sweep speedometer (pointer moves counterclockwise from zero).

Gauge kits above include gauge mounting hardware and applicable senders/tubing, except where otherwise noted.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See preceding pages for matching gauges.



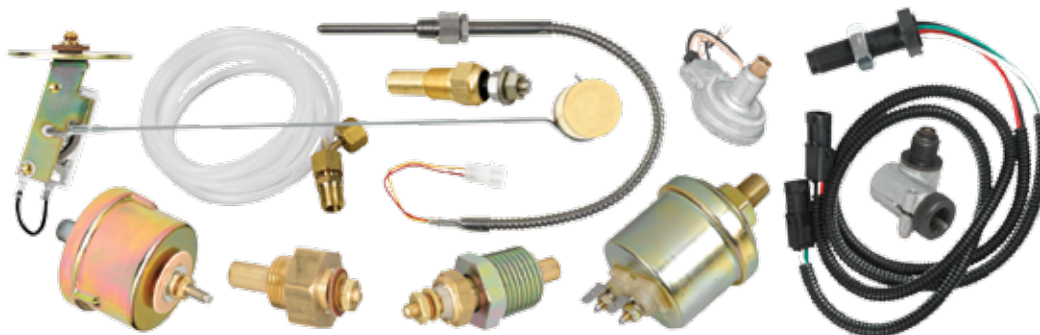
Heavy Duty fuel and water temperature gauges, speedometer, volt and oil pressure gauges

Heavy Duty – Defined by Stewart Warner.

Stewart Warner Heavy Duty gauges set the industry standard in classic gauge design almost 50 years ago. Ideal for heavy duty and automotive applications alike, these gauges combine distinctive styling with robust construction, including a fully sealed bobbin assembly to house the gauge motor.

Match with Stewart Warner senders for a perfectly tuned “system solution.”

- Bold white graphics on black face dials with white pointers
- Black raised bezel with distinctive brushed bright rim
- Unique light ring for superior night-time illumination
- Protected from overvoltage and reverse polarity
- Front-sealed, dust-proof in rear



General Specifications:

Physical:

- Sizes:
 - Gauges:* 2-1/16" (52 mm) nominal diameter;
 - Tachometers/Speedometers:* 3-3/8" (85.7 mm) diameter nominal
- Movement:
 - Electrical Gauges:* High-torque air-core type, 90° pointer sweep
 - Mechanical Gauges:* Bourdon tube type, 270° pointer sweep
 - Tachometers & Speedometers:* High-torque air-core type or electro-mechanical, 270° pointer sweep
- Bobbin: Sealed, reinforced PBT, internally dampened
- Case Construction:
 - Gauges:* steel, plated (corrosion-protected)
 - Tachs & Speedos:* rugged polymer
- Dials: Aluminum, painted, black
- Pointers: Aluminum, painted white tip, black hub
- Bezels: Black raised design with bright ring

Electrical:

- System voltage: 12V (10-16 VDC) or 24V nominal (20-32 VDC – requires adapter)
- Ohms/resistance: 240-33.5Ω standard Stewart Warner match; 73-10 and 0-90Ω also available
- Lighting: 12V, patented light ring
- Connections: #8-32 studs
- Protected from over-voltage & reverse polarity

Performance:

- General specifications: compliant with SAE and ISO standards
- Accuracy: Per SAE, +/- 1.5 angular degrees at primary calibration points and +/- 3 angular degrees at secondary calibration points based on nominal input

Environmental:

- Operating temperature: -40°C to +85°C
- Storage temperature: -55°C to +85°C
- Sealing: Front sealed IP 66, dustproof in rear
- Compliant: SAE J1810, typical standards for vibration, salt spray

Installation:

- Mounting kit: bracket and hardware
- Panel cut-outs:
 - 2-1/16" (52 mm) Gauges:* 2.098" +/- .02";
 - 3-3/8" (85.7 mm) Tachometers/Speedometers:* 3.4" +/- .02"

Graphics:

- Color scheme: White-on-black graphics with English scale (color keyed dials available on select units)
- Configuration: English graphics

Also Available:

- Stewart Warner senders for electrical gauges
- Genuine Stewart Warner accessories





284A



284M



391D-D

NOTE: When power to an electrical gauge is turned off, pointer may come to rest at any point on the dial.

GAUGE Part Numbers:

Ammeter

P/N	Model	Scale	Ø in	Type	Bezel	Shunt
284A	Heavy Duty	60-0-60 A	2-1/16"	Standard	Black	Internally Shunted
284AA	Heavy Duty	100-0-100 A	2-1/16"	Standard	Black	407616
284AD	Heavy Duty	150-0-150 A	2-1/16"	Standard	Black	413717

NOTES:

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page C6 for matching tachometers and speedometers.

Fuel Level GAUGES

P/N	Model	Scale	Ø in	Ω Ohms	Volts	Bezel	Sender
284M *1	Heavy Duty	E-1/2-F	2-1/16"	240-33.5	12	Black	See Sender Table
284BS	Heavy Duty	E-1/2-F	2-1/16"	0-90	12	Black	See Sender Table
284BR	Heavy Duty	E-1/2-F	2-1/16"	73-10	12	Black	Non-stock item *2

NOTES:

*1 = This Marine version includes additional corrosion protection.

*2 = Contact your maximatecc salesperson for availability.

See Fuel Level Senders Table below for commonly used senders. For other sending unit options, please see Fuel Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page C6 for matching tachometers and speedometers.

Fuel Level SENDERS

P/N	Tank Depth	Flange Position *1	Ω Ohms	Ground Type *2
385AB-P	4.5-24"	RH	240-33.5	Common (Stud)
385B-F	6-12"	LH	240-33.5	Common (Stud)
385C-F	6-12"	RH	240-33.5	Common (Stud)
391A-F	10-15"	LH	240-33.5	Common (Stud)
391B-F	10-15"	RH	240-33.5	Common (Stud)
391C-D	15.5-24"	LH	240-33.5	Common (Stud)
391D-D	15.5-24"	RH	240-33.5	Common (Stud)
391PX-D	27-36"	RH	240-33.5	Common (Stud)
439361-F	10-15"	LH	0-90	Common (Stud)
392A-F	10-15"	LH	0-90	Packard Type
439362-F	10-15"	RH	0-90	Common (Stud)
439363-D	15.5-24"	LH	0-90	Common (Stud)
439364-D	15.5-24"	RH	0-90	Common (Stud)

NOTES:

*1 = Fuel sender installations support either a right hand (RH) or left hand (LH) configuration. Fixed arm senders may be available for a custom solution.

*2 = Custom units available for isolated ground, consult with salesperson.

For other sending unit options, please see Fuel Sender section.

GAUGE Part Numbers:

Pressure Gauges – AIR (mechanical)

P/N	Model	Scale (PSI)	Ø in	Volts	Bezel	Type ^{*1}
284T	Heavy Duty	0-150	2-1/16"	N/A	Black	Mechanical
284N	Heavy Duty	5-100	2-1/16"	N/A	Black	Mechanical
82331	Heavy Duty	10-150	2-1/16"	N/A	Black	Mechanical; Dual Air

NOTES:

*1 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page C6 for matching tachometers and speedometers.



284T



82331

Pressure Gauge – FUEL

P/N	Model	Scale (PSI)	Ø in	Ω Ohms	Volts	Bezel	Type
284E	Heavy Duty	1-15	2-1/16"	240-33.5	N/A	Black	Mechanical/NA ^{*1}

NOTES:

*1 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page C6 for matching tachometers and speedometers.

Pressure Gauges – OIL

P/N	Model	Scale (PSI)	Ø in	Ω Ohms	Volts	Bezel	Type/Sender
284L	Heavy Duty	0-100	2-1/16"	240-33.5	12	Black	Electrical/279B-F ^{*1}
284P	Heavy Duty	10-200	2-1/16"	N/A	N/A	Black	Mechanical/NA ^{*2}
284D	Heavy Duty	5-100	2-1/16"	N/A	N/A	Black	Mechanical/NA ^{*2}

NOTES:

*1 = For other sending unit options, please see Pressure Sender section.

*2 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page C6 for matching tachometers and speedometers.



284L



284D

GAUGE Part Numbers:



284R



284S



82334

Pressure Gauges – TRANSMISSION OIL (mech.)

P/N	Model	Scale (PSI)	Ø in	Bezel	Type	Tubing *1
284R	Heavy Duty	20-300	2-1/16"	Black	Mechanical	82553-F (6') or 366HM-F (16')
284S	Heavy Duty	25-400	2-1/16"	Black	Mechanical	82553-F (6') or 366HM-F (16')

NOTES:

*1 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page C6 for matching tachometers and speedometers.



Pyrometer

P/N	Model	Scale (°F)	Scale Graduation	Ø in	Volts	Bezel	Sender
82334	Heavy Duty	300-1500	°F x 100	2-1/16"	12	Black	82505

NOTES:

Thermocouple/lead wire and extensions sold separately. For available options, please see the Senders & Sensors section. Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page C6 for matching tachometers and speedometers.

GAUGE Part Numbers:

Speedometers (electrical & mechanical)

P/N	Model	Scale (MPH)	Ø in	Type	Notes	Sender
550HF-D	Heavy Duty	0-80 MPH	3-3/8"	Mechanical	Odometer/ High-Beam	N/A
550HH-D	Heavy Duty	0-160 MPH	3-3/8"	Mechanical	Odometer	N/A
82642	Heavy Duty	5-85 MPH	3-3/8"	Electrical	Programmable; Odometer	82623B (Hall Effect)

NOTES:

For sending unit options, please see the Senders & Sensors section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See other pages in this section for matching 2" gauges.



550HH-D



82642

Tachometers (electrical & mechanical)

P/N	Model	Scale (RPM)	Ø in	Type	Notes	Sender
551AHK-D	Heavy Duty	0-3,500	3-3/8"	Mechanical	RPM x 100; .5:1 Ratio	N/A
551AHL-D	Heavy Duty	0-3,500	3-3/8"	Mechanical	RPM x 100; .5:1 Ratio; Hourmeter	N/A
82171	Heavy Duty	0-8,000	3-3/8"	Electrical	RPM x 1000; 4, 6, 8 Cylinder	Ignition Coil
82641	Heavy Duty	0-3,500	3-3/8"	Electrical	RPM x 100; Flywheel Application	82646 (Magnetic Pickup)
82619	Heavy Duty	0-3,500	3-3/8"	Electrical	RPM x 100	82623B (Hall Effect) *1
82640	Heavy Duty	0-3,500	3-3/8"	Electrical	RPM x 100; Alternator Application	Alternator

NOTES:

*1 = Programmable for alternator.

For sending unit options, please see the Senders & Sensors section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See other pages in this section for matching 2" gauges.



551AHK-D



82171



82619



82640



284AF



284J



284B72



284H



284AJ

GAUGE Part Numbers:

Temperature Gauges – OIL

P/N	Model	Scale (°F)	Ø in	Bezel	Type	Tubing *1
284C36	Heavy Duty	140-325 °F	2-1/16"	Black	Mechanical	36" Tubing
284C72	Heavy Duty	140-325 °F	2-1/16"	Black	Mechanical	72" Tubing
284C144	Heavy Duty	140-325 °F	2-1/16"	Black	Mechanical	144" Tubing

NOTES:

*1 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page C6 for matching tachometers and speedometers.

Temperature Gauges – WATER

P/N	Model	Scale (°F)	Ø in	Bezel	Type	Sender/Tubing
284AF	Heavy Duty	100-230 °F	2-1/16"	Black	Electrical	280EC
284J	Heavy Duty	100-280 °F	2-1/16"	Black	Electrical	280ED-F
284B36	Heavy Duty	100-265 °F	2-1/16"	Black	Mechanical	36" Tubing *1
284B72	Heavy Duty	100-265 °F	2-1/16"	Black	Mechanical	72" Tubing *1
284B144	Heavy Duty	100-265 °F	2-1/16"	Black	Mechanical	144" Tubing *1

NOTES:

*1 = Tubing included with mechanical gauge kits above. Part number suffix = tubing length (inches) included with gauge (e.g. -72 = 72" tubing.) **WARNING: The tubing on mechanical temperature gauges is gas-filled and cannot be field-altered without damaging the gauge.**

For other sending unit options, please see Temperature Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page C6 for matching tachometers and speedometers.

Voltmeters

P/N	Model	Scale	Ø in	Volts	Bezel	Type/Notes
284H	Heavy Duty	10-16	2-1/16"	12	Black	Volts w/Color Band
284AJ	Heavy Duty	20-32	2-1/16"	24	Black	Volts w/Color Band

NOTES:

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page C6 for matching tachometers and speedometers.



Heavy Duty PLUS transmission oil pressure, coolant temperature, tachometer, speedometer, volt and fuel gauges

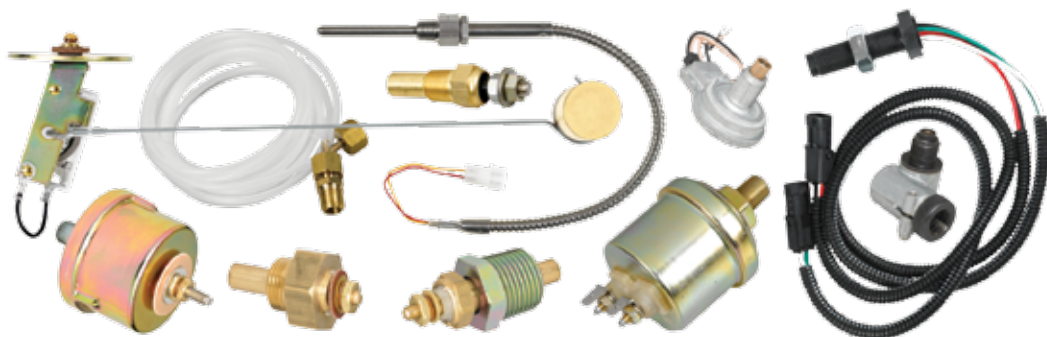
Heavy Duty PLUS – Refined by Stewart Warner.

Stewart Warner Heavy Duty PLUS gauges add a new dimension to our Heavy Duty line with vivid white & green graphics, elegant black low profile bezels and high-visibility green dial illumination.

Ideal for commercial and automotive applications alike, these gauges combine distinctive styling with robust construction, including a fully sealed bobbin assembly to house the gauge motor.

Match with Stewart Warner senders for a perfectly tuned “system solution.”

- Easy-to-read green and white graphics on black with white pointers
- ISO symbols on face dials indicate function being monitored
- High visibility green tinted night-time illumination
- Attractive black SAE step bezel
- Available in English and dual scale versions
- Integrated tachometer/hourmeters available
- Protected from overvoltage and reverse polarity
- Front-sealed, dust-proof in rear



General Specifications:

Physical:

- Sizes:
 - Gauges:* 2-1/16" (52 mm) nominal diameter;
 - Tachometers/Speedometers:* 3-3/8" (85.7 mm) diameter nominal
- Movement:
 - Electrical Gauges:* High-torque air-core type, 90° pointer sweep
 - Mechanical Gauges:* Bourdon tube type, 270° pointer sweep
 - Tachometers & Speedometers:* High-torque air-core type or electro-mechanical, 270° pointer sweep
- Bobbin: Sealed, reinforced PBT, internally dampened
- Case Construction:
 - Gauges:* steel, plated (corrosion-protected)
 - Tachs & Speedos:* rugged polymer
- Dials: Aluminum, painted, black
- Pointers: Aluminum, painted white tip, black hub
- Bezels: Black SAE step

Electrical:

- System voltage: 12V (10-16 VDC) or 24V nominal (20-32 VDC – requires adapter)
- Ohms/resistance: 240-33.5Ω standard Stewart Warner match
- Lighting: 12V, patented light ring
- Connections: #8-32 studs
- Protected from over-voltage & reverse polarity

Performance:

- General specifications: compliant with SAE and ISO standards
- Accuracy: Per SAE, +/- 1.5 angular degrees at primary calibration points and +/- 3 angular degrees at secondary calibration points based on nominal input

Environmental:

- Operating temperature: -40°C to +85°C
- Storage temperature: -55°C to +85°C
- Sealing: Front sealed IP 66, dustproof in rear
- Compliant: SAE J1810, typical standards for vibration, salt spray

Installation:

- Mounting kit: bracket and hardware
- Panel cut-outs:
 - 2-1/16" (52 mm) Gauges:* 2.098" +/- .02";
 - 3-3/8" (85.7 mm) Tachometers/Speedometers:* 3.4" +/- .02"

Graphics:

- Color scheme: White and green-on-black graphics with English scale and ISO symbols
- Configuration: English graphics on most; dual scale English and Metric on select units

Also Available:

- Combination tachometer/hourmeters
- Stewart Warner senders for electrical gauges
- Genuine Stewart Warner accessories



GAUGE Part Numbers:

Air Restriction Gauge (electrical)

P/N	Model	Scale	Ø in	Type	Bezel	Note
82384	Heavy Duty+	5-40 in-H ₂ O	2-1/16"	Electrical	Black	Air in H ₂ O vac

NOTES:

Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section, pages D5-D6 for matching tach and speedos.



82384

Ammeter

P/N	Model	Scale	Ø in	Type	Bezel	Shunt
82398	Heavy Duty+	300-0-300 A	2-1/16"	Battery	Black	413717

NOTES:

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section, pages D5-D6 for matching tach and speedos.



82398

Fuel Level GAUGE

P/N	Model	Scale	Ø in	Ω Ohms	Volts	Bezel	Type/Sender
82378	Heavy Duty+	E-1/2-F	2-1/16"	240-33.5	12	Black	See Sender Table

NOTES:

See Fuel Level Senders Table below for commonly used senders. For other sending unit options, please see Fuel Sender section. Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section, pages D5-D6 for matching tach and speedos.



82378

Fuel Level SENDERS

P/N	Tank Depth	Flange Position ^{*1}	Ω Ohms	Ground Type ^{*2}
385AB-P	4.5-24"	RH	240-33.5	Common (Stud)
385B-F	6-12"	LH	240-33.5	Common (Stud)
385C-F	6-12"	RH	240-33.5	Common (Stud)
391A-F	10-15"	LH	240-33.5	Common (Stud)
391B-F	10-15"	RH	240-33.5	Common (Stud)
391C-D	15.5-24"	LH	240-33.5	Common (Stud)
391D-D	15.5-24"	RH	240-33.5	Common (Stud)
391PX-D	27-36"	RH	240-33.5	Common (Stud)

NOTES:

*1 = Fuel sender installations support either a right hand (RH) or left hand (LH) configuration. Fixed arm senders may be available for a custom solution.

*2 = Custom units available for isolated ground, consult with salesperson.

For other sending unit options, please see Fuel Sender section.



391D-D

GAUGE Part Numbers:



82354



82358



82363



82372



82373



82741



82365

Pressure Gauges – OIL

P/N	Model	Scale (PSI)	Ø in	Ω Ohms	Volts	Bezel	Type	Sender
82354	Heavy Duty+	0-80	2-1/16"	240-33.5	12	Black	Elec.	279A or 82892
82358	Heavy Duty+	0-100	2-1/16"	240-33.5	12	Black	Elec.	279B-F or 82893 *1
82363	Heavy Duty+	5-80	2-1/16"	N/A	N/A	Black	Mech.	N/A *2
82372	Heavy Duty+	5-100	2-1/16"	N/A	N/A	Black	Mech.	N/A *2
82373	Heavy Duty+	10-150	2-1/16"	N/A	N/A	Black	Mech.	N/A *2
82728	Heavy Duty+	0-100 PSI/ 0-690 kPa	2-1/16"	240-33.5	12	Black	Elec.	279B-F or 82893 *1
82741	Heavy Duty+	5-100 PSI/ 34-690 kPa	2-1/16"	N/A	N/A	Black	Mech.	N/A *2

NOTES:

*1 = Use 82893 Sender with 100 psi Fuel Pressure Gauges for Marine Applications.

*2 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

For other sending unit options, please see Pressure Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages D5-D6 for matching tachometers and speedometers.

Pressure Gauge – TRANSMISSION OIL (mech.)

P/N	Model	Scale (PSI)	Ø in	Bezel	Type	Tubing *1
82365	Heavy Duty+	20-300	2-1/16"	Black	Mechanical	82553-F (6') or 366HM-F (16') *1
82380	Heavy Duty+	25-4000	2-1/16"	Black	Mechanical	82553-F (6') or 366HM-F (16') *1

NOTES:

*1 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages D5-D6 for matching tachometers and speedometers.

GAUGE Part Numbers:

Pyrometer							
P/N	Model	Scale (°F)	Scale Graduation	Ø in	Volts	Bezel	Sender
82357	Heavy Duty+	300-1,500	°F x 100	2-1/16"	12	Black	82505



82357

NOTES:

Thermocouple/lead wire and extensions sold separately. For available options, please see the Senders & Sensors section. Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages D5-D6 for matching tachometers and speedometers.

Speedometers (electrical)						
P/N	Model	Scale	Ø in	Type	Notes	Sender
82603	Heavy Duty+	0-30 MPH/ 0-50 km/h	3-3/8"	Electrical	Programmable; Odometer	82623B (Hall Effect)
82645	Heavy Duty+	5-85 MPH	3-3/8"	Electrical	Programmable; Odometer	82623B (Hall Effect)
82782	Heavy Duty+	0-160 MPH/ 0-240 km/h	3-3/8"	Electrical	Programmable; Odometer	82623B (Hall Effect)
82658	Heavy Duty+	0-140 km/h	3-3/8"	Electrical	Programmable; Metric Odometer	82623B (Hall Effect)



82603

NOTES:

For sending unit options, please see the Senders & Sensors section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See next page for matching tachometers and other pages in this section for matching 2" gauges.



82645



82658



82782

GAUGE Part Numbers:



82643



82647



82786



82696

Tachometers (electrical & mechanical)

P/N	Model	Scale (RPM)	Ø in	Type	Notes	Sender
82643	Heavy Duty+	0-3,500	3-3/8"	Electrical	RPM x 100; Alternator Application	Alternator
82644	Heavy Duty+	0-3,500	3-3/8"	Electrical	RPM x 100; Flywheel Application	82646 (Magnetic Pickup)
82647	Heavy Duty+	0-3,500	3-3/8"	Electrical	RPM x 100; Integrated Hourmeter	82623B (Hall Effect) *1
82786	Heavy Duty+	0-8,000	3-3/8"	Electrical	RPM x 100; 4, 6, and 8 Cylinder	Ignition Coil
82696	Heavy Duty+	0-3,000	3-3/8"	Mechanical	RPM x 100; .5:1 Ratio/Hourmeter	N/A

NOTES:

*1 = Programmable for alternator.

For sending unit options, please see the Senders & Sensors section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See previous page for matching speedometers and other pages in this section for matching 2" gauges.

Temperature Gauges – OIL (electrical)

P/N	Model	Scale (°F or °C)	Ø in	Match	Volts	Bezel	Sender
82731	Heavy Duty+	150 -350 °F / 65-176 °C	2-1/16"	SW	12	Black	280EE-F
82732	Heavy Duty+	150 -350 °F / 65-176 °C	2-1/16"	SW	12	Black	280EE-F
82375	Heavy Duty+	140-320 °F	2-1/16"	SW	12	Black	280EE-F

NOTES:

For other sending unit options, please see Temperature Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages D5-D6 for matching tachometers and speedometers.



82731



82732



82375

GAUGE Part Numbers:

Temperature Gauges – WATER (electrical)						
P/N	Model	Scale (°F or °C)	Ø in	Match	Bezel	Sender
82355	Heavy Duty+	100-265 °F	2-1/16"	SW	Black	280ED-F
82374	Heavy Duty+	100-240 °F	2-1/16"	SW	Black	280EC
82740	Heavy Duty+	100-240 °F/40-115 °C	2-1/16"	SW	Black	280EC

NOTES:

For other sending unit options, please see Temperature Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages D5-D6 for matching tachometers and speedometers.



82355



82374



82740

Voltmeters						
P/N	Model	Scale	Ø in	Volts	Bezel	Type/Notes
82376	Heavy Duty+	10-16	2-1/16"	12	Black	Battery Volts
82377	Heavy Duty+	20-32	2-1/16"	24	Black	Battery Volts

NOTES:

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages D5-D6 for matching tachometers and speedometers.



82376



82377

NOTE: When power to an electrical gauge is turned off, pointer may come to rest at any point on the dial.



Classic Standard oil pressure, water temperature, ammeter, fuel gauges



Standard PLUS 3-gauge panel

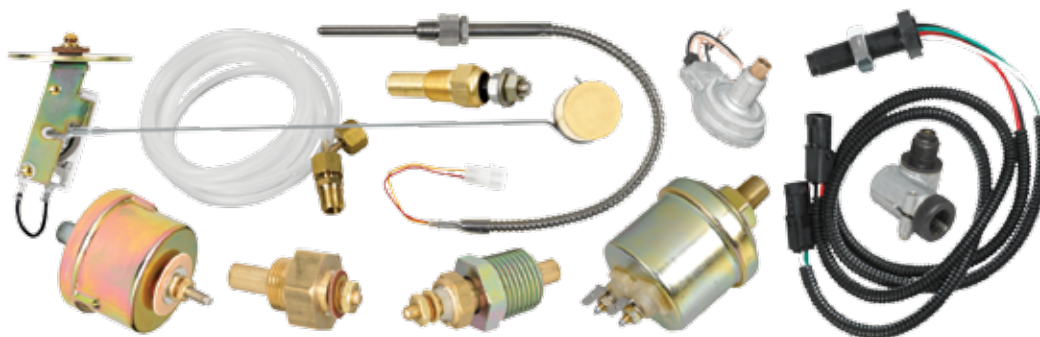
The Real Deal.

Standard instruments feature timeless white-on-black graphics, white pointers and flat stainless steel corrosion-resistant bezels. As Standard PLUS, they are available in 1-, 2- & 3-gauge mounting panels with external lighting.

These gauges are ideal for industrial applications, engine-powered equipment and specialty vehicles, especially where pricing is a factor.

Match with Stewart Warner senders for a perfectly tuned "system solution."

- Classic white graphics on black face dial with white pointer
- Flat bright stainless steel bezel
- Popular mechanism for proven performance in 2-1/32" diameter case (same size as original versions!)
- Standard gauges are housed in a sealed, non-illuminated case
- Standard Plus kits are clamshell packaged in single, double, and triple gauge mounting panels with external lighting



General Specifications:

Physical:

- Size: 2-1/32" (51.5 mm) nominal diameters;
- Movement:
 - Fuel:* High-torque air-core type, 90° pointer sweep
 - Ammeters:* 60° pointer sweep
 - Mechanical Gauges:* Bourdon tube type, 60° pointer sweep
- Bobbin: Sealed, reinforced PBT, internally dampened
- Case Construction:
 - Gauges:* steel, plated (corrosion-protected)
 - Tachs & Speedos:* rugged polymer
- Dials: Aluminum, painted, black
- Pointers: Aluminum, painted white (fuel gauge: white tip with black hub)
- Bezels: Polished stainless steel SAE step

Electrical:

- System voltage: 12V (10-16 VDC)
- Ohms/resistance: 240-33.5Ω standard Stewart Warner match
- Lighting: available when panel mounted (Standard PLUS configuration only)
- Protected from over-voltage & reverse polarity

Performance:

- General specifications: compliant with SAE and ISO standards
- Accuracy: Per SAE, +/- 1.5 angular degrees at primary calibration points and +/- 3 angular degrees at secondary calibration points based on nominal input

Environmental:

- Operating temperature: -40°C to +85°C
- Storage temperature: -55°C to +85°C
- Sealing:
 - Standard:* Front sealed IP 66, dustproof in rear
 - Standard PLUS:* Front sealed IP 66
- Compliant: SAE J1810, typical standards for vibration, salt spray

Installation:

- Mounting kit: bracket and hardware
- Panel cut-out: 2.063" +/- .02"

Graphics:

- Color scheme: White-on-black English graphics with English scale

Also Available:

- Stewart Warner senders for electrical gauges
- Genuine Stewart Warner accessories



GAUGE Part Numbers:



82200



82201



82202

Ammeters

P/N	Model	Scale	Ø in	Type	Bezel	Shunt
82200	Standard	30-0-30	2-1/32"	Standard	Polished	Internally Shunted
82201	Standard	20-0-20	2-1/32"	Standard	Polished	Internally Shunted
82202	Standard	60-0-60	2-1/32"	Standard	Polished	Internally Shunted

NOTES:

All gauge kits above include gauge mounting hardware.

These gauges are not illuminated unless purchased as part of Standard PLUS panel kits.

For panel kits and other options, please see Accessories section.

NOTE: When power to an electrical gauge is turned off, pointer may come to rest at any point on the dial.



82211

Fuel Level GAUGE

P/N	Model	Scale	Ø in	Ω Ohms	Volts	Bezel	Type/Sender
82211	Standard	E-1/2-F	2-1/32"	240-33.5	12	Polished	See Sender Table

NOTES:

See Fuel Level Senders Table below for commonly used senders. For other sending unit options, please see Fuel Sender section.

Gauge kit above includes gauge mounting hardware.

Standard gauges are not illuminated unless purchased as part of Standard PLUS panel kits.

For panel kits and other options, please see Accessories section.

Fuel Level SENDERS

P/N	Tank Depth	Flange Position ^{*1}	Ω Ohms	Ground Type ^{*2}
385AB-P	4.5-24"	RH	240-33.5	Common (Stud)
385B-F	6-12"	LH	240-33.5	Common (Stud)
385C-F	6-12"	RH	240-33.5	Common (Stud)
391A-F	10-15"	LH	240-33.5	Common (Stud)
391B-F	10-15"	RH	240-33.5	Common (Stud)
391C-D	15.5-24"	LH	240-33.5	Common (Stud)
391D-D	15.5-24"	RH	240-33.5	Common (Stud)
391PX-D	27-36"	RH	240-33.5	Common (Stud)

NOTES:

*1 = Fuel sender installations support either a right hand (RH) or left hand (LH) configuration. Fixed arm senders may be available for a custom solution.

*2 = Custom units available for isolated ground, consult with salesperson.

For other sending unit options, please see Fuel Sender section.



391D-D

GAUGE Part Numbers:

Temperature Gauges – WATER						
P/N	Model	Scale (°F or °C)	Ø in	Type	Bezel	Tubing
82210-36	Standard	100-250 °F	2-1/32"	Mechanical	Polished	Length: 36"
82210-48	Standard	100-250 °F	2-1/32"	Mechanical	Polished	Length: 48"
82210-60	Standard	100-250 °F	2-1/32"	Mechanical	Polished	Length: 60"
82210-72	Standard	100-250 °F	2-1/32"	Mechanical	Polished	Length: 72"
82210-144	Standard	100-250 °F	2-1/32"	Mechanical	Polished	Length: 144"



82210-48

NOTES:

Tubing included with mechanical gauge kits above. Part number suffix = tubing length (inches) included with gauge (e.g. -72 = 72" tubing.) **WARNING:** The tubing on mechanical temperature gauges is gas-filled and cannot be field-altered without damaging the gauge.

All gauge kits above include gauge mounting hardware.

Standard gauges are not illuminated unless purchased as part of Standard PLUS panel kits.

For panel kits and other options, please see Accessories section.



82207

Pressure Gauges – OIL (mechanical)							
P/N	Model	Scale (PSI)	Ø in	Volts	Bezel	Type	Tubing *1
82207	Standard	0-50	2-1/32"	12	Polished	Mechanical	82553-F (6') or 366HM-F (16')
82208	Standard	0-80	2-1/32"	12	Polished	Mechanical	82553-F (6') or 366HM-F (16')
82209	Standard	0-100	2-1/32"	12	Polished	Mechanical	82553-F (6') or 366HM-F (16')



82208

NOTES:

*1 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

All gauge kits above include gauge mounting hardware.

Standard gauges are not illuminated unless purchased as part of Standard PLUS panel kits.

For panel kits and other options, please see Accessories section.



82209

STANDARD PLUS Panels with External Lighting				
P/N	Range	Model	Type	Note
82213B (Special Order)	0-100 PSI	Single	Mechanical Oil Pressure	6 ft. tubing kit w/fittings and 12V lighting
82216B	0-100 PSI; 100-250 °F	Double	Pressure/ Temperature	6 ft. tubing kit w/fittings and 12V lighting
82217B	60-0-60A; 0-100 PSI; 100-250 °F	Triple	Ammeter/ Pressure/ Temperature	6 ft. tubing kit w/fittings and 12V lighting

KITS INCLUDE: Mounting panel and hardware, light kit installation instructions and additional accessories as indicated above. **WARNING:** The tubing on mechanical temperature gauges is gas-filled and cannot be field-altered without damaging the gauge.



82213B



82216B



82217B



Classic Wings water temperature, oil pressure, tachometer, speedometer, fuel and volt gauges

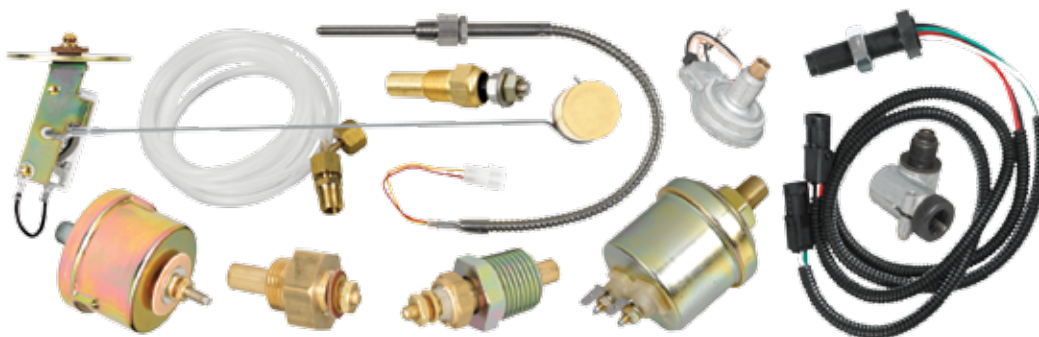
1940s “Retro” Styling – Modern Engineering.

Wings™ is a blast from the past featuring our famous 1940s Wings logo, domed lens, unique teardrop pointer and stainless steel bezels with white or black dials – with the quality and reliability of modern Stewart Warner products!

These are ideal for street rods, classic cars or trucks and automotive enthusiasts everywhere and are also available as point-of-purchase kits with senders for easy installation.

Match with Stewart Warner senders for a perfectly tuned “system solution.”

- Nostalgic styling from the '40s and '50s, but with reliable modern construction
- Distinctive SW Wings logo, teardrop pointer with crescent moon tail
- Available versions include: white dial with black graphics or the reverse – black dial with white graphics
- Chrome SAE step bezel, convex glass lens
- Excellent night-time illumination
- Protected from overvoltage and reverse polarity
- Front-sealed, dust-proof in rear



General Specifications:

Physical:

- Sizes:
 - Gauges:* 2-1/16" (52 mm) nominal diameter;
 - Tachometers/Speedometers:* 3-3/8" (85.7 mm) diameter nominal
- Movement:
 - Electrical Gauges:* High-torque air-core type, 90° pointer sweep
 - Mechanical Gauges:* Bourdon tube type, 270° pointer sweep
 - Tachometers & Speedometers:* High-torque air-core type or electro-mechanical, 270° pointer sweep
- Bobbin: Sealed, reinforced PBT, internally dampened
- Case Construction:
 - Gauges:* steel, plated (corrosion-protected)
 - Tachs & Speedos:* rugged polymer
- Dials: Aluminum, painted, black or white
- Pointers: white or black molded plastic
- Bezels: Chrome SAE step with domed glass lens

Electrical:

- System voltage: 12V (10-16 VDC) or 24V nominal (20-32 VDC – requires adapter)
- Ohms/resistance: 240-33.5Ω standard Stewart Warner match; 73-10 and 0-90Ω also available
- Lighting: 12V, patented light ring
- Connections: #8-32 studs
- Protected from over-voltage & reverse polarity

Performance:

- General specifications: compliant with SAE and ISO standards
- Accuracy: Per SAE, +/- 1.5 angular degrees at primary calibration points and +/- 3 angular degrees at secondary calibration points based on nominal input

Environmental:

- Operating temperature: -40°C to +85°C
- Storage temperature: -55°C to +85°C
- Sealing: Front sealed IP 66, dustproof in rear
- Compliant: SAE J1810, typical standards for vibration, salt spray

Installation:

- Mounting kit: bracket and hardware
- Panel cut-outs:
 - 2-1/16" (52 mm) Gauges:* 2.098" +/- .02";
 - 3-3/8" (85.7 mm) Tachometers/Speedometers:* 3.4" +/- .02"

Clock Specifications:

- Operating Voltage: 12-24 VDC
- Power Consumption: < .3 watts at 12 VDC
- Accuracy: Better than +/- .02% (Quartz Crystal for accurate timing)
- Operating Temperature: -30°C to +65°C
- Storage Temperature: -55°C to +85°C
- Vibration Resistance: Withstands 10-75 Hz at 1-8 Gs
- Protected From: Alternator load dump, inductive switching, reverse polarity
- Hands: Plastic
- Life Expectancy: 100,000 hours

Graphics:

- Color scheme: White-on-black or black-on-white graphics with English scale; contrasting pointer
- Configuration: English graphics

Also Available:

- Matching clock and Motor Minder vacuum gauge (2-1/6" diameter)
- Stewart Warner senders for electrical gauges
- Genuine Stewart Warner accessories

GAUGE Part Numbers:



82784



82785

Clocks						
P/N	Model	Scale	Ø in	Volts	Bezel/ Dial	Time Adjustment
82784	Wings	1-12 hours / 0-60 seconds	2-1/16"	12-24	Polished/ White	Front Rotary Knob
82785	Wings	1-12 hours / 0-60 seconds	2-1/16"	12-24	Polished/ Black	Front Rotary Knob

NOTES:

All clock kits above include mounting hardware.

Replacement wedge-base light kits are available (Order Datcon brand P/N 71224-00 for 12-volt or 71224-01 for 24-volt applications.)

For panel kits and other options, please see Accessories section.

See pages F6-F7 for matching tachometers and speedometers.



82471



82472

Fuel Level GAUGES							
P/N	Model	Scale	Ø in	Ω Ohms	Volts	Bezel/ Dial	Type/Sender
82471	Wings	E-1/2-F	2-1/16"	240-33.5	12	Polished/ White	See Sender Table
82472	Wings	E-1/2-F	2-1/16"	240-33.5	12	Polished/ Black	See Sender Table
82495	Wings	E-1/2-F	2-1/16"	73-10	12	Polished/ White	Use Ford Sender
82496	Wings	E-1/2-F	2-1/16"	73-10	12	Polished/ Black	Use Ford Sender
82493	Wings	E-1/2-F	2-1/16"	0-90	12	Polished/ White	See Sender Table
82494	Wings	E-1/2-F	2-1/16"	0-90	12	Polished/ Black	See Sender Table

NOTES:

See Fuel Level Senders Table on next page for commonly used senders. For other sending unit options, please see Fuel Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages F6-F7 for matching tachometers and speedometers.

GAUGE Part Numbers:

Analog Gauges

Fuel Level SENDERS

P/N	Tank Depth	Flange Position ^{*1}	Ω Ohms	Ground Type ^{*2}
385AB-P	4.5-24"	RH	240-33.5	Common (Stud)
385B-F	6-12"	LH	240-33.5	Common (Stud)
385C-F	6-12"	RH	240-33.5	Common (Stud)
391A-F	10-15"	LH	240-33.5	Common (Stud)
391B-F	10-15"	RH	240-33.5	Common (Stud)
391C-D	15.5-24"	LH	240-33.5	Common (Stud)
391D-D	15.5-24"	RH	240-33.5	Common (Stud)
391PX-D	27-36"	RH	240-33.5	Common (Stud)
439361-F	10-15"	LH	0-90	Common (Stud)
392A-F	10-15"	LH	0-90	Packard Type
439362-F	10-15"	RH	0-90	Common (Stud)
439363-D	15.5-24"	LH	0-90	Common (Stud)
439364-D	15.5-24"	RH	0-90	Common (Stud)



391D-D

NOTES:

*1 = Fuel sender installations support either a right hand (RH) or left hand (LH) configuration. Fixed arm senders may be available for a custom solution.

*2 = Custom units available for isolated ground, consult with salesperson.

For other sending unit options, please see Fuel Sender section.

Pressure Gauges – AIR (mechanical)

P/N	Model	Scale (PSI)	Ø in	Bezel/Dial	Type	Tubing Kit
82487	Wings	10-150	2-1/16"	Polished/White	Mechanical	82553-F (6') or 366HM-F (16') ^{*1}
82488	Wings	10-150	2-1/16"	Polished/Black	Mechanical	82553-F (6') or 366HM-F (16') ^{*1}



82487



82488

NOTES:

*1 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages F6-F7 for matching tachometers and speedometers.

NOTE: When power to an electrical gauge is turned off, pointer may come to rest at any point on the dial.

GAUGE Part Numbers:



82483



82484



82474



82475

Pressure Gauges – AIR SUSPENSION (mech.)

P/N	Model	Scale (PSI)	Ø in	Bezel/Dial	Type	Tubing Kit
82483	Wings	2-100	2-1/16"	Polished/White	Mechanical	82553-F (6') or 366HM-F (16') *1
82484	Wings	2-100	2-1/16"	Polished/Black	Mechanical	82553-F (6') or 366HM-F (16') *1

NOTES:

*1 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

All gauge kits above include gauge mounting hardware.

No light kits are available for this gauge.

For panel kits and other options, please see Accessories section.

See pages F6-F7 for matching tachometers and speedometers.

Pressure Gauges – OIL

P/N	Model	Scale (PSI)	Ø in	Ω Ohms	Volts	Bezel/Dial	Type	Sender/Tubing
82473	Wings	0-80	2-1/16"	240-33.5	12	Polished/White	Elec.	279A
82474	Wings	0-80	2-1/16"	240-33.5	12	Polished/Black	Elec.	279A
82475	Wings	0-80	2-1/16"	N/A	N/A	Polished/White	Mech.	82553-F (6') or 366HM-F (16') *1
82476	Wings	0-80	2-1/16"	N/A	N/A	Polished/Black	Mech.	82553-F (6') or 366HM-F (16') *1

NOTES:

*1 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

For other sending unit options, please see Pressure Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages F6-F7 for matching tachometers and speedometers.

GAUGE Part Numbers:

Pyrometer							
P/N	Model	Scale (°F)	Scale Graduation	Ø in	Volts	Bezel/Dial	Sender
82485	Wings	300-1,500	°F x 100	2-1/16"	12	Polished/White	82505

NOTES:

Thermocouple/lead wire and extensions sold separately. For available options, please see Senders & Sensors section. Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages F6-F7 for matching tachometers and speedometers.

**NOTE: 82485
PYROMETER IS A
SPECIAL ORDER ITEM.**

Speedometers (electrical & mechanical)						
P/N	Model	Scale (MPH)	Ø in	Type	Bezel/Dial	Sender
82661	Wings	0-160	3-3/8"	Electrical	Polished/White	82623B (Hall Effect)
82662	Wings	0-160	3-3/8"	Electrical	Polished/Black	82623B (Hall Effect)
82663	Wings	0-160	3-3/8"	Mechanical	Polished/White	N/A
82664	Wings	0-160	3-3/8"	Mechanical	Polished/Black	N/A
82669	Wings	0-120	3-3/8"	Electrical	Polished/White	82623B (Hall Effect)
82670	Wings	0-120	3-3/8"	Electrical	Polished/Black	82623B (Hall Effect)

NOTES:

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See next page for matching tachometers and other pages in this section for matching 2" gauges.



82661



82662



82670



82669



82663

GAUGE Part Numbers:



82659



82660



82671



82672

Tachometers (electrical)

P/N	Model	Scale (RPM)	Ø in	Type	Bezel/Dial	Notes	Sender
82659	Wings	0-8,000	3-3/8"	Electrical	Polished/White	RPM-Hundreds; 4, 6, 8-cylinder	Ignition Coil
82660	Wings	0-8,000	3-3/8"	Electrical	Polished/Black	RPM-Hundreds; 4, 6, 8-cylinder	Ignition Coil
82671	Wings	0-3,500	3-3/8"	Electrical	Polished/White	RPM-Hundreds	82623B (Hall Effect) *1
82672	Wings	0-3,500	3-3/8"	Electrical	Polished/Black	RPM-Hundreds	82623B (Hall Effect) *1
82673	Wings	0-3,500	3-3/8"	Electrical	Polished/White	RPM-Hundreds; Flywheel Application	82646 (Magnetic Pickup)
82674	Wings	0-3,500	3-3/8"	Electrical	Polished/Black	RPM-Hundreds; Flywheel Application	82646 (Magnetic Pickup)

NOTES:

*1 = Programmable for alternator.

For sending unit options, please see the Senders & Sensors section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See previous page for matching speedometers and other pages in this section for matching 2" gauges.



GAUGE Part Numbers:

Temperature Gauges – OIL (electrical)

P/N	Model	Scale (°F)	Ø in	Match	Volts	Bezel/Dial	Sender
82489	Wings	140-320	2-1/16"	SW	12	Polished/White	280EE-F
82490	Wings	140-320	2-1/16"	SW	12	Polished/Black	280EE-F

NOTES:

For other sending unit options, please see Temperature Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages F6-F7 for matching tachometers and speedometers.



82489

Temperature Gauges – WATER

P/N	Model	Scale (°F)	Ø in	Match	Bezel/Dial	Type/Tubing/Sender *1 *2
82477	Wings	100-240	2-1/16"	SW	Polished/White	Electrical/280EC
82478	Wings	100-240	2-1/16"	SW	Polished/Black	Electrical/280EC
82479-72	Wings	100-265	2-1/16"	SW	Polished/White	Mechanical/72" Capillary *1
82480-72	Wings	100-265	2-1/16"	SW	Polished/Black	Mechanical/72" Capillary *1
82479-96	Wings	100-265	2-1/16"	SW	Polished/White	Mechanical/96" Capillary *1
82480-96	Wings	100-265	2-1/16"	SW	Polished/Black	Mechanical/96" Capillary *1

NOTES:

*1 = Tubing included with mechanical gauge kits above. Part number suffix = tubing length (inches) included with gauge (e.g. -72 = 72" tubing.) **WARNING: The tubing on mechanical temperature gauges is gas-filled and cannot be field-altered without damaging the gauge.**

For other sending unit options, please see Temperature Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages F6-F7 for matching tachometers and speedometers.



82477



82478



82480-72

GAUGE Part Numbers:



82180



82176

Vacuum Fuel Economy Gauge "Motor Minder" (mechanical)						
P/N	Model	Scale *1	Ø in	Type	Bezel/ Dial	Tubing *2
82180	Wings	0-30 In-Hg / Color Band	2-1/16"	Mechanical	Polished/ White	(Tee may be required)
82176	Wings	0-30 In-Hg / Color Band	2-1/16"	Mechanical	Polished/ Black	(Tee may be required)

NOTES:

*1 = Dials are marked "Vacuum in Inches" (Gauge measures vacuum in In-Hg.) Generalized fuel economy/engine speed ranges are indicated on the scale.

*2 = Use tubing kit P/N 82553-F (6') or 366HM-F (16'). Tee fitting may be required.

Gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages F6-F7 for matching tachometers and speedometers.



82491



82492

Vacuum/Boost Gauge (mechanical only)						
P/N	Model	Scale *1	Ø in	Type	Bezel/ Dial	Tubing *2
82491	Wings	0-30 In-Hg/ 0-40 PSI	2-1/16"	Mechanical	Polished/ White	(Tee may be required)
82492	Wings	0-30 In-Hg/ 0-40 PSI	2-1/16"	Mechanical	Polished/ Black	(Tee may be required)

NOTES:

*1 = Scale indicates vacuum in In-Hg and boost in PSI, as measured by gauge.

*2 = Use tubing kit P/N 82553-F (6') or 366HM-F (16'). Tee fitting may be required.

Gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages F6-F7 for matching tachometers and speedometers.

GAUGE Part Numbers:

Voltmeters						
P/N	Model	Scale	Ø in	Volts	Bezel/Dial	Type/Notes
82481	Wings	10-16	2-1/16"	12	Polished/White	Battery Charge Volts
82482	Wings	10-16	2-1/16"	12	Polished/Black	Battery Charge Volts

NOTES:

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See pages F6-F7 for matching tachometers and speedometers.



82481



82482

WINGS GAUGE KITS:



Dashboard in a Box!

Stewart Warner Wings™ automotive gauge sets are available in convenient kit form for automotive applications. Each kit contains the essential instrument panel gauges. Other matching gauges available...please see previous pages.

And they're matched with Stewart Warner senders for a perfectly tuned "system solution."

- White or black dials with SW Wings logo and teardrop pointer with crescent moon tail
- Low-profile SAE step bezel
- Unique light ring for superior night-time illumination
- Protected from overvoltage and reverse polarity
- Front-sealed, dust-proof in rear

GAUGE KIT Part Numbers:



Genuine Wings 5-Gauge Kit (Electrical) kit contents: 82228 (White) – 82229 (Black)

Gauge Type	P/N White	P/N Black	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Electric Speedometer	82661	82662	0-160 MPH	3-3/8"	Polished	Use Existing Connection or Included Hall Effect Sensor
Electric Oil Pressure	82473	82474	0-80 PSI	2-1/16"	Polished	Electrical Pressure Sender
Electric Water Temperature	82477	82478	100-240 °F	2-1/16"	Polished	Electrical Temperature Sender
Electric Fuel Level	82471	82472	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (float arm type, 240-33.5 Ohms)
Electric Voltmeter	82481	82482	10-16V	2-1/16"	Polished	Use Existing Connection



Genuine Wings 5-Gauge Kit (Mechanical Speedometer) kit contents: 82226 (White) – 82227 (Black)

Gauge Type	P/N White	P/N Black	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Mechanical Speedometer	82663	82664	0-160 MPH	3-3/8"	Polished	Use Existing Mechanical Cable Connection to Transmission (mechanical take-off may be req'd.)
Electric Oil Pressure	82473	82474	0-80 PSI	2-1/16"	Polished	Electrical Pressure Sender
Electric Water Temperature	82477	82478	100-240 °F	2-1/16"	Polished	Electrical Temperature Sender
Electric Fuel Level	82471	82472	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (float arm type, 240-33.5 Ohms)
Electric Voltmeter	82481	82482	10-16V	2-1/16"	Polished	Use Existing Connection

NOTES:

Gauge kits above include gauge mounting hardware and applicable senders/tubing, except where otherwise noted.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See preceding pages for matching gauges.

GAUGE KIT Part Numbers:



Genuine Wings 6-Gauge Kit (Electrical) kit contents: 82222 (White) – 82223 (Black)

Gauge Type	P/N White	P/N Black	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Electric Speedometer	82661	82662	0-160 MPH	3-3/8"	Polished	Use Existing Connection or Included Hall Effect Sensor
Electric Tachometer	82659	82660	0-8,000 rpm	3-3/8"	Polished	Use Existing Connection
Electric Oil Pressure	82473	82474	0-80 PSI	2-1/16"	Polished	Electrical Pressure Sender
Electric Water Temperature	82477	82478	100-240 °F	2-1/16"	Polished	Electrical Temperature Sender
Electric Fuel Level	82471	82472	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (float arm type, 240-33.5 Ohms)
Electric Voltmeter	82481	82482	10-16V	2-1/16"	Polished	Use Existing Connection



Genuine Wings 6-Gauge Kit (Mechanical Speedometer) kit contents: 82224 (White) – 82225 (Black)

Gauge Type	P/N White	P/N Black	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Mechanical Speedometer	82663	82664	0-160 MPH	3-3/8"	Polished	Use Existing Mechanical Cable Connection to Transmission (mechanical take-off may be req'd.)
Electric Tachometer	82659	82660	0-8,000 rpm	3-3/8"	Polished	Use Existing Connection
Mechanical Oil Pressure	82475	82476	0-80 PSI	2-1/16"	Polished	82553-F (6 ft. tube)
Mechanical Water Temperature	82479-72	82480-72	100-240 °F	2-1/16"	Polished	Mechanical/72" Capillary
Electric Fuel Level	82471	82472	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (float arm type, 240-33.5 Ohms)
Electric Voltmeter	82481	82482	10-16V	2-1/16"	Polished	Use Existing Connection

NOTES:

Gauge kits above include gauge mounting hardware and applicable senders/tubing, except where otherwise noted.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See preceding pages for matching gauges.



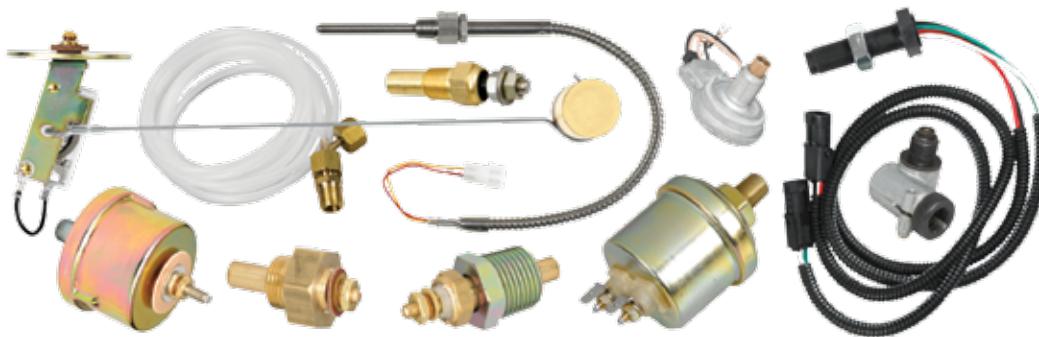
Power Series gauges with **burgundy**, **blue/gray** and **titanium** highlights: voltmeter, speedometer, oil pressure, water temperature, tachometer, and fuel gauges

Power Series: A Modern Classic.

Electrical & mechanical instruments with 1960s styling cues – a refinement of the original SW Custom-Deluxe product line used on “Big 3” muscle cars. Available with burgundy, titanium or blue/gray accent colors, Power Series™ features silver on black graphics with a unique silver insert in the dial, specially designed white & black pointer and 12-volt lamps. Units are sold in 5- or 6-gauge kits with senders – or individually.

- Available in three accent colors – burgundy, titanium and blue/gray – to complement the car’s color scheme
- Classic look and feel with modern colors and bold, easy-to-read graphics
- Polished stainless steel SAE step bezel
- Excellent night-time illumination
- Protected from overvoltage and reverse polarity
- Front-sealed, dust-proof in rear

Match with Stewart Warner senders for a perfectly tuned “system solution.”



General Specifications:

Physical:

- Sizes:
 - Gauges:* 2-1/16" (52 mm) nominal diameter;
 - Tachometers/Speedometers:* 3-3/8" (85.7 mm) diameter nominal
- Movement:
 - Electrical Gauges:* High-torque air-core type, 90° pointer sweep
 - Mechanical Gauges:* Bourdon tube type, 270° pointer sweep
 - Tachometers & Speedometers:* High-torque air-core type or electro-mechanical, 270° pointer sweep
- Bobbin: Sealed, reinforced PBT, internally dampened
- Case Construction:
 - Gauges:* steel, plated (corrosion-protected)
 - Tachs & Speedos:* rugged polymer
- Dials: Aluminum, painted, black with silver disc center and burgundy, titanium or blue/gray colored accent ring
- Pointers: Metal, white tip, black tail
- Bezels: Polished stainless steel SAE step

Electrical:

- System voltage: 12V (10-16 VDC) or 24V nominal (20-32 VDC – requires adapter)
- Ohms/resistance: 240-33.5Ω standard Stewart Warner match
- Lighting: 12V, patented light ring
- Connections: #8-32 studs
- Protected from over-voltage & reverse polarity

Performance:

- General specifications: compliant with SAE and ISO standards
- Accuracy: Per SAE, +/- 1.5 angular degrees at primary calibration points and +/- 3 angular degrees at secondary calibration points based on nominal input

Environmental:

- Operating temperature: -40°C to +85°C
- Storage temperature: -55°C to +85°C
- Sealing: Front sealed IP 66, dustproof in rear
- Compliant: SAE J1810, typical standards for vibration, salt spray

Installation:

- Mounting kit: bracket and hardware
- Panel cut-outs:
 - 2-1/16" (52 mm) Gauges:* 2.098" +/- .02";
 - 3-3/8" (85.7 mm) Tachometers/Speedometers:* 3.4" +/- .02"

Graphics:

- Color scheme: Silver-on-black graphics with English scale; burgundy, blue/gray or titanium accent ring
- Configuration: English graphics

Also Available:

- Stewart Warner senders for electrical gauges
- Genuine Stewart Warner accessories



GAUGE Part Numbers:



82515



82516



82517

Fuel Level GAUGES							
P/N	Model	Scale	Ø in	Ω Ohms	Volts	Bezel/ Dial	Type/Sender
82515	Power Series	E-1/2-F	2-1/16"	240-33.5	12	Polished/ Burgundy	See Sender Table
82516	Power Series	E-1/2-F	2-1/16"	240-33.5	12	Polished/ Titanium	See Sender Table
82517	Power Series	E-1/2-F	2-1/16"	240-33.5	12	Polished/ Blue/Gray	See Sender Table

NOTES:

See Fuel Level Senders Table below for commonly used senders. For other sending unit options, please see Fuel Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page G5 for matching tachometers and speedometers.

NOTE: When power to an electrical gauge is turned off, pointer may come to rest at any point on the dial.

SENDING UNIT Part Numbers:



391D-D

Fuel Level SENDERS				
P/N	Tank Depth	Flange Position ^{*1}	Ω Ohms	Ground Type ^{*2}
385AB-P	4.5-24"	RH	240-33.5	Common (Stud)
385B-F	6-12"	LH	240-33.5	Common (Stud)
385C-F	6-12"	RH	240-33.5	Common (Stud)
391A-F	10-15"	LH	240-33.5	Common (Stud)
391B-F	10-15"	RH	240-33.5	Common (Stud)
391C-D	15.5-24"	LH	240-33.5	Common (Stud)
391D-D	15.5-24"	RH	240-33.5	Common (Stud)
391PX-D	27-36"	RH	240-33.5	Common (Stud)

NOTES:

*1 = Fuel sender installations support either a right hand (RH) or left hand (LH) configuration. Fixed arm senders may be available for a custom solution.

*2 = Custom units available for isolated ground, consult with salesperson.

For other sending unit options, please see Fuel Sender section.

GAUGE Part Numbers:

Pressure Gauges – OIL								
P/N	Model	Scale (PSI)	Ø in	Ω Ohms	Volts	Bezel/Dial	Type	Sender/ Tubing kit
82752	Power Series	0-80	2-1/16"	240-33.5	12	Polished/ Burgundy	Elec.	279A
82755	Power Series	0-80	2-1/16"	N/A	N/A	Polished/ Burgundy	Mech.	82553-F (6') or 366HM-F (16') *1
82756	Power Series	0-80	2-1/16"	240-33.5	12	Polished/ Titanium	Elec.	279A
82759	Power Series	0-80	2-1/16"	N/A	N/A	Polished/ Titanium	Mech.	82553-F (6') or 366HM-F (16') *1
82760	Power Series	0-80	2-1/16"	240-33.5	12	Polished/ Blue/Gray	Elec.	279A
82763	Power Series	0-80	2-1/16"	N/A	N/A	Polished/ Blue/Gray	Mech.	82553-F (6') or 366HM-F (16') *1

NOTES:

*1 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

For other sending unit options, please see Pressure Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page G5 for matching tachometers and speedometers.



82752



82755



82756



82760



82759



82763

GAUGE Part Numbers:



82839



82840



82841

Speedometers (electrical)						
P/N	Model	Scale (MPH)	Ø in	Type	Dial/Notes	Sender
82839	Power Series	0-160	3-3/8"	Electrical	Burgundy / with Odometer	82623B (Hall Effect)
82840	Power Series	0-160	3-3/8"	Electrical	Titanium / with Odometer	82623B (Hall Effect)
82841	Power Series	0-160	3-3/8"	Electrical	Blue/Gray / with Odometer	82623B (Hall Effect)

NOTES:

For sending unit options, please see the Senders & Sensors section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See below for matching tachometers and other pages in this section for matching 2" gauges.

Tachometers (electrical & mechanical)						
P/N	Model	Scale (RPM)	Ø in	Type	Dial/Engine Types	Sender
82845	Power Series	0-8,000	3-3/8"	Electrical	Burgundy; 4, 6, 8-cylinder	Ignition Coil
82837	Power Series	0-8,000	3-3/8"	Electrical	Titanium; 4, 6, 8-cylinder	Ignition Coil
82838	Power Series	0-8,000	3-3/8"	Electrical	Blue/Gray; 4, 6, 8-cylinder	Ignition Coil

NOTES:

For sending unit options, please see the Senders & Sensors section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See above for matching speedometers and other pages in this section for matching 2" gauges.



82845



82837



82838

GAUGE Part Numbers:

Temperature Gauges – WATER						
P/N	Model	Scale (°F)	Ø in	Match	Bezel/Dial	Type/Sender/Tubing
82753	Power Series	100-240	2-1/16"	SW	Polished/Burgundy	Electrical/280EC
82842	Power Series	100-265	2-1/16"	N/A	Polished/Burgundy	Mechanical/72" capillary *1
82757	Power Series	100-240	2-1/16"	SW	Polished/Titanium	Electrical/280EC
82843	Power Series	100-265	2-1/16"	N/A	Polished/Titanium	Mechanical/72" capillary *1
82761	Power Series	100-240	2-1/16"	SW	Polished/Blue/Gray	Electrical/280EC
82844	Power Series	100-265	2-1/16"	N/A	Polished/Blue/Gray	Mechanical/72" capillary *1

NOTES:

*1 = Tubing included with mechanical gauge kits above. **WARNING:** The tubing on mechanical temperature gauges is gas-filled and cannot be field-altered without damaging the gauge.

For other sending unit options, please see Temperature Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page G5 for matching tachometers and speedometers.



82753



82842



82757



82761



82843



82844

GAUGE Part Numbers:



82754



82758



82762

Voltmeters						
P/N	Model	Scale (VDC)	Ø in	Volts	Bezel/Dial	Notes
82754	Power Series	10-16	2-1/16"	12	Polished/Burgundy	Use Existing Connection
82758	Power Series	10-16	2-1/16"	12	Polished/Titanium	Use Existing Connection
82762	Power Series	10-16	2-1/16"	12	Polished/Blue/Gray	Use Existing Connection

NOTES:

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page G5 for matching tachometers and speedometers.

POWER SERIES GAUGE KITS:



Dashboard in a Box!

Stewart Warner Power Series™ gauge sets are available in convenient kit form for automotive applications. Each kit contains the essential instrument panel gauges. Other matching gauges available...please see previous pages.

And they're matched with Stewart Warner senders for a perfectly tuned "system solution."

- Classic look in 3 modern accent colors: burgundy, titanium and blue/gray
- Bold, easy-to-read graphics
- Low-profile bezel
- Excellent night-time illumination
- Protected from overvoltage and reverse polarity
- Front-sealed, dust-proof in rear

POWER SERIES GAUGE KITS:

Power Series 5-Gauge Kit (Electrical) kit contents: 82251 (Burgundy) – 82252 (Titanium) – 82253 (Blue/Gray)							
Gauge Type	P/N Burgundy	P/N Titanium	P/N Blue/Gray	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Electric Speedometer	82839	82840	82841	0-160 MPH	3-3/8"	Polished	Use Existing Connection or Included Hall Effect Sensor
Electric Oil Pressure	82752	82756	82760	0-80 PSI	2-1/16"	Polished	Electrical Pressure Sender
Electric Water Temperature	82753	82757	82761	100-240 °F	2-1/16"	Polished	Electrical Temperature Sender
Electric Fuel Level	82515	82516	82517	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (float arm type, 240-33.5 Ohms)
Electric Voltmeter	82754	82758	82762	10-16 V	2-1/16"	Polished	Use Existing Connection



82254

Power Series 5-Gauge Kit (Mechanical/Electrical) kit contents: 82254 (Burgundy) – 82255 (Titanium) – 82256 (Blue/Gray)							
Gauge Type	P/N Burgundy	P/N Titanium	P/N Blue/Gray	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Electric Speedometer	82839	82840	82841	0-160 MPH	3-3/8"	Polished	Use Existing Connection or Included Hall Effect Sensor
Mechanical Oil Pressure	82755	82759	82763	0-80 PSI	2-1/16"	Polished	82553-F (6 ft. tube)
Mechanical Water Temperature	82842	82843	82844	100-265 °F	2-1/16"	Polished	72" Capillary
Electric Fuel Level	82515	82516	82517	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (float arm type, 240-33.5 Ohms)
Electric Voltmeter	82754	82758	82762	10-16 V	2-1/16"	Polished	Use Existing Connection

NOTES:

Gauge kits above include gauge mounting hardware and applicable senders/tubing, except where otherwise noted.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See preceding pages for matching gauges.

POWER SERIES GAUGE KITS:

Power Series 6-Gauge Kit (Electrical) kit contents: 82245 (Burgundy) – 82246 (Titanium) – 82247 (Blue/Gray)

Gauge Type	P/N Burgundy	P/N Titanium	P/N Blue/Gray	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Electric Speedometer	82839	82840	82841	0-160 MPH	3-3/8"	Polished	Use Existing Connection or Included Hall Effect Sensor
Electric Tachometer	82845	82837	82838	8,000 RPM	3-3/8"	Polished	Use Existing Connection
Electric Oil Pressure	82752	82756	82760	0-80 PSI	2-1/16"	Polished	Electrical Pressure Sender
Electric Water Temperature	82753	82757	82761	100-240 °F	2-1/16"	Polished	Electrical Temperature Sender
Electric Fuel Level	82515	82516	82517	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (float arm type, 240-33.5 Ohms)
Electric Voltmeter	82754	82758	82762	10-16 V	2-1/16"	Polished	Use Existing Connection



82245



82249

Power Series 6-Gauge Kit (Mechanical/Electrical) kit contents: 82248 (Burgundy) – 82249 (Titanium) – 82250 (Blue/Gray)

Gauge Type	P/N Burgundy	P/N Titanium	P/N Blue/Gray	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Electric Speedometer	82839	82840	82841	0-160 MPH	3-3/8"	Polished	Use Existing Connection or Included Hall Effect Sensor
Electric Tachometer	82845	82837	82838	8,000 RPM	3-3/8"	Polished	Use Existing Connection
Mechanical Oil Pressure	82755	82759	82763	0-80 PSI	2-1/16"	Polished	82553-F (6 ft. tube)
Mechanical Water Temperature	82842	82843	82844	100-265 °F	2-1/16"	Polished	72" Capillary
Electric Fuel Level	82515	82516	82517	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (float arm type, 240-33.5 Ohms)
Electric Voltmeter	82754	82758	82762	10-16 V	2-1/16"	Polished	Use Existing Connection

NOTES:

Gauge kits above include gauge mounting hardware and applicable senders/tubing, except where otherwise noted.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See preceding pages for matching gauges.



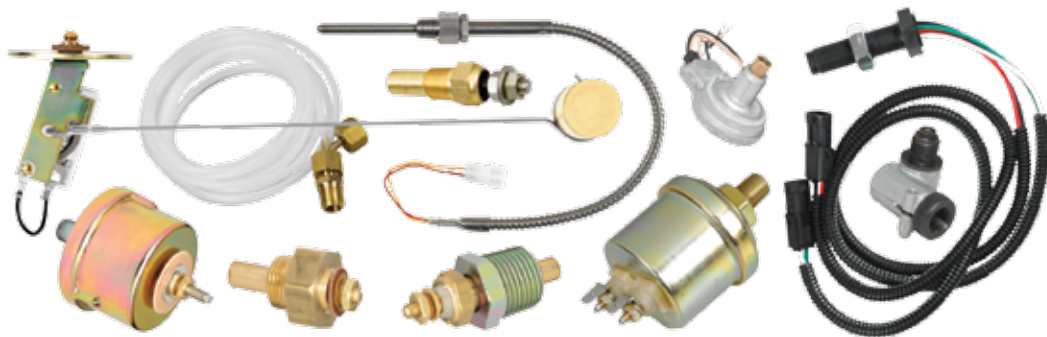
Classic Green Line speedometer, fuel, water temperature, volt, oil pressure and tachometer

Shelby GTs & Yenkos Had Them – So Can You!

You can't get more genuine than the original Custom Deluxe™ Green Line™ gauges from Stewart Warner! Original 1960s dial artwork was used to recreate our most requested line. And we didn't forget the other details: mechanical gauges have red pointers with silver hubs and ammeters even feature the original crescent pointer slot! Gauges are available in 2-1/6" and 2-5/8", speedos and tachs in 3-3/8" with full dial sweep.

Match with Stewart Warner senders for a perfectly tuned "system solution."

- Dials feature a brushed silver center disc, surrounded by the famous green line
- Polished stainless steel stepped bezel
- Ammeters feature the crescent-shaped pointer opening just like the originals
- Mechanical gauges feature red pointers with silver hub
- Polished stainless steel SAE step bezel
- Illuminated for readability at night
- Protected from overvoltage and reverse polarity
- Front-sealed, dust-proof in rear



General Specifications:

Physical:

- Sizes:
 - Gauges:* either 2-1/16" (52 mm) or 2-5/8" (67 mm) nominal diameters;
 - Tachometer/Speedometer:* 3-3/8" (85.7 mm) diameter nominal
- Movement:
 - Electrical Gauges:* High-torque air-core type, 90° pointer sweep
 - Ammeters:* 60° pointer sweep
 - Mechanical Gauges:* Bourdon tube type, 270° pointer sweep
 - Tachometer & Speedometer:* High-torque air-core type, 270° pointer sweep
- Bobbin: Sealed, reinforced PBT, internally dampened
- Case Construction:
 - Gauges:* steel, plated (corrosion-protected)
 - Tachs & Speedos:* rugged polymer
- Dials: Aluminum, painted, black
- Pointers: Aluminum, painted red tip, aluminum finish hub (ammeter: through-slot pointer – no visible hub)
- Bezels: Polished stainless steel SAE step

Electrical:

- System voltage: 12V (10-16 VDC)
- Ohms/resistance: 240-33.5Ω standard Stewart Warner match
- Lighting: 12V
- Connections: #8-32 studs
- Protected from over-voltage & reverse polarity

Performance:

- General specifications: compliant with SAE and ISO standards
- Accuracy: Per SAE, +/- 1.5 angular degrees at primary calibration points and +/- 3 angular degrees at secondary calibration points based on nominal input

Environmental:

- Operating temperature: -40°C to +85°C
- Storage temperature: -55°C to +85°C
- Sealing: Front sealed IP 66, dustproof in rear
- Compliant: SAE J1810, typical standards for vibration, salt spray

Installation:

- Mounting kit: bracket and hardware
- Panel cut-outs:
 - 2-1/16" (52 mm) Gauges:* 2.098" +/- .02";
 - 2-5/8" (67 mm) Gauges:* 2.603" +/- .02"
 - 3-3/8" (85.7 mm) Tachometer/Speedometer:* 3.4" +/- .02"

Graphics:

- Color scheme: White-on-black English graphics with English scale and the famous green line (color keyed dials available on select units)

Also Available:

- Matching Motor Minder vacuum gauge (2-1/6" diameter)
- Power Series™ gauges, a modernized "retro" line with burgundy, blue/gray or titanium rings around a brushed silver center
- Stewart Warner senders for electrical gauges
- Genuine Stewart Warner accessories



GAUGE Part Numbers:

Ammeters						
P/N	Model	Scale	Ø in	Type	Bezel	Shunt
359CE	Green Line	60-0-60	2-1/16"	Standard	Polished	Internally Shunted
690W	Green Line	60-0-60	2-5/8"	Standard	Polished	Internally Shunted

NOTES:

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page H4 for matching tachometer and speedometer.



690W

Fuel Level GAUGE							
P/N	Model	Scale	Ø in	Ω Ohms	Volts	Bezel	Type/Sender
301AW	Green Line	E-1/2-F	2-1/16"	240-33.5	12	Polished	See Sender Table

NOTES:

See Fuel Level Senders Table below for commonly used senders. For other sending unit options, please see Fuel Sender section.

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page H4 for matching tachometer and speedometer.



301AW

SENDING UNIT Part Numbers:

Fuel Level SENDERS				
P/N	Tank Depth	Flange Position ^{*1}	Ω Ohms	Ground Type ^{*2}
385AB-P	4.5-24"	RH	240-33.5	Common (Stud)
385B-F	6-12"	LH	240-33.5	Common (Stud)
385C-F	6-12"	RH	240-33.5	Common (Stud)
391A-F	10-15"	LH	240-33.5	Common (Stud)
391B-F	10-15"	RH	240-33.5	Common (Stud)
391C-D	15.5-24"	LH	240-33.5	Common (Stud)
391D-D	15.5-24"	RH	240-33.5	Common (Stud)
391PX-D	27-36"	RH	240-33.5	Common (Stud)

NOTES:

*1 = Fuel sender installations support either a right hand (RH) or left hand (LH) configuration. Fixed arm senders may be available for a custom solution.

*2 = Custom units available for isolated ground, consult with salesperson.

For other sending unit options, please see Fuel Sender section.



391D-D

NOTE: When power to an electrical gauge is turned off, pointer may come to rest at any point on the dial.

GAUGE Part Numbers:



306BB



360DP



530DH



531CC

Pressure Gauges – OIL								
P/N	Model	Scale (PSI)	Ø in	Ω Ohms	Volts	Bezel	Type	Sender/ Tubing
306BB	Green Line	0-80	2-1/16"	240-33.5	12	Polished	Electrical	279A
360DP	Green Line	0-100	2-1/16"	240-33.5	12	Polished	Mechanical	Tubing *1
691BS	Green Line	0-100	2-5/8"	240-33.5	12	Polished	Mechanical	Tubing *1

NOTES:

*1 = Use tubing kit P/N 82553-F (6') or 366HM-F (16') with mechanical pressure gauges.

For other sending unit options, please see Pressure Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page H4 for matching tachometer and speedometer.



691BS

Speedometer						
P/N	Model	Scale (MPH)	Ø in	Type	Notes	Sender
530DH	Green Line	0-160	3-3/8"	Electrical	Programmable; Odometer	82623B (Hall Effect)

NOTES:

For sending unit options, please see the Senders & Sensors section.

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See this page for matching tachometer and other pages in this section for matching 2" gauges.

Tachometer						
P/N	Model	Scale (RPM)	Ø in	Type	Notes	Sender
531CC	Green Line	0-8,000	3-3/8"	Electrical	RPM-Hundreds; 4, 6, 8 Cylinder	Ignition Coil

NOTES:

For sending unit options, please see the Senders & Sensors section.

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See this page for matching speedometer and other pages in this section for matching 2" gauges.

GAUGE Part Numbers:

Temperature Gauges – WATER						
P/N	Model	Scale (°F)	Ø in	Type	Bezel	Sender/ Tubing ^{*1 *2}
311CC	Green Line	60-240	2-1/16"	Electrical	Polished	280EA
361AT72	Green Line	100-250	2-1/16"	Mechanical	Polished	72" capillary ^{*1}
692H72	Green Line	100-250	2-5/8"	Mechanical	Polished	72" capillary ^{*1}

NOTES:

*1 = Tubing included with mechanical gauge kits above. Part number suffix = tubing length (inches) included with gauge (e.g. -72 = 72" tubing.)
WARNING: The tubing on mechanical temperature gauges is gas-filled and cannot be field-altered without damaging the gauge.

For other sending unit options, please see Temperature Sender section.

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page H4 for matching tachometer and speedometer.



361AT72



311CC



692H72

Vacuum Fuel Economy Gauge "Motor Minder" (mechanical)						
P/N	Model	Scale ^{*1}	Ø in	Type	Bezel	Tubing ^{*2}
82179	Green Line	0-30 In-Hg / Color Band	2-1/16"	Mechanical	Polished	(Tee may be required)

NOTES:

*1 = Dial is marked "Vacuum Inches" (Gauge measures vacuum in In-Hg.) Generalized fuel economy/engine speed ranges are indicated on the scale.

*2 = Use tubing kit P/N 82553-F (6") or 366HM-F (16"). Tee fitting may be required.

Gauge kit above includes gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page H4 for matching tachometer and speedometer.



82179



375T

Voltmeters						
P/N	Model	Scale	Ø in	Volts	Bezel	Type/Notes
375T	Green Line	10-16	2-1/16"	12	Polished	Battery Charge Volts/ Color Band
690TM	Green Line	10-16	2-5/8"	12	Polished	Battery Charge Volts/ Color Band

NOTES:

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page H4 for matching tachometer and speedometer.



690TM

GREEN LINE GAUGE KITS:



82177

Dashboard in a Box!

Stewart Warner Green Line automotive gauge sets are available in convenient kit form for automotive applications. Each kit contains the essential instrument panel gauges. Other matching gauges available...please see previous pages.

And they're matched with Stewart Warner senders for a perfectly tuned "system solution."

- Authentic original dial appearance, features a brushed silver center disc, surrounded by the famous green line
- Low-profile SAE step bezel
- Integral lighting for effective night-time illumination
- Protected from overvoltage and reverse polarity
- Front-sealed, dust-proof in rear

Green Line 6-Gauge Kit (Electrical) kit contents: 82177

Gauge Type	P/N	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Electric Speedometer	530DH	0-160 MPH	3-3/8"	Polished	Use Existing Connection or Included Hall Effect Sensor
Electric Tachometer	531CC	0-8,000 RPM	3-3/8"	Polished	Use Existing Connection
Electric Oil Pressure	306BB	0-80 PSI	2-1/16"	Polished	Electrical Pressure Sender
Electric Water Temperature	311CC	60-240 °F	2-1/16"	Polished	Electrical Temperature Sender
Electric Fuel Level	301AW	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (float arm type, 240-33.5 Ohms)
Electric Voltmeter	375T	10-16V	2-1/16"	Polished	Use Existing Connection

Green Line 6-Gauge Kit (Mechanical/Electrical) kit contents: 82178

Gauge Type	P/N	Scale	Ø in	Bezel	Sender/Tubing/Connection Included
Electric Speedometer	530DH	0-160 MPH	3-3/8"	Polished	Use Existing Connection or Included Hall Effect Sensor
Electric Tachometer	531CC	0-8,000 RPM	3-3/8"	Polished	Use Existing Connection
Mechanical Oil Pressure	360DP	0-100 PSI	2-1/16"	Polished	82553-F (6 ft. tube)
Mechanical Water Temperature	361AT72	100-250 °F	2-1/16"	Polished	Mechanical/72" Capillary
Electric Fuel Level	301AW	E-1/2-F	2-1/16"	Polished	Electrical Fuel Level Sender (float arm type, 240-33.5 Ohms)
Electric Voltmeter	375T	10-16V	2-1/16"	Polished	Use Existing Connection

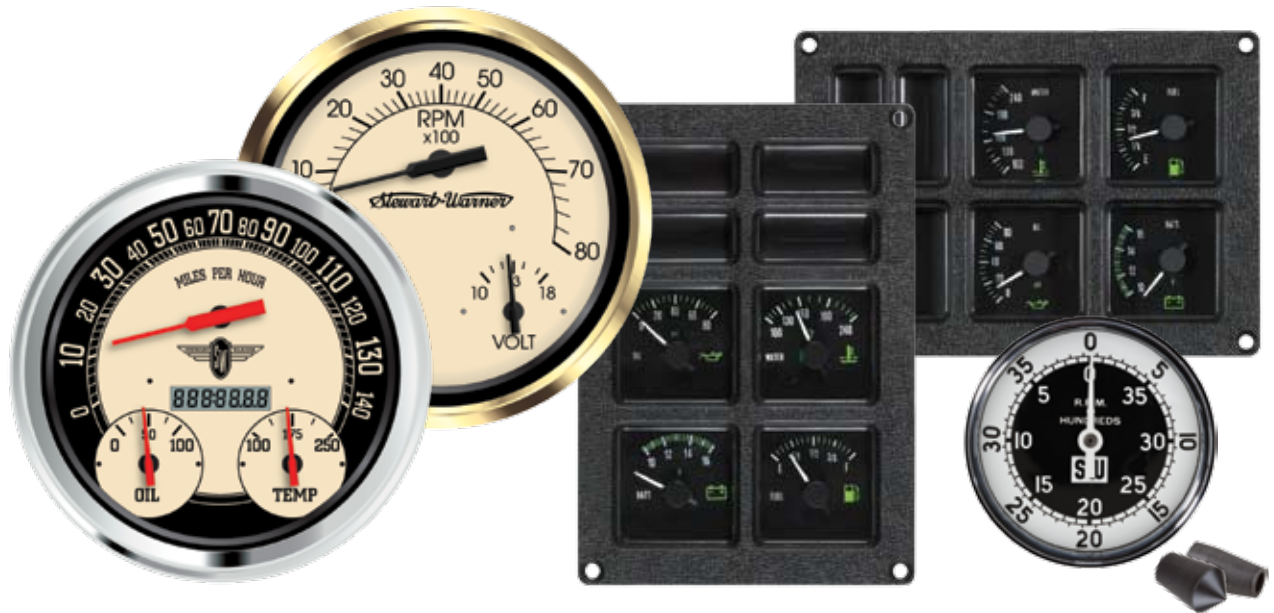
NOTES:

All gauge kits above include gauge mounting hardware.

12V or 24V light kits are sold separately. These are available for 5/8" and 1/2" light holes, in single-wire (grounds to gauge case) or two-wire (when ground cannot be made via gauge case) configurations. Please see Accessories section for list of available light kits.

For panel kits and other options, please see Accessories section.

See page H4 for matching tachometer and speedometer.



Specialty Products

Stewart Warner 3-in-1 Gauges, 4-Gauge Cluster Panels & Hand-held Tachometer

More Handy Items From Stewart Warner.

Our latest release of vintage-look products: new multifunction 3-in-1 instruments that combine three of the most useful gauges into a single 4-3/8" diameter unit.

With their authentic, period-accurate styling, our Vintage and Nostalgic kits offer a nod to the iconic Stewart Warner gauges of yesteryear – with modern performance quality!

Each 3-in-1 kit includes a speedometer and tachometer. The speedometer/odometer includes Integral oil pressure and water temperature gauges, available in either U.S. or Metric scales. The tachometer includes an integral fuel level gauge and voltmeter (universal-scale instruments).

The Vintage kit features a gold-plated bezel, tan dial with crisp black pointers.

The Nostalgic kit features a polished stainless steel bezel, black & tan dial and vivid red pointers.

Stewart Warner offers two pre-assembled 4 Gauge Cluster ("4 GC") 12-volt instrument panels, available in either a vertical or a horizontal configuration.

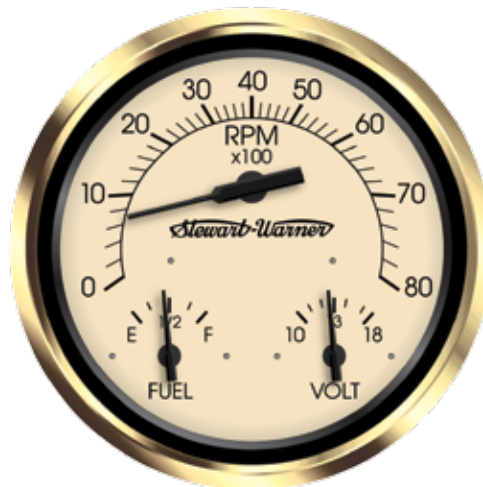
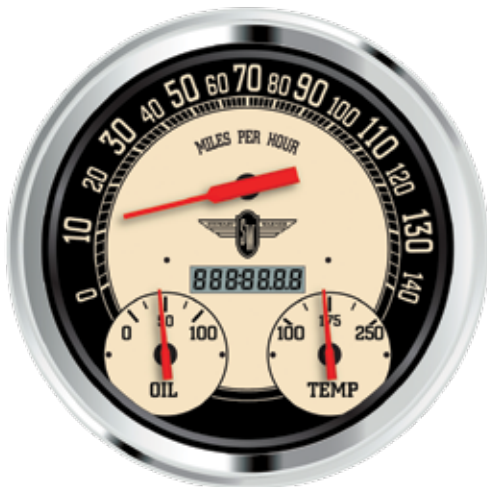
Each panel includes an illuminated voltmeter, fuel level gauge, water temperature gauge and oil pressure gauge.

Each panel is water- and dust-resistant with a front-serviceable housing featuring snap-on bezels and lenses for easy gauge access.

Our popular hand-held 4,000-RPM tachometer is 3" in diameter and 4" long. This precision instrument is used for direct measurement of a clockwise or counterclockwise rotating shaft. Two shaft extensions and two rubber tip styles are available.

Stewart Warner sends + Stewart Warner instruments = a perfectly tuned "system solution."

3-in-1-Gauge Kits



Vintage style



Nostalgic style

- Two cosmetic styles available: Vintage (gold-plated bezel, tan dial, black pointers) & Nostalgic (polished stainless steel bezel, black & tan dial, red pointers)
- Each kit contains two gauge clusters: a speedometer/odometer & tachometer
- Each cluster features three gauges inside a 4-3/8" diameter housing: speedometer/water temperature/oil pressure & tachometer/fuel level/volts
- Kits include mounting hardware, connector harness and senders for an all-in-one solution
- Odometer display: analog 7-character LCD
- Speedometer calibration: easy-to-use measured mile push-button feature
- Illumination:
 - Gauge cluster: backlighting
 - Odometer display: colored diffused lighting
- Materials:
 - Bezel: polished stainless steel or gold-plated
 - Lens: polycarbonate
 - Mounting bracket: plastic
- Electrical:
 - Operating voltage: 11.5-16 VDC
 - Nominal voltage: 14.2 VDC
 - Current consumption: <100 ma (without illumination)
- Environmental:
 - Operating temperature: -4°F to +158°F (-20°C to +70°C)
 - Storage temperature: -22°F to +185°F (-30°C to +85°C)
 - Moisture: front will withstand direct water spray
- Mounting:
 - Panel cut-out: 4.375" (112mm) diameter
 - Minimum depth required behind faceplate: 4.0" (102mm)
 - Clamping range: 0-.8" (0-20mm)
 - Fastener torque: 5-7 in-lb. (.57-.79 Nm)



838087

838088



838095



Nostalgic Stainless Steel 3-in-1 Gauge Kits (Electrical) Kit contents: 82258 (U.S.) – 82260 (Metric)

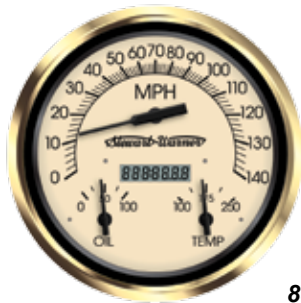
Gauge Type	Model	3-in-1 Gauge P/N	Ø in	Primary Gauge	2nd Gauge	3rd Gauge	Bezel/Dial	Type/ Sender
Electric Speedometer	Nostalgic (U.S.)	838087	4-3/8"	Speedometer, 0-140 MPH	Oil Pressure, 0-100 PSI	Water Temp, 100-250 °F	polished/black & tan	Electrical *1 *2
Electric Tachometer	Nostalgic (U.S.)	838088	4-3/8"	Tachometer, 0-8,000 RPM	Fuel Level, E-F	Voltmeter, 10-18 VDC	polished/black & tan	Electrical *1
Electric Speedometer	Nostalgic (Metric)	838095	4-3/8"	Speedometer, 0-225 km/h	Oil Pressure, 0-5 bar	Water Temp, 38-121 °C	polished/black & tan	Electrical *1 *2
Electric Tachometer	Nostalgic (Metric)	838088	4-3/8"	Tachometer, 0-8,000 RPM	Fuel Level, E-F	Voltmeter, 10-18 VDC	polished/black & tan	Electrical *1

NOTES:

*1 = Gauge kits above include gauge mounting hardware and applicable senders, except where otherwise noted. (Pressure & Fuel senders are 240-33.5 Ohm standard Stewart Warner match.)

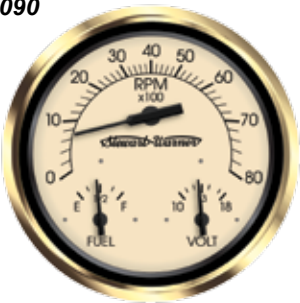
*2 = For speedometer, use existing connection, or 82623B Hall Effect Sensor can be purchased separately.

Replacement wedge-base light kits are available (Order Datcon brand P/N 71224-00.)

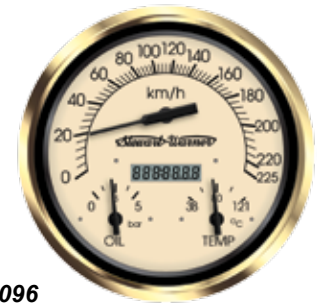


838089

838090



838096



Vintage Gold 3-in-1 Gauge Kits (Electrical) Kit contents: 82259 (U.S.) – 82261 (Metric)

Gauge Type	Model	3-in-1 Gauge P/N	Ø in	Primary Gauge	2nd Gauge	3rd Gauge	Bezel/Dial	Type/ Sender
Electric Speedometer	Vintage (U.S.)	838089	4-3/8"	Speedometer, 0-140 MPH	Oil Pressure, 0-100 PSI	Water Temp, 100-250 °F	gold plated/tan	Electrical *1 *2
Electric Tachometer	Vintage (U.S.)	838090	4-3/8"	Tachometer, 0-8,000 RPM	Fuel Level, E-F	Voltmeter, 10-18 VDC	gold plated/tan	Electrical *1
Electric Speedometer	Vintage (Metric)	838096	4-3/8"	Speedometer, 0-225 km/h	Oil Pressure, 0-5 bar	Water Temp, 38-121 °C	gold plated/tan	Electrical *1 *2
Electric Tachometer	Vintage (Metric)	838090	4-3/8"	Tachometer, 0-8,000 RPM	Fuel Level, E-F	Voltmeter, 10-18 VDC	gold plated/tan	Electrical *1

NOTES:

*1 = Gauge kits above include gauge mounting hardware and applicable senders, except where otherwise noted. (Pressure & Fuel senders are 240-33.5 Ohm standard Stewart Warner match.)

*2 = For speedometer, use existing connection, or 82623B Hall Effect Sensor can be purchased separately.

Replacement wedge-base light kits are available (Order Datcon brand P/N 71224-00.)

4-Gauge Cluster (“4 GC”) Instrument Panels

Specialty Products



873129



873128

- Each 4 GC panel includes: voltmeter, fuel level, water temperature, and oil pressure gauges
- Front-mounted instruments and lenses with internal back-lighting
- One-piece, water and dust resistant panel
- Front-serviceable, with snap-on bezels and lenses for easy access
- Illumination lights are serviceable from both front and back of panel
- Patented housing and molded-in circuit plate
- Single interlocking harness connector for all 4 GC functions
- Easy-to-read green and white graphics
- For 12-volt applications
- Individual replacement gauges available

4 GC Instrument Panels & Gauges

P/N	Panel Type	Volts	Gauge Type	Gauge P/N *1	Scale	Sender
873128	Vertical	12 VDC	Panel			
	Vertical	12 VDC	Volts	876042	10-16 VDC	N/A
	Vertical	12 VDC	Fuel	878089	E-F (240Ω)	391/392 Series
	Vertical	12 VDC	Temp.	880123	100-240° F	280EC
873129	Vertical	12 VDC	Press.	883106	0-80 PSI	279A
	Horizontal	12 VDC	Panel			
	Horizontal	12 VDC	Volts	876043	10-16 VDC	N/A
	Horizontal	12 VDC	Fuel	878090	E-F (240Ω)	391/392 Series
	Horizontal	12 VDC	Temp.	880124	100-240° F	280EC
	Horizontal	12 VDC	Press.	883107	0-80 PSI	279A

NOTES:

*1 = Gauge part numbers listed above are individual replacement units for the panel under which they are listed. Please be sure of panel type (horizontal or vertical layout) before ordering.

Stewart Warner Hand-Held Tachometer:



82682

- Used for direct measure on a rotating shaft
- 0-4,000 RPM clockwise and counterclockwise capability
- 3” diameter and 4” long

Hand-Held Tachometer & Accessories

P/N	Model
82682	0-4,000 RPM clockwise & counterclockwise rotating shaft
412850	12-inch extension shaft
412850-1	3-inch extension shaft
96798	Cone type rubber tip
96799	Cup type rubber tip



96798



96799



412850



Left to right: Stewart Warner 86000 Series LCD hourmeter, 83000 Series analog hourmeters: rectangular screw-mount and round bracket-mount models

Hourmeters

Your One-Stop-Shop for Dependable Timekeeping.

Rugged and reliable, we have an hourmeter for virtually every application that is accurate within $\pm .02\%$.

83000 Series round SW DC hourmeters feature a microprocessor-driven movement for 10-50 VDC applications and units that cosmetically match our Deluxe and Heavy Duty lines. The rectangular hourmeter features a high-accuracy 10-80 VDC quartz movement.

86000 Series SW LCD hourmeters are sealed severe duty units, designed from the ground up for reliable performance in 7-56 VDC applications, incorporating high-accuracy quartz movements.

General Specifications:

83000 Series – DC 2-Screw:

- 10,000 hours range with tenths, black bezel, white on black graphics, sealed case
- Operating Voltage: 10-80 VDC
- Extremely accurate: +/- 0.02% quartz movement
- Excellent vibration and shock resistance
- 2 screw hole flange for fast, easy mounting
- Compact design to fit any application

83000 Series – DC 3-Screw:

- 10,000 hours range with tenths, black bezel, white on black graphics, sealed case
- Operating Voltage: 10-50 VDC
- Microprocessor-driven movement accuracy within +/- 0.5%
- Excellent vibration and shock resistance
- 3 screw hole flange for flexible mounting



83000 Series – DC Bracket Mount:

- Two cosmetic versions to match the classic SW Deluxe and SW Heavy Duty styling:
 - Deluxe type style:* chrome bezel, available in 2.27" diameter
 - Heavy Duty type style:* raised black bezel with distinctive brushed bright rim, available in 2.27" diameter
- 10,000 hours operating range with tenths, plus running indicator and sealed case
- Operating Voltage: 10-50 VDC
- Microprocessor-driven movement accuracy within +/- 0.5%
- Excellent vibration and shock resistance
- Flush cup type mounting bracket included

86000 Series – DC LCD Severe Duty:

- IP67 sealed front and rear; sealed to 5 PSI
- Rugged and reliable-survives 20+ Gs of shock & vibration
- Extremely accurate: +/- 0.02% quartz movement
- Wide operating voltage & temperature ranges: 7-56 VDC; -40° F to +185° F (-40° C to +85° C)
- "Inhibited" or "non-inhibited configuration" (one solution/one part number)
- Electrically protected from over-voltage & reverse polarity
- Robust automotive-grade "severe-duty" LCD
- Spin-on fastener for round hourmeter; 2-hole mounting for rectangular "mini" unit
- Heavy-duty terminals for all-weather use

HOURLMETER ACCESSORY Part Numbers:



23944

Screw-Mount Hourmeter Accessories

P/N	Application	Notes
23944	2-screw rectangular hourmeters (all)	Angle Mounting Bracket – rectangular units (Use when panel mounting is not practical.)
3888-M	3-screw type hourmeters (DC only)	Dampener (Use between bezel and panel.)
486-M	3-screw type hourmeters (DC only)	Surface Mounting Bracket – round units (Use when panel mounting is not practical. Covers panel area 2-13/16" x 5-1/4".)

HOURMETER Part Numbers:

Stewart Warner Screw-Mount DC Hourmeters (83000 Series)

P/N	Voltage	Mounting	Hours	Shape	Mounting
83500	10-80 VDC	2 Screw	10,000	Rectangular	Horizontal 2-Screw Hole Pattern
83501	10-50 VDC	3 Screw	10,000	Round	Round 3-Screw Hole Pattern



83500



83501

Stewart Warner Bracket-Mount DC Hourmeters (83000 Series Deluxe & Heavy Duty match)

P/N	Voltage	Ø in	Hours	Bezel/Bracket Type	Graphics Match
83502	10-50 VDC	2.27"	10,000	Chrome/Flush Cup	SW Deluxe
83503	10-50 VDC	2.27"	10,000	Black/Flush Cup	SW Heavy Duty
83504	10-50 VDC	2.27"	10,000	Black/Flush Cup	SW Heavy Duty PLUS
83507	10-50 VDC	2.27"	10,000	Black/Flush Cup	SW Heavy Duty PLUS *1



83502

NOTES:

*1 = Same graphic style as Heavy Duty PLUS, but all white graphics (no green).

See Deluxe, Heavy Duty & Heavy Duty PLUS sections for matching gauges, tachometers and speedometers.

Flush cup mounting brackets are generally suitable for panels which are consistent in thickness, flat, smooth/slick and/or need reinforcement at the mounting point.



83503



83504



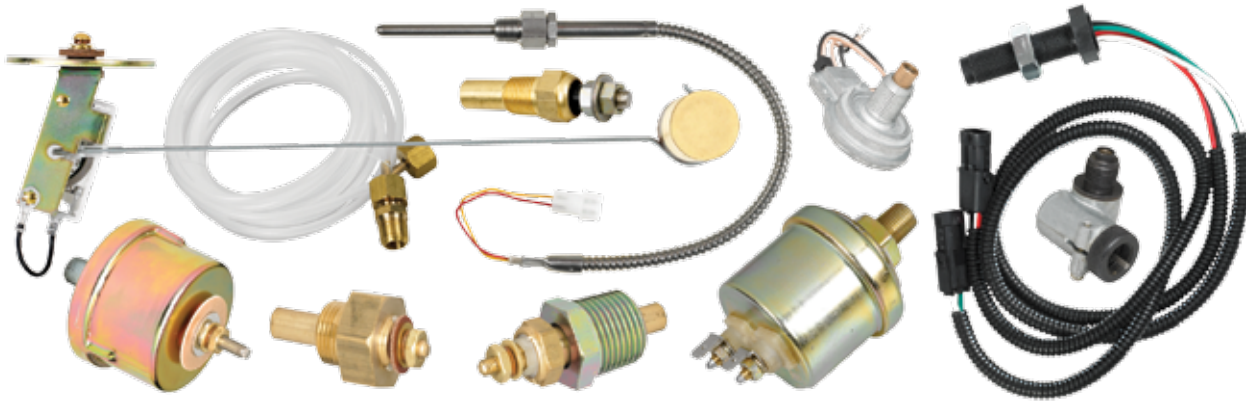
83507

Stewart Warner LCD Hourmeters (86000 Series)

P/N	Voltage	Hours	Bezel	Mounting	Feature
86002	7-56 VDC	99999.9	Black	2-hole	Inhibited/Uninhibited
86003	7-56 VDC	99999.9	Black	Spin-on Fastener	Inhibited/Uninhibited



86003



Stewart Warner Genuine Senders, Sensors and Mechanical Gauge Tubing

Senders • Sensors

The Original. Accept No Substitutes.

Genuine Stewart Warner senders, tubing and components assure you of the accurate, consistent readings designed into our gauges. When you buy a Stewart Warner gauge, you are choosing quality at one end. Don't settle for less at the other end!

Match with Stewart Warner senders for a perfectly tuned "system solution."



Gauge Line instruments have been discontinued, but Stewart Warner or Datcon senders can be used with their electric fuel and pressure gauges. Gauge Line mechanical tubing and electric temperature senders were specific only to that product family and are no longer available. Please contact your distributor or Stewart Warner customer service for options.

- The industry standard for nearly 50 years
- Two fuel level monitoring options: modern non-contact type sensors and traditional float-type senders, both of which use SAE standard flange mounting.
 - Non-contact type: IntelliSensor™ sealed units have no moving parts, can accommodate irregular tank shapes and measure with superior accuracy, either by level or volume.
 - Float-arm type: thick-film resistors deliver high accuracy and will perform reliably for more than twenty million cycles
- Pressure senders: our thick film pressure senders will last up to five times longer than senders with wire-wound resistors.
- Temperature senders: corrosion-resistant, outstanding electrical and thermal conductivity, shock and vibration resistant for maximum durability.
- Speed/RPM sensors: magnetic, Hall Effect and mechanical pickups/tips are available.
- Tubing: these kits are specifically engineered for our mechanical pressure gauges.

INTELLISENSOR™ Non-Contact Type Fuel Level Sensors:

Description:

- Our patented 2nd-generation electronic sensor – a proven OEM solution for fuel level and volume measurement
- No moving parts – designed to last as long as the vehicle, even when used in the harshest conditions possible
- Core technology is variable capacitance – units measure capacitance change caused by fuel displacing air and translate this into simulated resistance (240-33.5-ohm range) to drive an analog gauge
- Sealed SMT electronics with no moving parts
- Level or volumetric measurement – accurate and flexible (supports round or non-round tanks)
- Can be installed on an angle up to 30° (ideal for saddle tanks wrapped around vehicle fender)
- Corrosion resistant aluminum flange and tubes; electrically and environmentally protected
- Slosh-proof and extremely rugged; wide operating temperature range
- Drop-in replacement for any sender using SAE 5-hole mounting pattern; easy to install

Specifications:

- Length: 6" (15.2 cm) to 24" (60.96 cm) gasoline versions
- Weight: 24" units weighs <2 lbs.
- Mounting: SAE standard 5-hole pattern
- Materials: Corrosion resistant aluminum tubing, high impact-resistant glass-filled resin flange
- System voltage: 12 VDC or 24 VDC
- Power consumption: 15mA maximum, no load
- Electrical protection:
 - Reverse polarity
 - Overvoltage
 - Short circuit
 - ESD
- EMC compliance: Per SAE/OEM standards
- Output: Simulated resistance: 240-33.5
- Wiring: Two (2) 6 inch wire leads included
- Operating/storage temperature: -40°C to +85°C
- Sealing: 6 PSI (mounted to tank)
- Standards Compliance: SAE vibration and salt spray
- Installation: Mounting kit: Gasket and 5 (five) #10-32 sealing screws

(Please see next page for IntelliSensor part numbers.)



INTELLISENSOR™ Part Numbers:

Non-Contact Fuel Level Sensor 2-Lead Wires (Gasoline)

P/N	Tank Depth	Simulated Ω
02705-06	6"	240-33.5
02705-07	7"	240-33.5
02705-08	8"	240-33.5
02705-09	9"	240-33.5
02705-10	10"	240-33.5
02705-11	11"	240-33.5
02705-12	12"	240-33.5
02705-13	13"	240-33.5
02705-14	14"	240-33.5
02705-15	15"	240-33.5
02705-16	16"	240-33.5
02705-17	17"	240-33.5
02705-18	18"	240-33.5
02705-19	19"	240-33.5
02705-20	20"	240-33.5
02705-21	21"	240-33.5
02705-22	22"	240-33.5
02705-23	23"	240-33.5
02705-24	24"	240-33.5

NOTES:

These sensors simulate resistance for correct functionality with all 240-33.5 ohm Stewart Warner fuel gauges. For use with gasoline only.

Mounting gasket and five #10-32 sealing screws included with sender.

Tank depths are for reference only. Sender length (bottom of flange to bottom of sender) is .3" less than tank depth listed.



SENDING UNIT Part Numbers:

Thick Film (Float Arm Type) Fuel Senders				
P/N	Connector	Resistance	Flange Position ^{*2}	Tank Depth
385AB-P ^{*1}	Stud Termination	240-33.5 Ohms	RH	4 1/2-24"
385B-F	Stud Termination	240-33.5 Ohms	LH	6-12"
385C-F	Stud Termination	240-33.5 Ohms	RH	6-12"
391A-F	Stud Termination	240-33.5 Ohms	LH	10-15"
391B-F	Stud Termination	240-33.5 Ohms	RH	10-15"
391C-D	Stud Termination	240-33.5 Ohms	LH	15 1/2-24"
391D-D	Stud Termination	240-33.5 Ohms	RH	15 1/2-24"
391PX-D	Stud Termination	240-33.5 Ohms	RH	27-36"
439361-F	Stud Termination	0-90 Ohms	LH	10-15"
392A-F	Packard Type	0-90 Ohms	LH	10-15"
439362-F	Stud Termination	0-90 Ohms	RH	10-15"
439363-D	Stud Termination	0-90 Ohms	LH	15 1/2-24"
439364-D	Stud Termination	0-90 Ohms </tr		

NOTES:

*1 = Has spade terminal ground.

*2 = Fuel sender installations support either a right hand (RH) or left hand (LH) configuration. Fixed arm senders may be available for a custom solution.

Order Fuel Level Sender (Tank Unit) Installation Kit No. 366LP-F separately, if needed. Flange should be welded or soldered to tank. The kit contains: one flange, one 72030 rubber gasket, and five washers and screws.

Description:

- Stewart Warner thick-film resistors deliver greater accuracy and will perform reliably for more than twenty million cycles
- Phosphor bronze wiper with nickel silver contact provides extended life under fuel sloshing, vibration, and dither conditions
- Resistors are trimmed by computer-guided lasers to exact specifications for greater accuracy
- Extended float arm support is impervious to side play from fuel sloshing in the tank
- Solid Lifecell™ float will not sink
- Zinc dichromate finish and copper alloy hardware

Specifications:

- Fuel level sender plate and termination will withstand an internal pressure of 6 PSI (41.4 kPa) when properly installed in the tank
- Flange: steel, zinc, dichromate finish
- Screws & Flat Washers: brass
- Lockwashers: phosphor bronze

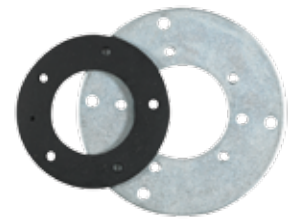
Fuel Sender Accessories		
P/N	Description	Notes
366LP-F	Fuel sender install kit (includes: flange, gasket, 5 washers, 5 screws)	converts tank opening to SAE standard 5-hole configuration
72030	Replacement Gasket	SAE 5-hole pattern, Neoprene
429354	Brass Float	with Clip
836092	Lifecell Float	standard snap-in mounting



391D-D



439363-D



366LP-F



836092

SENDING UNIT Part Numbers:



279A

Thick Film Pressure Senders				
P/N	Connector	Pressure	Resistance	Thread Size
82504-F	Stud Termination	15 PSI	240-33.5 ohms	1/8" NPTF
279A	Stud Termination	80 PSI	240-33.5 ohms	1/8" NPTF
279B-F	Stud Termination	100 PSI	240-33.5 ohms	1/8" NPTF
279C	Stud Termination	150 PSI	240-33.5 ohms	1/8" NPTF
82892	Packard Connector	80 PSI	240-33.5 ohms	1/8" NPTF
82893	Packard Connector	100 PSI	240-33.5 ohms	1/8" NPTF
82894	Packard Connector	150 PSI	240-33.5 ohms	1/8" NPTF
82514	Stud Termination	80 PSI	120-16 ohms *1	1/8" NPTF
82501	Stud Termination	100 PSI	120-16 ohms *1	1/8" NPTF

*1 = Dual-gauge sender: one sender operates two compatible gauges simultaneously. Not for use with single gauge.
 NOTE: Senders above may be used with all Stewart Warner electrical pressure gauges, including Gauge Line.

Description:

- Preferred for the most rigorous applications, Stewart Warner thick film pressure senders will last up to five times longer than senders with wire-wound resistors
- Trimmed by computer-guided lasers for greater accuracy
- Kapton® high-temperature plastic diaphragms sealed with Viton® gaskets for tighter seals and greater protection against oil leaks
- Available with sealed integrated Packard™ connectors, which assure a weather-tight fit for a reliable electric connection and easy installation

Specifications:

- Diaphragm, thick film rheostat
- 12 volts normal operating voltage; can be used in circuits up to 36 volts with voltage adapter
- Weighs 5.5 oz, 56 g
- Mounting Position: any orientation permissible
- Ambient Temperature Range (Operating & Storage): -40°F through 300°F (-40°C through 149°C)
- Cover: steel, zinc dichromate finish
- Flange & Stud Assembly: steel, bright zinc
- Terminal Stud: brass, white nickel
- Hex Nut & Flat Washer: brass
- Lock Washer: phosphor bronze



279C

SENDING UNIT Part Numbers:

Temperature Senders				
P/N	Thread Size	Hex Size	Temperature Range	Kit Type
334R-D	1/2" NPTF	7/8"	100-230°F/40-110°C	Sender only
280EC	1/8" NPTF	5/8"	100-230°F/40-110°C	Universal *1
362AN-D	1/4" NPTF	5/8"	100-240°F/40-115°C	Sender only
362AJ-D	3/8" NPTF	3/4"	100-240°F/40-115°C	Sender only
362AH-D	1/2" NPTF	7/8"	100-240°F/40-115°C	Sender only
280EA	1/8" NPTF	5/8"	100-240°F/40-115°C	Universal *1
334AA-D	1/4" NPTF	5/8"	100-280°F/40-135°C	Sender only
334AB-D	3/8" NPTF	3/4"	100-280°F/40-135°C	Sender only
334AD-D	1/2" NPTF	5/8"	100-280°F/40-135°C	Sender only
280EE-F	1/8" NPTF	5/8"	140-320°F/60-160°C	Universal *1
362BD-D	1/4" NPTF	3/4"	100-240°F/40-115°C	Sender only *2
362BC-D	3/8" NPTF	3/4"	100-240°F/40-115°C	Sender only *2
362BB-D	1/2" NPTF	7/8"	100-240°F/40-115°C	Sender only *2
82503	1/8" NPTF	5/8"	100-240°F/40-115°C	Universal *1*2

NOTES:

*1 = Standard pipe thread is 1/8". Universal sales kits include adapter for 1/4", 3/8", and 1/2" pipe thread.

*2 = Dual-gauge sender: one sender operates two compatible gauges simultaneously. Not for use with single gauge.

Senders above are NOT for use with Gauge Line gauges.

Description:

- Stewart Warner temperature senders are constructed of high-quality, corrosion-resistant brass for maximum durability and outstanding electrical and thermal conductivity

Specifications:

- Phosphor bronze contact spring provides shock and vibration resistance
- Available in 1/8, 3/8 and 1/2-NPTF models and as kits which include adapters for 1/4", 3/8", and 1/2" pipe threads

Temperature Thread Adapter Nuts		
P/N	Type	Dimensions
822650D	Temperature Sender	1/8" ID to 3/8" NPTF OD
822651D	Temperature Sender	1/8" ID to 1/2" NPTF OD
72446-F	Mechanical Water Temperature	Steel 5/8"-18 ID to 3/8" NPTF OD
82572	Mechanical Water Temperature	5/8"-18 ID to M14 x 1.5 OD
82573	Mechanical Water Temperature	5/8"-18 ID to M16 x 1.5 OD
82574	Mechanical Water Temperature	5/8"-18 ID to M18 x 1.5 OD



280ED-F



334AD-D

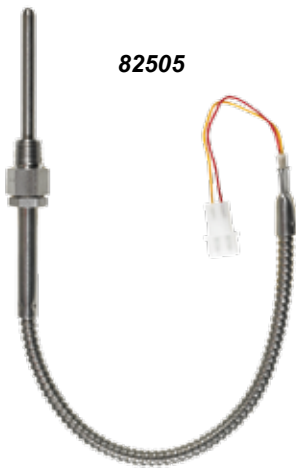


72446-F



82572

SENDING UNIT Part Numbers:



Pyrometer Thermocouple & Extensions	
P/N	Notes
82505	17" Thermocouple
82556-1	5 foot extension
82556-2	10 foot extension
82556-3	20 foot extension

NOTE: Before selecting a pyrometer, determine the expected temperature range – this information can be usually be obtained from the vehicle manufacturer or engine builder.

CAUTION: Use **ONLY** a thermocouple-specific extension wire to connect the probe to the gauge. Do not alter the length of the thermocouple extension wire. Using any other wire or altering the length of the extension wire can cause severely inaccurate temperature readings.

Description:

- Stewart Warner pyrometers are designed to measure and monitor the temperature of the exhaust gases from a gasoline or diesel engine
- Probe is inserted into the exhaust system wire connected to Pyrometer
- Indicates early and/or dangerous overheat conditions; can also be used for tuning/monitoring the air/fuel mixture

Specifications:

- Stewart Warner Type-K thermocouple probe connects to Pyrometer via a special thermocouple-specific extension wire expressly designed for this purpose and that should never be field-altered.

TUBING KIT Part Numbers:



82553-F

Mechanical Gauge Tubing Kits			
P/N	Length	Compatibility	Notes
82553-F	72" (6 feet)	Stewart Warner except Gauge Line	Not for Temperature Gauges
366HM-F	192" (16 feet)	Stewart Warner except Gauge Line	Not for Temperature Gauges

NOTES:

All tubing kits above contain 1/8" female PT nut, 1/8" male PT nut and 1/4" adapter nut. These kits are NOT for use with Gauge Line gauges.

WARNING: Do not use these kits for mechanical temperature gauges. The tubing on mechanical temperature gauges is gas-filled and cannot be field-altered without damaging the gauge.

SPEED/RPM SENDERS & SENSORS Part Numbers:

Speedometer/Tachometer Sensors & Senders				
P/N	Type	Configuration	Notes	Sender Tip
82646	Magnetic Sensor	3/4"-16 UNF thread	Can run 2 tachs or speedos *1	N/A
990R	Magnetic Sensor, Dual Output	3/4"-16 UNF thread	Packard Connectors	N/A
82623B	Hall-Effect Sender	7/8"-18 thread	8 Pulse/rev. *1	0.187" tang
82565-F	Mechanical Shaft Take-off	Two-wire hookup	Distributors or Magnetos	0.104" square

NOTES:

*1 = One sender will operate either two speedometers or two tachometers.

82646 Description:

- One sender will operate two tachometers or two speedometers
- Flywheel Ring application for tach; Tone Wheel application for speed
- 3/4"-16 UNF thread

82623B Description:

- One sender will operate two tachometers or two speedometers
- 8 pulses per revolution (Square Wave) – 3,500 RPM maximum
- Connects to mechanical shaft take-off
- Requires 12 VDC input; 3-wire hook-up; includes .187" tang tip
- 7/8"-18 thread

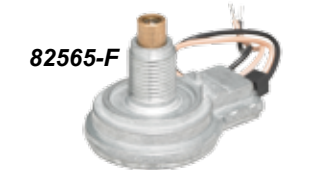
82565-F Description:

- Use with gasoline-engine tachometers that connect to mechanical shaft take-off on distributors or magnetos
- No voltage input required; easy two-wire hookup; includes .104" tip

Speedometer/Tachometer Sender Tips	
P/N	Sender Tip Size & End Type
82625	0.187" diameter Tang end
82626	0.152" diameter Tang end
82629	0.104" square end

Right Angle Adapter for Flexshafts				
P/N	Ratio	Thread Size	Direction of Rotation	Drive Tip
407010-F	1:1	5/8"-18	Clockwise	0.104" square
411335-D	1:1	5/8"-18	Counterclockwise	0.104" square

Ford Quick Disconnect Adapter	
P/N	Notes
366ADB	(order 82623B Hall Effect sender separately)



Senders • Sensors



From left to right: Stewart Warner Single Circuit Pressure and Dual Circuit Pressure, Blade Type and Screw Type Terminal Temperature Switches.

They Know How to Handle Heat and Pressure.

Switches

Stewart Warner 5000 Series Pressure Switches are superbly designed for extended duty applications, featuring durable construction, compact size and enhanced set point integrity.

Available in single or dual circuit configurations, factory set points range from 1 to 100 PSI and operating pressure limits are 150 or 250 PSI, depending on model.

The table on page L3 lists available part numbers, which cover a range from 1 to 100 PSI in normally open or normally closed configurations, with 7 dual-circuit units (our newest additions). *These part numbers support over 95% of the market's pressure switch requirements.*

NOTE: Stewart Warner brand pressure switches are designed to withstand harsh conditions in heavy-duty applications, plus they serve as form-fit-function replacements for other popular switches in the marketplace.

5000 Series Pressure Switch Features:

- Durable construction
- Enhanced set-point integrity
- Compact size
- Corrosion-resistant materials
- Broad operating range: 1-100 PSI
- Dual- and triple-terminal configurations
- Designed for form-fit-function replacement

Stewart Warner Pressure Switches offer excellent accuracy and repeatability.

Standard SW Temperature Switches offer excellent accuracy and repeatability, normally open gold-plated contacts and are voltage independent.

5000 Series Pressure Switches:

Physical:

- Kapton® polyimide film diaphragm ensures compatibility with a wide variety of fluids
- Silver alloy, gold-plated contacts
- Base: Brass
- Cover: Glass-reinforced polyester

Specifications:

- Factory Set Points Available: 1 to 100 PSI
- Circuitry:
 - *Single Circuit units are available in N.O. (Normally Open) or N.C. (Normally Closed) configuration;*
 - *Dual Circuit units are configurable as either N.O. or NC. by the installer*
- Direct action blade contact
- Connector: 1/8-27 NPTF male thread
- Terminals: #8-32 screws

Ratings:

- Operating Pressures:
 - *150 PSI for 1-24 PSI set point range;*
 - *250 PSI for 25-100 PSI set point range*
- Proof Pressure: 500 PSI
- Burst Pressures:
 - *750 PSI for 1-24 PSI set point range;*
 - *1,250 PSI for 25-100 PSI set point range*
- Resistive:
 - *15 AMP-6 VDC;*
 - *8 AMP-12 VDC;*
 - *4 AMP-24 VDC*
- Inductive:
 - *1 AMP-120 VAC;*
 - *0.5-240 VAC*
- Temperature Range: -40°F to +250°F
- Operating Media: air, motor oils, transmission oils, jet fuels, other similar hydrocarbon media

Standard Pressure Switches:

- Robust construction for maximum strength
- Diaphragm assembly is N.C. (Normally Closed)
- Switches are voltage independent
- 1/8" NPTF male thread
- P/N 364L-F set point: 6 PSI
- P/N 364K-F set point: 15 PSI

Standard Temperature Switches:

- Excellent accuracy and repeatability
- Solid brass body
- Gold-plated contacts
- Contacts are N.O. (Normally Open)
- Switches are voltage independent



PRESSURE & TEMPERATURE SWITCH Part Numbers:



SW78628 (typical of all single-circuit 5000 series)



SW76071 (typical of all dual-circuit 5000 series)



364K-F 364L-F



83303 shown

Stewart Warner 5000 Series Pressure Switches				
P/N	Factory Set Point	Circuitry	Terminals	Notes
SW78628	1 PSI	N.O.	2 (Screw)	Single Circuit
SW76051	2 PSI	N.O.	2 (Screw)	Single Circuit
SW76061	2 PSI	N.C.	2 (Screw)	Single Circuit
SW76575	4 PSI	N.O.	2 (Screw)	Single Circuit
SW76577	4 PSI	N.C.	2 (Screw)	Single Circuit
SW76576	10 PSI	N.O.	2 (Screw)	Single Circuit
SW76578	10 PSI	N.C.	2 (Screw)	Single Circuit
SW76052	15 PSI	N.O.	2 (Screw)	Single Circuit
SW76062	15 PSI	N.C.	2 (Screw)	Single Circuit
SW76053	35 PSI	N.O.	2 (Screw)	Single Circuit
SW76063	35 PSI	N.C.	2 (Screw)	Single Circuit
SW76054	60 PSI	N.O.	2 (Screw)	Single Circuit
SW76064	60 PSI	N.C.	2 (Screw)	Single Circuit
SW76055	100 PSI	N.O.	2 (Screw)	Single Circuit
SW76065	100 PSI	N.C.	2 (Screw)	Single Circuit
SW76071	2 PSI	N.O./N.C.	3 (Screw)	Dual Circuit
SW76579	4 PSI	N.O./N.C.	3 (Screw)	Dual Circuit
SW76580	10 PSI	N.O./N.C.	3 (Screw)	Dual Circuit
SW76072	15 PSI	N.O./N.C.	3 (Screw)	Dual Circuit
SW76073	35 PSI	N.O./N.C.	3 (Screw)	Dual Circuit
SW76074	60 PSI	N.O./N.C.	3 (Screw)	Dual Circuit
SW76075	100 PSI	N.O./N.C.	3 (Screw)	Dual Circuit

NOTES:
N.O. = Normally Open; N.C. = Normally Closed

Stewart Warner Standard Pressure Switches					
P/N	Thread Size	Set Point	Circuitry	Terminal	Notes
364K-F	1/8" NPTF	15 PSI	N.C.	1 (Post/Nut)	Single Circuit, Self-Grounding
364L-F	1/8" NPTF	6 PSI	N.C.	1 (Spade)	Single Circuit, Self-Grounding

NOTES:
N.C. = Normally Closed

Stewart Warner Standard Temperature Switches						
P/N	Thread Size	Temperature	Terminal	Replaces	Notes	
83300	1/4" NPTF	200 °F	1 (Spade)	363D-D	Self-Grounding	
83301	1/4" NPTF	225 °F	1 (Spade)	363AM-D	Self-Grounding	
83303	1/4" NPTF	240 °F	1 (Screw)	363CP	Self-Grounding	
83304	3/8" NPTF	200 °F	1 (Spade)	363E-D	Self-Grounding	
83305	3/8" NPTF	220 °F	1 (Screw)	363AY	Self-Grounding	
83306	3/8" NPTF	235 °F	1 (Spade)	363BR	Self-Grounding	
83307	1/2" NPTF	200 °F	1 (Spade)	363F-D	Self-Grounding	
83309	1/2" NPTF	215 °F	1 (Screw)	363AX	Self-Grounding	
83310	1/2" NPTF	225 °F	1 (Spade)	363G-F	Self-Grounding	
83311	1/2" NPTF	250 °F	1 (Screw)	363W-F	Self-Grounding	
83312	1/2" NPTF	270 °F	1 (Screw)	363AB	Self-Grounding	
83313	M16 x 1.5	225 °F	1 (Spade)	363CL	Self-Grounding	
83314	M16 x 1.5	250 °F	1 (Spade)	363CM	Self-Grounding	



**Top, L-R: Halogen Floods, Spot, Trapezoidal, Narrow Flood, Driving, Complex Reflector
Bottom, L-R: new LED High/Low, Flush Mount, Hybrid Spot Floods, Light Bar, Inspection Light**

Lighting from Stewart Warner: Now More Brilliant than Ever!

Designed to last, our Halogen and LED Lamps are easy-to-install, commercial grade units available in 12 & 24 VDC models with a variety of beam patterns.

STEWART WARNER MEANS HEAVY DUTY!

- Ideal for a wide array of applications: SUVs and recreational vehicles including 4x4s as well as moving and stationary equipment plus many more
- Durable sealed beam or LED construction
- Rugged polymer housings
- Many available configurations
- Available beam patterns include: Wide Flood, Flood, Narrow Flood, Trapezoidal, Spot, Hybrid and High-Low Beam (Driving)
- Easy-to-install through-hole mounting of most models protects wire leads at attachment point
- Available flush mounted LEDs are ideal for installation in grilles, panels and applications in which minimal protrusion is desirable

Heavy Duty Flashers are equipped with a spring mass drive motor, which provides up to ten times the service life of conventional thermal flashers and operates even when the voltage in a 12 VDC system drops as low as 9 volts.

These units exceed SAE J-590B and J-945 specifications.

- Rugged Polypropylene housing
- Electro-mechanical (spring mass) motor
- Silver alloy contacts
- 1/4-inch blade, brass terminals
- Flash Rate: 60-120 CPM
- Adapter and extension terminals to convert from a square to a round mounting base
- Voltage Range: 9-16 VDC (12 VDC rated); 18-32 VDC (24 VDC rated)
- Temperature Range: -40°F to +180°F

HALOGEN LIGHTING Part Numbers:

Halogen Lamp Assembly: Work Lights and Forward Lighting

P/N	Beam Pattern	Voltage/Wattage	Current (Amps)	Lamp Type	Notes
SW71898-11	Wide Flood	12V / 50W	4A	4" x 6" Halogen	Single lamp
SW72540-11	Wide Flood	24V / 60W	2.5A	4" x 6" Halogen	Single lamp
SW73468-11	Wide Flood	12V / 50W	4A	5" Round Halogen	Single lamp
SW73762-11	Flood	12V / 50W	4A	3" x 5" Halogen	Single lamp
SW75109-11	Narrow Flood	24V / 60W	2.5A	4" x 6" Halogen	Single lamp
SW73763-11	Trapezoidal	12V / 50W	4A	3" x 5" Halogen	Single lamp
SW71915-11	Trapezoidal	12V / 50W	4A	4" x 6" Halogen	Single lamp
SW72542-11	Trapezoidal	24V / 60W	2.5A	4" x 6" Halogen	Single lamp
SW71902-11	Spot	12V / 50W	4A	4" x 6" Halogen	Single lamp
SW72544-11	Spot	24V / 60W	2.5A	4" x 6" Halogen	Single lamp
SW75237-11	HI-LO Driving	12V / 35W / 60W	3A / 5A	4" x 6" Halogen	Single lamp
838104*1	Complex Reflector	12VDC / 60W / 55W	4.6A	7" Round Halogen (Heavy Duty 4x4)	Sold as a pair

NOTES:

*1 = As sold, this part number is a pair of (2) lights.

(Please note that other Lamp Assemblies now have new "SW" prefix part numbers.)



LED LIGHTING Part Numbers:

LED Lamp Assembly: Work Lights and Forward Lighting						
P/N	Beam Pattern	Voltage/Wattage	Current (Amps)	Lumens	Lamp Type	Notes
838100 *1	Hybrid Spot/Flood	12-24VDC / 22W	1.8 A @12VDC	2,500	Heavy Duty 4x4	Black Bezel/Casing
838101 *1	Hybrid Spot/Flood	12-24VDC / 22W	1.8 A @12VDC	2,500	Heavy Duty 4x4	Blue Bezel/Casing
838102 *1	Hybrid Spot/Flood	12-24VDC / 22W	1.8A @12VDC	2,500	Heavy Duty 4x4	Green Bezel/Casing
838103 *2	HI-LO Driving	12-24VDC / 13W	1.1 A @12VDC	N/A - exceeds Halogen light output	Heavy Duty 4x4	7" Round, sold as a pair

NOTES:

*1 = IP Rating: IP68; Environmental rating: IP69K; Dust and Waterproof to 2 meters; Vibration Resistance: 10-500Hz@5Grms; Super Bright Illumination; 5 year warranty.

*2 = SAE DOT Compliant replacement Headlight, Bright White light, 3 year warranty. *As sold, this part number is a pair of (2) lights.*

LED service life: 50,000+ hours.



838100



838101



838102

new items!



838103

LED LIGHTING Part Numbers:

LED Lamp Assembly: Flush Mount LEDs and LED Light Bars					
P/N	Beam Pattern	Voltage/Wattage	Lumens	Lamp Type	Notes
838106 ^{*1}	Spot	12VDC	1,080	Square Flush Mount	Sold as a pair
838105 ^{*1}	Flood	12VDC	1,080	Square Flush Mount	Sold as a pair
838107 ^{*2}	Flood	12VDC	3,200	Light Bar	7.5" Long
838108 ^{*2}	Flood	12VDC	6,500	Light Bar	13.5" Long/Curved
838109 ^{*2}	Flood	12VDC	10,800	Light Bar	21.5" Long/Curved

NOTES:

Sealed to IP67 and capable of withstanding water immersion between 15 cm and 1 meter for 30 minutes.

*1 = Complete with wire harness, switch and hardware. As sold, this part number is a pair of (2) lights.

*2 = Powerful LED illumination for heavy duty work or off-road play; aggressive design.



Lighting

new items!

LED LIGHTING Part Numbers:

LED Lamp Wiring & Accessories						
P/N	Rocker Switch	Voltage	Current (Amps)	Fuse	Item Type	Notes
838117	Yes	12VDC	40A Relay	15A	Standard Wiring Kit	235" of 16 AWG Wire and Splice Tabs included
838118	Yes	12VDC	70A Relay	None	Heavy Duty Wiring Kit	275" of 14 AWG Wire
838119	Yes	24VDC	80A Relay	None	Heavy Duty Wiring Kit	275" of 14 AWG Wire
838116	Yes	12VDC	40A Relay	15A	Wiring Harness	96" of 16 AWG Wire
838115 ^{*1}	N/A	12VDC			Remote Control & Switch Kit	Fob included
838123	N/A	N/A	N/A	N/A	Swivel Bracket	For 838100, 838101, 838102

NOTES:

*1 = RF Remote Control and Switch Kit; works with any fog or driving light system and many other accessories.



LED Work Lighting: Flashlight & Tool Light						
P/N	Beam Pattern	Voltage/Wattage	Current (Amps)	Lux	Lamp Type	Notes
838113 ^{*1}	Spot and Flood	N/A	N/A	1,200	Flashlight	Rechargeable
838114 ^{*2}	Spot	N/A	N/A		Inspection Light	12-pack

NOTES:

*1 = Cordless and rechargeable with integral hanging hook and magnetic clip. Includes 110VAC charger and 12VDC car charger, flashlight and high/low flood light.

*2 = 2 LEDs; Automatically lights when attached to any conductive metal surface; V-shape cavity will attach to any tool with a diameter of 1/8"-3/8"; 8-hour life; disposable. As sold, this part number is a pack of one dozen (12) lights.



FLASHER Part Numbers:

Heavy Duty Flashers					
P/N	Voltage	Terminals	Mounting	Compatible Number	
SW15570-01	12V	2	Ears	13600-01	
SW15571-01	12V	3	Ears	15513-01	
SW13610-01	24V	2	Round-No Ears		
SW15550-01	24V	3	Round-No Ears		





The line-up of Stewart Warner fuel pumps

Go With the Flow: Choose Stewart Warner.

Stewart Warner is pleased to offer a line-up of enhanced Fuel Pump models! These rugged, meticulously engineered units provide outstanding versatility and durability – ideal for carbureted engines.

All models are compatible with commercially available pump grade gasoline, ethanol blends (including E85), diesel or bio-diesel.

Our 12 VDC fuel pumps are offered in ranges of 4-8 PSI, 20-43 GPH (75-162 LPH).

A 24 VDC unit is offered with 8 PSI/43 GPH capacities. U.S. Coast Guard and CE approved.

For the performance you need, choose Stewart Warner fuel pumps!

Stewart Warner Fuel Pump Features:

- Current requirement: < 2 amps average
- Reverse polarity protected up to 60 minutes
- Self priming (dry lift) of more than 120 cm (48")
- Dry run capable up to 4 hours
- Compatible with all commercially available pump grade gasoline, ethanol blends including E85, diesel or bio-diesel (20% & 100%)
- Operating temperature: -40°F to +155°F (-40° to +68°C)
- Transient voltage protected to 100 volts
- U.S. Coast Guard 16623-1 and 16623-2 approved
- European CE standards EN 61000-6-2 and EN 6-3-2100 approved

FUEL PUMP Part Numbers:

Fuel Pumps					
P/N	Voltage	PSI	GPH	Thread	Notes
82089	12	7	20	1/8"-27 NPSF	One-piece aluminum fuel bowl
82091	12	8	43	1/4"-18 NPSF	Neutral Ground
82092	12	8	43	1/4"-18 NPSF	Corrosion resistant coating for marine use
82093	24	8	43	1/4"-18 NPSF	
82094	12	4	33	1/4"-18 NPSF	Corrosion resistant coating for marine use
82095	12	6	36	1/4"-18 NPSF	

Fuel Pump Service Kit	
P/N	Note
82960	Service kit for all fuel pumps listed above



82089

Unique Features:

(GOOD) P/N 82089:

- For carburetor applications where low cost and good durability are required (not for fuel injected vehicles)
- Flow to up 52 GPH (190 LPH)
- Continuous duty life (diesel fuel): > 5,000 hrs
- Weight: 1.63 lbs (0.74 kg)
- Pump cycles continuously when power is on

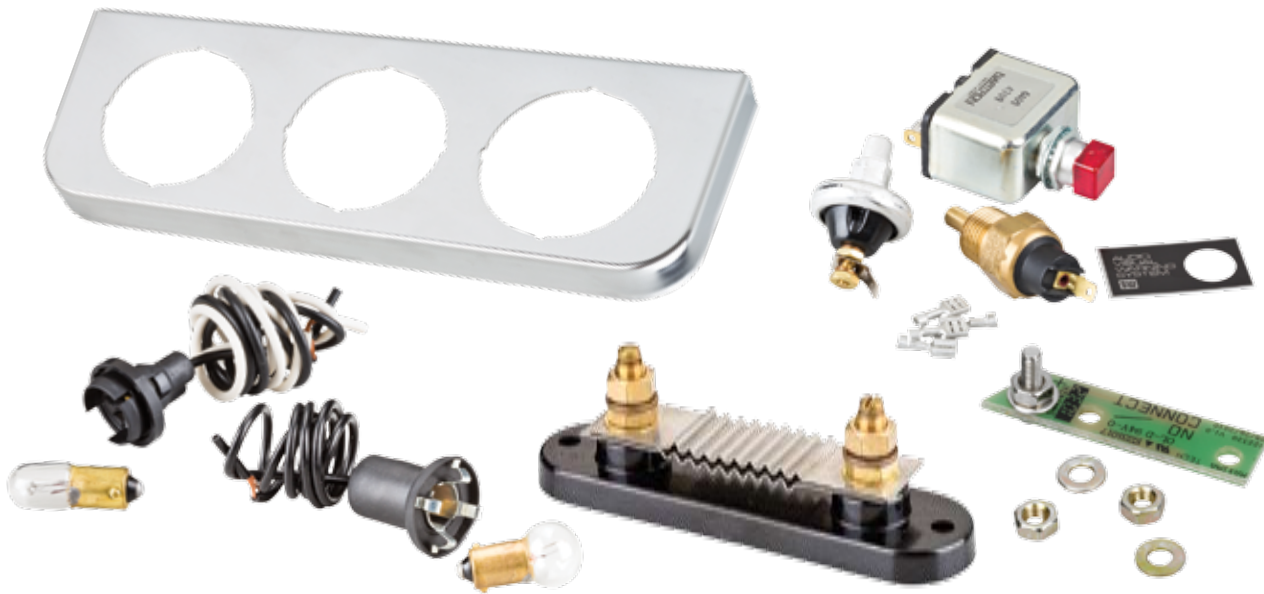
(BETTER) P/N 82095:

- For carburetor applications where low cost and better durability are important and fuel quality is questionable (not for fuel injected vehicles)
- Flow up to 55 GPH (210 LPH)
- Continuous duty life (diesel fuel): > 10,000 hrs
- Weight: 1.83 lbs (0.83 kg)
- Pump cycles continuously when power is on
- Replaceable filter

(BEST) P/Ns 82091, 82092, 82093 & 82094:

- For carburetor applications where battery life, low noise and best durability are important and fuel quality is questionable (not for fuel injected vehicles)
- Flow up to 60 GPH (225 LPH)
- Ampere hours: up to 70% less than 82089 and 82095
- Continuous duty life (diesel fuel): > 18,000 hrs
- Weight: 1.83 lbs (0.83 kg)
- Pump cycles only when fuel is demanded
- Replaceable filter





Light Kits, Gauge Panel, Ammeter Shunt, Audio Visual Warning Kit and Voltage Adapter Kit

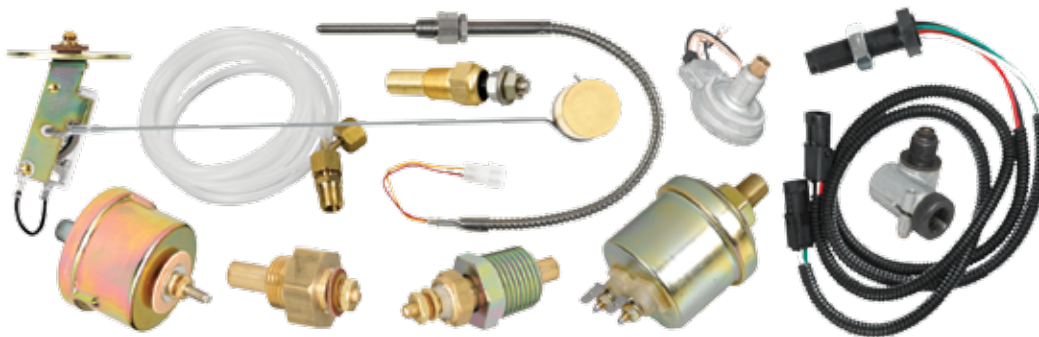
The Original. Accept No Substitutes.

Genuine Stewart Warner accessories assure you of the accurate, consistent performance engineered into our gauges.

When you buy a Stewart Warner gauge, you are choosing quality, so finish the job right with genuine Stewart Warner accessories!

Match with Stewart Warner senders for a perfectly tuned "system solution."

- The industry standard for nearly 50 years
- Light kits: designed specifically for Stewart Warner gauges, available in 12 and 24 volt.
- Gauge panels: rugged designs accept 1, 2 or 3 small gauges or one 3" speedometer or tach.
- Ammeter shunts: when external shunting is required.
- Voltage adapters: allow 12-volt Stewart Warner gauges to be used in 24-volt systems.
- Audio Visual Warning light/buzzer kits.



Accessory Part Numbers:

Replacement Light Kits (EXCEPT Gauge Line)

P/N	Light Hole Ø in	Socket Type	Voltage	Type	Number of Wires
366FK-F	5/8"	Metal, 1" long	12 Volt	Push-in	1 (black) *1
366CH	5/8"	Metal, 1" long	12 Volt	Mounting bracket	1 (black) *1
366SX	5/8"	Plastic, 1" long	12 Volt	Push-in	2 (black/white) *1
366SX24	5/8"	Plastic, 1" long	24 Volt	Push-in	2 (black/white) *1
82551	1/2"	Metal, 1" long	12 Volt	Push-in	1 (black) *1
82550	1/2"	Metal, 1" long	12 Volt	Push-in	2 (black/white) *1

NOTES:

*1 = Actual product appearance may differ from table and pictures.

Single-wire light kits are for use with a metal gauge case that is grounded to the electrical system.

Two-wire light kits include a dedicated ground wire and are for use when ground cannot be made via the gauge case.

These light kits are NOT for use with Gauge Line gauges.



366FK-F



366CH



366SX24



82550

Replacement Light Kits – GAUGE LINE

P/N	Compatibility	Light Socket	Voltage	Type	Number of Wires
122001	Gauge Line only	Plastic	12 Volt	Push-in	2 (black/red) *1
122335	Gauge Line only	Plastic	24 Volt	Push-in	2 (black/red) *1

NOTES:

*1 = Actual product appearance may differ from table and pictures.

These light kits are for use with Gauge Line gauges ONLY.



122335

Gauge Mounting Panels

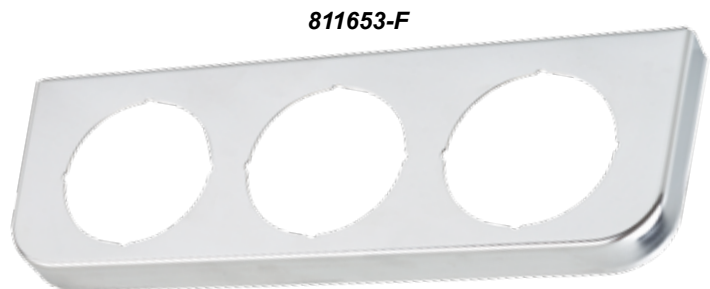
P/N	Gauge Size	Surface Finish	Notes
817825-F	2-1/16"	Chrome	1 Hole
814143-F	2-1/16"	Chrome	2 Hole
811653-F	2-1/16"	Chrome	3 Hole
366ACM	3-3/8"	Black	1 Hole



817825-F



814143-F



811653-F

Accessory Part Numbers:



407616

Shunts for Ammeters

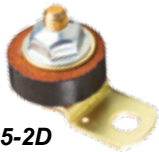
P/N	Amps
813489	60
407616	100
413717	150 / 300

NOTES:

For use with ammeters requiring external shunts.



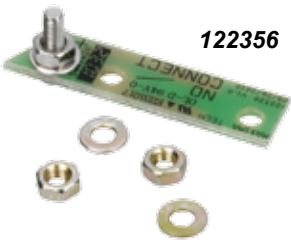
413717



829525-2D

Voltage Adapters (24-to-12 VDC)

P/N	System Voltage	Application Compatibility
829525-2D	24VDC	Stewart Warner except Gauge Line
122356	24VDC	Gauge Line ONLY



122356

Description:

- Adapts a 12 VDC gauge to function within a 24 VDC electrical system.



825104-D

Audio Visual Warning – Light/Buzzer

P/N	Description
825104-D	Audio-Visual Alarm – Light and Buzzer

366TJ

Audio-Visual Alarm – Light and Buzzer Kit
 Kit Includes: Light and Buzzer P/N 825104-D,
 P/N 364L-F Pressure Switch (6 PSI, 1/8" NPTF) and
 P/N 83307 Temperature Switch (200° F, 1/2" NPTF)



366TJ

