



MurphyLink™ J1939 System |



PowerView



MDDM

The **MurphyLink** system has taken a huge leap forward with the introduction of PowerView, the next generation in this advanced product line. With PowerView, you can see what your engine's Electronic Control Unit (ECU) is telling you in plain text. It puts the information where it's needed most - at your fingertips.

Display Parameters

The following are some of the engine and transmission parameters displayed by the PowerView & MDDM in English or metric units:

- Engine rpm
- Engine Hours
- Machine Hours
- System Voltage
- % Engine Load at the current rpm
- Coolant Temperature
- Oil Pressure
- Fuel Economy
- Throttle Position
- Engine Manifold Air Temperature
- Current Fuel Consumption
- Trans. Gear Oil Pressure (PowerView Only)
- Trans. Gear Oil Temperature (PowerView Only)
- Transmission Gear Position (PowerView Only)
- Active Service Codes
- Stored Service Codes from the Engine
- Set Units for Display (English or Metric)
- Engine Configuration Parameters

PowerView |

Specially designed by Murphy to meet the needs for instrumentation and control on electronically controlled engines communicating using the SAE J1939 Controller Area Network (CAN). The PowerView system is comprised of the PowerView and the MLink™ PowerView Gauges. It is a multifunction tool that enables equipment operators to view many different engine or transmission parameters and service codes. The system provides a window into modern electronic engines and transmissions. It includes a graphical backlit LCD screen and has excellent contrast and viewing from all angles. Back lighting can be controlled via menu or external dimmer potentiometer. The display can show a single parameter or a quadrant display showing 4 parameters simultaneously. Diagnostic capabilities include fault codes with text translation for

the most common fault conditions. Enhanced alarm indication with ultra bright alarm and shutdown LEDs (amber & red).

Specifications:

- Display: 1.3" x 2.6", 46 x 128 pixels
- Operating Voltage: 8V DC minimum to 32V DC maximum
- Reversed Polarity: Withstands reversed battery terminal polarity indefinitely within operating temperatures
- CAN BUS: SAE J1939 Compliant
- Maximum Panel Thickness: 3/8"
- Mounting Hole: 2.062" in diameter
- Dimensions: 6" x 6" x 6"
- Connectors: 6-Pin Deutsch DT06 Series

Order No.	Mfg. PN	Description	Price
PowerView			
E86720	PV101-A	PowerView	\$479.95

Murphy Display and Diagnostic Module (MDDM) |

- Now with MODBUS RTU Communications
- Specifically Designed for SAE J1939 Controller Area Network (CAN) Equipment Applications
- Displays over 30 Standard SAE J1939 Parameters
- Broadcast by Major Engine and Transmission Manufacturers' ECM's
- Displays Active Faults and ECM Stored Fault Codes for Diagnosing Equipment Malfunctions
- Converts Critical SAE J1939 CAN Data Input Standard MODBUS RTU Information

The MDDM is a powerful, easy-to-use multifunction tool that enables the operator to view many different engine parameters and engine service codes. It includes a two line, eight character backlit LCD display. The top line displays data labels; ie, "OilPress." The bottom line displays appropriate units information; ie, "80 psi" for oil pressure. Two push buttons are used for scrolling through the parameter list and viewing the menu list. Two LEDs (amber & red) are used to annunciate active fault messages received by the MDDM. Can be connected up to 40 meters from the ECM; up to 32 components may be linked to the MDDM by an RS485 daisy chained twisted pair cable up to 1,000 meters from the MDDM. Standard 2 1/16" chrome gauge.

Murphy Display and Diagnostic Module (MDMM)

E86620	MDDM20-C	Display and Diagnostic Module	\$479.95
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MurphyLink™ J1939 System |



PVA35 -P



PVA20 -A



PowerView Gauges |

The PowerView Analog Gauges (PVA) are a series of intelligent gauges designed to display easy-to-read information transmitted by the PowerView. The PVA gauges communicate with the PowerView via a single RS485 twisted pair MODBUS® RTU serial link. The gauges can be daisy-chained using quick-connect harnesses with watertight connectors.

The PVA gauges also include features such as a smooth stepper motor operation for the 270° sweep pointer, an environmentally sealed case with two Deutsch DT style connectors molded into the casing, and green LED back lighting. They are available for standard 2-1/16" (52 mm) and 3-3/8" (86 mm) diameter hole sizes. In addition their plastic cases incorporate a "D" shape allowing panel cutouts that eliminate gauge rotation during installation.

The PowerView Audible Alarm (PVAA) alerts operators to fault conditions via piezoelectric alarm and relay contacts. It also has a temporary silencer button that silences the audible tone for 2 minutes on warnings and 30 seconds on shutdown conditions. All PowerView Gauges can be powered by 12 or 24V DC systems.

- For Modern Electronic Engines and Equipment Using SAE J1939 Controller Area Network
- Display SAE J1939 Parameters Broadcast by The PowerView System
- Cutting-Edge, Stepper Motor Technology and Robust Functionality Combined
- Microprocessor Driven for High Accuracy
- Simple Installation and Wiring Design

Custom Panels built upon request to include any of the following gauges:

Mfg. PN	Description
PowerView Gauges	
PVA20 -A	2" Engine Oil Pressure
PVA20 -B	2" Coolant Temperature
PVA20 -C	2" Voltmeter
PVA20 -D	2" Percent Load at Current RPM
PVA20 -E	2" Transmission Oil Pressure
PVA20 -F	2" Transmission Oil Temperature
PVA20 -G	2" Engine Oil Temperature
PVA20 -H	2" Hydraulic Oil Temperature
PVA20 -J	2" Percent Fuel Level
PVA20 -K	2" Boost Pressure
PVA20 -L	2" Exhaust Gas Temperature
PVA20 -M	2" Intake Manifold Temperature
PVA20 -N	2" Auxiliary Pressure
PVA20 -P	2" Tachometer
PVA35 -P	3 1/2" Tachometer
PVA20 -T	2" Audible Alarm





Electric SWICHGAGES®



EGS21T



EGS21P



ESP-100



EST-150/300



EGS21AM-60

- ✓ 2 1/4" SWICHGAGE®, 2 1/16" mounting hole
- ✓ Soft non-glare dial and pointer with LED illumination
- ✓ 12V power input, must specify 24V
- ✓ 100 psi pressure range
- ✓ 250°F temperature range
- ✓ EG Air Core movement design
- ✓ Environmentally sealed
- ✓ Adjustable trip point over 90° of the scale
- ✓ SWICHGAGE® PowerHall Effect sensor, 300mA continuous

The EGS21 electric SWICHGAGE® takes the electric gauge to new heights with proven technology and reliability. Utilizing Murphy's proven EG Air Core movement design, the EGS Series offers technological improvements in overall operation, lighting, accuracy in reading, wiring and installation. These rugged gauges are environmentally sealed for reliable operation under tough off-road and power unit environments. Soft, non-glare dial and pointer illumination is provided for a "cold light" LED and when powered the white lettering and clear pointer become soft red. The EGS Series has an adjustable set point PowerHall® Effect switch output for operating alarms or equipment shutdown. The trip point is adjustable over 90% of the scale and has a set point indicator visible on the gauge face.

Order No.	Mfg. PN	Description	Price
EGS1 Electric SWICHGAGES®			
E67360	EGS21T-250-12	250°F Temperature SWICHGAGE®	\$119.95
E67310	EGS21P-100-12	100 psi Pressure SWICHGAGE®	\$119.95
E67460	EST-150/300-1/2	250/300°F Temperature Sender 1/2" NPT	\$39.95
E67410	ESP-100	100 psi Pressure Sender 1/8" NPT	\$53.95
E67480	EGS21AM-60	Ammeter	\$95.95

WDE 300 Series Immediate Shutdown for Stationary Engines



WD300 Series is a universally applicable open-back panel for a wide variety of stationary diesel engines. It includes basic engine protection for low oil pressure and high coolant temperature. For 12V systems.

Specifications:

1. EGS21P 100 psi Pressure SWICHGAGE®
 2. ESP 100 psi Pressure Sender 1/8" NPT
 3. EGS21T 250°F Temperature SWICHGAGE®
 4. EST 250/300°F Temperature Sender 1/2" NPT
 5. 117 TATTLETALE® Magnetic Switch
- Note: Valves and tubing kits sold separately

Order No.	Mfg. PN	Description	Price
E21095	WDE 300	Immediate Shutdown Panel	\$419.95

Mechanical Temperature SWICHGAGE®

- ✓ Combination Indicating Gauge and Limit Switch
- ✓ Critical Temperature Limit Switch is Visible and Adjustable
- ✓ Switch Can Activate Alarms and/or Shutdown Equipment
- ✓ Contact Grounds Through Case
- ✓ 2 1/2" dial, white on black, dual scale not lit
- ✓ 2 1/2" dial, black on white, dual scale with light

Order No.	Mfg. PN	Description	Price
20T Series Temperature SWICHGAGE®			

This diaphragm-actuated, temperature indicating SWICHGAGE® has built-in electrical switches for tripping alarms and/or shutdown devices. The SWICHGAGE® pointer acts as a temperature indicator and has one switch pole which completes a circuit when it touches the adjustable limit contact. Available in 250 or 320°F and 4'-16' capillary lengths. Higher temperature ranges are for use on air-cooled engines where the probe is inserted into the oil pan. English and metric scales. 2 1/2" dial, 2 1/6" mounting hole, not lit. The 20T-IPI is the same except has a light for night use. Specify 12 or 24V.

E69710	20T-250-4	250°F with 4' capillary	\$83.95
E69720	20T-250-6	250°F with 6' capillary	\$89.95
E69730	20T-250-8	250°F with 8' capillary	\$91.95
E69740	20T-250-10	250°F with 10' capillary	\$94.95
E69760	20T-250-16	250°F with 16' capillary	\$95.95
E69810	20T-320-6	320°F with 6' capillary	\$83.95
E69800	20T-320-16	320°F with 16' capillary	\$95.95
E69821	20T-IPI-6	250°F 12V with 6' capillary and light	\$107.95
E69822	20T-IP2-6	250°F 24V with 6' capillary and light	\$227.95
E69831	20T-IP1-8	250°F 12V with 8' capillary and light	\$113.95
E69832	20T-IP2-8	250°F 24V with 8' capillary and light	\$239.95

20TH Cylinder Head Temperature SWICHGAGE®

Temperature for air cooled engines can be measured in the cylinder head or in the lubricating oil. Oil temperature will give a more uniform reading than cylinder head since the oil circulates throughout the engine. Generally the cylinder head must already have a hole drilled and tapped for insertion (10 mm x 1.5 thread) of the temperature sensing probe. 2 1/2" dial, 2 1/6" mounting hole, not lit, 4' capillary.

E69870	20 TH-320-4-M10	Cylinder Head Temperature SWICHGAGE®	\$107.95
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Custom Engine Panels

Industrial • Agricultural • Marine Engines

Assemblies available or can be designed for most engine applications.

Whether shutdown occurs by control of ignition or diesel fuel valve, **FARMTRONICS** can create custom panels with other options such as:

- Time delay and alarm before shutdown
- Turbo cool down before shutdown
- Control and instrument panels
- Power Distribution Load Centres
- Panel Lettering
- Engine rpm
- Coolant Pressure
- Switch Panels
- Electronics



CAUTION: Do not cut a capillary. It contains chemicals or solvents which may be hazardous under certain circumstances.



20T-250



20T-320



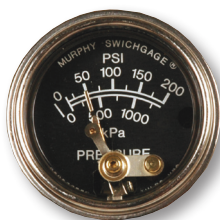
20 TH-320



20T-IP2-6



Mechanical Pressure SWICHGAGE®



20P-200



20P7-150



20P-IP1-100



20PW7-150

- ✓ 2 1/2" gauge, white on black, dual scale, not lit
- ✓ 2 1/2" gauge, black on white, dual scale, with light
- ✓ Stainless steel bezel
- ✓ Adjustable Limit Contact is normally open (NO) when pointer is normal
- ✓ Mounting clamp included

What is a SWICHGAGE®?

A SWICHGAGE® is FWMurphy's most renowned product. It is a rugged, highly accurate, industrial quality gauge with a built-in electrical switch for tripping an alarm and/or shutdown device.

SWICHGAGE® models are available in various sizes and configurations to fit a variety of applications. Models can be electromechanical or electronic.

Murphy's electromechanical SWICHGAGE® models feature direct actuated switching using either face adjustable single-pole contacts or snap-acting SPDT switches.

A unique feature is the wiping action of the face-mounted contact(s). As the gauge pointer meets the limit contact, a wiping action occurs to keep the contacts clean for positive switching.

State-of-the-art electronic models expand the number and the type of variables that can be monitored. Readings and switch points are digitally displayed keeping the user alert to changes in operating conditions.

Murphy SWICHGAGE® instruments help protect your engine, enhance your preventive maintenance program, provide immediate diagnostic data in the form of accurate reading of pressure, temperature, level, vibration, overspeed, etc. Together with Murphy SELECTRONIC® controls, alarms, shutdown devices, and TATTLETALE® annunciators, they become an effective, multi-point protective system for your equipment.

Order No.	Mfg. PN	Description	Price
20P Series Pressure SWICHGAGE®			

A diaphragm actuated, pressure indicating gauge, with built-in electrical switches. These switches are used for tripping alarms and/or shutdown switches. Gauge mechanism is enclosed in a steel case coated to resist corrosion. The 20P-IP1 series is the same except has a light for night use, must specify 12 or 24V.

E67830	20P-50	50 psi pressure	\$66.95
E67840	20P-75	75 psi pressure	\$66.95
E67850	20P-100	100 psi pressure	\$66.95
E67860	20P-150	150 psi pressure	\$66.95
E67870	20P-200	200 psi pressure	\$66.95
E67930	20P-IP1-100	100 psi pressure with light-12V	\$89.95
E67931	20P-IP2-100	100 psi pressure with light-24V	\$89.95
E67940	20P1-100	100 psi pressure with slot	\$72.95

20P7/20PW7 Series Pressure SWICHGAGE® with Lockout

Is the same as the 20P Series but also includes a front, semi-automatic lockout for startup override. This built-in device holds the pointer away from the contact on startup. When pressure exceeds the set point, the lockout is automatically disengaged. The 20PW7 Series has a 150 psi scale which reads "pump pressure," 2 1/2" dial, 2 1/6" mounting hole, not lit.

E67900	20P7-100	100 psi pressure	\$69.95
E67910	20P7-150	150 psi pressure	\$69.95
E67890	20P7-200	200 psi pressure	\$69.95
E67920	20PW7-150	150 psi pump pressure	\$69.95

DHK Oil Pressure Tubing Kit

DHK oil pressure tubing kit consists of gauge fitting, pressure tubing and engine fitting. This deluxe kit is ideal for heavy-duty industrial applications. The nylon core is reinforced with a synthetic fiber braid and polyurethane cover. Both ends of the pressure tubing have swagged fittings. 1/8" I.D., brass and steel fittings, working pressure 2,500 psi.

E66980	DHK-A-72-D-G	6' Tubing Kit	\$79.95
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Mechanical Pressure SWITCHGAGE®



20VWC-30



20DP-50



PV-HL



DHK-A-72-D-G



Order No.	Mfg. PN	Description	Price
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VWC Series Air Filter Restriction SWITCHGAGE®

For use with dry air filters. As the air filter deteriorates, the air inflow will decrease creating increased vacuum between the air filter and the carburetor. The vacuum is monitored by the SWITCHGAGE® which gives a visual readout of the filter condition. Can be used on any type of dry air filters for gasoline or diesel engines. Particularly useful for engines operating in dusty environments such as agriculture and construction. Standard model has a range of 0-30" of water restriction. 2 1/2" dial, 2 1/6" mounting hole, not lit.

E67970	20VWC-30	0-30"	\$107.95
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DP Series Fuel, Air, or Water Restriction SWITCHGAGE®

This model is a diaphragm - actuated, differential pressure - indicating gauge, with a built-in electrical switch. This switch is used for tripping alarms and/or shutting down equipment. This SWITCHGAGE® is intended to monitor and indicate oil, fuel or water filter restriction and can reduce the risk of dangerously high pressure which may rupture the filter, resulting in contaminants entering the system. 50 P.S.I.D. is the standard; other ranges are available. Call for assistance in choosing ranges and factory settings. 2 1/2" dial, 2 1/6" mounting hole, not lit.

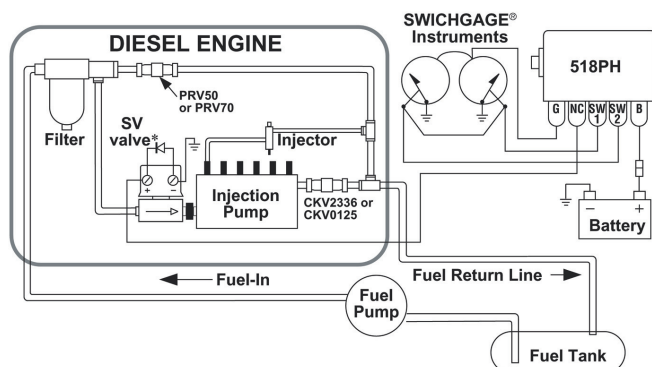
E67990	20DP-50	50 P.S.I.D.	\$143.95
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20PV Series Turbo Boost SWITCHGAGE®

A combination instrument gauging both vacuum and pressure. Designed to monitor turbo-charged engines, this gauge can be used in any situation requiring a combustion pressure/vacuum gauge with built-in limit switching. Features high and low contacts. Range 5 psi to 20" Hg. 2 1/2" dial, 2 1/6" mounting hole, not lit.

E67980	PV-HL	Turbo Boost	\$79.95
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Typical Shutdown Systems



The MURPHYGAGE® Not Just Another Pretty Gauge!

Quality design, materials, and manufacturing make the MURPHYGAGE® a superior gauge that will give long and reliable service.

The MURPHYGAGE® VS. Other Gauges

Most gauges rely on the gauge case to serve as part of the sensing chamber. The MURPHYGAGE® does not. The diaphragm expands and contracts constantly with changing pressures or temperatures. It is held precisely in place by part and mounting plate. An almost non-distortable pressure chamber is formed by the port and mounting plate, protecting the sensitive beryllium copper diaphragm from damage. This is one of the prime differences between MURPHYGAGE® instruments and "other" gauges.

In most gauges the diaphragm and an expansion retarding plate are soldered directly into the case port and held in place by a locator ring. Should the case receive any damage in this area, the diaphragm operation could be affected. In the MURPHYGAGE®, however, the diaphragm is protected and securely locked in position. Another feature of the MURPHYGAGE® is the removable pulsation damper (pressure instruments only) which provides for periodic cleaning when being used with liquids which might cause clogging. Other gauges are usually equipped with a non-removable damper.



Pre-wired Panels |



E21070



E21080



E21150



E21160

Warning Only |

On an alarm condition the audible alarm and lamp will remain on until the alarm condition is cleared. This unit is a warning system only. Alarms on high water temperature or low oil pressure. (Pressure tubing kit not included sold on Page 60.)

Specifications

- Closed-style panel
- 0-100 psi Oil Pressure SWICHGAGE®
- 250°F Coolant Temperature SWICHGAGE® (specify 6' or 16' capillary)
- Audible alarm and lamp
- 5 psi to 20" Hg. Turbo Boost SWICHGAGE® (E21160 only)

Order No.	Mfg. PN	Description	Price
E21150 Custom Warning Only Panels			
E21150-6	Custom	Panel Dual Warning 6'	\$275.95
E21150-16	Custom	Panel Dual Warning 16'	\$287.95
E21160 Custom Warning Only Panels with Turbo Boost Gauge			
Same as the E21150 except a Turbo Boost SWICHGAGE® has been added			
E21160-6	Custom	Panel 3 Gauge Dual Warning 6'	\$343.95
E21160-16	Custom	Panel 3 Gauge Dual Warning 16'	\$354.95

WAI Series Warning Before Shutdown |

WAI Series panels offer engine protection for on and off road mobile equipment. You get accurate engine readings and time-delayed automatic shutdowns. Flashing light and MINI-SIREN® signal a warning before the shutdown. The WAI panels are easy to install and function test without the need for expensive auxiliary equipment. They are a complete diagnostic, engine-protection system. Any vehicle or engine can be monitored, and in case of potentially damaging conditions, an alarm will operate before the engine is shut down. WAI panels feature direct-reading, mechanical SWICHGAGE® instruments (gauge and limit switch in one) and SELEC-TRONIC® relays and alarms. The gauges are internally lighted for night illumination.

Specifications

- Open-Style Panel
- 0-100 psi Oil Pressure SWICHGAGE®
- 250°F Coolant Temperature SWICHGAGE® with 6' Capillary
- MINI-SIREN®
- TL7, Flasher Alarm Light
- 760AF Magnetic Switch with 30 second delay for alarm before shutdown; 12V DC (optional 24V)
- 0-15 psi Coolant Pressure SWICHGAGE® (WAI-8 only)
- 140-300°F Transmission Temperature SWICHGAGE® (WAI-9 only)

WAI-7

Dimensions: Panel front 3 3/16" (W) x 7 3/8" (L) x 4 9/16" (D)

E21070	WAI-7	Warning Before Shutdown Panel	\$599.95
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WAI-8 / WAI-9

Dimensions: Panel front 3 3/16" (W) x 9 7/8" (L) x 4 9/16" (D)

E21090	WAI-8	Warning Before Shutdown with Coolant Pressure Panel	\$719.95
E21080	WAI-9	Warning Before Shutdown with Transmission Temperature Panel	\$839.95

Immediate Shutdown |

- ✓ Murphy SWICHGAGES® are two instruments in one: (1) an accurate indicating gauge with (2) a built-in adjustable, limit switch.
- ✓ 518PH TATTLETALE® magnetic switch is designed to shut down engines.
- ✓ Standard SWICHGAGE® ranges: Pressure 0-100 psi; Temperature 100-250°F (Other ranges are available upon request).
- ✓ 2 1/2" dial, white on black
- ✓ Pressure tubing kit sold separately. See Page 60.

WD100 Series Immediate Shutdown |

The control center for each of these kits is the compact and adjustable Universal Mounting Panel. WD100LV is designed for distributor ignition engines or diesels that have a built-in shutdown device. WD185 are for diesel engines without shutdown solenoid in the injection pump, a fuel shutoff valve, or rack puller solenoid. Must specify 12 or 24V.

WD100 Specifications:

1. 20P oil pressure SWICHGAGE®
2. 20T temperature SWICHGAGE® with 6' capillary
3. 518PH TATTLETALE® magnetic switch
4. Bracket, mounting bolts, washers, and nuts

WD185 Specifications:

- Same as WD100, and:
1. CKV2336 fuel reverse flow/check valve
 2. SV12 fuel shut-off solenoid valve
 3. PRV50 fuel pressure relief valve

Order No.	Mfg. PN	Description	Price
E21010	WD100LV	Immediate Shutdown Panel	\$359.95
E21020	WD185	Immediate Shutdown Panel	\$479.95

WD300 Series Immediate Shutdown for Stationary Engines |

The WD300 Series is a universally applicable open-back panel for a wide variety of stationary diesel engines. It includes basic engine protection for low oil pressure and high coolant temperature. For 12 or 24V systems.

Specifications:

1. 20P oil pressure SWICHGAGE® 100 psi
 2. 20T temperature SWICHGAGE® 250°F with 4' capillary
 3. 117 TATTLETALE® magnetic switch
- Note: Valves and tubing kits sold separately

E21030	WD300	Immediate Shutdown Panel	\$335.95
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75160 Series Immediate Shutdown for Irrigation and Pumps |

The 75160 Series SWICHGAGE® panel is specifically configured for irrigation engines and includes loss of pump discharge pressure SWICHGAGE®. The panel is enclosed on top, bottom, and both ends. Mounting flanges extend on top and bottom. The back of the panel is open. Must specify 12 or 24V.

Specifications:

1. 20P oil pressure SWICHGAGE® 100 psi
 2. 20T temperature SWICHGAGE® 250°F with 4' capillary
 3. 518PH TATTLETALE® magnetic switch
 4. 20PW7 pump pressure SWICHGAGE® 150 psi
- Note: Valves and tubing kits sold separately

E21050	75160	Irrigation Immediate Shutdown Panel	\$539.95
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WD100 Series



WD300 Series



75160 Series



DC Solenoid and Diesel-Fuel Shutoff Valves |

Push or Pull DC Solenoids |

RP Series push/pull DC Solenoids provide single unit versatility for engine applications, such as shutdown. Unlike most existing solenoids, this line features three-wire circuitry, which reduces the chance for burned up coils due to incomplete seating of the plunger. If the plunger does not "seat" due to improper linkage adjustment, the solenoid coil will release the plunger. This allows it to return to the "tripped" position, thus overcoming coil burnout. A choice of two models and two voltages is available. All models come with return spring and rubber seal boot.



RP2307B/RP2308B



RP2309B/RP2310B

Order No.	Mfg. PN	Volts	Max. Stroke	Max. Pull	Max. Hold	Length	Diameter	Price
E65810	RP2309B	12V	1 1/2" (38 mm)	14 lb.	34 lb.	7 7/32"	2"	\$119.95
E65830	RP2310B	24V	1 1/2" (38 mm)	14 lb.	34 lb.	7 7/32"	2"	\$131.95
E65840	RP2307B	12V	1" (25 mm)	11 lb.	23 lb.	5"	1 5/8"	\$95.95
E65850	RP2308B	24V	1" (25 mm)	11 lb.	23 lb.	5"	1 5/8"	\$95.95

Solenoid Drive Time Delay |



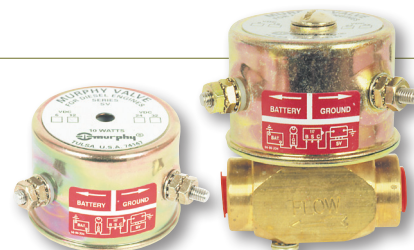
This SD85 is used when the solenoid is duty cycled for short time periods such as 2-position throttle operation. It also provides enhanced operational control for normal on-off applications. Activates both coils of the solenoid for a short time then de-energizes the Energize-coil. The Hold-in coil remains energized.

E65790 (SD85) Solenoid Drive Delay....\$143.95

Solenoid Operated Fuel Shutoff Valve |

The SV Series valve is a normally closed valve that opens when current is supplied from the battery through a magnetic switch. Temperature, level, or pressure SWICHGAGE® instruments installed on the engine and pump or compressor, trip the magnetic switch, breaking the circuit from the battery which closes the valve and stops the engine. The standard SV-12 valve operates on 12V DC, has a 1/4" NPT inlet and outlet, and a full 3/16" (5 mm) orifice. Other voltages are optional. The standard SV valves open against 30 psi. (207 kPa) inlet pressure.

The SV Series fuel shutoff valve is intended for use with diesel engines having externally accessible fuel injection pumps. The volume of fuel required for the engine to operate must be able to pass through the 3/16" (5 mm) orifice of the valve. You must be able to attach the fuel valve directly onto or in close proximity to the fuel injection pump in order to close off fuel flow to the pump. The SV series **IS NOT** intended for use with engines having "unit" injectors. Use **only** with diesel.



Order No.	Mfg. PN	Description	Price
E65720	SV12	Fuel Valve	\$107.95
E65740	SV24	Fuel Valve	\$107.95
E65730	55-01-0141	12V Repl. Coil	\$ 67.95
E65750	55-01-0145	24V Repl. Coil	\$ 67.95

CRV and PRV Series Diesel Fuel Check Valves |

CKV Series is an in-line, one-way valve for the prevention of fuel siphoning from the diesel return line by an injection pump in engine shutdown systems using a Murphy SV valve. The CKV is necessary to ensure a rapid shut down of the engine by fuel starvation of the injection system. 1/4" NPT.

E65630 (CKV2336) Fuel Check Valve ... \$47.95

PRV50 is an in-line, one-way valve for the prevention of over pressure damage to fuel filters and their housings. This pressure relief valve operates in conjunction with a Murphy SV series shutdown valve. After the SV closes, a rapid high pressure build-up caused by the fuel pump can occur. The PRV, mounted in a fuel return line after the filter, will open to relieve pressure buildup. 1/4" NPT.

E65620 (PRV50) Pressure Relief Valve. \$35.95



CKV2336



PRV50

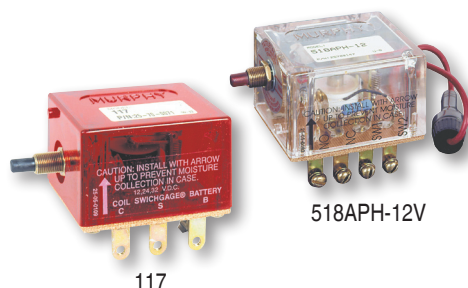
Switches |

TATTLETALE® Magnetic Switches |

Nerve Centers for Murphy SWICHGAGE® Instruments and Automation Systems

TATTLETALE® Magnetic Switches are the nerve centers that translate SWICHGAGE® contact operations into decisions and operate the alarm or shutdown device. They are the electrical load carrying devices for the alarm or shutdown device. TATTLETALE® annunciators indicate which monitored function failed leading to the alarm or shutdown whereas magnetic switches do not. Magnetic switches operate basically as a latching relay.

Magnetic Switches and TATTLETALE® annunciators are available for use with engines and electric motors. Various circuits, time delays, and contact configurations are available to match the power source and mode of operation required for alarm only, alarm before shutdown, or shutdown only. For distributor ignition engines, the magnetic switch opens the distributor coil circuit to cause shutdown. For magneto or CD ignitions the magnetic switch grounds the ignition output. Some models can also trip fuel valves instead of or in addition to grounding the ignition. Diesel engines are shut down by closing off the fuel or air supply. Magnetic switches and TATTLETALE® annunciators can make or break circuits for these engines.



117

117 |

117 is used to shutdown 12V through 32V distributor ignition or diesel engines. Breaks circuit when tripped. Opens distributor coil circuit or power circuit to diesel run device (NC contacts). Automatically disconnects from battery after trip. Contacts 10 AMPS 32V DC, 14 AMP fuse. Comes with reset button, and is used on the WD300 Series shutdown panels.

E65300 (117) Switch 12/24V \$59.95

MS2110 |

MS2110 is a multi-purpose TATTLETALE switch with dry contacts that can be used to make two circuits and break another when tripped. Operates from 12 or 24V DC or 24V AC. The operating coil is intermittent duty and must be disconnected by an external circuit when tripped. The MS2110 is a replacement for the 221PH, 169PH, 274 and 274PH.

E65390 (MS2110) Switch 12/24V \$59.95

Replacement Fuse

E64125	14 AMP Fuse	\$4.95
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518APH-12V



760A-30-12N

518APH |

518APH allows for SWICHGAGE® and/or NC contacts to be wired "closed loop" (in series). Any contact open or SWICHGAGE® contact closed in the circuit shunt trips the 518APH. Specify 12 or 24V DC. Contacts 10 AMP 24V, 14 AMP fuse.

E65330 (518APH-12V) Switch 12V \$77.95

E65340 (518APH-24V) Switch 24V \$77.95

760A/761APH |

760A/761APH used for distributor ignition or diesel. Time delay lockout of SWICHGAGE® contacts on start-up only; customer wired for delayed or immediate trip on shutdown. Breaks and makes contacts when tripped. Resets automatically when power is removed. Must specify 12 or 24V DC, negative or positive ground and length of time delay. 30 second (standard) delay. Contacts 10 AMPS 24V, 14 AMP fuse. 761APH has manual reset.

E65360 (760A-30-12N) Switch 12V \$139.95

E65370 (760A-30-24N) Switch 24V \$139.95

E65380 (761APH-30-12) Switch 12V \$129.95
with manual reset



Time Switches |

- ✓ Spring Wound, No Electric Power Required
- ✓ Precision Movement Can Be Set to Zero at Any Time
- ✓ Built-in Stop Prevents Over Winding

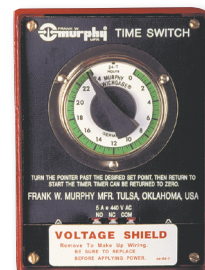
Time switches can automatically start or stop engines or electrical motors at a predetermined time. These switches can be wired for normally open or closed circuit when time expires, and feature a precision movement that gives years of reliable service. A built-in stop prevents over winding. Murphy Time Switches are designed for use in the oil field, irrigation systems or anywhere equipment must operate or be controlled by a predetermined time.



15T

15T 15 minute timers mount directly in control panels for short range timing with manual reset. These switches are perfect for disconnecting shutdown circuits while equipment is being started. 3 1/4" dial, 2 7/16" mounting hole

E80550 (15T) 15 Minute Timer \$143.95



24T

24T time switches are enclosed in a NEMA 4 weatherproof enclosure. A hinged, gasketed cover and 1/2" NPT conduit connection allow for a dust-tight installation. The enclosure includes a clasp and eye for padlock, to prevent unauthorized operation. Instructions for popular engine applications are secured inside the lid. Dimensions: 5 5/16" x 8 3/8"

E80540 (24T) 24 Hour Timer \$335.95



Specialty Products |

Shock/Vibration Switch |

VS2 Series switches are shock sensitive mechanisms for shutdown of engine or electric motor powered equipment. These switches use a magnetic latch to ensure reliable operation and have a weatherproof case. Ideal for use on engines, pumps, compressors, heat exchangers, and pumping units. It can be used anywhere shutdown protection from damaging shock/vibration is desired. Switches are field adjustable to sensitivity required in each application. For fans, compressors, etc. Explosion-proof "EX" models are for hazardous locations. The case is made of explosion-proof aluminum alloy and meets NEMA 7/IP50 specifications.



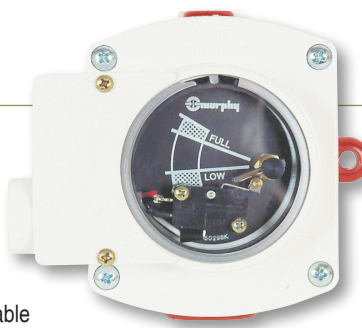
E81710



Order No.	Mfg. PN	Description	Price
E81710	VS2	Shock/Vibration Switch	\$215.95
E81720	VS2EX	Shock/Vibration Switch	\$299.95

Liquid Level SWICHGAGE® |

EL150 Series Liquid Level SWICHGAGE® is a combination liquid level gauge and low limit switch. Each unit includes a chamber with pivotal float, and indicating pointer with dial, and a low level contact. When properly installed and maintained, the float operates the pointer which, in turn, both indicates level during normal operation, and closes a switching circuit if the level falls to the user adjustable low-limit set point. The primary use for these level instruments is with engine cooling systems, whether pressurized or atmospheric. These instruments can also be used to monitor lube oil, hydraulic fluid or diesel fuel reservoirs and activate alarms and/or shutdown at a predetermined minimum level. Built for low pressure systems.



E81760 (EL150K1) Liquid Level \$149.95

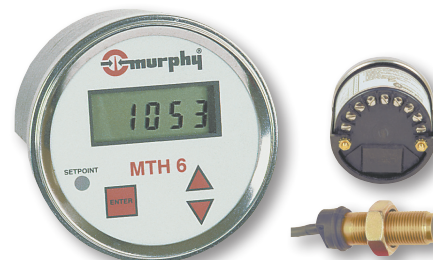
Lube Level SWICHGAGE® |

L129 Series Lube Level SWICHGAGE® is a combination lube level indicating gauge and adjustable low and high limit switches. It provides protection against low oil level or high level caused by overflow or fuel or water seepage into the crankcase. A 6 3/4" deep sight gauge allows you to check the condition and level of your oil without shutting down your equipment. Fingertip adjustable limit contacts, through 4 7/8" range, makes it simple to set high and low limit contacts. If the float touches the high or low limit contact, a normally open circuit will be completed which can activate alarms and/or shutdown the equipment. The L129 is designed for grounded, low voltage electrical systems. It features a one-wire-to-ground electrical circuit.



E81770 (L129) Lube Level SWICHGAGE \$163.95

Digital Tachometer/Hourmeter with Overspeed Trip |



MTH6 is a microprocessor based digital tachometer and hourmeter with a built-in overspeed switch that is highly accurate and dependable. It measures speed and running hours and can give an alarm or shutdown the engine on overspeed. Engine rpm data for the tachometer and overspeed switch is supplied by a magnetic pickup or battery charging alternator. The magnetic pickup is installed into the flywheel housing of an internal combustion engine. Accuracy is ± 1 rpm.

Order No.	Mfg. PN	Description	Price
E06220	MTH6	Digital Tachometer	\$539.95
E15430		Magnetic Sensor	\$53.95

3 7/16" Self-Powered Digital Tachometer |



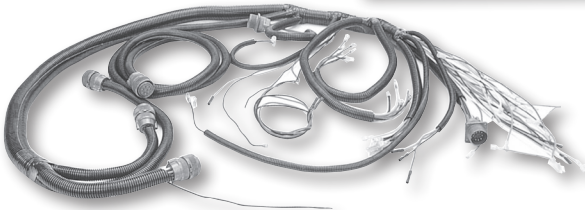
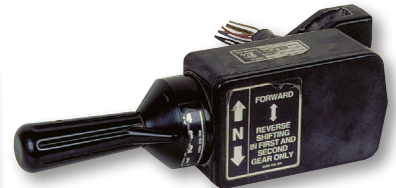
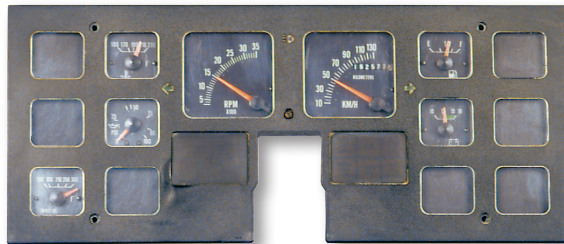
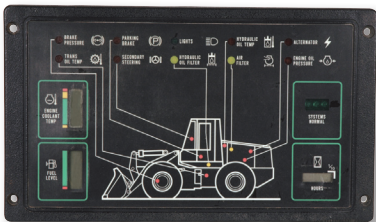
This Murphy MT-90 high accuracy LCD digital tachometer reads to ± 1 rpm. Ideal for use where the ultimate in accuracy is required or where battery voltage is not available. Engine rpm data is supplied by a magnetic pickup, pulse generator, or by an alternator rpm terminal. Display lighting requires a separate source of DC power 12, 24, or 32 VDC. Engine rpm's can be read without display lighting. Calibration is performed by setting a series of switches on the back of the tachometer. Sensor sold separately.

Order No.	Mfg. PN	Description	Price
E06210	MT-90	Digital Tachometer	\$419.95
E15430		Magnetic Sensor	\$53.95

Heavy Equipment Service |

e-Power Instruments is a division of Farmtronics Ltd and has been in business in Saskatchewan for over 30 years. We have a large bay and are in the industrial area which is accessible to the transport industry. Our electronic service technicians have experience in servicing the various electrical and instrumentation systems installed on heavy equipment - including on-board computers and satellite GPS systems manufactured by VDO, Cancom, etc.

- ✓ Tachographs
- ✓ Dash Panels
- ✓ On-board computers
- ✓ Satellite Systems
- ✓ Shutdown Systems
- ✓ Tachometers/Cables
- ✓ Speedometers/Cables
- ✓ Cables
- ✓ Wiring Harnesses
- ✓ Monitoring Systems



Custom Design / Fabricate |

Cables / Wiring Harnesses



You can make your own cable or we can make it for you. We would be pleased to quote a price or supply you with the connectors and terminals.

Engine Protection Panels

Custom design a pre-wired engine protection panel to include:

- ✓ Time delay and alarm before shutdown
- ✓ Turbo cool down before shutdown
- ✓ Engine rpm
- ✓ Coolant Pressure
- ✓ Control and instrument panels
- ✓ Switch Panels
- ✓ Power Distribution Load Centres
- ✓ Electronics
- ✓ Panel Lettering



Shaft Monitors

Our engineering department will work closely with you to design and fabricate a shaft monitoring system to meet your exact requirements. We can create a variety of shaft alarm systems with options that may include relay outputs to activate lights, horns, or shutdowns with a pre-set trip point.

