

Section 2. Automotive Wire



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Featured Manufacturer: Prestolite Wire

Automotive Wire

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Specifications subject to change. For complete specifications and availability visit www.lapptannehill.com



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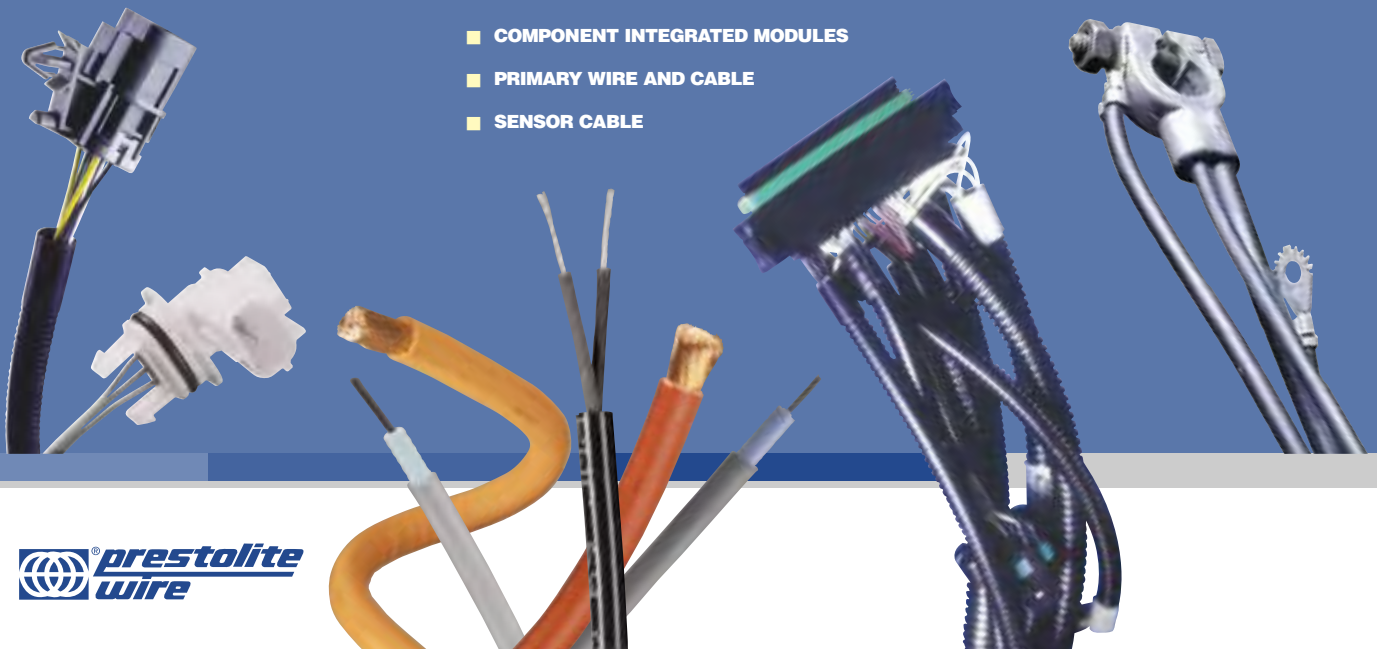
OEM engineers and buyers in automotive and transportation manufacturing companies have a unique resource in Prestolite Wire Corporation. Since 1911, Prestolite has engineered and manufactured wire and cable, electrical components, wire harnesses and fully assembled electronic modules and systems. Our capability and experience remains unmatched as we provide customers with full-service resources to handle total product programs from concept and prototype all the way to production shipment and warranty analysis.

The electrical product capabilities of Prestolite Wire Corporation include:

- SPECIALITY WIRE HARNESSSES
- IGNITION WIRE SETS
- BATTERY CABLE ASSEMBLIES
- MULTI-CONDUCTOR HARNESSSES
- EMI/RFI SUPPRESSION PRODUCTS
- CIRCUIT BOARD ASSEMBLIES
- ELECTRICAL INTERCONNECT COMPONENTS
- COMPONENT INTEGRATED MODULES
- PRIMARY WIRE AND CABLE
- SENSOR CABLE

Automotive Aftermarket Electrical Products

Prestolite has a solid track record in manufacturing aftermarket spark plug wire sets to meet a variety of needs, such as tight space requirements, hard to reach installations, noise suppression and temperature extremes, including S.A.E. J2031 Class E ratings, in both the automotive and marine industries. Professional technicians know they can rely on Prestolite aftermarket parts to provide the same fit, function, color and performance as the original parts on virtually every car and boat sold in North America.



Automotive Wire

TWP Hook-up Wire



Construction: Conductors: Stranded bare copper. **Insulation:** PVC.

Bulk wire used in wiring harnesses for passenger cars and light trucks, agricultural tractors, construction, locomotive and off-the-road vehicles.

Features:

- Excellent resistance to oil and flame
- Lighter weight than GPT and HDT

Technical Data:

Temperature: -40°C to +85°C

Color Code: Replace the X
0-Black, 1-Brown, 2-Red,
3-Orange, 4-Yellow, 5-Green,
6-Blue, 7-Violet, 8-Gray, 9-White,
54-Green/Yellow

Part Number	AWG	Stranding	Minimum Average Wall Inches	Nominal Outer Diameter Inches
TWP-22-X	22	7X30	.013	.062
TWP-20-X	20	7X28	.013	.070
TWP-18-X	19	19X30	.012	.081
TWP-16-X	16	19X29	.013	.069
TWP-14-X	14	19X27	.013	.103
TWP-12-X	12	19X25	.015	.126
TWP-10-X	10	19X23	.019	.155
TWP-8-19-X	8	19x21	.016	.184

GPT Hook-up Wire



Construction: Conductors: Stranded bare copper. **Insulation:** PVC.

For use in general circuit wiring according to SAE J-1128. It also is used in wiring harnesses in passenger cars and light trucks, agricultural tractors, construction, locomotive and off-the-road vehicles.

Features:

- Meets SAE J1128
- Ford Spec M1L-56A
- Chrysler Spec MS-3450

Technical Data:

Temperature: -40°C to +85°C

Color Code: Replace the X
0-Black, 1-Brown, 2-Red,
3-Orange, 4-Yellow, 5-Green,
6-Blue, 7-Violet, 8-Gray, 9-White,
54-Green/Yellow

Part Number	AWG	Stranding	Minimum Average Wall Inches	Nominal Outer Diameter Inches
GPT-22-X	22	7X30	.019	.076
GPT-20-X	20	7X28	.019	.084
GPT-18-X	18	16X30	.018	.092
GPT-16-X	16	19X29	.018	.103
GPT-14-X	14	19X27	.018	.117
GPT-12-X	12	19X25	.021	.144
GPT-10-X	10	19X23	.025	.175

SGT



Construction: Conductors: Stranded bare copper. **Insulation:** PVC.

Can be used for automotive starters or battery grounds in accordance with SAE J-1127.

Features:

- Meets Ford M1L-56A
- Chrysler MS-3419

Technical Data:

Temperature: -40°C to +125°C

Color Code: Replace the X
0-Black, 2-Red

Part Number	AWG	Stranding	Nominal Conductor OD Inches	Nominal Outer Diameter Inches
SGT-6-37-X	6	37X29	.190	.310
SGT-6-133-X	6	133X27	.181	.306
SGT-6-266-X	6	266X30	.200	.312
SGT-4-61-X	4	61X22	.219	.360
SGT-4-133-X	4	133X25	.246	.395
SGT-2-127-X	2	127X32	.289	.435
SGT-2-133-X	2	133X23	.290	.450
SGT-2-665-X	2	665X30	.305	.448
SGT-1-127-X	1	127X22	.341	.479
SGT-1-266-X	1	266X25	.361	.491
SGT-1/0-1064-X	1/0	1064X30	.405	.531
SGT-1/0-266-X	1/0	266X24	.393	.537
SGT-1/0-127-X	1/0	127X21	.348	.500
SGT-2/0-1408-X	2/0	1408X30	.429	.570
SGT-3/0-1408-X	3/0	1672X30	.515	.670
SGT-4/0-2109-X	4/0	2109X30	.562	.741

SXL



Construction: Conductors: Tinned or bare copper. **Insulation:** XLPE.

Features: Can be used in automotive applications where higher heat resistance is required.

Applications: Cables used for automotive electrical.

Additional Information:

- Custom strand constructions.
- Custom diameter to meet design criteria.
- Various colors for base and stripe combinations.

Technical Data:

Temperature: 125°C

Color Code: Replace the X
0-Black, 1-Brown, 2-Red,
3-Orange, 4-Yellow, 5-Green,
6-Blue, 7-Violet, 8-Gray, 9-White,
54-Green/Yellow

Approvals:
• Ford ESB-M1L85-A
• ESB-M1L86-A
• Chrysler MS-5919

Part Number	AWG	Stranding	Nominal Conductor OD Inches	Nominal Outer Diameter Inches
SXL-20-7-X	20	7X28	.038	.096
SXL-18-16-X	18	16X30	.048	.107
SXL-16-19-X	16	19X29	.056	.118
SXL-14-19-X	14	19X27	.069	.141
SXL-12-19-X	12	19X25	.088	.161
SXL-10-19-X	10	19X23	.108	.191
SXL-8-19-X	8	19X21	.137	.225

GXL



Construction: Conductors: Stranded bare or tinned copper. **Insulation:** XLPE.

Type GXL, single core wire with a thinwall XLP insulation, is for use in engine compartments where high heat resistance is required according to SAE-J-1128.

Features:

- Excellent heat resistance
- Smaller OD and lighter than SXL
- Meets Ford ESB-M1L85-B
- Chrysler MS-8900



Technical Data:

Temperature: -40°C to +125°C

Color Code: Replace the X
0-Black, 1-Brown, 2-Red,
3-Orange, 4-Yellow, 5-Green,
6-Blue, 7-Violet, 8-Gray, 9-White,
54-Green/Yellow

Part Number	AWG	Stranding	Nominal Conductor OD Inches	Nominal Outer Diameter Inches
GXL-20-X	20	19X32	.039	.084
GXL-20-X	20	7X28	.038	.084
GXL-18-X	18	16X30	.045	.091
GXL-16-X	16	19X29	.056	.102
GXL-14-X	14	19X27	.071	.114
GXL-12-X	12	19X25	.088	.140
GXL-10-X	10	19X23	.108	.173
GXL-8-X	8	19X21	.137	.215

TXL



Construction: Conductors: Stranded bare copper. **Insulation:** XLPE.

Type TXL, single core wire, has an extra thinwall of XLP insulation for automotive applications requiring smaller diameters and minimal weight. It meets SAE-J-1560 as well as Ford (M1L-123A) and Chrysler (MS-8288).

Features:

- Excellent heat resistance and flexibility

Technical Data:

Temperature: -40°C to +125°C

Color Code: Replace the X
0-Black, 1-Brown, 2-Red,
3-Orange, 4-Yellow, 5-Green,
6-Blue, 7-Violet, 8-Gray, 9-White,
54-Green/Yellow

Part Number	AWG	Stranding	Minimum Average Wall Inches	Nominal Outer Diameter Inches
TXL-22-X	22	7X30	.013	.030
TXL-20-X	20	7x28	.013	.070
TXL-18-X	18	16X30	.013	.082
TXL-18-X	18	19x31	.013	.078
TXL-16-X	16	19X29	.013	.088
TXL-14-X	14	19X27	.013	.103
TXL-12-X	12	19X25	.013	.128
TXL-10-X	10	19X23	.017	.155
TXL-8-X	8	19X21	.018	.191

Automotive Wire

SGX

Construction: **Conductors:** Stranded bare copper. **Insulation:** XLPE.




Can be used for automotive starters or battery grounds where resistance to abrasion, heat and aging is needed.

Features:

- Very flexible
- Meets Ford ESB-M1L85-A
- Chrysler MS-5919

Technical Data:

 **Temperature:** -40°C to +125°C

 **Color Code:** Replace the X
0-Black, 1-Brown, 2-Red,
3-Orange, 4-Yellow, 5-Green,
6-Blue, 7-Violet, 8-Gray, 9-White,
54-Green/Yellow

Part Number	AWG	Stranding	Nominal Conductor OD Inches	Nominal Outer Diameter Inches
SGX-6-37-X	6	37X21	.190	.297
SGX-6-133-X	6	133X27	.181	.300
SGX-6-266-X	6	266X30	.200	.312
SGX-4-61-X	4	61X22	.219	.360
SGX-4-133-X	4	133X25	.228	.356
SGX-2-127-X	2	127X23	.289	.435
SGX-2-133-X	2	133X23	.290	.450
SGX-2-665-X	2	665X30	.305	.448
SGX-1-127-X	1	127X22	.341	.479
SGX-1-266-X	1	266X25	.361	.491
SGX-1/0-127-X	1/0	127X21	.348	.500
SGX-1/0-266-X	1/0	266X24	.393	.537
SGX-1/0-1064-X	1/0	1064X30	.405	.531
SGX-2/0-1408-X	2/0	1408X30	.429	.570
SGX-3/0-1672-X	3/0	1672X30	.515	.675
SGX-4/0-2109-X	4/0	2109X30	.562	.741

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SGR



Construction: Conductors: Stranded bare or tinned copper. **Insulation:** cross-linked polyolefin.

Cables used for automotive electrical

Features:

- Very Flexible
- Ford spec ESB-MIL 85-A
- Chrysler spec MS-5919

Technical Data:

Temperature: -40°C to +125°C

Color Code: Replace the X
0-Black, 1-Brown, 2-Red, 3-Orange,
4-Yellow, 5-Green, 6-Blue, 7-Violet,
8-Gray, 9-White, 54-Green/Yellow

Part Number	AWG	Stranding	Nominal Conductor OD Inches	Nominal Outer Diameter Inches
SGR-6-X	6	49X23	.173	.297
SGR-6-X	6	133X27	.181	.300
SGR-4-X	4	61X22	.219	.353
SGR-4-X	4	133X25	.228	.359
SGR-4-X	4	420X30	.255	.389
SGR-2-X	2	127X23	.289	.428
SGR-2-X	2	133X23	.290	.436
SGR-2-X	2	266X26	.320	.457
SGR-2-X	2	665X30	.305	.448
SGR-2-X	2	704X30	.297	.436
SGR-1-X	1	127X22	.341	.480
SGR-1-X	1	266X25	.361	.498
SGR-1-X	1	880X30	.345	.481
SGR-1/0-X	1/0	266X24	.393	.537
SGR-1/0-X	1/0	127X21	.348	.496
SGR-1/0-X	1/0	1064X30	.405	.556
SGR-2/0-X	2/0	127X20	.400	.556
SGR-2/0-X	2/0	1408X30	.429	.57
SGR-3/0-X	3/0	1760X30	.465	.64
SGR-4/0-X	4/0	2224X30	.544	.722



STR



Construction: Conductors: Stranded bare or tinned copper. **Insulation:** Prestel.

Cables used for automotive electrical

Features:

- Good oil resistance
- High Flexibility

Technical Data:

Temperature: -40°C to +125°C

Color Code: Replace the X
0-Black, 1-Brown, 2-Red, 3-Orange,
4-Yellow, 5-Green, 6-Blue, 7-Violet,
8-Gray, 9-White, 54-Green/Yellow

Part Number	AWG	Stranding	Nominal Conductor OD Inches	Nominal Outer Diameter Inches
STR-6-X	6	133/27	.181	.271
STR-6-X	6	280X30	.185	.274
STR-4-X	4	133X25	.229	.324
STR-4-X	4	440X30	.237	.333
STR-2-X	2	127X23	.289	.391
STR-2-X	2	133X23	.290	.394
STR-2-X	2	665X30	.305	.411
STR-2-X	2	704X30	.297	.400
STR-1-X	1	880X30	.345	.446
STR-1/0-X	1/0	127X21	.348	.450
STR-1/0-X	1/0	1064X30	.405	.524
STR-1/0-X	1/0	1112X30	.380	.484
STR-2/0-X	2/0	127X20	.400	.510
STR-2/0-X	2/0	1408X30	.429	.539
STR-3/0-X	3/0	1672X30	.515	.631
STR-4/0-X	4/0	2224X30	.544	.682



Welding Cable



Construction: Conductors: Stranded bare or tinned copper. **Insulation:** EDPM.

Cables used for welding electrical

Features:

- High strength tear-resistant jacket
- Excellent resistance to abrasion and impact
- Superior flexibility, even at cold temperatures
- Flame resistant

Technical Data:

⊕ Temperature: 125°C

🌀 Color Code: Black (standard): other colors available on special request



Part Number	AWG	Stranding	Nominal Conductor OD Inches	Nominal Outer Diameter Inches
Welding-6-X	6	266X30	.194	.323
Welding-4-X	4	392X30	.211	.375
Welding-3-X	3	525X30	.248	.377
Welding-2-X	2	672X30	.284	.424
Welding-1-X	1	779X30	.346	.51
Welding-1/0-X	1/0	1026X30	.391	.561
Welding-2/0-X	2/0	1130X30	.434	.606
Welding-3/0-X	3/0	1672X30	.442	.619
Welding-4/0-X	4/0	2052X30	.547	.728

Multi-Conductor All Purpose Specialty Cables

Construction: Conductors: Stranded bare or tinned copper plus alloys.

Insulation: Cross-linked polyethylene, PVC, polyurethane, other compounds.

Multi-conductor specialty assemblies in passenger cars, truck and any vehicle where heat, flexibility, chemical and abrasion resistance is required.

Features:

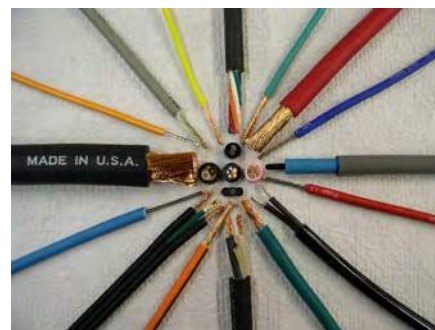
- Excellent heat, abrasion and fluid resistance
- Custom cable designs are available upon request

Technical Data:

⊕ Temperature: -40°C to +200°C

🌀 Color Code:
 • Available standard in 12, 14, 16, 18, 20, 22 and 24 awg, cabled with 2 twisted conductors.
 • 3, 4 or 5 conductor cables are also available on special request

Nominal Jacket OD (mm)	AWG	# of Primaries	Primary Insulation	Jacket Insulation
4.2	24	2	Prestomax	Polyurethane
4.3	20	2	XLPE	Polyurethane
4.5	20	2	XLPE	Polyurethane
4.6	22	3	PVC	PVC
4.7	20	2	XLPE	PVC
4.7	20	2	PVC	PVC
5.0	20	2	XLPE	Polyurethane
5.3	18	2	XLPE	PVC
6.2	18	2	XLPE	Polyurethane
6.2	18	3	XLPE	Polyurethane
6.2	18	4	XLPE	Polyurethane
6.2	18	5	XLPE	Polyurethane



SAE J1939-11 Can Bus Data Cable

Construction: **Insulation:** XLPO, TPU.



Custom strand constructions
 Custom diameter to meet design criteria
 Various colors for base and stripe combinations
 Available with or without filler

Features:

- Excellent oil and chemical resistance
- Electrical connection of a number of ECU's to network

Technical Data:

Temperature: 125°C

SAE J1939-11 Physical media
 SAE J1128 performance
 (fluid, flame propagation)

Insulation option: 150°C

AWG Size	Number of Strands	Nom Conductor OD	Filler	Nom OD	Min Wall	Impedance	Approx Weight	Approx CU	Shielded	Drain Wire
20	19x33	.035	Yes	.335	.023	120+ -10% @1MHZ	31	9	Yes	20 ga 10X30T
18	19X31	.035	Yes	.335	.023	120+ -10% @1MHZ	25	6	Yes	20 ga 10X30T

SAE J1939-15 Can Bus Data Cable

Construction: **Conductors:** Stranded bare copper. **Insulation:** PVC.



Custom strand constructions
 Custom diameter to meet design criteria
 Various colors for base and stripe combinations
 Available with or without filler

Features:

- Excellent oil and chemical resistance
- Electrical connection of a number of ECU's to network

Technical Data:

Temperature: 125°C

SAE J1939-11 Physical media
 SAE J1128 performance
 (fluid, flame propagation)

Insulation option: 150°C

AWG Size	Number of Strands	Nom Conductor OD	Filler	Nom OD	Min Wall	Impedance	Approx Weight	Approx CU
18	19x31	.044	No	.252	.011	120+ -10% @10MHZ	38	13
18	19X31	.044	Yes	.262	.015	120+ -10% @10MHZ	34	10
20	19X33	.035	No	.235	.023	120+ -10% @10MHZ	31	9
20	19X33	.035	Yes	.235	.023	120+ -10% @10MHZ	25	6

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