

HIGH VOLTAGE IGNITION CABLES AND FLAME SENSE WIRES

Delivering the 15K to 25K volts of spark energy from the ignition control to the electrode is a vital element of an ignition system. There are 3 material options and multiple terminal configurations available. Shown are the most popular versions offered by Fenwal®. To ensure maximum spark energy, it is recommended that the ignition wires not be longer than 36". Longer lengths are available and should be evaluated on the appliance to determine if there is sufficient spark energy to consistently light the burner under all conditions. Once the wire type and terminal configurations are determined, complete the part number by replacing the last two digits ("XX") with the length in inches ("L" dimension). Standard wire lengths are 12, 18, 24, 30, 36, 48, and 60 inches. For other lengths, please contact Fenwal.

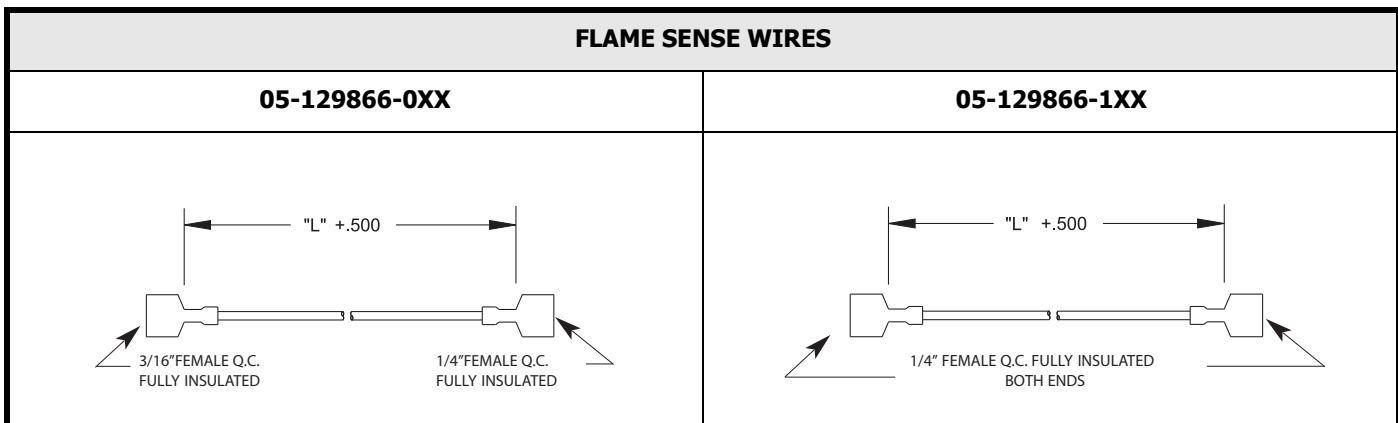
Types

- SILICONE RUBBER SUPPRESSION TYPE (Recommended): Resistive carbon coated fiberglass core prevents spark energy radiation from interfering with other electronic systems. Select this wire type for applications where wire lengths are less than 36" and noise is a major concern.
- SILICONE RUBBER COPPER CONDUCTOR TYPE: Low resistance copper conductor transmits maximum spark energy. Select this type when maximum energy or longer wire lengths are required and noise is not a major concern.
- TEFLON INSULATED TYPE: Low resistance copper conductor transmits maximum spark energy. Select this type for applications that have tight clearances and sharp bend radii.
- FLAME SENSE WIRES: Spark electrodes with integral remote sense rod, i.e. 22-100001-076, have a 3/16" male q.c., choose flame sense wire 05-129866-0XX. For remote flame sense rods, i.e. 22-100001-080 choose flame sense wire part number 05-129866-1XX.

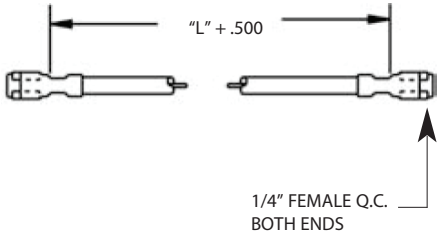
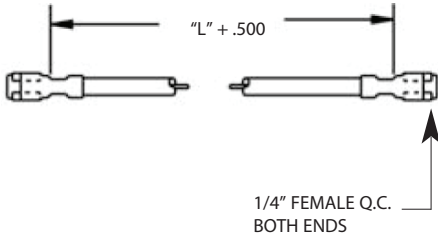
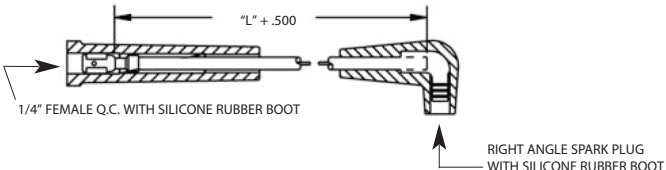
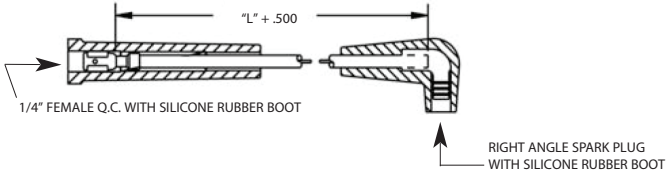
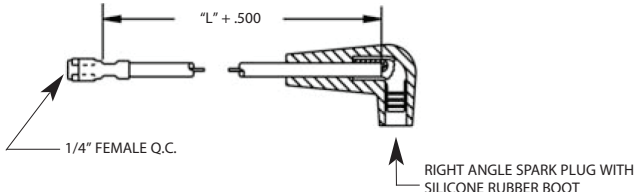
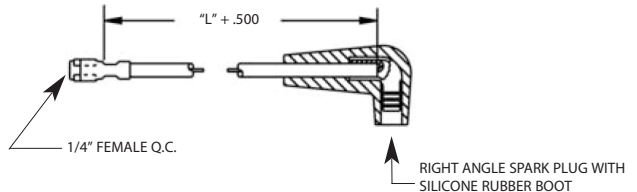
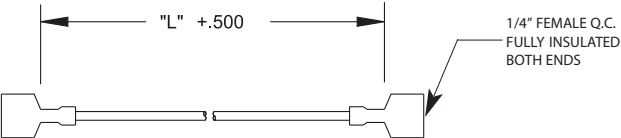
High Voltage Ignition Cable Specification

Type	Voltage Rating	Agency Rating	Temperature Rating	Diameter	Jacket Material	Part Numbers
Flame Sense Wires	600 V	UL/CSA Listed	200°C (392°F)	18 gage stranded	Teflon	05-129866-0XX 05-129866-1XX
Silicon Rubber Suppression	20 KVDC	SAE J2031 CLASS E	176°C (350°F)	7mm (.27")	Silicone Rubber over Fiberglass Braid	05-129608-0XX 05-129608-2XX 05-129608-6XX
Silicon Rubber Copper Conductor	25 KVDC	UL Type 3257	250°C (482°F)	7mm (.27") 20 AWG	Silicone Rubber	05-127613-2XX 05-129865-0XX 05-125948-0XX
Teflon Insulated	25 KVDC	UL Type 1911	250°C (482°F)	2mm (.08") 20 AWG	Teflon	05-129887-0XX

High Voltage Ignition Cable Diagrams



High Voltage Ignition Cable Diagrams (Continued)

SILICONE RUBBER SUPPRESSION	SILICONE RUBBER COPPER CONDUCTOR
<p data-bbox="266 237 613 268">05-129608-6XX (SAE J2031)</p>  <p data-bbox="467 495 630 537">1/4" FEMALE Q.C. BOTH ENDS</p>	<p data-bbox="976 237 1289 268">05-125948-0XX (UL3257)</p>  <p data-bbox="1157 495 1320 537">1/4" FEMALE Q.C. BOTH ENDS</p>
<p data-bbox="266 573 613 604">05-129608-2XX (SAE J2031)</p>  <p data-bbox="123 737 407 758">1/4" FEMALE Q.C. WITH SILICONE RUBBER BOOT</p> <p data-bbox="586 779 769 810">RIGHT ANGLE SPARK PLUG WITH SILICONE RUBBER BOOT</p>	<p data-bbox="976 573 1289 604">05-129865-0XX (UL3257)</p>  <p data-bbox="818 737 1102 758">1/4" FEMALE Q.C. WITH SILICONE RUBBER BOOT</p> <p data-bbox="1284 779 1468 810">RIGHT ANGLE SPARK PLUG WITH SILICONE RUBBER BOOT</p>
<p data-bbox="266 846 613 877">05-129608-0XX (SAE J2031)</p>  <p data-bbox="180 1056 302 1077">1/4" FEMALE Q.C.</p> <p data-bbox="537 1077 756 1108">RIGHT ANGLE SPARK PLUG WITH SILICONE RUBBER BOOT</p>	<p data-bbox="976 846 1289 877">05-127613-2XX (UL3257)</p>  <p data-bbox="875 1056 997 1077">1/4" FEMALE Q.C.</p> <p data-bbox="1219 1077 1438 1108">RIGHT ANGLE SPARK PLUG WITH SILICONE RUBBER BOOT</p>
TEFLON INSULATED	
05-129887-0XX (UL1911)	
 <p data-bbox="602 1283 724 1335">1/4" FEMALE Q.C. FULLY INSULATED BOTH ENDS</p>	

WIRING HARNESSES

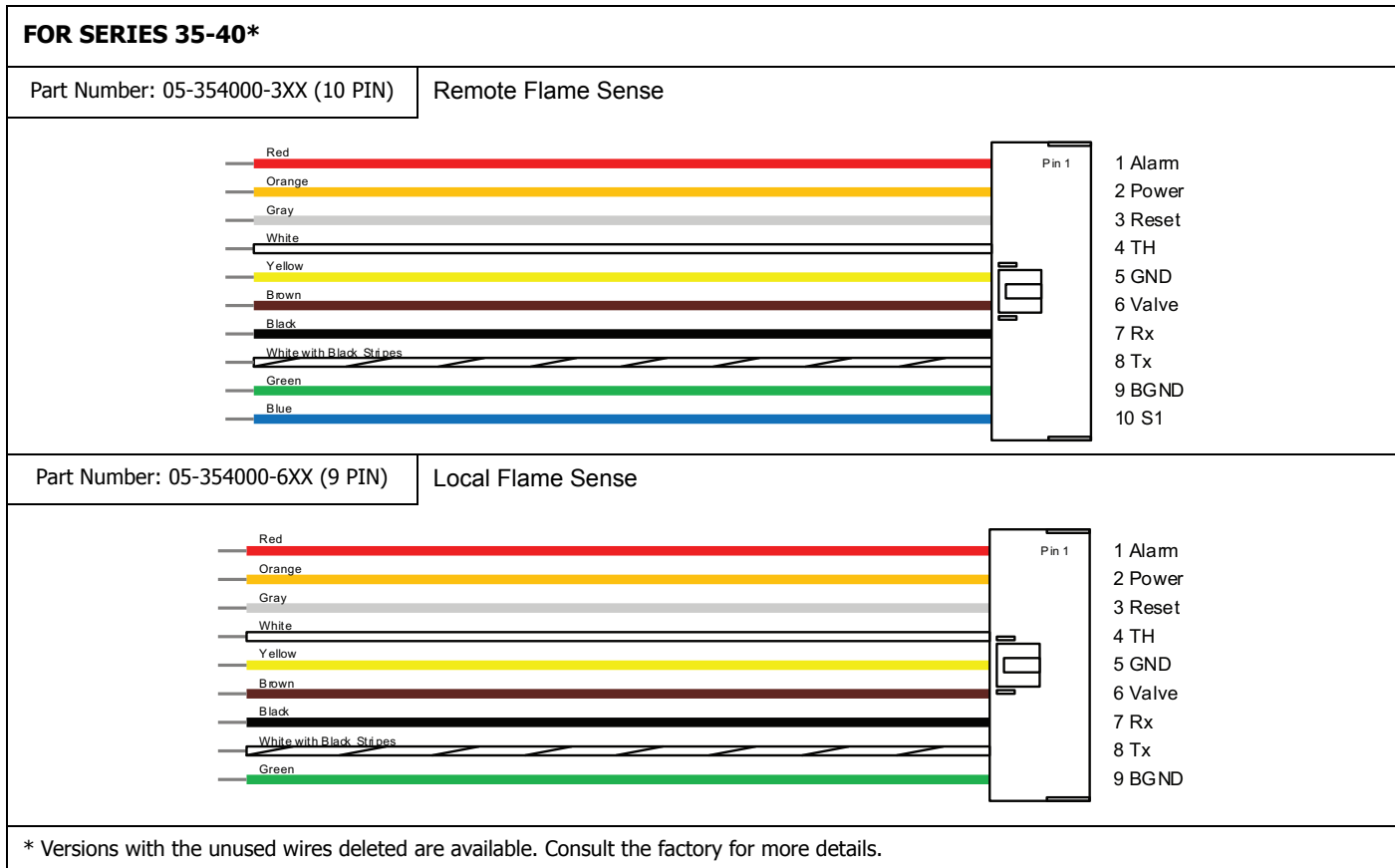
To simplifying specifying and ordering complete ignition control assemblies, Fenwal wiring harnesses are available for many of our multi-pin connector models. All Fenwal harness use UL/CSA listed wires, and agency listed multi-pin or Molex® style connectors. Standard available wire lengths are 12, 18, 24, 30, 36, 48, and 60 inches. Please consult factory for specific model availability.

Wire Specifications

Type	Voltage Rating	Agency Rating	Temperature Rating	Diameter	Jacket Material
All Wires	600 V	UL/CSA Listed	105°C (221°F)	18 AWG stranded	PVC
Gray Only	600 V	UL/CSA Listed	200°C (392°F)*	18 AWG stranded	PVC

* Unless otherwise noted.

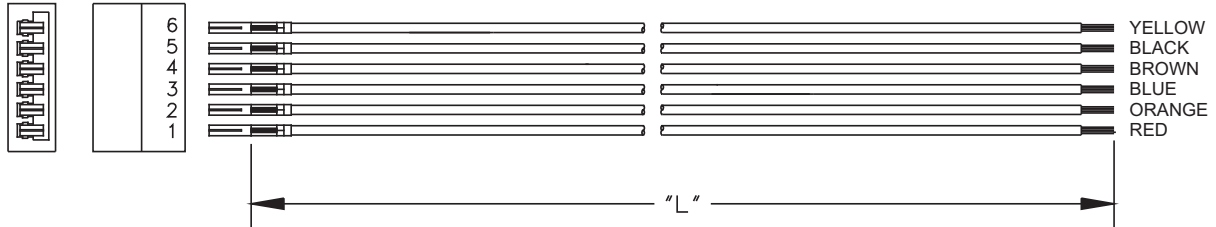
Wiring Harness Diagrams



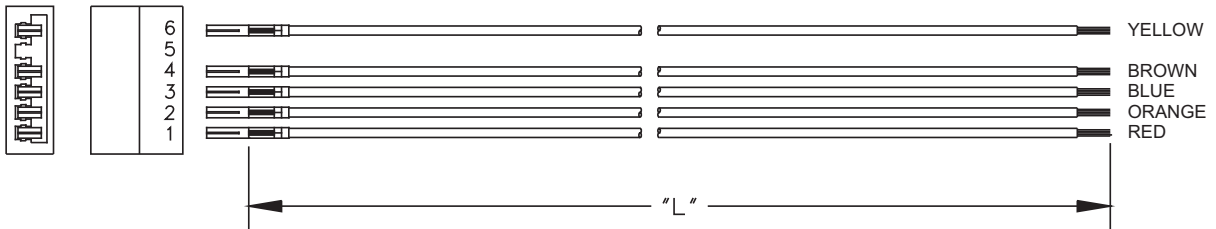
Wiring Harness Diagrams (Continued)

FOR SERIES 35-53 (Edge Connect Models)

Part Number: 05-129927-2XX* Remote Flame Sense



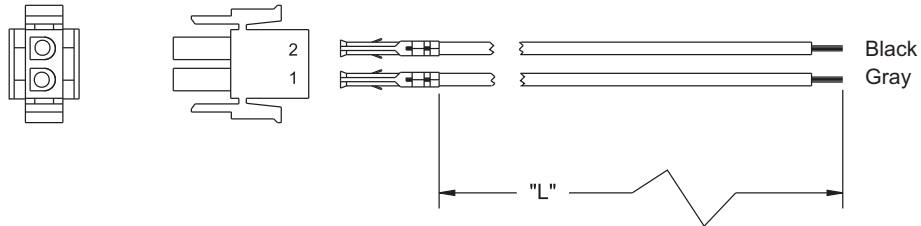
Part Number: 05-129927-0XX* Local Flame Sense



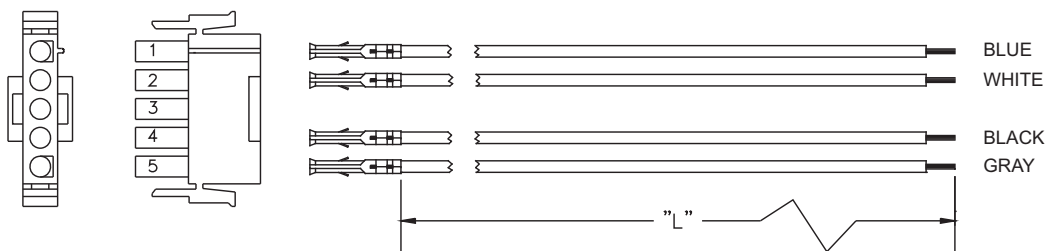
* P/N: -2XX can fit older 35-60/35-61 Edge as well

FOR SERIES 35-65, -66

Part Number: 05-128844-0XX



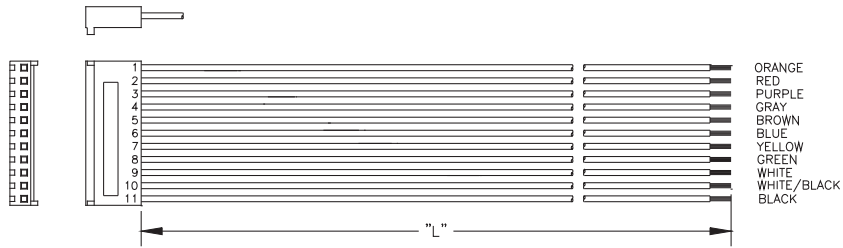
Part Number: 05-128981-0XX



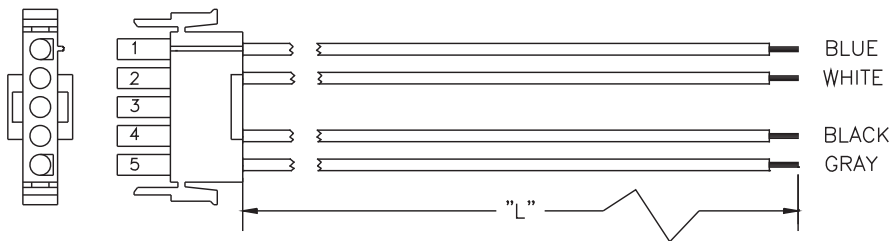
Wiring Harness Diagrams (Continued)

FOR SERIES 35-67

Part Number: 05-129845-0XX



Part Number: 05-128981-0XX

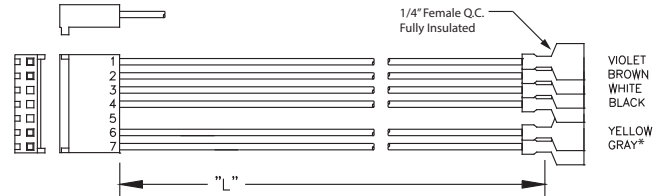
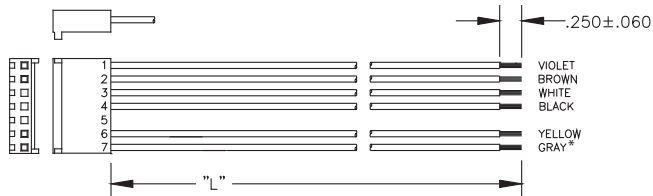


FOR SERIES 35-72

Remote Sense

Part Number: 05-129893-0XX, Remote Flame Sense

Part Number: 05-129893-1XX, Remote Flame Sense

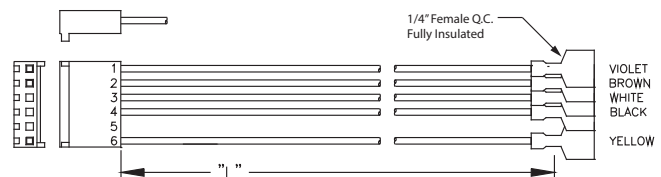
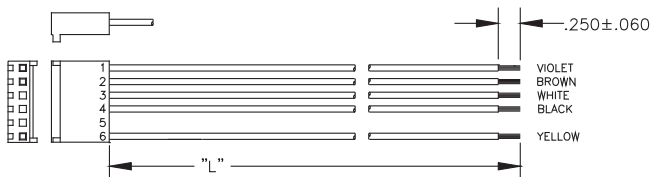


* Gray wire 200°C Teflon

Local Sense

Part Number: 05-129892-0XX, Local Flame Sense

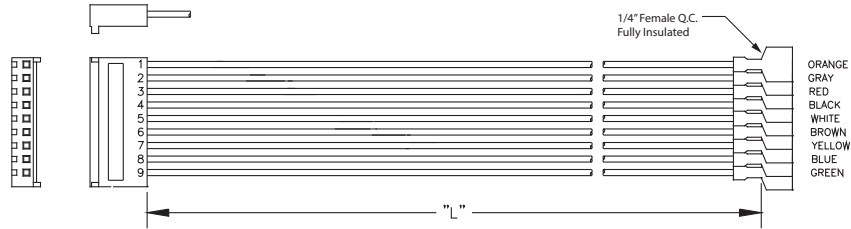
Part Number: 05-129892-1XX, Local Flame Sense



Wiring Harness Diagrams (Continued)

FOR SERIES 35-75

Part Number: 05-129921-1XX



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