STITT®
Spark Plug Company

IGNITION ACCESSORIES

Serving The Oil And Natural Gas Industry Worldwide

2008

EXPLODED VIEW USL2A-12A SAFETY SECONDARY LEAD

NOTE: ALL SAFETY-SHIELDED SECONDARY LEAD EXAMPLES ARE SHOWN 12" IN LENGTH.

COIL TERMINATION

Consists of volute spring with stainless steel spring cup (**STITT Part No. VS/SSC**), blind hole drilled stainless steel stud (**STITT Part No. ST-1125**), 100% alumina ceramic (**STITT Part No. ALTOS-1C**), and 3/4-20 UNEF-2B Stainless Steel Knurled coupling nut (**STITT Part No. SN-75K**).

100% Alumina Oxide (Al_2O_3) ceramic **ALTOS-1** termination kit. Fits Altronic shielded coils 291001S, 501061S, 591010S.

IGNITION CABLE & PROTECTIVE SILICONE SHEATH

Consists of 7mm, 19 strand, tinned-copper conductor, silicone-jacketed, ignition cable complying with MIL-C-3702 and SAE J-557 HTS specifications (**STITT Part No. 757**), and high-temperature, silicone sheath (**STITT Part No. S0-5**).

All **STITT Safety Shielded Secondary Leads** are available with RFI-Suppressing Ignition Cable (**STITT Part No. R757**). These type of Shielded Secondary Leads will be designated with the letter **"E"**. Example **"ESL2A-18A"**.

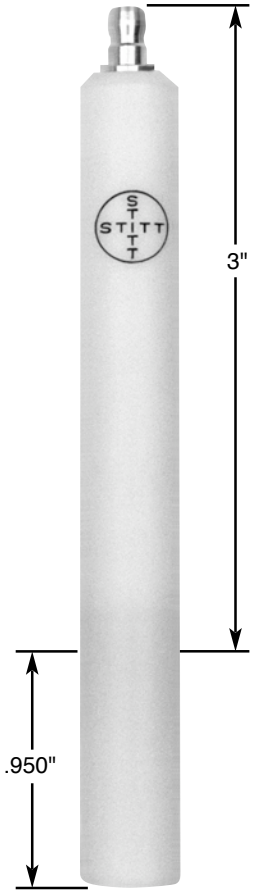
SPARK PLUG TERMINATION

Consists of volute spring with stainless steel spring cup (**STITT Part No. VS/SSC**), blind hole drilled stainless steel stud (**STITT Part No. ST-1125**), 100% alumina ceramic (**STITT Part No. BENDOS-1C**), and 3/4-20 UNEF-2B Stainless Steel Knurled coupling nut (**STITT Part No. SN-75K**).

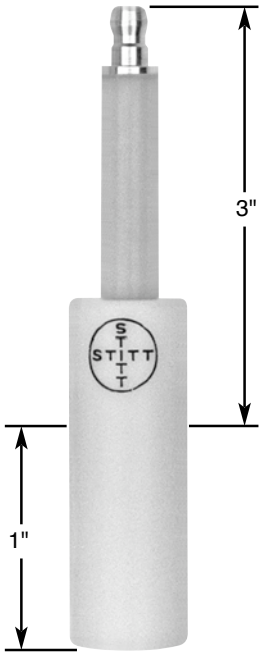
100% Alumina Oxide (Al_2O_3) ceramic **BENDOS-1** termination kit. Fits all 2.125" Termination Well Depth (T.W.D.), Aircraft-Style, Spark Plugs (**STITT "S-__-2"** and **"S-__BEX__-2"** series). Also fits Champion RHW series spark plugs.

CONTENTS

Teflon Covered Extension Rods



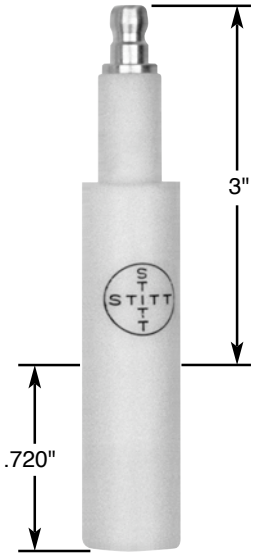
OG-3



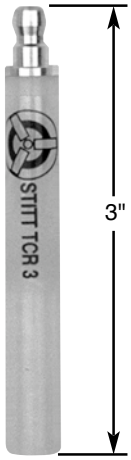
TCRC-3

- Rajah-style snap-clip attachments

Note: All Extension Rods are shown as 3" examples.

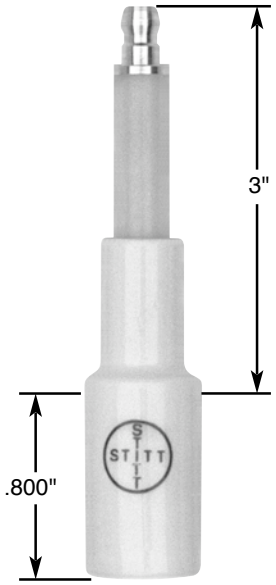


OLS-3

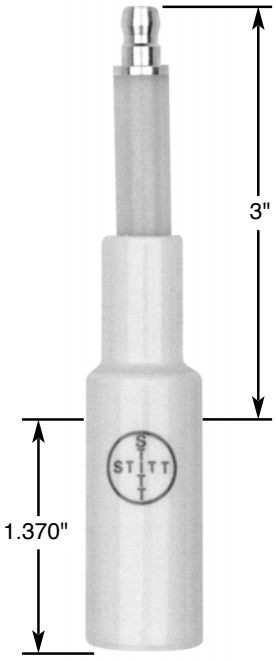


TCR-3

- #8-32 Screw-on attachments



TCRS-3



TCRL-3

TCRS & TCRL have;

- Alumina Oxide Ceramic Boot
- #8-32 Screw-on Attachment

Standard Part Numbers						Length
OG-3	TCRC-3	OLS-3	TCR-3	TCRS-3	TCRL-3	3"
OG-4	TCRC-4	OLS-4	TCR-4	TCRS-4	TCRL-4	4"
OG-5	TCRC-5	OLS-5	TCR-5	TCRS-5	TCRL-5	5"
OG-6	TCRC-6	OLS-6	TCR-6	TCRS-6	TCRL-6	6"
OG-8	TCRC-8	OLS-8	TCR-8	TCRS-8	TCRL-8	8"
OG-10	TCRC-10	OLS-10	TCR-10	TCRS-10	TCRL-10	10"
OG-12	TCRC-12	OLS-12	TCR-12	TCRS-12	TCRL-12	12"
OG-14	TCRC-14	OLS14	TCR-14	TCRS-14	TCRL-14	14"
OG-16	TCRC-16	OLS-16	TCR-16	TCRS-16	TCRL-16	16"
OG-18	TCRC-18	OLS-18	TCR-18	TCRS-18	TCRL-18	18"
OG-20	TCRC-20	OLS-20	TCR-20	TCRS-20	TCRL-20	20"
OG-24	TCRC-24	OLS-24	TCR-24	TCRS-24	TCRL-24	24"

Modular Silicone Extensions

ST1234710
For The CATERPILLAR G3500 Series With Valve Cover-Mounted Ignition Coils

ST1238641
For The CATERPILLAR G3600 Series With Cylinder Head-Mounted Ignition Coils

ST211797G
For The WAUKESHA VHP4 Series With Valve Cover-Mounted Ignition Coils

ST296064H
For The WAUKESHA AT27 Series With Valve Cover-Mounted Ignition Coils

ST211797J
For The WAUKESHA VGF Series With Valve Cover-Mounted Ignition Coils

ST211797H
For The WAUKESHA VHP Series New Style GL Engines With Valve Cover-Mounted Ignition Coils

BSB2 (Bottom Silicone Boot)
Replacement Silicone Boot For All Modular Extensions

EXB18K (Boot and Terminal Spring)
For The CATERPILLAR G3500 Under Valve Cover Ignition Coils

SP-SB1250
Replacement Terminal Spring For All Modular Extensions

TN-037
Replacement Terminal Nut For All Modular Extensions

Terminals for Unshielded Secondaries

T-11
Snap-Clip Attachment

T-22
Snap-Clip Attachment

T-33
Snap-Clip Attachment

T-44
Snap-Clip Attachment

R-199
Snap-Clip Attachment
8 - 32 UNC-2B Top Threads

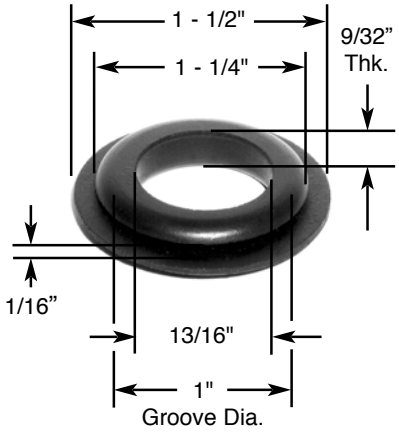
D-199
Snap-Clip Attachment
Rajah-Style
1/4" - 32 UNEF-2A Top Threads

K-199
Snap-Clip Attachment
3 - 48 UNC-2B Top Threads
Knurled Top

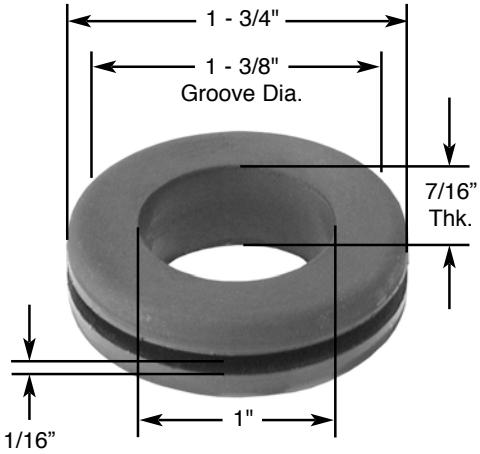
P-750
Coil-End Terminal

T-199
Snap-Clip Attachment
Two-Piece Rajah-Style
1/4" - 32 UNEF Threads On
Both Pieces

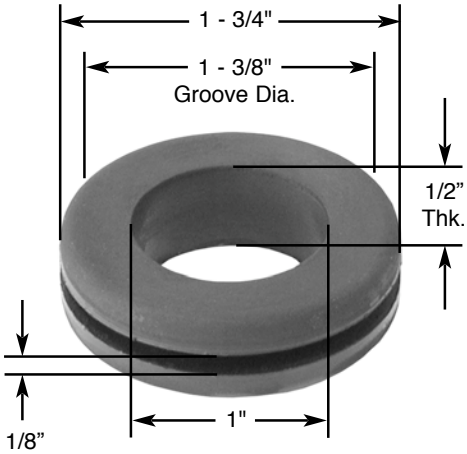
Rubber Grommets



Z-3149
Buna N Rubber
Fits 14mm Extended
Barrel Spark Plugs

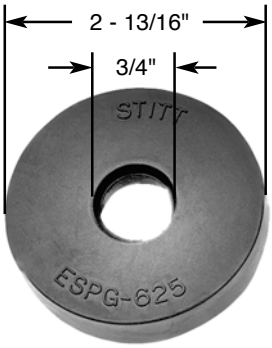


Z-2273
Buna N Rubber
Fits 18mm and 7/8"-18
Extended Barrel Spark Plugs
Replaces Z-1107 Grommet



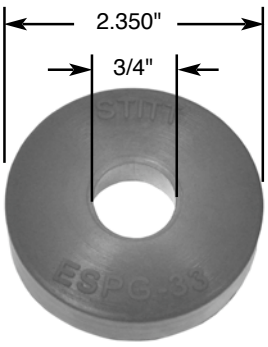
Z-3065
Buna N Rubber
Fits Remote Mount
Coil Brackets

Caterpillar Grommets



ESPG-625 is used with our 14mm extended barrel spark plugs. This grommet fits Caterpillar G342, G379, G398, and G399 Engines.

ESPG-625
Neoprene

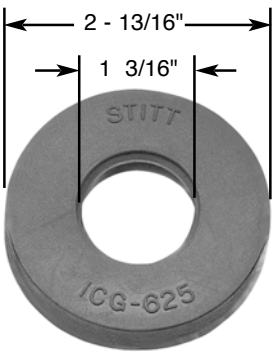


ESPG-33 is used with our 14mm extended barrel spark plugs. This grommet fits Caterpillar 3300 Series Engines.

ESPG-33
Neoprene

ESPG-3400 is used with our 14mm extended barrel spark plugs. This grommet fits Caterpillar 3400 Series Engines.

ESPG-3400
Neoprene



ICG-625 is used on engines with integral coils. This grommet fits Caterpillar G3304, G3306, G342, G379, G398, and G399 Engines.

ICG-625
Neoprene

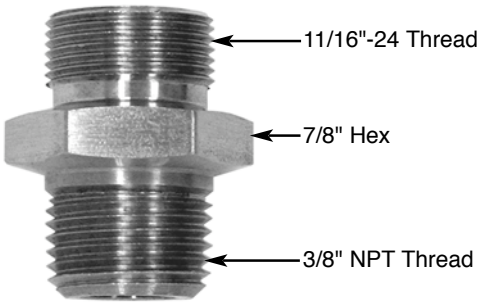
Folded Steel Gaskets

FS-14 (14mm)

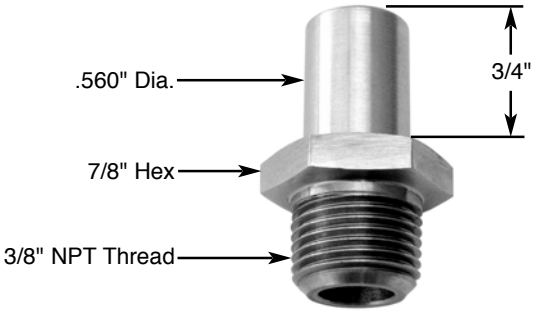
FS-18 (18mm)

FS-78 (7/8" - 18)

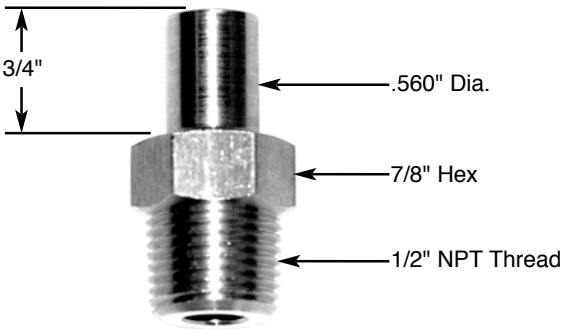
Stainless Steel Adapter Nuts



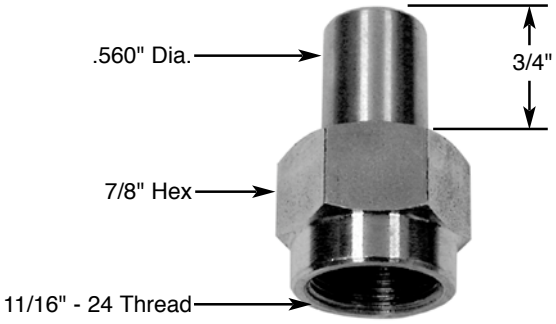
DE-101
Stainless Steel



DE-102
Stainless Steel

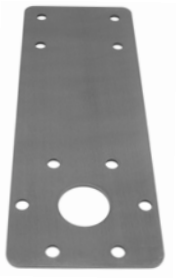


DE-108
Stainless Steel



DE-109
Stainless Steel

Remote Mount Coil Brackets

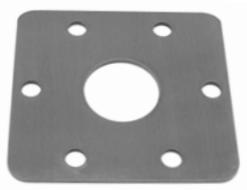


SCB-2400
For Superior "2400"
Series Engines and Other Universal Applications

Use to replace Altronic 591012 ignition coils with less expensive ignition coils that will not have to be removed at each spark plug change.

Contact Stitt factory for recommended **"S-___-2"** series spark plugs and **"USL"** safety-shielded secondary leads.

Included with each bracket is all mounting hardware required, as well as sealing grommet.



WTC-VHP4
For Waukesha VHP Series 4 Engines

Included with each bracket is all mounting hardware required, as well as sealing grommet.

ICB-UNIV
For Universal
Engine Applications

Used to remote mount the Altronic 591012 ignition coil. This makes it possible to use **Stitt "S-___-2"** series spark plugs and **"USL"** safety-shielded leads.

Included with each bracket is all mounting hardware required, as well as sealing grommet.

WCB-AT27
For Waukesha "AT"
Series Engines

Use to replace valve cover-mounted, Altronic 591012 ignition coils with less expensive ignition coils that will not have to be removed at each spark plug change. To complete the installation, we recommend our one-piece, extended-length, **"S-___-2"** series of spark plugs: specifically, the **S-AG18BEX20-2**. Connect the coils to the spark plugs using our **USL2_-12A** or **ESL2_-12A** safety-shielded secondary leads.

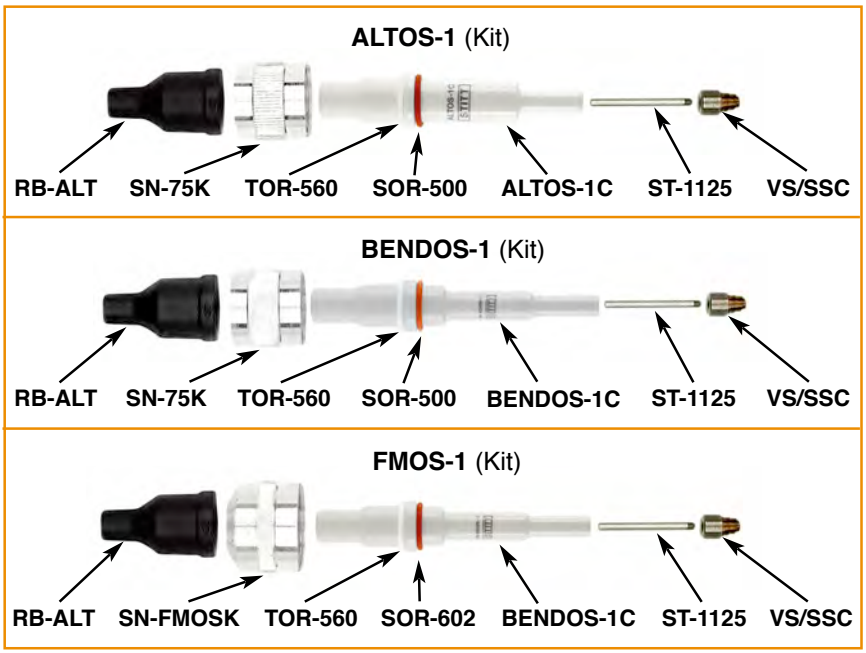
Included with each bracket is all mounting hardware required, as well as sealing grommet.

CCB-3500
For Caterpillar G3500
Series Engines

Use to replace valve cover-mounted, Altronic 591012 ignition coils with less expensive ignition coils that will not have to be removed at each spark plug change. To complete the installation, we recommend our one-piece, extended-length, **"S-___-2"** series of spark plugs: specifically, the **S-2SGA80LLBEX16-2**. Connect the coils to the spark plugs using our **USL2_-12A** or **ESL2_-12A** safety-shielded secondary leads.

Included with each bracket is all mounting hardware required, as well as sealing grommet.

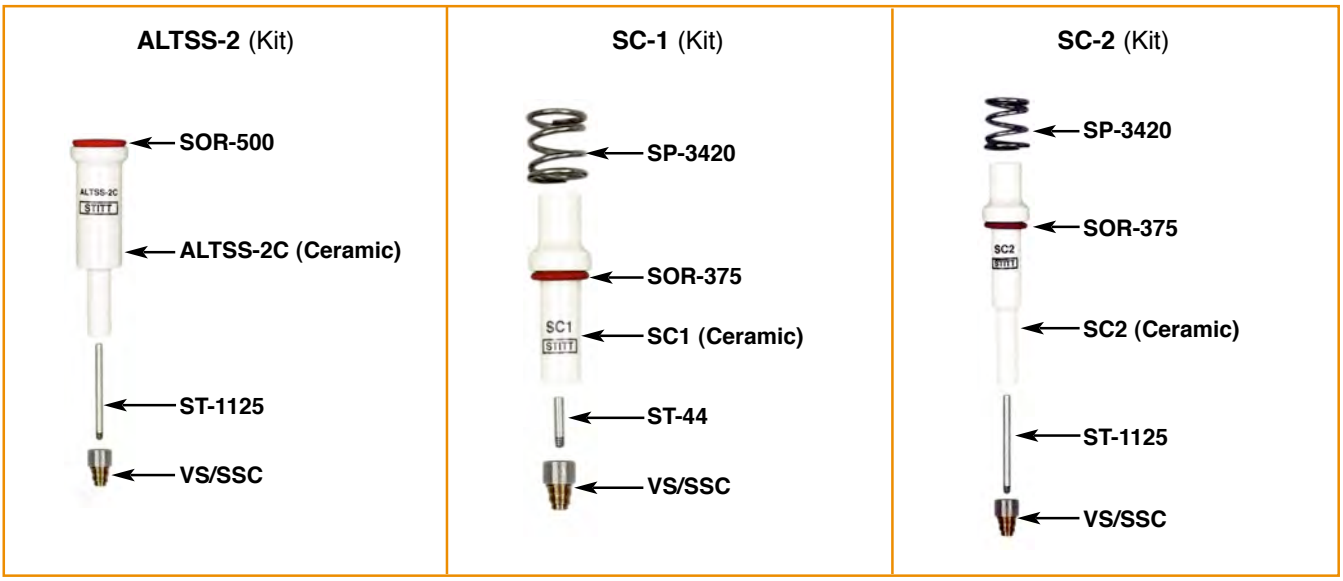
Shielded Coil Kits for Unshielded Secondaries



STITT Unshielded Coil Kits are made of the highest quality materials...

1... The insulators are 96% Alumina Oxide (Al_2O_3). The finish is a high temperature (2000°F) non-leaded glaze.
2... The top "O" ring (**TOR-560**) is made of Teflon to facilitate installation.
3... The bottom "O" ring (**SOR-500, SOR-602**) is made of high temperature silicone to assure a quality seal in the spark plug and/or coil well.
4... The stud (**ST-1125**), stainless steel cup and volute spring assembly (**VS/SSC**) are made of stainless steel to provide for trouble free service.

Shielded Secondary Kits and Parts



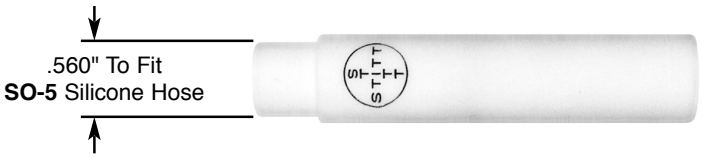
ALTSS-2, SC-1 & SC-2 terminals are fabricated from the same material that we use for our spark plug insulators. These terminals assure the highest levels of electrical insulation. Furthermore, these ceramic insulators do not deteriorate over time at the temperatures common to the normal thermal environment of ignition components (at the spark plug crimp, ordinarily 400˚F; in the termination well of a conventional, 3/4"-20 aircraft-style spark plug, ordinarily 600˚F).

This ceramic material is certifiably superior to any terminal fabricated from a plastic material such as Teflon, which typically begins to deteriorate when subjected to continuous-duty temperatures as low as 250˚F. Our alumina ceramic terminals can survive continuous-duty service at temperatures beyond 1000˚F without suffering any deterioration in performance. Without melting. Without burning. Without dielectric puncturing.

Individual parts may be ordered separately, consult STITT Factory for minimum quantities.

Teflon Boots

SPB DESIGNATION	FITS MAX. CERAMIC DIA.	FLASHOVER LENGTH MIN.
14(SPB)	.485"	.800"
18(SPB)	.560"	.800"
35(SPB)	.485"	1.000"
36(SPB)	.545"	1.500"
45(SPB)	.385"	1.120"
51(SPB)	.470"	1.180"
78(SPB)	.580"	.800"



STITT Teflon Boots are made from virgin PTFE (Polytetrafluoroethylene) which has the highest UL® service temperature rating of all Teflons with a rating of 356°F (180°C).

® Registered trademark of Underwriters Laboratories.

Rubber Boots

PEI-1
For Bendix
Unshielded Coils

RB-FM
For Fairbanks
Morse Unshielded
Coils

RB-ALT
For Altronic, Dynalco,
and Murphy
Unshielded Coils

Silicone Boots

SB-180
For use with 7mm
ignition wire.

SL-90
Used on Right Angle
USL Leads

PCB
Primary Coil Boot

OEM Lead Assemblies

Caterpillar
GTCSPB-24A (for 14mm plug)
Fits Caterpillar G342, G379, G398, and G399 Model Engines.

Caterpillar
18CSPB-24A (for 18mm plug)
Fits Caterpillar G342, G379, G398, and G399 Model Engines.

Non-standard lengths are available upon request.

Caterpillar
GTC33SPB-12A
Fits Caterpillar 3300 Series Engines.

Caterpillar
3400 Lead
Fits Caterpillar 3406, 3408, and 3412 Engines.

Caterpillar Part No.	STITT Part No.
2624855	ST2624855

Waukesha
VGF Lead
Fits Waukesha F18 and H24 VGF Engines.

WED Part No.	STITT Part No.
211357S	ST211357S

Ajax
Lead
Fits Ajax Engines.

Ajax Part No.	STITT Part No.
BM-11422-B	USLY2LA-30A
BM-11422-C	USLY2LA-24A
BM-11422-E	USLY2LE-24A
BM-11422-F	USLY2LE-15A
BM-11422-G	USLY2LE-12A

OEM Boots

Caterpillar
C625 (Boot Only)
Fits Caterpillar G342,
G379, G398, and G399
Model Engines.
Neoprene

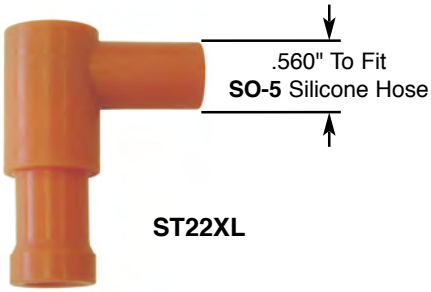
Caterpillar
C33 (Boot Only)
Fits Caterpillar 3300
Series Engines.
Neoprene

Caterpillar
C3400 (Boot Only)
Fits Caterpillar 3400
Series Engines.
Neoprene

Waukesha
VGF (Boot Only)
Fits Waukesha
Engines.
Neoprene

STITT ST22XL and ST33XL Silicone Boots

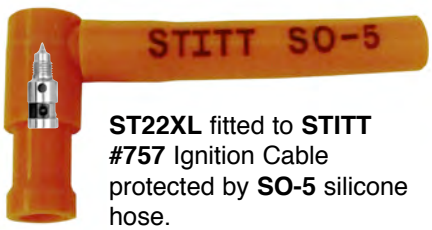
The first silicone spark plug boots using solderless Rajah-style terminals.These style connectors offer better suppression of flash-over, over any Teflon spark plug boot. They will withstand higher temperatures than Teflon. Because it eliminates the crimp method of termination common to most automotive silicone boots, they can be used with both solid copper conductor and also resistor ignition cable.



ST22XL

ST33XL

ST33XL fitted to **STITT #757** Ignition Cable protected by **SO-5** silicone hose.



ST22XL fitted to **STITT #757** Ignition Cable protected by **SO-5** silicone hose.

STITT D-199
Rajah-style terminal, included with **ST22XL** and **ST33XL** Boots.

STITT 7MM Ignition Cable

This 7mm, silicone-jacketed, nineteen (19) strands of tinned copper conductor are better tailored for impedance matching to the specifications of virtually all of the common industrial ignition systems. **STITT #757** meets MIL-C-3702 and SAE J-557 HTS specifications.

STITT part no. 757
(Available in 100ft. or 1,000ft. spools)

STITT RFI-Suppressing Ignition Cable

Consider this **#R757** ignition cable the ultimate in RFI (Radio Frequency Interference) suppressing, 7 millimeter, silicone-insulated ignition cable.

We have evaluated all of those RFI-reduction (either by attenuation or by suppression) ignition cables designed principally for vehicular applications and have not found them durable enough for industrial applications. But the spiral-wound, stainless-steel, suppressing conductor of our new **#R757** cable, when properly terminated, meets the durability requirements of the continuous-duty, severe service, spark-ignited gas engine.

We recommend that this style ignition cable be used only with termination configurations where there is a screw thread connection at both sides of the secondary circuit. This is because the tensile pull strength of this single strand of fine gage stainless steel wire does not equal the tensile pull strength of our **#757** multi-strand, copper conductor, ignition cable.

With the more conventional, automotive-oriented ignition arrangement, it is typical for an oilfield mechanic to pull the cable termination off the spark plug at the spark plug change interval by yanking on the ignition cable. Though this is not a recommended practice, our copper conductor ignition cable will withstand this disconnection method far longer than any RFI-suppressing cable. With the RFI-suppressing style of cable, a single instance of this yanking can break the conductor.

With that fragility in mind, we recommend that the operator specify our factory assembled, **ESL2** series safety-shielded secondary leads. And only when that requirement of RFI suppression is specified. For **ESL2** series secondary leads that are available, please see the product listings on pages 16-21.

STITT part no. R757
(Available in 100ft. or 1,000ft. spools)

Silicone Hose

Our orange silicone hose (**STITT SO-5**) or (**STITT SO-3**) carries a UL Temperature Index Rating of 446° - 500°F which is higher than the rating for Teflon. This hose is used to protect (**STITT #757**) or (**STITT #R757**) ignition wire.

STITT part no. SO-5 (1/2" I.D.)
(Available in 100ft. rolls)

STITT part no. SO-3 (3/8" I.D.)
(Available in 100ft. rolls)

RSL2 SERIES, 5,000 OHM (Ω) RFI-ATTENUATING, SAFETY-SHIELDED SECONDARY LEADS

Though the **ESL2** series Safety-Shielded Secondary leads suppress RFI (Radio Frequency Interference) with the lowest level of energy losses, the fine wire, helically-wound conductor of the **#R757** ignition cable requires that its terminations be of a style where the ignition cable does not have to be pulled out of or off of the ignition system components to which it is connected.

For RFI elimination when a coil is being used that does not furnish a threaded termination, we find that the **#R757** ignition cable is too fragile to do the job over the long term.

For those applications using such “unshielded” ignition coils (eg., Altronic 501061, 291001, 591010 ; Fairbanks-Morse PPT2477P, PPT2477L), we recommend that our **RSL2** series of secondary leads be used.

These leads utilize a ceramic, wire-wound resistor with a nominal impedance of 5,000 Ohms (Ω). It is designed for high-temperature, high voltage applications. It is fitted into the Bendos-1C ceramic that connects to the spark plug. The use of this resistor allows for the usage of our standard **STITT #757** copper conductor ignition cable. But it furnishes full suppression of spark gap arc-generated RFI.

Of special interest should be the length of this resistor. Its length exceeds by a large margin the flash-over capabilities of other resistors commonly used to attenuate RFI.

CWR5K

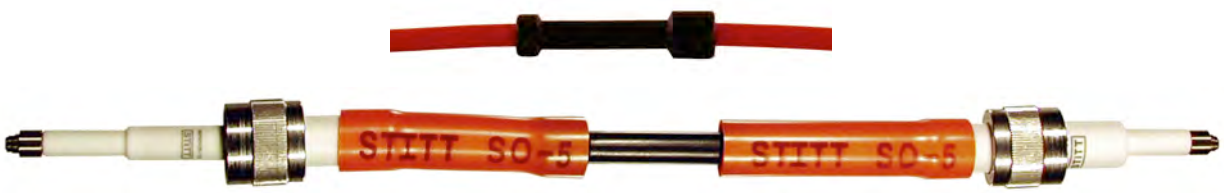
STITT CWR5K Resistor attached to ST-1218 stainless steel terminator stud. This assembly fits into the Bendos-1C ceramic.

INDUCTIVE PICK-UP SPACER

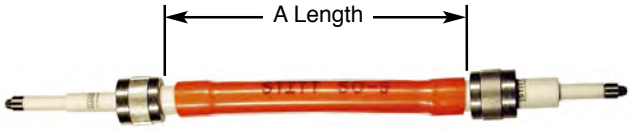
Many engine operators need to be able to use a timing-light or other inductively-triggered diagnostic gear. This spacer **(STITT Part No. IPS-15)** is dimensioned so as to be fitted into any one of our Safety-Shielded Secondary Leads and furnish the easy usage of conventional inductive pick-ups.

This spacer is fabricated from high temperature, black silicone. It can be specified for fitting to any style or length of one of our secondary leads. To order the installation of this spacer, all that is required is the specifying of this device as a part number suffix (for example, **USL2A-18AIPS**).

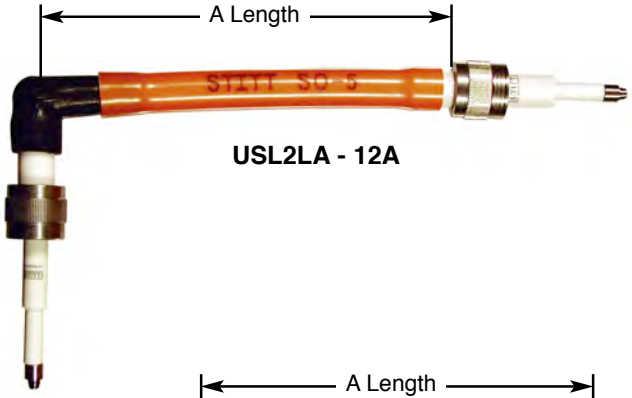
When this spacer is specified as part of a secondary lead assembly, it will be fitted into the middle of the lead unless other positioning is specified and agreed upon.



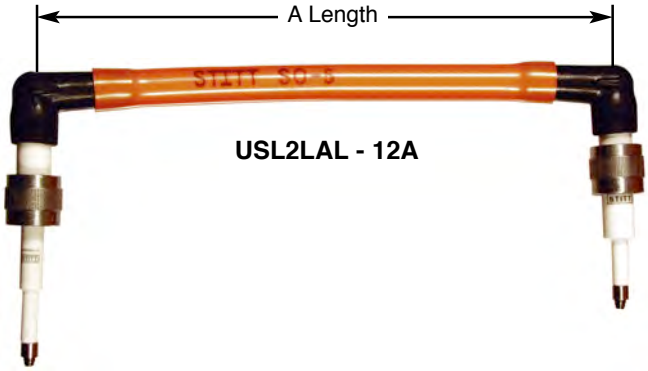
USL Lead Length Examples



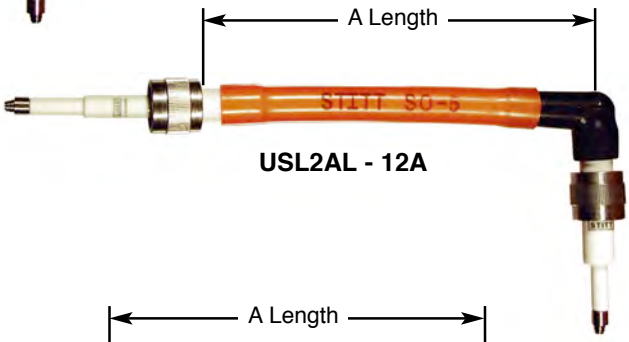
USL2A - 12A



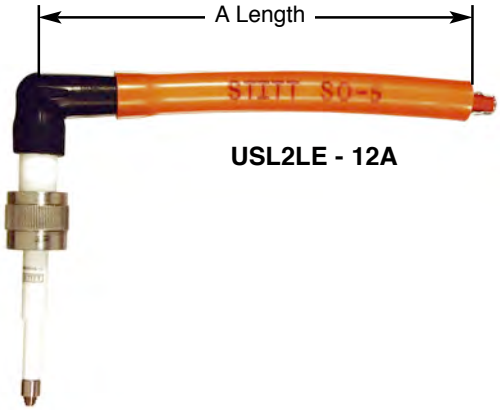
USL2LA - 12A



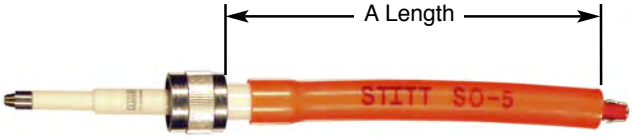
USL2LAL - 12A



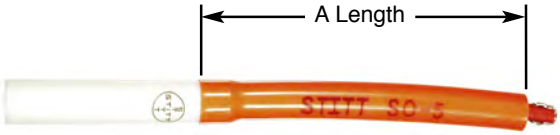
USL2AL - 12A



USL2LE - 12A



USL2E - 12A



USLE36SPB - 12A

USL Leads for Conventional Spark Plugs

Available with all **STITT Teflon boots**. Please specify the **SPB** number needed. See page 9.

Available with all coil ends specified on pages 16 through 24. Specify coil letter A, B, C, E, F, or G.

Available In both **USL Standard Ignition Cable** (**STITT #757**) and **ESL RFI-Suppressing Ignition Cable** (**STITT #R757**) styles. ***ESL leads available in coil A, B, and C styles only.***

USLE36SPB-12A

USL2A-12A

Safety-Shielded Secondary Lead
Used with 2.125" termination well depth spark plugs and
Altronic shielded coils 291001S, 501061S, 591010S or
Dynalco shielded coils ICG-506, IGCI-406 or
Murphy Power Ignition shielded coil ITX-230RM.

Part Number With Standard Ignition Cable (STITT Part No. 757)		Part Number With RFI-Suppressing Ignition Cable (STITT Part No. R757)
USL2A - 12A		ESL2A - 12A
USL2A - 18A		ESL2A - 18A
USL2A - 24A		ESL2A - 24A
USL2A - 30A	Non-standard lengths are available upon request.	ESL2A - 30A
USL2A - 36A		ESL2A - 36A

USL2LA-12A

Safety-Shielded Secondary Lead
RIGHT ANGLE AT SPARK PLUG
Used with 2.125" termination well depth spark plugs and
Altronic shielded coils 291001S, 501061S, 591010S or
Dynalco shielded coils ICG-506, IGCI-406 or
Murphy Power Ignition shielded coil ITX-230RM.

Part Number With Standard Ignition Cable (STITT Part No. 757)		Part Number With RFI-Suppressing Ignition Cable (STITT Part No. R757)
USL2LA - 12A		ESL2LA - 12A
USL2LA - 18A		ESL2LA - 18A
USL2LA - 24A		ESL2LA - 24A
USL2LA - 30A	Non-standard lengths are available upon request.	ESL2LA - 30A
USL2LA - 36A		ESL2LA - 36A

USL2AL-12A

Safety-Shielded Secondary Lead
RIGHT ANGLE AT COIL
Used with 2.125" termination well depth spark plugs and Altronic shielded coils 291001S, 501061S, 591010S or Dynalco shielded coils ICG-506, IGCI-406 or Murphy Power Ignition shielded coil ITX-230RM.

Part Number With Standard Ignition Cable (STITT Part No. 757)	Part Number With RFI-Suppressing Ignition Cable (STITT Part No. R757)
USL2AL - 12A	ESL2AL - 12A
USL2AL - 18A	ESL2AL - 18A
USL2AL - 24A	ESL2AL - 24A
USL2AL - 30A	ESL2AL - 30A
USL2AL - 36A	ESL2AL - 36A

Non-standard lengths are available upon request.

USL2LAL-12A

Safety-Shielded Secondary Lead
RIGHT ANGLE AT BOTH ENDS
Used with 2.125" termination well depth spark plugs and Altronic shielded coils 291001S, 501061S, 591010S or Dynalco shielded coils ICG-506, IGCI-406 or Murphy Power Ignition shielded coil ITX-230RM.

Part Number With Standard Ignition Cable (STITT Part No. 757)	Part Number With RFI-Suppressing Ignition Cable (STITT Part No. R757)
USL2LAL - 12A	ESL2LAL - 12A
USL2LAL - 18A	ESL2LAL - 18A
USL2LAL - 24A	ESL2LAL - 24A
USL2LAL - 30A	ESL2LAL - 30A
USL2LAL - 36A	ESL2LAL - 36A

Non-standard lengths are available upon request.

USL2B-12A

Safety-Shielded Secondary Lead
Used with 2.125" termination well depth spark plugs and
Bendix shielded coils 10-320790-1,10-382040-1.

Part Number With Standard Ignition Cable (STITT Part No. 757)
USL2B - 12A
USL2B - 18A
USL2B - 24A
USL2B - 30A
USL2B - 36A

Non-standard lengths are available upon request.

Part Number With RFI-Suppressing Ignition Cable (STITT Part No. R757)
ESL2B - 12A
ESL2B - 18A
ESL2B - 24A
ESL2B - 30A
ESL2B - 36A

USL2LB-12A

Safety-Shielded Secondary Lead
RIGHT ANGLE AT SPARK PLUG
Used with 2.125" termination well depth spark plugs and
Bendix shielded coils 10-320790-1,10-382040-1.

Part Number With Standard Ignition Cable (STITT Part No. 757)
USL2LB - 12A
USL2LB - 18A
USL2LB - 24A
USL2LB - 30A
USL2LB - 36A

Non-standard lengths are available upon request.

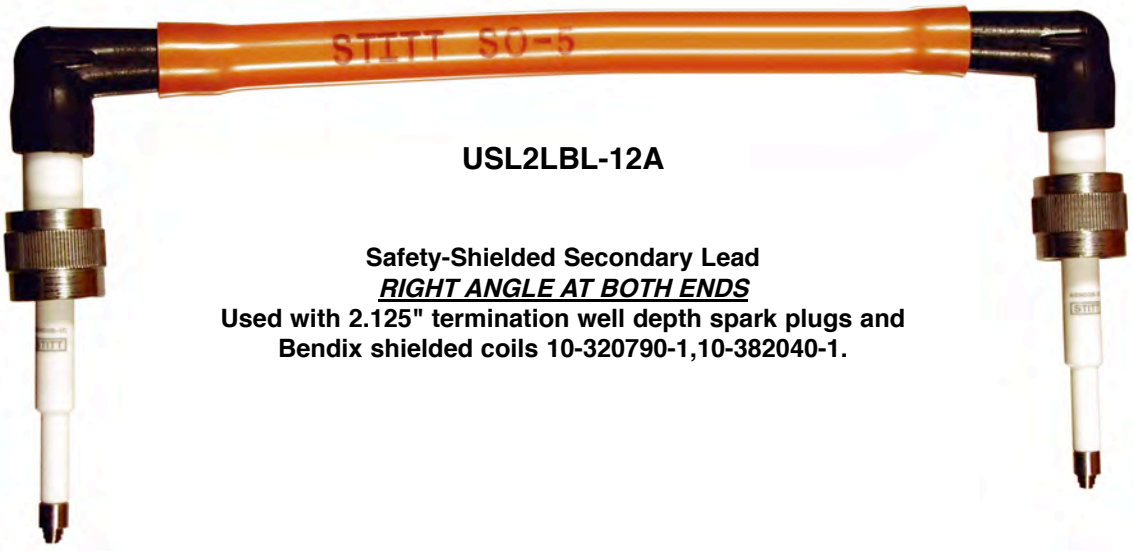
Part Number With RFI-Suppressing Ignition Cable (STITT Part No. R757)
ESL2LB - 12A
ESL2LB - 18A
ESL2LB - 24A
ESL2LB - 30A
ESL2LB - 36A

USL2BL-12A

Safety-Shielded Secondary Lead
RIGHT ANGLE AT COIL
Used with 2.125" termination well depth spark plugs and Bendix shielded coils 10-320790-1,10-382040-1.

Part Number With Standard Ignition Cable (STITT Part No. 757)	Part Number With RFI-Suppressing Ignition Cable (STITT Part No. R757)
USL2BL - 12A	ESL2BL - 12A
USL2BL - 18A	ESL2BL - 18A
USL2BL - 24A	ESL2BL - 24A
USL2BL - 30A	ESL2BL - 30A
USL2BL - 36A	ESL2BL - 36A

Non-standard lengths are available upon request.



USL2LBL-12A

Safety-Shielded Secondary Lead
RIGHT ANGLE AT BOTH ENDS
Used with 2.125" termination well depth spark plugs and Bendix shielded coils 10-320790-1,10-382040-1.

Part Number With Standard Ignition Cable (STITT Part No. 757)	Part Number With RFI-Suppressing Ignition Cable (STITT Part No. R757)
USL2LBL - 12A	ESL2LBL - 12A
USL2LBL - 18A	ESL2LBL - 18A
USL2LBL - 24A	ESL2LBL - 24A
USL2LBL - 30A	ESL2LBL - 30A
USL2LBL - 36A	ESL2LBL - 36A

Non-standard lengths are available upon request.

USL2C-12A

Safety-Shielded Secondary Lead
Used with 2.125" termination well depth spark plugs and
Fairbanks-Morse shielded coils PPT2477AD, PPT2477AD-L.

Part Number With Standard Ignition Cable (STITT Part No. 757)		Part Number With RFI-Suppressing Ignition Cable (STITT Part No. R757)
USL2C - 12A		ESL2C - 12A
USL2C - 18A		ESL2C - 18A
USL2C - 24A		ESL2C - 24A
USL2C - 30A	Non-standard lengths are available upon request.	ESL2C - 30A
USL2C - 36A		ESL2C - 36A

USL2LC-12A

Safety-Shielded Secondary Lead
RIGHT ANGLE AT SPARK PLUG
Used with 2.125" termination well depth spark plugs and
Fairbanks-Morse shielded coils PPT2477AD, PPT2477AD-L.

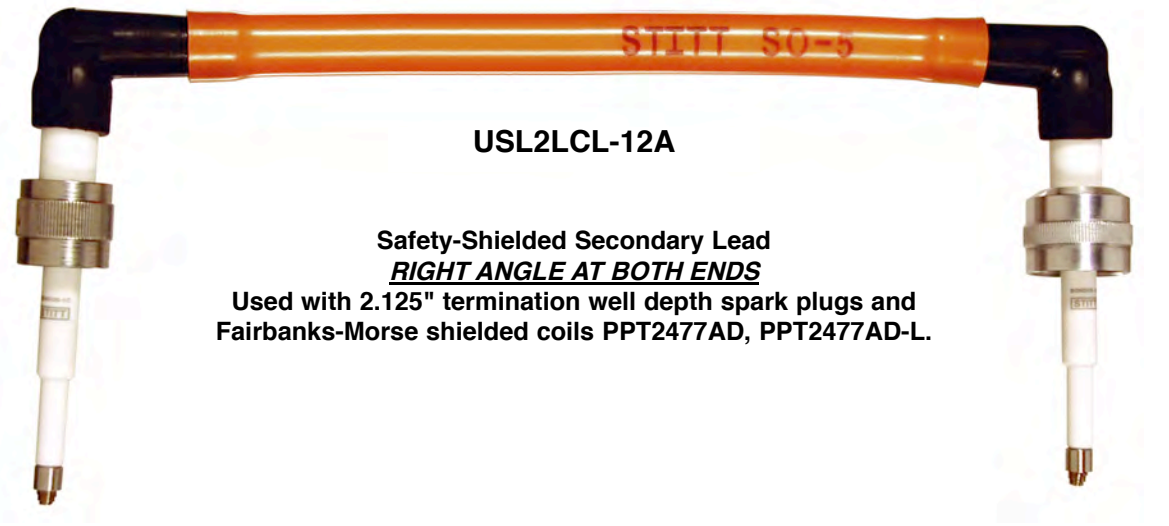
Part Number With Standard Ignition Cable (STITT Part No. 757)		Part Number With RFI-Suppressing Ignition Cable (STITT Part No. R757)
USL2LC - 12A		ESL2LC - 12A
USL2LC - 18A		ESL2LC - 18A
USL2LC - 24A		ESL2LC - 24A
USL2LC - 30A	Non-standard lengths are available upon request.	ESL2LC - 30A
USL2LC - 36A		ESL2LC - 36A

USL2CL-12A

Safety-Shielded Secondary Lead
RIGHT ANGLE AT COIL
Used with 2.125" termination well depth spark plugs and Fairbanks-Morse shielded coils PPT2477AD, PPT2477AD-L.

Part Number With Standard Ignition Cable (STITT Part No. 757)	Part Number With RFI-Suppressing Ignition Cable (STITT Part No. R757)
USL2CL - 12A	ESL2CL - 12A
USL2CL - 18A	ESL2CL - 18A
USL2CL - 24A	ESL2CL - 24A
USL2CL - 30A	ESL2CL - 30A
USL2CL - 36A	ESL2CL - 36A

Non-standard lengths are available upon request.



USL2LCL-12A

Safety-Shielded Secondary Lead
RIGHT ANGLE AT BOTH ENDS
Used with 2.125" termination well depth spark plugs and Fairbanks-Morse shielded coils PPT2477AD, PPT2477AD-L.

Part Number With Standard Ignition Cable (STITT Part No. 757)	Part Number With RFI-Suppressing Ignition Cable (STITT Part No. R757)
USL2LCL - 12A	ESL2LCL - 12A
USL2LCL - 18A	ESL2LCL - 18A
USL2LCL - 24A	ESL2LCL - 24A
USL2LCL - 30A	ESL2LCL - 30A
USL2LCL - 36A	ESL2LCL - 36A

Non-standard lengths are available upon request.

USL2E-12A

Safety-Shielded Secondary Lead
Used with 2.125" termination well depth spark plugs and Altronic unshielded coils 291001, 501061, 591010 or Dynalco unshielded coils IGC-290, IGC-856A or Murphy Power Ignition unshielded coil IT-230.

Part Number With Standard Ignition Cable (STITT Part No. 757)	Part Number With Standard Ignition Cable & 5KΩ Resistor (STITT Part No. 757 & CWR5K)
USL2E - 12A	RSL2E - 12A
USL2E - 18A	RSL2E - 18A
USL2E - 24A	RSL2E - 24A
USL2E - 30A	RSL2E - 30A
USL2E - 36A	RSL2E - 36A

Non-standard lengths are available upon request.

USL2LE-12A

Safety-Shielded Secondary Lead
RIGHT ANGLE AT SPARK PLUG
Used with 2.125" termination well depth spark plugs and Altronic unshielded coils 291001, 501061, 591010 or Dynalco unshielded coils IGC-290, IGC-856A or Murphy Power Ignition unshielded coil IT-230.

Part Number With Standard Ignition Cable (STITT Part No. 757)	Part Number With Standard Ignition Cable & 5KΩ Resistor (STITT Part No. 757 & CWR5K)
USL2LE - 12A	RSL2LE - 12A
USL2LE - 18A	RSL2LE - 18A
USL2LE - 24A	RSL2LE - 24A
USL2LE - 30A	RSL2LE - 30A
USL2LE - 36A	RSL2LE - 36A

Non-standard lengths are available upon request.

USL2F-12A

Safety-Shielded Secondary Lead
Used with 2.125" termination well depth spark plugs and Fairbanks-Morse unshielded coils PPT2477P, PPT2477L.

Part Number With Standard Ignition Cable (STITT Part No. 757)	Part Number With Standard Ignition Cable & 5KΩ Resistor (STITT Part No. 757 & CWR5K)
USL2F - 12A	RSL2F - 12A
USL2F - 18A	RSL2F - 18A
USL2F - 24A	RSL2F - 24A
USL2F - 30A	RSL2F - 30A
USL2F - 36A	RSL2F - 36A

Non-standard lengths are available upon request.

USL2LF-12A

Safety-Shielded Secondary Lead
RIGHT ANGLE AT SPARK PLUG
Used with 2.125" termination well depth spark plugs and Fairbanks-Morse unshielded coils PPT2477P, PPT2477L.

Part Number With Standard Ignition Cable (STITT Part No. 757)	Part Number With Standard Ignition Cable & 5KΩ Resistor (STITT Part No. 757 & CWR5K)
USL2LF - 12A	RSL2LF - 12A
USL2LF - 18A	RSL2LF - 18A
USL2LF - 24A	RSL2LF - 24A
USL2LF - 30A	RSL2LF - 30A
USL2LF - 36A	RSL2LF - 36A

Non-standard lengths are available upon request.

USL2G-12A

Coil Box Adapter
(STITT Part No.DE-108)
1/2" NPT Thread

Safety-Shielded Secondary Lead
Used with 2.125" termination well depth spark plugs and coil box-installed, unshielded coils.

Note: Lead will include approximately 12" of wire beyond the end of the coil box adapter.

Part Number With Standard Ignition Cable (STITT Part No. 757)	Part Number With Standard Ignition Cable & 5KΩ Resistor (STITT Part No. 757 & CWR5K)
USL2G - 12A	RSL2G - 12A
USL2G - 18A	RSL2G - 18A
USL2G - 24A	RSL2G - 24A
USL2G - 30A	RSL2G - 30A
USL2G - 36A	RSL2G - 36A

Non-standard lengths are available upon request.

USL2LG-12A

Coil Box Adapter
(STITT Part No.DE-108)
1/2" NPT Thread

Safety-Shielded Secondary Lead
RIGHT ANGLE AT SPARK PLUG
Used with 2.125" termination well depth spark plugs and coil box-installed, unshielded coils.

Note: Lead will include approximately 12" of wire beyond the end of the coil box adapter.

Part Number With Standard Ignition Cable (STITT Part No. 757)	Part Number With Standard Ignition Cable & 5KΩ Resistor (STITT Part No. 757 & CWR5K)
USL2LG - 12A	RSL2LG - 12A
USL2LG - 18A	RSL2LG - 18A
USL2LG - 24A	RSL2LG - 24A
USL2LG - 30A	RSL2LG - 30A
USL2LG - 36A	RSL2LG - 36A

Non-standard lengths are available upon request.

Shielded Secondary Leads

SSLA1-18A

CSA® Approved Shielded Secondary Lead
Stainless Steel Braided Outer Jacket With Teflon Liner
Used with 1.000" termination well depth spark plugs and Altronic shielded coils 291001S, 501061S, 591010S or Dynalco shielded coils ICG-506, IGCI-406 or Murphy Power Ignition shielded coil ITX-230RM.

Part Number With Standard Ignition Cable (STITT Part No. 757)

SSL-A1 - 12A
SSL-A1 - 18A
SSL-A1 - 24A
SSL-A1 - 30A

C US APPROVED

Non-standard lengths are available upon request.

Part Number With Standard Ignition Cable (STITT Part No. 757) And 90° Elbow on Plug End

SSL-A190 - 12A
SSL-A190 - 18A
SSL-A190 - 24A
SSL-A190 - 30A

SSLA2-18A

CSA® Approved Shielded Secondary Lead
Stainless Steel Braided Outer Jacket With Teflon Liner
Used with 2.125" termination well depth spark plugs and Altronic shielded coils 291001S, 501061S, 591010S or Dynalco shielded coils ICG-506, IGCI-406 or Murphy Power Ignition shielded coil ITX-230RM.

Part Number With Standard Ignition Cable (STITT Part No. 757)

SSL-A2 - 12A
SSL-A2 - 18A
SSL-A2 - 24A
SSL-A2 - 30A

C US APPROVED

Non-standard lengths are available upon request.

Part Number With Standard Ignition Cable (STITT Part No. 757) And 90° Elbow on Plug End

SSL-A290 - 12A
SSL-A290 - 18A
SSL-A290 - 24A
SSL-A290 - 30A

FI-1 Firing Indicator

The Premium Ignition Troubleshooting Tool

- No exposed metal or other electrically conductive material. You cannot get shocked with it. Perfect for the Class1, Group D, Division 2 area.
- Long-life neon bulb flashes brightly when it senses a high voltage impulse.

Magnetic Spark Plug Sockets

PART NUMBER	HEX SIZE	LENGTH
MS-625	5/8"	3 - 1/2"
MS-812	13/16"	3 - 1/2"
MS-875	7/8"	3 - 1/2"
MSD-875	7/8"	5"
MS-937	15/16"	3 - 1/2"
MS-1000	1"	3 - 1/2"
MSD-1000	1"	5"
MS-1125	1 - 1/8"	3 - 1/2"

For the first time, high quality 1/2" drive sockets that will really hold a heavy industrial spark plug being lowered down a deep well.

- Can be used with any manufacturer's spark plug.
- Holds the spark plug - keeps the insulator clean.
- Set screw fixes socket to extension.

Beam Style Torque Wrench

TW-38
3/8" Drive

TW-50
1/2" Drive

This style of torque wrench offered by **Stitt** is mandatory for a proper spark plug installation. Unless the pointer becomes damaged, this is the most accurate style of torque wrench that can be used over the long term.

It is better than any "click" type wrench which uses a spring-loaded mechanism. Springs fatigue. But most importantly, the Beam-type wrench requires a slow procedure if the scale is to be read accurately. This scale inhibits the "clean and jerk" methods that are often used with the "click" style of wrench. If that method is used, the spring-loaded mechanism will "click" but the true level of torque may be many times greater than the indicated setting. For accurate torque, only this style of wrench can be recommended.

Full Bottom Taps

(SAE Standard J548d)

FBT-14 **FBT-18** **FBT-78**

These are the only tools that will really clean the carbon and other debris that accumulates in the roots of the spark plug port thread. Most importantly, these taps clean all the threads in the port-from the spark plug seat to the fire deck. Please consult our recommendation chart on page 30 for specific engine recommendations.

Go - No Go Gages

(SAE Standard J548d)

GNG-14

GNG-18

GNG-78

These precision, hardened and ground, gages can tell you if the spark plug ports are good or bad. If the “GO” side of the gage fails to “GO” into the port, then the port threads are undersize. If the “NO GO” side of the gage screws into the port, then the port threads are oversize. Please consult our recommendation chart on page 30 for specific engine recommendations.

Extended-Length Go - No Go Gages

For the deep spark plug well cylinder head designs, the gages are only easily used when they are fitted into an extended-length holder. The extended-length holders are available as a gage set for particular engines. Please consult our recommendation chart on page 30 for specific engine recommendations.

Extended-Length Full Bottoming Taps

Years of operating debris can accumulate in a spark plug port to such an extent that a clean-out brush cannot remove enough to restore the spark plug port dimensions to SAE J548d standards. This is typically the case when thread anti-seize compound is so routinely used that it eventually fuses to the cast iron. When this is the situation, the port threads may have to be re-cut.

By hand, on the engine, when the spark plug port is at the bottom of a deep spark plug well, the tap must be fitted into an extended-length holder. The standard, extended-length holders are sized for the majority of deep spark plug well cylinder heads that are in service. Special lengths can be made available on request. Please consult our recommendation chart on page 30 for specific engine recommendations.

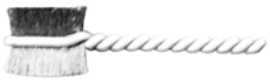
Spark Plug Port Clean-Out Brush System

When a spark plug port gages as undersize, it will be necessary to try and clean-out the port to verify if the port has been manufactured undersize or has become undersize through the accumulation of operating debris.

The **Stitt Spark Plug Port Clean-Out Brush System** offers a specialized steel, fine wire brush for the common, industrial engine spark plug port thread sizes (14mm, 18mm, 7/8-18).

The brush must be fitted into our universal holder. For deep spark plug well applications, an extension holder is available that is six (6”) inches long. These extensions can be combined for spark plug wells that are deeper than six inches.

Please consult our recommendation chart on page 29 for specific engine recommendations.



BR14
For 14mm Ports

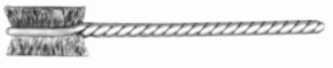
BR18
For 18mm Ports

BR78
For 7/8-18 Ports

BH2
Brush holder with 7/8" collar

BX6
6" Extension

Ignition Coil Tower Brushes



CBU1
For Unshielded Coils

BH1
CBU1 Brush Holder

CBS1
For Shielded Coils

Port Reconditioning Tools

Use the Port Reconditioning Tool to clean gasket seat and cylinder (port) threads in one operation.

14XL
For 14mm

18XL
For 18mm

875XL
For 7/8” - 18

Spark Plug Port Clean-Out Brush Part Number Recommendations For Specific Engines

1. AJAX (ALL MODELS): **BR78**

2. ARROW “C” SERIES (18mm PORTS): **BR18**
   ARROW “L” SERIES (7/8-48 PORTS): **BR78**
   ARROW “VR” SERIES (14mm PORTS): **BR14**
   ARROW “VR” SERIES (18mm PORTS): **BR18**

3. CATERPILLAR (ALL EXCEPT 3400, 3500, 3600, SERIES): **BR14 (Use With 2 BX6 Extensions)**
   CATERPILLAR (3400 SERIES): **BR14 (Use With 2 BX6 Extensions)**
   CATERPILLAR (3500, 3600 SERIES): **BR18 (Use With 3 BX6 Extensions)**

4. CLARK (ALL MODELS): **BR78 (Use With 2 BX6 Extensions)**
   CLARK (CAST-IN PRECHAMBERS): **BR78 (Use With 1 BX6 Extension)**
   CLARK (SIPC PRECHAMBERS): **BR14 (Use With 2 BX6 Extensions)**

5. COOPER-BESSEMER (GMX SERIES): **BR78**
   COOPER-BESSEMER (GMW, GMV SERIES): **BR78 (Use With 1 BX6 Extension)**
   COOPER-BESSEMER (W330, Z330 SERIES): **BR78 (Use With 2 BX6 Extensions)**
   COOPER-BESSEMER (LS, LSV SERIES, 7/8-18 PORTS): **BR78 (Use With 3 BX6 Extensions)**
   COOPER-BESSEMER (JET-CELL PRECHAMBERS): **BR78 (Use With 1 BX6 Extension)**

6. CUMMINS (14mm HEADS EXCEPT B, C SERIES): **BR14 (Use With 3 BX6 Extensions)**
   CUMMINS (B, C SERIES): **BR14**

7. DEERE (ALL CURRENT PRODUCTION MODELS): **BR14**

8. DELAVAL (ALL 7/8-18 HEADS): **BR78 (Use With 3 BX6 Extensions)**

9. DETROIT DIESEL (S30G): **BR14 (Use With 1 BX6 Extension)**
   DETROIT DIESEL (S50G, S60G): **BR14 (Use With 2 BX6 Extensions)**

10. FAIRBANKS-MORSE (ALL “OP” MODELS): **BR18**

11. FORD (ALL 14mm PORTS): **BR14**
    FORD (ALL 18mm PORTS): **BR18**

12. GEMINI (ALL MODELS): **BR14 (Use With 1 BX6 Extension)**

13. GENERAL MOTORS: **BR14**

14. HERCULES (1600, 2300, 3400 SERIES): **BR14**
    HERCULES (4800 SERIES): **BR14 (Use With 1 BX6 Extension)**

15. INGERSOLL-RAND (ALL MODELS): **BR78**

16. SUPERIOR (ALL HISTORICAL MODELS): **BR18**
    SUPERIOR (ALL MITSUBISHI CONVERSIONS): **BR18 (Use With 2 BX6 Extensions)**

17. WAUKESHA (1197, 1905, 2475, 3711): **BR18**
    WAUKESHA (817, 220, 330): **BR14**
    WAUKESHA (2895, 3521, 5108, 5790, 7042, 9390): **BR18 (Use With 2 BX6 Extensions)**
    WAUKESHA (F18, H24, L36, P48): **BR18 (Use With 2 BX6 Extensions)**
    WAUKESHA (AT25, AT27): **BR18 (Use With 3 BX6 Extensions)**
    WAUKESHA (F11): **BR14 (Use With 1 BX6 Extension)**

18. WORTHINGTON (SLHC, UTC, SUTC, ML, MLV): **BR78 (Use With 4 BX6 Extensions)**

Thread Go-No Go Gage Part Number Recommendations For Specific Engines

1. AJAX (ALL MODELS): **GNG78**

2. ARROW “C” SERIES (18mm PORTS): **GNG18**
   ARROW “L” SERIES (7/8-48 PORTS): **GNG78**
   ARROW “VR” SERIES (14mm PORTS): **GNG14**
   ARROW “VR” SERIES (18mm PORTS): **GNG18**

3. CATERPILLAR (ALL EXCEPT 3400, 3500, 3600, SERIES): **GNG14X9**
   CATERPILLAR (3400 SERIES): **GNG14X16**
   CATERPILLAR (3500, 3600 SERIES): **GNG18X20**

4. CLARK (ALL MODELS): **GNG78X16**
   CLARK (CAST-IN PRECHAMBERS): **GNG78X8**
   CLARK (SIPC PRECHAMBERS): **GNG14X9**

5. COOPER-BESSEMER (GMX SERIES): **GNG78**
   COOPER-BESSEMER (GMW, GMV SERIES): **GNG78X6**
   COOPER-BESSEMER (W330, Z330 SERIES): **GNG78X14**
   COOPER-BESSEMER (LS, LSV SERIES, 7/8-18 PORTS): **GNG78X20**
   COOPER-BESSEMER (JET-CELL PRECHAMBERS): **GNG78X8**

6. CUMMINS (14mm HEADS EXCEPT B, C SERIES): **GNG14X16**
   CUMMINS (B, C SERIES): **GNG14**

7. DEERE (ALL CURRENT PRODUCTION MODELS): **GNG14**

8. DELAVAL (ALL 7/8-18 HEADS): **GNG78X20**

9. DETROIT DIESEL (S30G): **GNG14X9**
   DETROIT DIESEL (S50G, S60G): **GNG14X16**

10. FAIRBANKS-MORSE (ALL “OP” MODELS): **GNG18**

11. FORD (ALL 14mm PORTS): **GNG14**
    FORD (ALL 18mm PORTS): **GNG18**

12. GEMINI (ALL MODELS): **GNG14X9**

13. GENERAL MOTORS: **GNG14**

14. HERCULES (1600, 2300, 3400 SERIES): **GNG14**
    HERCULES (4800 SERIES): **GNG14X9**

15. INGERSOLL-RAND (ALL MODELS): **GNG78**

16. SUPERIOR (ALL HISTORICAL MODELS): **GNG18**
    SUPERIOR (ALL MITSUBISHI CONVERSIONS): **GNG18X16**

17. WAUKESHA (1197, 1905, 2475, 3711): **GNG18**
    WAUKESHA (817, 220, 330): **GNG14**
    WAUKESHA (2895, 3521, 5108, 5790, 7042, 9390): **GNG18X16**
    WAUKESHA (F18, H24, L36, P48): **GNG18X16**
    WAUKESHA (AT25, AT27): **GNG18X24**
    WAUKESHA (F11): **GNG14X9**

18. WORTHINGTON (SLHC, UTC, SUTC, ML, MLV): **GNG78X28**

Full Bottom Tap Part Number Recommendations For Specific Engines

1. AJAX (ALL MODELS): **FBT78**

2. ARROW “C” SERIES (18mm PORTS): **FBT18**
   ARROW “L” SERIES (7/8-48 PORTS): **FBT78**
   ARROW “VR” SERIES (14mm PORTS): **FBT14**
   ARROW “VR” SERIES (18mm PORTS): **FBT18**

3. CATERPILLAR (ALL EXCEPT 3400, 3500, 3600, SERIES): **FBT14X9**
   CATERPILLAR (3400 SERIES): **FBT14X16**
   CATERPILLAR (3500, 3600 SERIES): **FBT18X20**

4. CLARK (ALL MODELS): **FBT78X16**
   CLARK (CAST-IN PRECHAMBERS): **FBT78X8**
   CLARK (SIPC PRECHAMBERS): **FBT14X9**

5. COOPER-BESSEMER (GMX SERIES): **FBT78**
   COOPER-BESSEMER (GMW, GMV SERIES): **FBT78X6**
   COOPER-BESSEMER (W330, Z330 SERIES): **FBT78X14**
   COOPER-BESSEMER (LS, LSV SERIES, 7/8-18 PORTS): **FBT78X20**
   COOPER-BESSEMER (JET-CELL PRECHAMBERS): **FBT78X8**

6. CUMMINS (14mm HEADS EXCEPT B, C SERIES): **FBT14X16**
   CUMMINS (B, C SERIES): **FBT14**

7. DEERE (ALL CURRENT PRODUCTION MODELS): **FBT14**

8. DELAVAL (ALL 7/8-18 HEADS): **FBT78X20**

9. DETROIT DIESEL (S30G): **FBT14X19**
   DETROIT DIESEL (S50G, S60G): **FBT14X16**

10. FAIRBANKS-MORSE (ALL “OP” MODELS): **FBT18**

11. FORD (ALL 14mm PORTS): **FBT14**
    FORD (ALL 18mm PORTS): **FBT18**

12. GEMINI (ALL MODELS): **FBT14X9**

13. GENERAL MOTORS: **FBT14**

14. HERCULES (1600, 2300, 3400 SERIES): **FBT14**
    HERCULES (4800 SERIES): **FBT14X9**

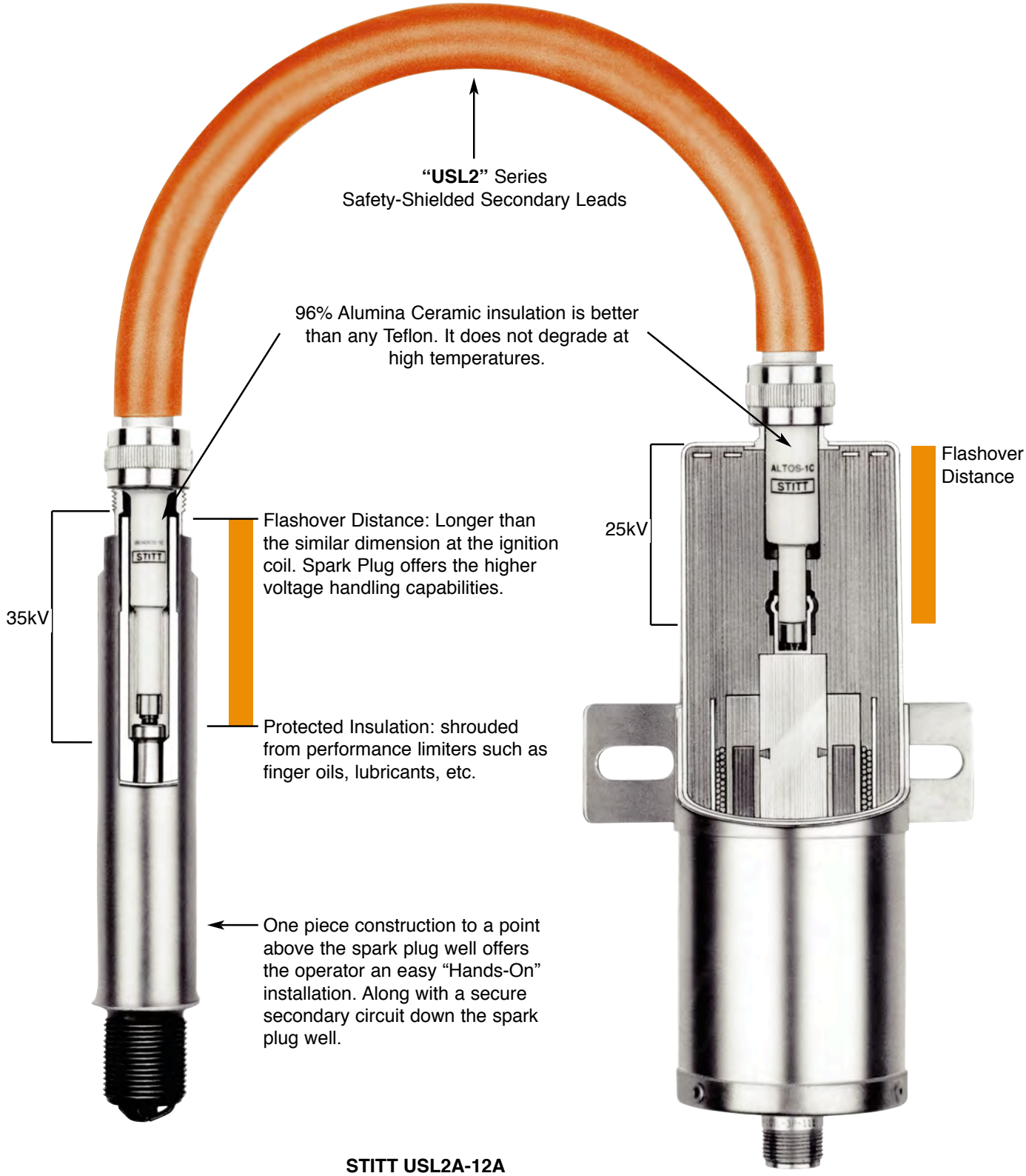
15. INGERSOLL-RAND (ALL MODELS): **FBT78**

16. SUPERIOR (ALL HISTORICAL MODELS): **FBT18**
    SUPERIOR (ALL MITSUBISHI CONVERSIONS): **FBT18X16**

17. WAUKESHA (1197, 1905, 2475, 3711): **FBT18**
    WAUKESHA (817, 220, 330): **FBT14**
    WAUKESHA (2895, 3521, 5108, 5790, 7042, 9390): **FBT18X16**
    WAUKESHA (F18, H24, L36, P48): **FBT18X16**
    WAUKESHA (AT25, AT27): **FBT18X24**
    WAUKESHA (F11): **FBT14X9**

18. WORTHINGTON (SLHC, UTC, SUTC, ML, MLV): **FBT78X28**

The Ultimate Performance for Class1, Group D, Division 2 Locations



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