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 **WARNING**

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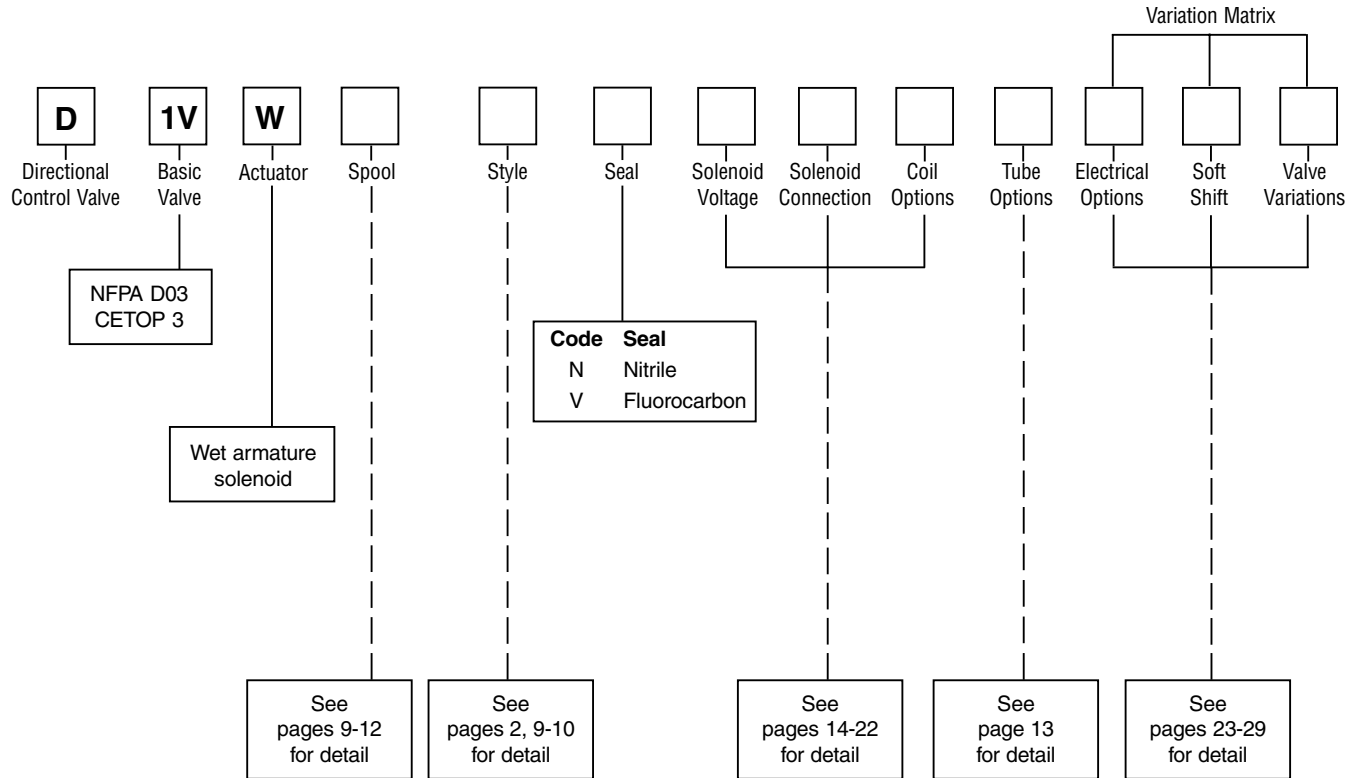
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Model Code



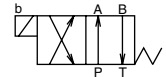
Styles B, E and F



Code Description

B ¹⁾ Single solenoid, 2 position, spring offset.
P to A and B to T in offset position.

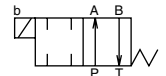
Symbol



E Single solenoid, 2 position, spring centered.
P to B and A to T when energized.



F ³⁾ Single solenoid, 2 position, spring offset,
energized to center. Position spool spacer
on A side. P to A and B to T in spring offset
position.

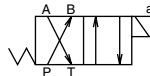


Styles H, K and M

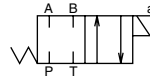
Code Description

Symbol

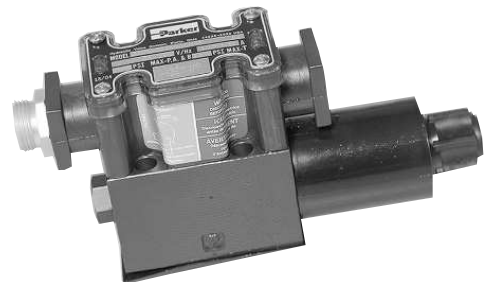
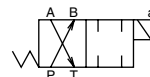
H ¹⁾ Single solenoid, 2 position, spring offset.
P to B and A to T in offset position.



K Single solenoid, 2 position, spring centered.
A side. P to A and B to T when energized.



M ³⁾ Single solenoid, 2 position, spring offset,
energized to center position. Spool spacer
on B side. P to B and A to T in spring offset
position.



Styles C and D



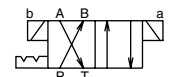
Code Description

Symbol

C Double solenoid, 3 position,
spring centered.

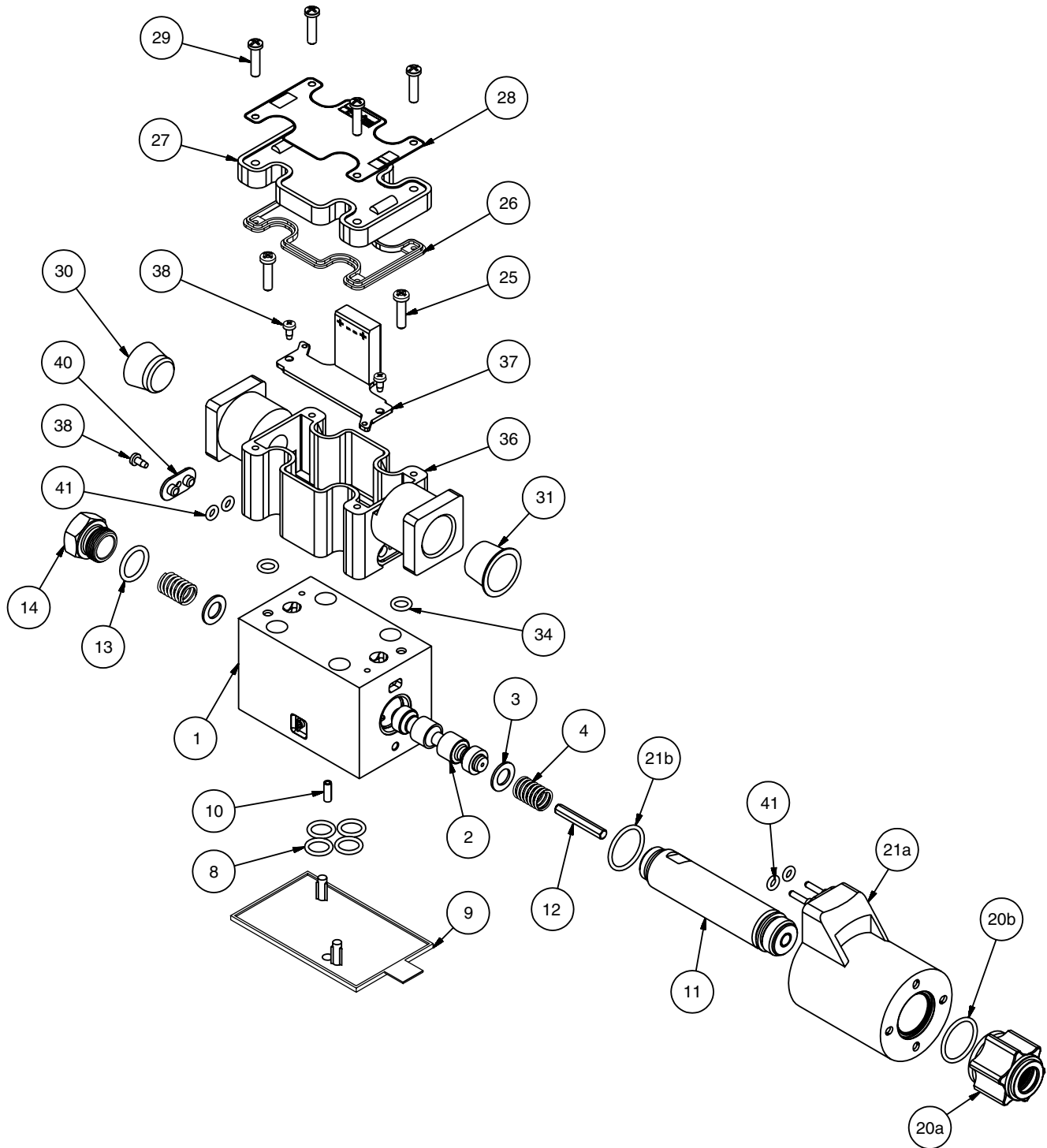


D ²⁾ Double solenoid, 2 position,
detent.



1) Only spools 020, 026 and 030.
2) Only spools 020, 030 and 100.
3) High Watt only.

**Standard NFPA D03 'B' Solenoid Valve Assembly
(Ref. Parker Series D1VW – H, K and M Styles)**



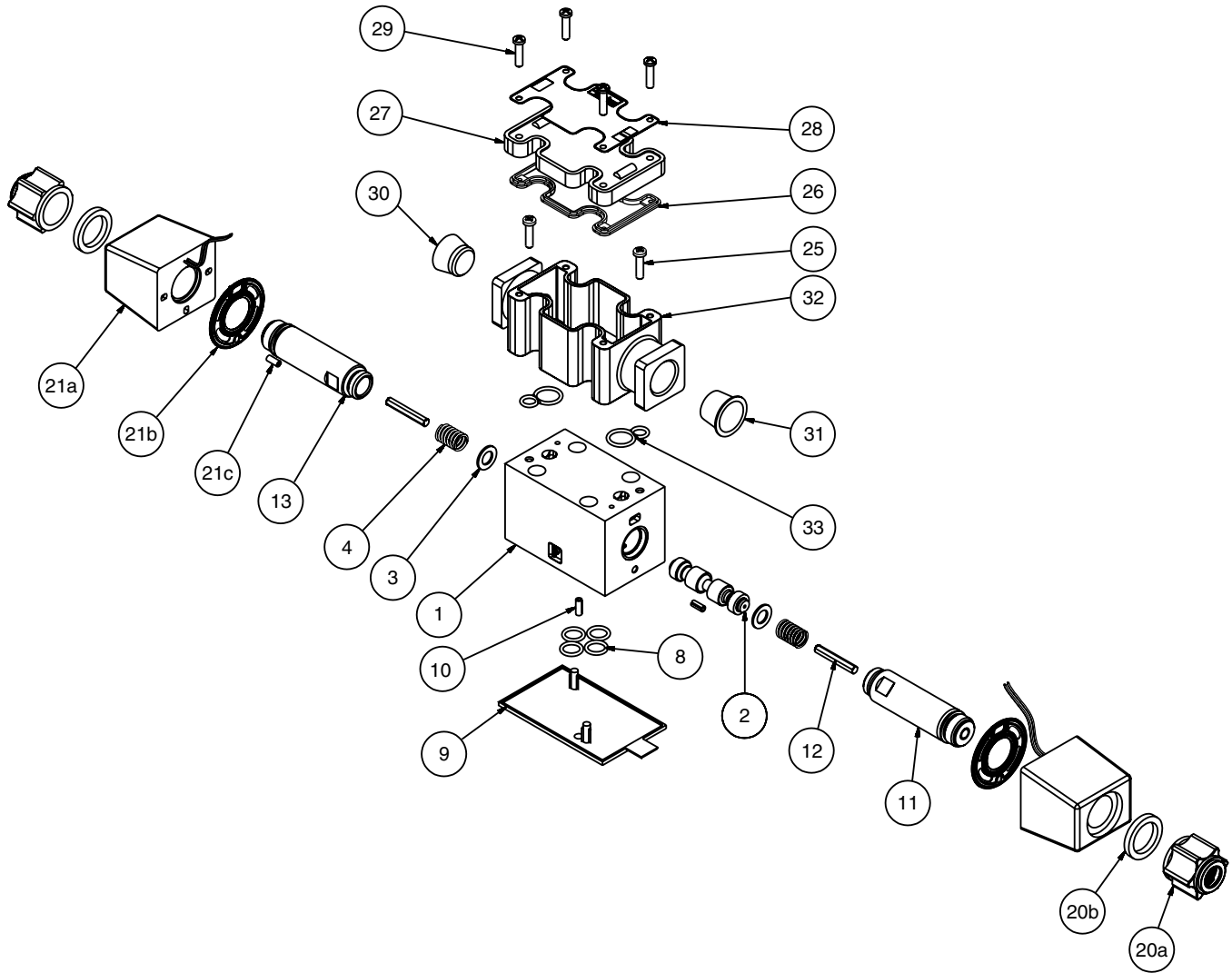
Standard NFPA D03 'B' Solenoid Valve Assembly

Parts List		
Item	Part Description	Ref. Page Number
1	Body	9-10
2	Spool	9-12
3	Cage Washer	9-10
4	Spring	9-11
8	O-Ring, Ports	9-10
9	Shipping Plate	9-10
10	Roll Pin, Mounting Location	13
11	Solenoid Tube	13
12	Push Pin	13
13	O-Ring, Body/Tube, Body/End Cap	13
14	End Cap	13
20a	Coil Retainer	14
20b	O-Ring, Retainer/Coil	14
21a	Plug-in Coil	14-20
21b	O-Ring, Body/Coil	14-20
25	Ground Screw	21
26	Top Seal, Conduit Cover	21
27	Conduit Cover	21
28	Nameplate	21
29	Nameplate Screw	21
30	Pipe Plug	21
31	Cap Plug, Thread Protector	21
34	O-Ring, Conduit Seal – Bottom	21
36	Conduit Box	21
37	Circuit Board	21
38	No. 4 Panhead Self Tapping Screw	21
40	Conduit Plug for Single Plug-in Coil	21
41	O-Ring, Conduit Plug/Coil	21

Standard NFPA D03 'A' Solenoid Valve Assembly

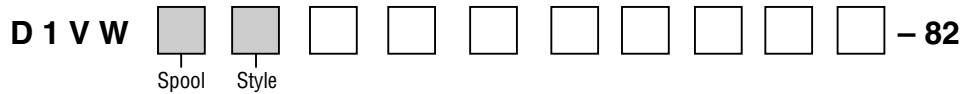
Parts List		
Item	Part Description	Ref. Page Number
1	Body	9-10
2	Spool	9-12
3	Cage Washer	9-10
4	Spring	9-10
8	O-Ring, Ports	9-10
9	Shipping Plate	9-10
10	Roll Pin, Mounting Location	9-10
11	Solenoid Tube	13
12	Push Pin	13
13	O-Ring, Body/Tube, Body/End Cap	13
14	End Cap	13
20a	Coil Retainer	14
20b	Seal – Coil/Retainer	14
21a	DIN Coil	14-20
21b	Gasket – Solenoid Body	14-20
42	Nameplate	22
43	Nameplate Screw	22
44	DIN Plug	22

**Standard NFPA D03 'A' and 'B' Solenoid Valve Assembly
(Ref. Parker Series D1VW – C and D Styles)**

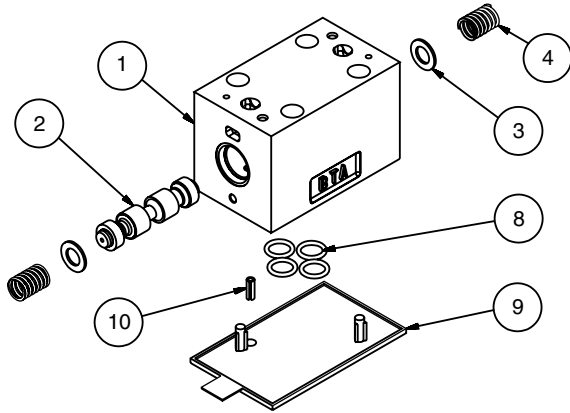


Standard NFPA D03 'A' and 'B' Solenoid Valve Assembly

Parts List		
Item	Part Description	Ref. Page Number
1	Body	9
2	Spool	9-12
3	Cage Washer	9
4	Spring	9
8	O-Ring, Ports	9
9	Shipping Plate	9
10	Roll Pin, Mounting Location	9
11	Solenoid Tube	13
12	Push Pins	13
13	O-Ring, Body/Tube	13
20a	Coil Retainer	14
20b	Seal – Retainer/Coil	14
21a	Leadwire Coil	14-20
21b	Gasket – Coil/Body	14-20
21c	Roll-pin, Anti-rotation	14 and 17
25	Ground Screw	21
26	Top Seal, Conduit Cover	21
27	Conduit Cover	21
28	Nameplate	21
29	Nameplate Screw	21
30	Pipe Plug	21
31	Cap Plug, Thread Protector	21
32	Conduit Box	21
33	Conduit Seal – Bottom	21



Styles B, C, E, H and K

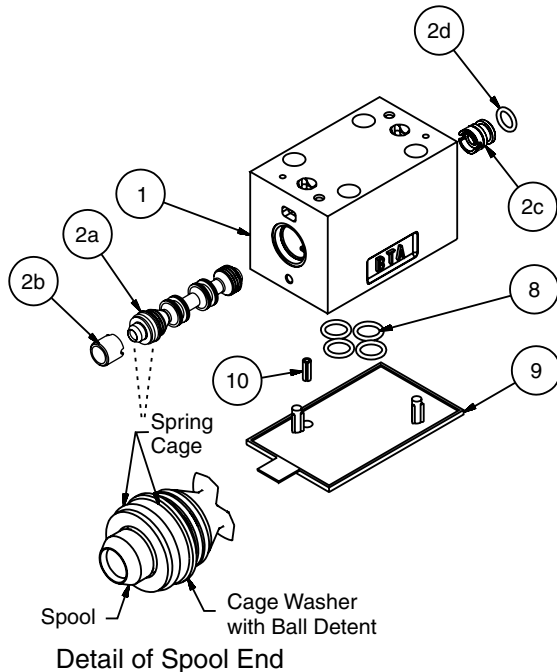


Parts List			
Item	Description	Part Number	Quantity
1	Body	Not Available	1
2	Spool	See Table A (Pg. 11)	1
3	Cage Washer	988-8X14X1	2
4	Spring	See Table A (Pg. 11)	2
8	O-Ring, Ports	2012*-9	4
9	Shipping Plate	697628	1
10	Roll Pin	99X37	1

* Indicates Seal Compound: N = Nitrile; V = Fluorocarbon

Spools	Style	Arrow Direction
001, 002, 003, 004, 005, 006, 007 008, 009, 010, 011, 021, 081, 082	C, E, K	A-Port
014, 015, 016, 022	C, E, K	B-Port
020, 026, 030	B	A-Port
	H	B-Port

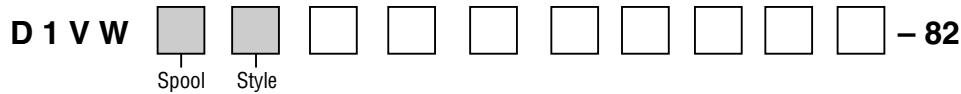
Style D



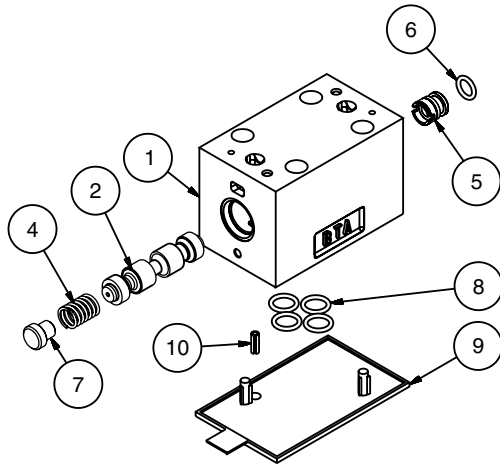
Parts List			
Item	Description	Part Number	Quantity
1	Body	Not Available	1
2a-d	Spool Kit	See Table A (Pg. 11)	1
8	O-Ring, Ports	2012*-9	4
9	Shipping Plate	697628	1
10	Roll Pin	99X37	1

* Indicates Seal Compound: N = Nitrile; V = Fluorocarbon

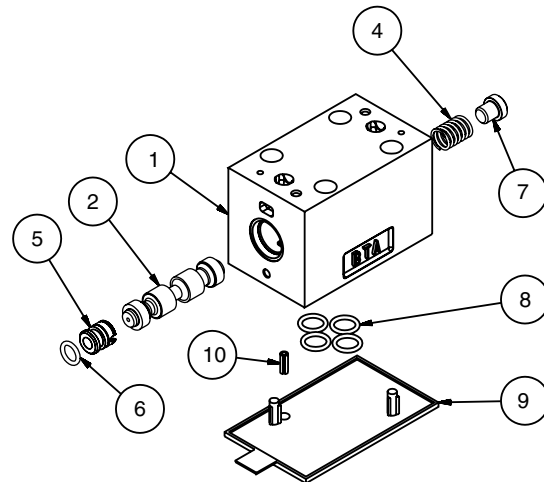
Spools	Style	Arrow Direction
020, 030	D	A-Port



Style F



Style M

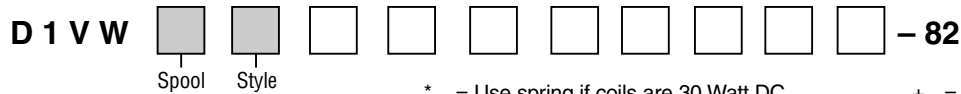


Parts List

Item	Description	Part Number	Quantity
1	Body	Not Available	1
2	Spool	See Table A (Pg. 11)	1
4	Spring	See Table A (Pg. 11)	1
5	Spool Stop – High Watt	697675	1
	Spool Stop – Low Watt	1801094	
6	O-Ring, Spool Stop	2011*-7	1
7	Spool Stop, Cap	697661	1
8	O-Ring, Ports	2012*-9	4
9	Shipping Plate	697628	1
10	Roll Pin	99X37	1

* Indicates Seal Compound: N = Nitrile; V = Fluorocarbon

Spools	Style	Arrow Direction
001, 002, 003, 004, 005, 006, 007	F	A-Port
008, 009, 010, 011, 021, 081, 082	M	B-Port
014, 015, 016, 022	F	B-Port
	M	A-Port




* = Use spring if coils are 30 Watt DC

+ = Use spool if coils are 8 Watt DC

= Use spring if coils are AC or 30 Watt DC

(*) = Seal Option: N = Nitrile, V = Fluorocarbon

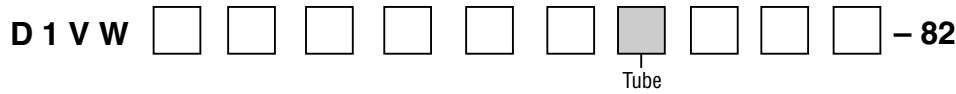
Table A

			Spool/Spring Chart																	
			B-Style		C-Style			D-Style		E-Style		F-Style		H-Style		K-Style		M-Style		
			B Sol	AB PT	B Sol	AB PT	A Sol	B Sol	A Sol	B Sol	AB PT	B Sol	AB PT	AB PT	A Sol	AB PT	A Sol	AB PT	A Sol	
001	697625	697601																		
002	697626 1300211*	697602																		
003	697625	697603																		
004	697625 1300211*	697604																		
005	697625	697605																		
006	697625 697626*	697606																		
007	697626	697607																		
008	697626 1300211*	697608																		
009	697626 1300211*	1302128																		
010	697625	697610																		
011	697625	697611																		
014	697626	6907607 (reversed)																		
015	697625	697603 (reversed)																		
016	697625	697605 (reversed)																		
020	697625 697626 #	697620																		
020		DK020D(*) DK020D(*)L+																		
021	697625	697621																		
022	697625	697621 (reversed)																		
026	697626	1300209																		
030	697625 697626 #	697630																		
030		DK030D(*) DK030D(*)L+																		
081	697625	1210011																		
082	697625	1210012																		

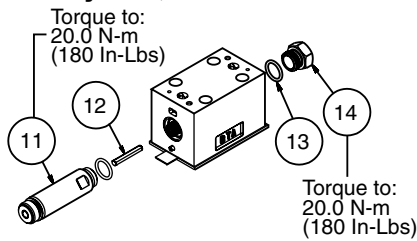
See pages 9 and 10 for arrow directions.

B-Solenoid *(A-Solenoid)	A-Solenoid *(B-Solenoid)	B-Solenoid *(A-Solenoid)	A-Solenoid *(B-Solenoid)
001 SPOOL 		015 SPOOL 	
002 SPOOL 		016 SPOOL 	
003 SPOOL 		021 SPOOL 	
004 SPOOL 		022 SPOOL 	
005 SPOOL 		081 SPOOL 	
006 SPOOL 		082 SPOOL 	
007 SPOOL 		B STYLE 	
* Note: Reverse Operator Location 008 SPOOL 		B STYLE 	
* Note: Reverse Operator Location 009 SPOOL 		H STYLE 	
010 SPOOL 		H STYLE 	
011 SPOOL 		D STYLE 	
014 SPOOL 		D STYLE 	

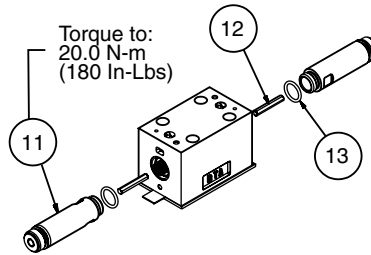
2532-M1.p65, dd



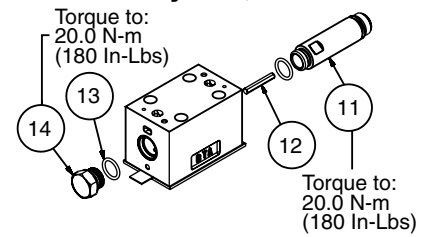
Solenoid A
Style H, K and M



Style C and D



Solenoid B
Style B, E and F



Parts List				
Item	Description	Part Number	Style B, E and F Style H, K and M Quantity	Style C and D Quantity
11	Solenoid Tube	See Solenoid Tube Table below	1	2
12	Push Pins	See Push Pin Table below	1	2
13	O-Ring, Body/Tube, Body/End Cap	3907*-7	2	2
14	End Cap	697649	1	N/A

* Insert alpha code to indicate Seal Compound: N = Nitrile; V=Fluorocarbon

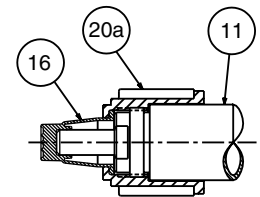
Solenoid Tube Table

Item	Code	Description	Part Number
11	Omit	AC Tube Low Pressure 103 Bar (1500 PSI)	697632
	H	AC Tube High Pressure 207 Bar (3000 PSI)	697714
	G or †M	DC Tube or AC Rectified Tube 207 Bar (3000 PSI)	1801091

† Obsolete – Replace with G Tube

Solenoid Tube Table for Extended Option

Item	Code	Description	Part Number
11	Omit P	Extended AC Low Pressure 103 Bar (1500 PSI)	697715
	HP	Extended AC High Pressure 207 Bar (3000 PSI)	697716
	GP or †MP	Extended DC Std Pressure 207 Bar (3000 PSI)	1801160
16	HP,GP	Override Boot	697161
20a	---	Coil Retainer	See page 14

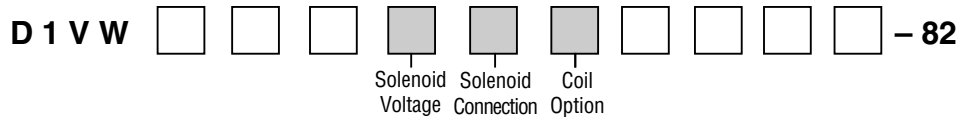


Extended Option

† Obsolete – Replace with GP Tube

Push Pin Table

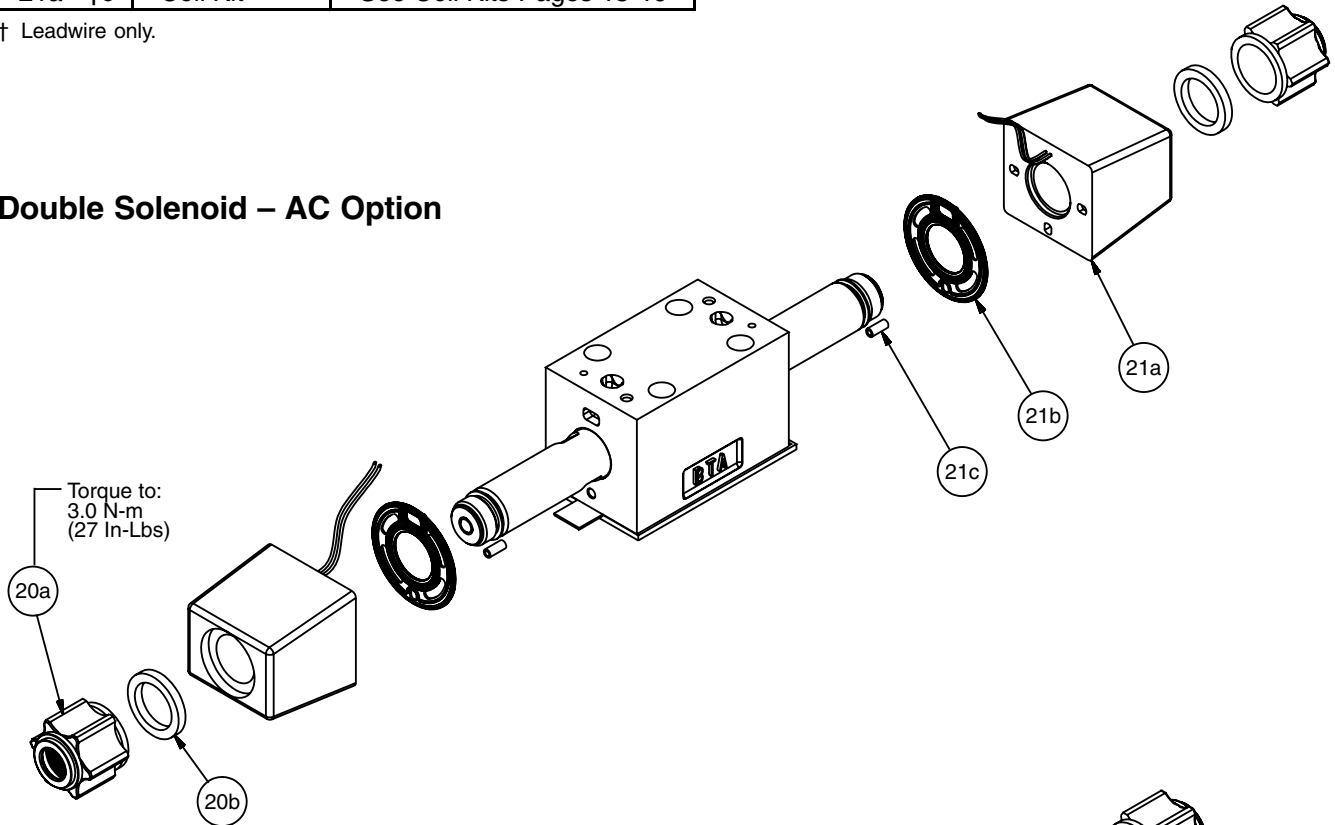
Item	Style	Spool	Coil Watt Description	Part Number
12	B, C, E, H and K	All Spools Except 081 and 082	DC-8 Watt	1860319
			DC-24/30 Watt	1860317
			ALL AC	697627
		081 and 082	DC-8 Watt	1860320
			DC-24/30 Watt	1860318
			ALL AC	697660
	F and M	All Spools Except 081 and 082	DC-8 Watt	1860320
			DC-24/30 Watt	1860318
			ALL AC	697660
		081 and 082	DC-8 Watt	1860335
			DC-24/30 Watt	1860334
			ALL AC	1302046
D	All Spools	ALL DC 8/24/30 Watt	1860318	
		ALL AC	697660	



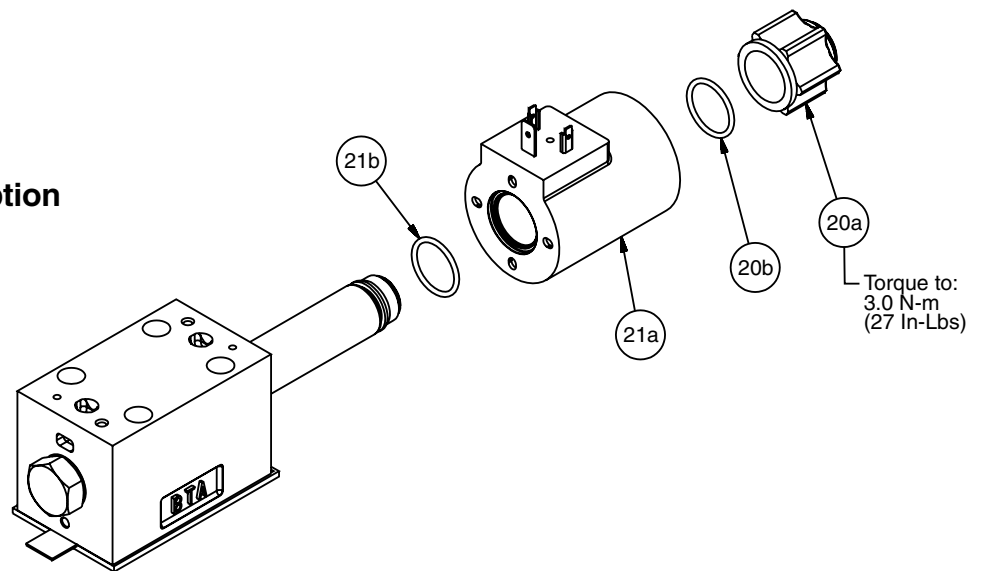
Parts List		
Item	Description	Part Number
20a - b	Retainer Kit	1801098-AC
		1801098-DC
21a - †c	Coil Kit	See Coil Kits Pages 15-19

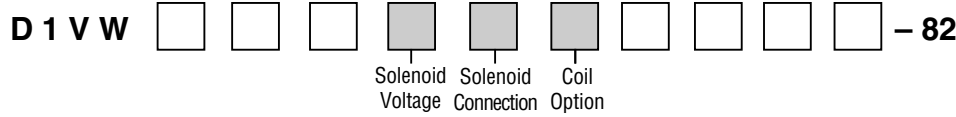
† Leadwire only.

Double Solenoid – AC Option

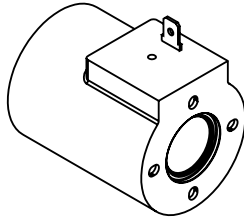


Single Solenoid – DC Option





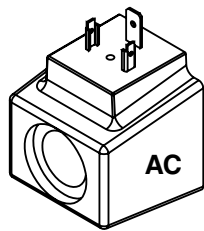
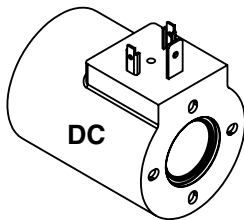
Single Spade



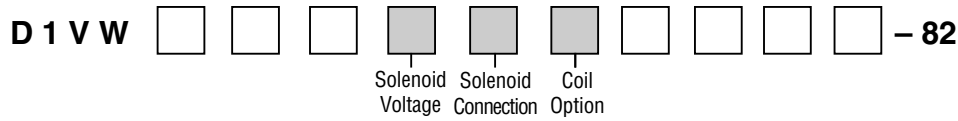
Single Spade

Item	Solenoid Voltage	Solenoid Connection	Coil Options	Description	Part Number	Quantity
21	L	H Style		6 VDC	CK1860277-30-6	1
	L		L	6 VDC 8 Watt	CK1860277-10-6	
	K			12 VDC	CK1860277-30-12	
	K		L	12 VDC 8 Watt	CK1860277-10-12	
	J			24 VDC	CK1860277-30-24	
	J		L	24 VDC 8 Watt	CK1860277-10-24	
	D			120 VDC	CK1860277-30-120	
	D		L	120 VDC 8 Watt	CK1860277-10-120	
	Z			250 VDC	CK1860277-30-250	
	Z		L	250 VDC 8 Watt	CK1860277-10-250	
	U			98 VDC	CK1860277-30-98	
G		198 VDC	CK1860277-30-198			
Included with Coil Kit						
21b		H		O-Ring	2018N-9	1
20b				Spacer	1301653	
20a				Retainer	1301654	

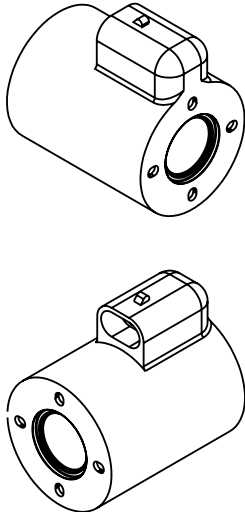
DIN:
P Style with Plug
W Style without Plug



Item	Solenoid Voltage	Solenoid Connection	Coil Options	Description	Part Number	Quantity
21	L	P or W Style		6 VDC	CK1860274-30-6	1
	L		L	6 VDC 8 Watt	CK1860274-10-6	
	K			12 VDC	CK1860274-30-12	
	K		L	12 VDC 8 Watt	CK1860274-10-12	
	J			24 VDC	CK1860274-30-24	
	J		L	24 VDC 8 Watt	CK1860274-10-24	
	D			120 VDC	CK1860274-30-120	
	D		L	120 VDC 8 Watt	CK1860274-10-120	
	Z			250 VDC	CK1860274-30-250	
	Z		L	250 VDC 8 Watt	CK1860274-10-250	
	U			98 VDC	CK1860274-30-98	
	G			198 VDC	CK1860274-30-198	
	Y			120/60-110/50 VAC	CK697228	
	Y		F	120/60-110/50 VAC 24 Watt	CK693715	
	T			240/60-220/50 VAC	CK697229	
	T		F	240/60-220/50 VAC 24 Watt	CK1301932	
	Q			100/60 VAC	CK697350	
	R			24/60 VAC	CK1300348	
	A			24/50 VAC	CK1300349	
	E			24/60-24/50 VAC	CK696693	
	QD				100/60-100/50 VAC	
Included with Coil Kit						
21b		P or W		O-Ring	2018N-9	1

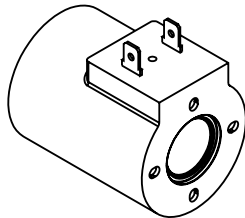


Metri-Pack

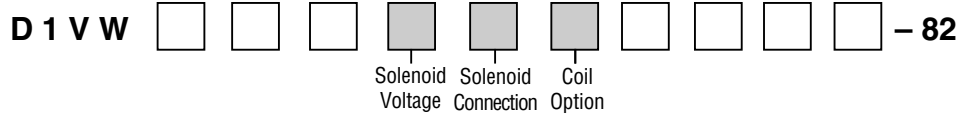


Item	Solenoid Voltage	Solenoid Connection	Coil Options	Description	Part Number	Quantity
21	L	M Style		6 VDC	CK1860278-30-6	1
	L		L	6 VDC 8 Watt	CK1860278-10-6	
	K			12 VDC	CK1860278-30-12	
	K		L	12 VDC 8 Watt	CK1860278-10-12	
	J			24 VDC	CK1860278-30-24	
	J		L	24 VDC 8 Watt	CK1860278-10-24	
	D			120 VDC	CK1860278-30-120	
	D		L	120 VDC 8 Watt	CK1860278-10-120	
	Z			250 VDC	CK1860278-30-250	
	Z		L	250 VDC 8 Watt	CK1860278-10-250	
	U			98 VDC	CK1860278-30-98	
	G			198 VDC	CK1860278-30-198	
Included with Coil Kit						
21b		M		O-Ring	2018N-9	1

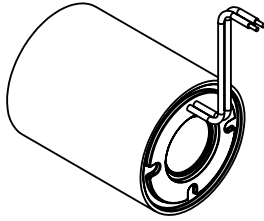
Double Spade



Item	Solenoid Voltage	Solenoid Connection	Coil Options	Description	Part Number	Quantity
21	L	S Style		6 VDC	CK1860275-30-6	1
	L		L	6 VDC 8 Watt	CK1860275-10-6	
	K			12 VDC	CK1860275-30-12	
	K		L	12 VDC 8 Watt	CK1860275-10-12	
	J			24 VDC	CK1860275-30-24	
	J		L	24 VDC 8 Watt	CK1860275-10-24	
	D			120 VDC	CK1860275-30-120	
	D		L	120 VDC 8 Watt	CK1860275-10-120	
	Z			250 VDC	CK1860275-30-250	
	Z		L	250 VDC 8 Watt	CK1860275-10-250	
	U			98 VDC	CK1860275-30-98	
	G			198 VDC	CK1860275-30-198	
Included with Coil Kit						
21b		S		O-Ring	2018N-9	1
-			Insulator Block	693975		
-			Screw	693979		

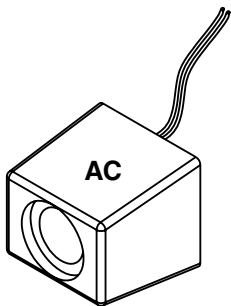
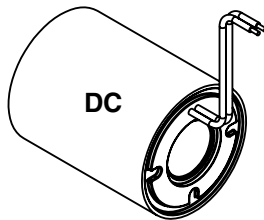


Free Leadwire

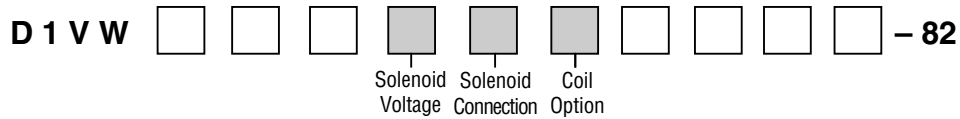


Item	Solenoid Voltage	Solenoid Connection	Coil Options	Description	Part Number	Quantity
21	L	F Style		6 VDC	CK1860295-30-6-12	1
			L	6 VDC 8 Watt	CK1860295-10-6-12	
				12 VDC	CK1860295-30-12-12	
	K		L	12 VDC 8 Watt	CK1860295-10-12-12	
				24 VDC	CK1860295-30-24-12	
	J		L	24 VDC 8 Watt	CK1860295-10-24-12	
				120 VDC	CK1860295-30-120-12	
	D		L	120 VDC 8 Watt	CK1860295-10-120-12	
				250 VDC	CK1860295-30-250-12	
Z	L	250 VDC 8 Watt	CK1860295-10-250-12			
U		98 VDC	CK1860295-30-98-12			
G		198 VDC	CK1860295-30-198-12			
Included with Coil Kit						
21b		F		O-Ring	2018N-9	1

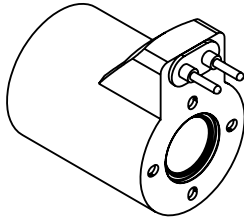
Conduit Box



Item	Solenoid Voltage	Solenoid Connection	Coil Options	Description	Part Number	Quantity
21	L	C Style		6 VDC	CK1860295-30-6-6	1
			L	6 VDC 8 Watt	CK1860295-10-6-6	
			K		12 VDC	
	L			12 VDC 8 Watt	CK1860295-10-12-6	
	J			24 VDC	CK1860295-30-24-6	
			L	24 VDC 8 Watt	CK1860295-10-24-6	
	D			120 VDC	CK1860295-30-120-6	
			L	120 VDC 8 Watt	CK1860295-10-120-6	
	Z			250 VDC	CK1860295-30-250-6	
			L	250 VDC 8 Watt	CK1860295-10-250-6	
	U			98 VDC	CK1860295-30-98-6	
	G			198 VDC	CK1860295-30-198-6	
	Y			120/60-110/50 VAC	CK697212	
	Y		F	120/60-110/50 VAC 24 Watt	CK692619	
	T			240/60-220/50 VAC	CK697213	
	T		F	240/60-220/50 VAC 24 Watt	CK1301930	
	Q			100/60 VAC	CK697348	
	R			24/60 VAC	CK1300344	
	R		F	24/60 VAC 24 Watt	CK1300715	
	A			24/50 VAC	CK1300345	
E	F	24/60-24/50 VAC 24 Watt	CK1300716			
Included with Coil Kit						
21b		AC		Gasket	1301704	1
21c				Anti-Rotation Pin	99X37	
21b		DC		O-Ring	2029N-9 2018N-9	
21c				Anti-Rotation Pin	99X36	

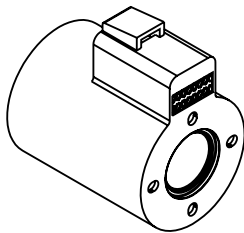


Plug-In

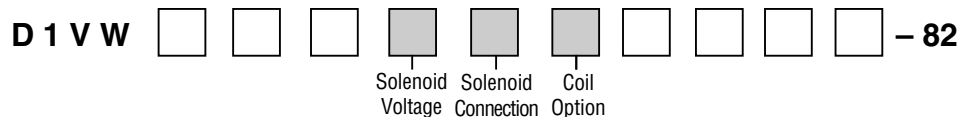


Item	Solenoid Voltage	Solenoid Connection	Coil Options	Description	Part Number	Quantity
21	L	G Style		6 VDC	CK1860307-30-6	1
	L		L	6 VDC 8 Watt	CK1860307-10-6	
	K			12 VDC	CK1860307-30-12	
	K		L	12 VDC 8 Watt	CK1860307-10-12	
	J			24 VDC	CK1860307-30-24	
	J		L	24 VDC 8 Watt	CK1860307-10-24	
	D			120 VDC	CK1860307-30-120	
	D		L	120 VDC 8 Watt	CK1860307-10-120	
	Z			250 VDC	CK1860307-30-250	
	Z		L	250 VDC 8 Watt	CK1860307-10-250	
	U			98 VDC	CK1860307-30-98	
	G			198 VDC	CK1860307-30-198	
Included with Coil Kit						
21b		G		O-Ring	2018N-9	1
41		G		O-Ring	2007N-7	2

Deutsch

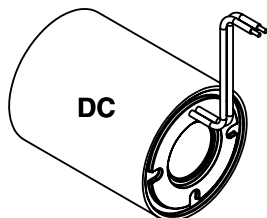


Item	Solenoid Voltage	Solenoid Connection	Coil Options	Description	Part Number	Quantity
21	L	J Style		6 VDC	CK1860313-30-6	1
	L		L	6 VDC 8 Watt	CK1860313-10-6	
	K			12 VDC	CK1860313-30-12	
	K		L	12 VDC 8 Watt	CK1860313-10-12	
	J			24 VDC	CK1860313-30-24	
	J		L	24 VDC 8 Watt	CK1860313-10-24	
	D			120 VDC	CK1860313-30-120	
	D		L	120 VDC 8 Watt	CK1860313-10-120	
	Z			250 VDC	CK1860313-30-250	
	Z		L	250 VDC 8 Watt	CK1860313-10-250	
	U			98 VDC	CK1860313-30-98	
	G			198 VDC	CK1860313-30-198	
Included with Coil Kit						
21b		J		O-Ring	2018N-9	1

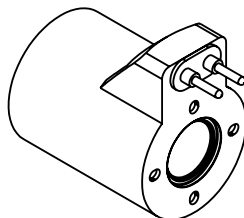


For AC Soft Shift Option

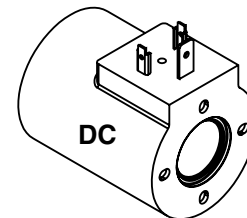
**C Style
Conduit Box**



**G Style
Plug-In**



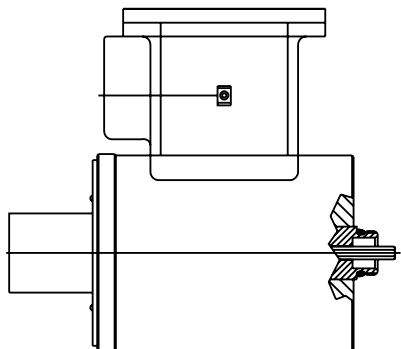
**P Style
DIN: With Plug**



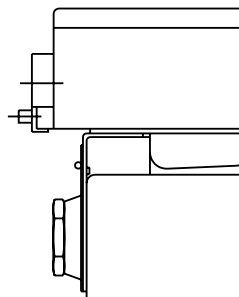
Item	Solenoid Voltage	Solenoid Connection	Coil Options	Description	Part Number	Quantity
21a -	Y	C Style	Omit	Leadwire coil 98 VDC Rectifier Board 98 VDC	CK1860295-30-98-6 1000556	As Required
21a -	T		Omit	Leadwire coil 214 VDC Rectifier Board 214 VDC	CK1860295-30-214-6 1000556	
21a -	Y	G Style	Omit	Plug-in Coil 98 VDC Rectifier Board 98 VDC	CK1860307-30-98 1860336-120R	
21a -	T		Omit	Plug-in Coil 214 VDC Rectifier Board 214 VDC	CK1860307-30-214 1860336-240R	
21a -	Q		Omit	Plug-in Coil 86 VDC Rectifier Board 86 VDC	CK1860307-30-86 1860336-100R	
21a	Y	P Style	Omit	DIN Coil 120/60 Voltage	CK1860274-30-98	
21a	T		Omit	DIN Coil 240/60 Voltage	CK1860274-30-214	
21a	Q		Omit	DIN Coil 100/60 Voltage	CK1860274-30-86	
44	Y, T and Q		Omit	A DIN Rectifier Plug	1301053	
				B DIN Rectifier Plug	1301054	

Explosion Proof Solenoid Option

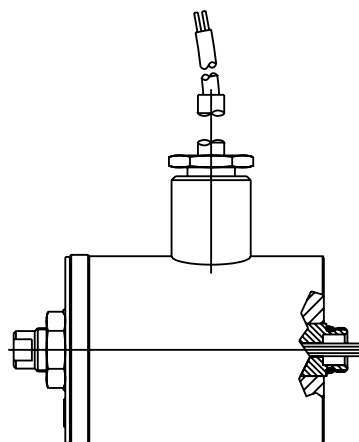
**ED Style
Atex/Cenelac**



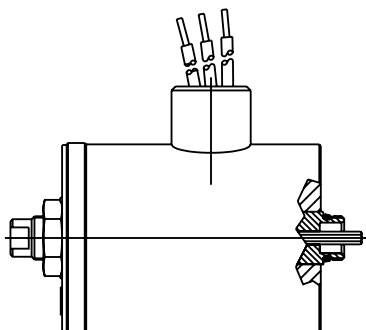
**EE Style
Atex/Baseefa**



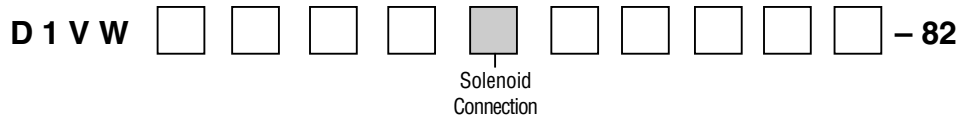
**EO Style
MSHA**



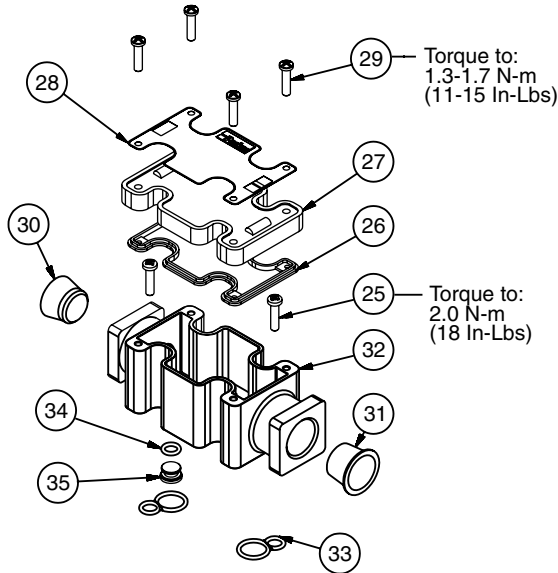
**EU Style
UL/CSA**



Code	Description	Part Number			
		ED (ATEX/CENELEC)	EE (ATEX/BASEEFA)	EO (MSHA)	EU (UL & CSA)
Y	120/60-110/50 VAC 30 Watt	1300830	1300843	697761	697770
T	240/60-220/50 VAC 30 Watt	1300853	1300841	697762	697771
Q	100/60 VAC 30 Watt	1300856	1300845	697763	697772
QD	100/60-100/50 VAC 30 Watt	N/A	1300918	N/A	N/A
R	24/60 VAC 30 Watt	1300857	1300846	697764	697773
A	24/50 VAC 30 Watt	1300888	1300887	N/A	N/A
L	6 VDC 30 Watt	1300858	1300847	697765	697774
K	12 VDC 30 Watt	1300859	1300848	697766	697775
J	24 VDC 30 Watt	1300860	1300849	697767	697776
D	120 VDC 30 Watt	1300861	1300851	697768	697777
Z	250 VDC 30 Watt	1300862	1300852	697769	697778
N	220/50 VAC	1300854	1300842	N/A	1300714
P	110/50 VAC	1300855	1300844	N/A	1300332
S	Special Voltage	See X-Number	See X-Number	See X-Number	See X-Number



Conduit Box C



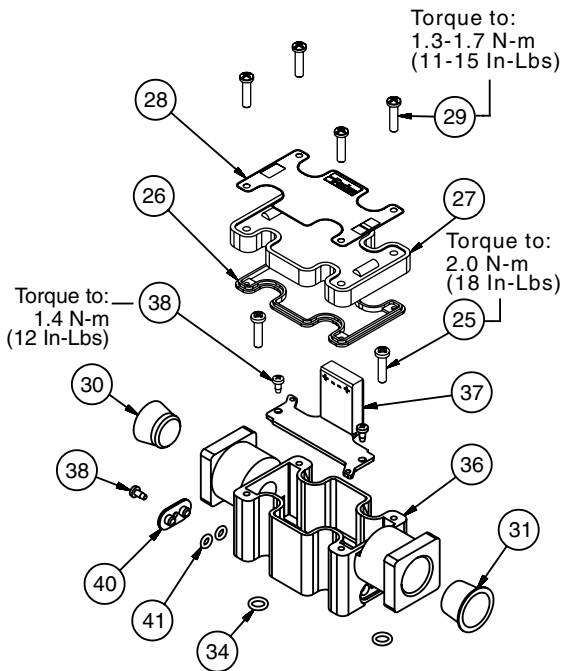
Parts List			
Item	Description	Part Number	Quantity
25	Ground Screw	1301070	2
26	Top Seal, Conduit Cover	1300828	1
27	Conduit Cover without Light	1300649-1	1
	Conduit Cover with Light	1300650-*	
28	Nameplate	1300651	1
29	Nameplate Screw	1301067	4
30	Pipe Plug	678800	1
31	Cap Plug, Thread Protector	120x21	1
32	Conduit Box	1300648	1
33	Conduit Seal – Bottom	697646	2
34	O-Ring Conduit Plug	2010N-7	1
35	Conduit Plug	697624	1

Conduit Box Kit

Item	Description	Part Number	Quantity
25-35	Conduit Box Kit without Light	1301166	1
	Conduit Box Kit with Light	1301167-*	1

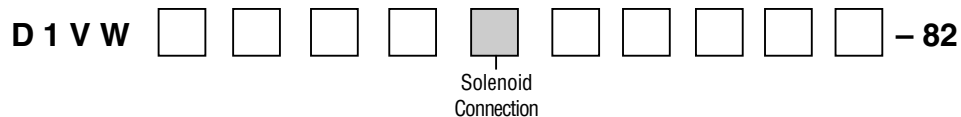
* Supply the specific letter for voltage shown in “C and G style” chart on page 28.

Plug-In Conduit Box G

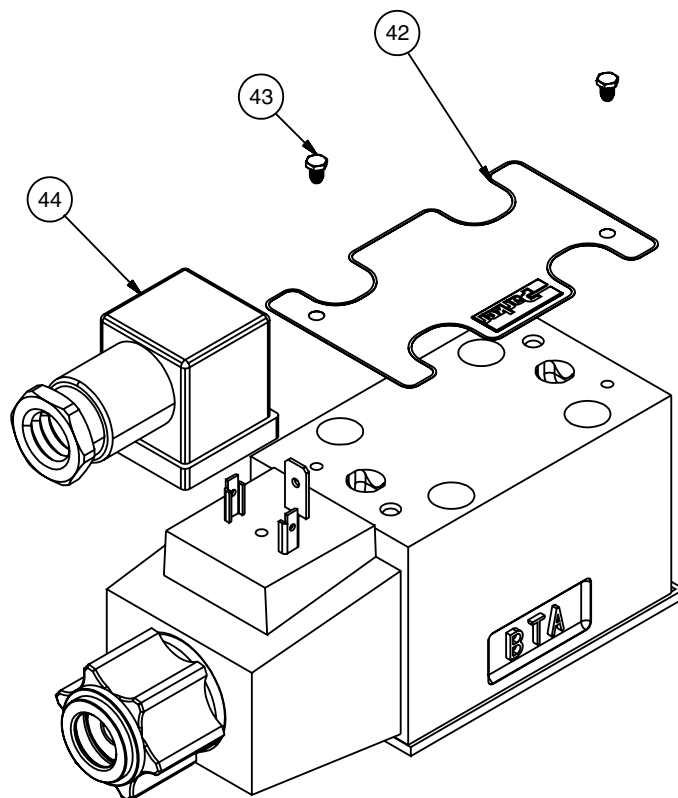


Parts List			
Item	Description	Part Number	Quantity
25	Ground Screw	1301070	2
26	Top Seal, Conduit Cover	1300828	1
27	Conduit Cover without Light	1300649-1	1
	Conduit Cover with Light	1800610-4	
28	Nameplate without Light	1300651	1
	Nameplate with Light	1800611	
29	Nameplate Screw	1301067	4
30	Pipe Plug	678800	1
31	Cap Plug, Thread Protector	120x21	1
34	O-Ring, Conduit Seal Bottom	2010N-7	2
36	Conduit Box	1800588	1
37	Circuit Board	1860336-*	1
38	No. 4 Panhead Self Tapping Screw	1860254	3
40	Plug-In Conduit Plug	1800838	1
41	O-Ring, Coil/Conduit Seal	2007N-7	2

* Supply the specific letter for voltage shown in “C and G style” chart on page 28.

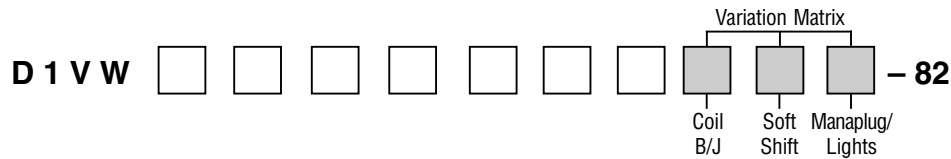


Without Conduit Box



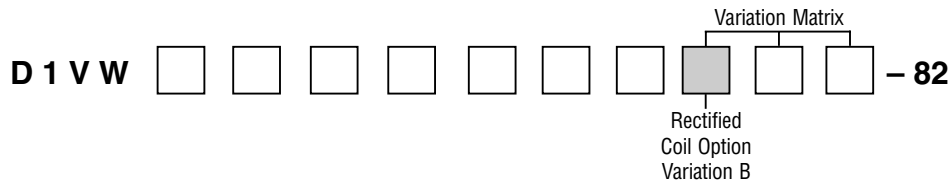
Parts List					
Item	Description	Part Number	Style B, E and F Quantity	Style H, K and M Quantity	Style C and D Quantity
42	Nameplate	1300638	1	1	1
43	Nameplate Screw	1301066	2	2	2
*44	DIN Plug B Black	692914	1	N/A	1
	DIN Plug A Gray	692915	N/A	1	1

* For 'P' Solenoid Connection Only



Directional Control Valves Variation Matrix

Variation Matrix	Variation Code	Variation Description	Ref. Page
Electrical Options	B	Rectified Coil	24
	J	Diode Surge Suppressor	25
Soft Shift	S2	Soft Shift Tube, 0.020" Orifice	26
	S3	Soft Shift Tube, 0.030" Orifice	
	S4	Soft Shift Tube, 0.040" Orifice	
	S5	Soft Shift Tube, 0.050" Orifice	
Valve Variations	5	Lights	28-29
	56	Manaplug (Mini) with Lights	
	6	Manaplug (Mini) without Lights	27 and 29
	1A	Manaplug (Mini) Single Solenoid 5-Pin without Lights	
	1C	Manaplug (Mini) Single Solenoid 5-Pin with Lights	28-29



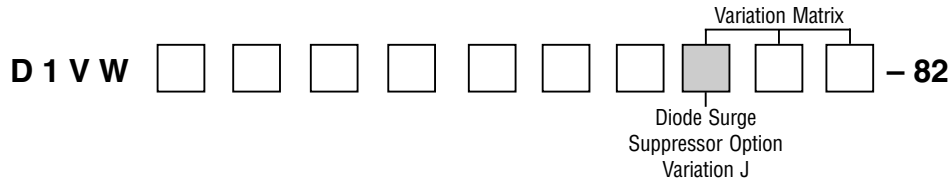
Rectified Coil Option Variation B

– Replace Standard Items with Items Listed Below

Parts List (Tube, Push Pin & Retainer Kit)				
Item	Description	Style	Remove	Replace With
11	Tube 103 Bar (1500 PSI)	All	697632	1801091
	Tube 207 Bar (3000 PSI)		697714	
12	Push Pin (30 Watt)	B, C, E, H and K	697627	1860317
	Push Pin (8 Watt)	(All Spools Except 081 and 082)		1860319
	Push Pin (30 Watt)	B,C,E,H and K	697660	1860318
	Push Pin (8 Watt)	(Spools 081 and 082)		1860320
	Push Pin (30 Watt)	F or M	697660	1860318
	Push Pin (8 Watt)	(All Spools Except 081 and 082)		1860320
	Push Pin (30 Watt)	F or M	1302046	1860334
	Push Pin (8 Watt)	(Spools 081 and 082)		1860335
	Push Pin (8/24/30 Watt)	D (All Spools)	697660	1860318
20a-b	Retainer Kit	All	1801098-AC	1801098-DC

Parts List (Coil Kit and Plug)								
Item	Solenoid Voltage	Solenoid Connection	Coil Options	Description	Remove	Replace With		
21	Y	G	Omit	Coil 120/60 110/50	CK697212	CK1860307-30-98		
				Rectified Board		1860336-120R		
			L	Coil 120/60 110/50	CK692619	CK1860307-10-98		
				Rectified Board		1860336-120R		
			Omit	Coil 120/60 110/50	CK697213	CK1860307-30-214		
				Rectified Board		1860336-240R		
	T	G	L	Coil 120/60 110/50	CK1301930	CK1860307-10-214		
				Rectified Board		1860336-240R		
			Omit	Coil 120/60 110/50	CK697348	CK1860307-30-86		
				Rectified Board		1860336-100R		
			Y	C	Omit	Coil 120/60 110/50	CK697212	CK1860295-30-98-6
						Coil 120/60 110/50	CK692619	CK1860295-10-98-6
	L	Coil 120/60 110/50			CK697213	CK1860295-30-214-6		
		Coil 120/60 110/50			CK1301930	CK1860295-10-214-6		
	Omit	Coil 120/60 110/50			CK697348	CK1860295-30-86-6		
		Rectified Board				1000556		
	Y	P	Omit	Coil 120/60 110/50	CK697228	CK1860291-30-98		
				Coil 120/60 110/50	CK693715	CK1860291-10-98		
L			Coil 120/60 110/50	CK697229	CK1860291-30-214			
			Coil 120/60 110/50	CK1301932	CK1860291-10-214			
Omit			Coil 120/60 110/50	CK697350	CK1860291-30-86			
			Rectified Board					
44	Y,T,Q	L,Omit	A DIN Plug	692915	1301053			
			B DIN Plug	692914	1301054			

Variation Matrix – Diode Surge Suppressor Series D1VW, 82 Design



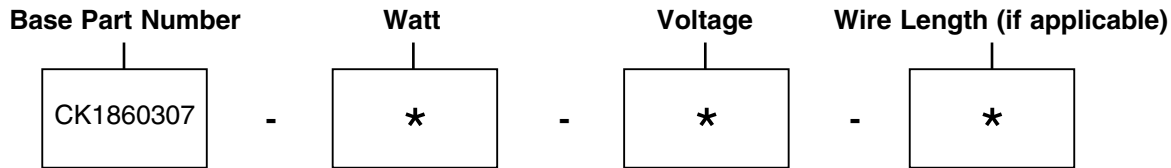
Diode Surge Suppressor Option Variation J

Build this as a Standard Valve except:

Item	Solenoid Connection	Remove Standard Part Number	Replace with Part Number	Quantity	Description
21	# G	CK1860307-*-*	CK1860308-*-*	A/R	Plug-In Coil
	+ P/W	CK1860274-*-*	CK1860321-*-*	A/R	DIN Coil
	S	CK1860275-*-*	CK1860322-*-*	A/R	Dual Spade Coil
	H	CK1860277-*-*	CK1860309-*-*	A/R	Single Spade Coil
	J	CK1860313-*-*	CK1860314-*-*	A/R	Deutsch Coil
	M	CK1860278-*-*	CK1860324-*-*	A/R	Metri-Pack Coil
	C	CK1860295-*-*	CK1860249-*-*	A/R	Leadwire Coil
	D		CK1860099-*-*	A/R	Desina Coil
	ALL		1800985	1	Diode Coil Wiring Tag

+ Not available with lights (code 5) on DIN Connector (Code P).

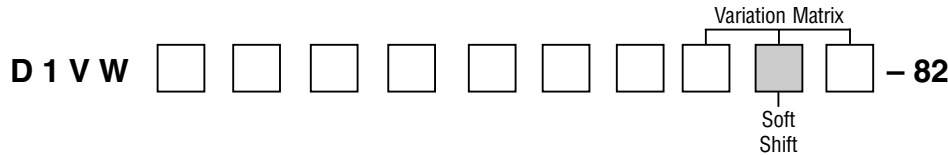
Not available with AC Rectified on Code G.



Replace Base Part Number with Diode Option Part Number. Maintain existing Code for Watt, Voltage and Lead Wire Length (if applicable).

For example: CK1860307-30-12 to CK1860308-30-12

Note: Coil Polarity
 Red = Positive
 Black = Negative



Valve Variation – AC/DC Soft Shift Option – Replace Standard Items with Items Listed Below
Spring for Both AC & DC

Item	Spool	Solenoid Style	Part Number
4	002, 007, 008, 009, 014, 020, 026 and 030	All Styles, except D Style	697626
	All Other Spools	All Styles, except D Style	697625

Tube for Both AC & DC

Item	Soft Shift Valve Variation Code	G and †M Only Part Number
11	S2	1860025-2
	S3	1860025-3
	S4	1860025-4
	S5	1860025-5

† Obsolete – Replace with G tube

Push Pin for Both AC & DC

Item	Spool	Solenoid Style	Part Number
12	All Except 081 and 082	B, C, E, H and K	697627
	081 and 082 Only		697660
	All Except 081 and 082	F and M	697660
	081 and 082 Only		1302046
	020 and 030 Only		D

Retainer Kit for Both AC & DC

Item	Part Number
20a-b	1801098-SS

Coil Kit for Both AC & DC

Item	Solenoid Voltage	Solenoid Connection	Coil Option	Ref. Page	
				DC Option	AC Option
21a	L, K, J, D and Z	G, P, W, M, J, S, H, C and F	Omit Only	15-18	—
	Y, T and Q	P, G and C		—	19

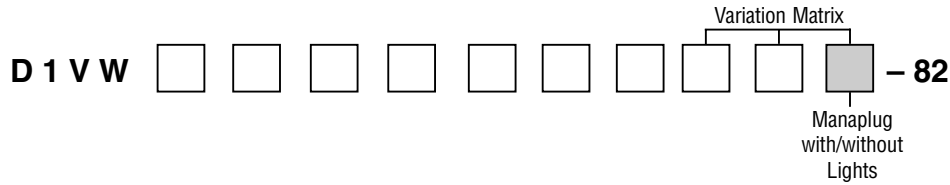
Conduit Box Cover for Both AC and DC Add Label

Solenoid Connection	Description	Part Number
G and C	Label	†697799

† Place on conduit box over "P" port side

'P' Style DIN Plug Connection

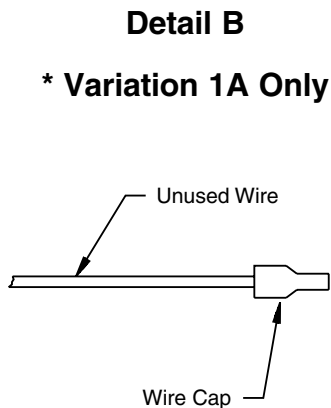
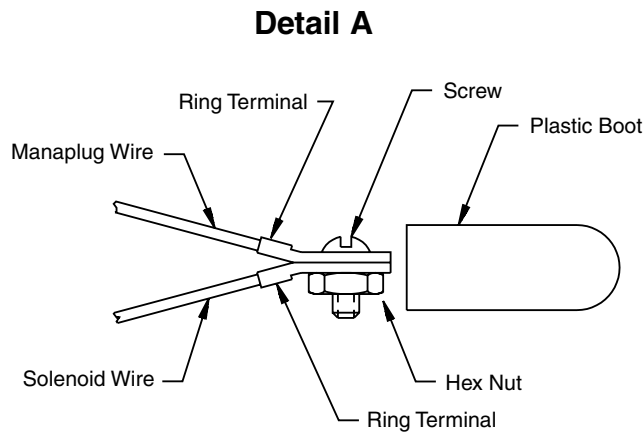
Item	Light Option	Solenoid	Description	Part Number		
				DC Option	AC Option	
44	No Light	A	Gray DIN Plug	692915	1301053	
		B	Black DIN Plug	692914	1301054	
	With Light	A or B	Y, Q (100-120 VAC) T (240 VAC)		N/A	694936
			K (12 VDC) J (24 VDC)	694935	N/A	
			D (120 VDC)	694936	N/A	
			Z (250 VDC)	1860288	N/A	
-	-	A	Label	697047		
-	-	B	Label	697648		



Without Light Option – 6 (Manaplug mini) and 1A (Manaplug mini Single Solenoid 5-Pin)

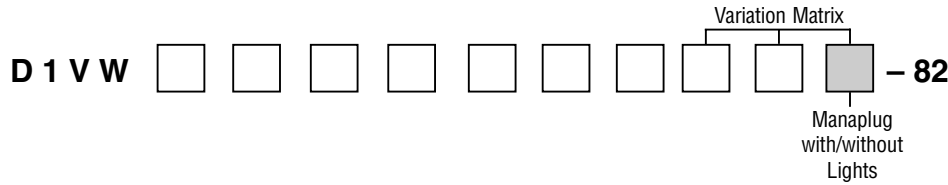
Solenoid Connection	Description	Part Number	Quantity		
			Variation 6 (Single Sol.)	Variation 6 (Double Sol.)	Variation 1A (Single Sol.)
C or G	5-Pin Plug	1302154		1	1
	3-Pin Plug	1302151	1		
	Warning label (3 Pins)	1800707	1		
	Warning label (5 Pins)	697629		1	1
C	Ring Terminal	693015	4	8	4
	Plastic boot	693452	2	4	2
	Screw	4x277sz	2	4	2
	Hex nut	16x104sz	2	4	2
	Wire cap	697200			2

Wire Ring Terminal



Wiring Instructions

1. Cut Solenoid wires to 100mm (4.00 in.), Strip 10mm (.40 in.), and assemble ring terminals to wires.
2. Assemble ring terminals on the Manaplug wires for variation 1A, put ring terminals on the used wires. Assemble wire caps on unused wires.
3. Slip ground screw in conduit box (Ref. page 21) through ring terminal on green ground wire (from Manaplug) and secure to valve body.
4. Following the Wiring Chart A, stack one solenoid wire with one Manaplug wire and install screw through ring terminals and secure assembly with nut. Cover with plastic boot. (See Detail A.)
5. Place warning label on the side of the conduit box.

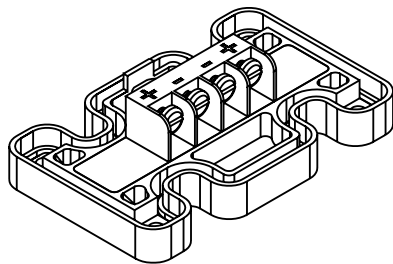


With Light Option – 5 (light) and 56 (Manaplug mini with light),
and 1C (Manaplug mini Single Solenoid 5-Pin with light)

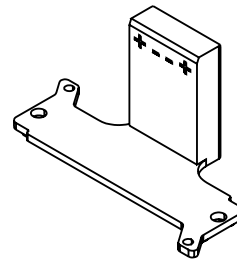
C and G Style

Item	Solenoid Connection	Description	Part Number	Quantity			
				Variation 5 (Lights)	Variation 56 (Single Sol.)	Variation 56 (Double Sol.)	Variation 1C (Single Sol.)
27	C	Lid Circuit Board - 120VAC	1300650-Y	1	1	1	1
		Lid Circuit Board - 100VAC	1300650-Q	1	1	1	1
		Lid Circuit Board - 240VAC	1300650-T	1	1	1	1
		Lid Circuit Board - 24VAC	1300650-R	1	1	1	1
		Lid Circuit Board - 6VDC	1300650-L	1	1	1	1
		Lid Circuit Board - 12VDC	1300650-K	1	1	1	1
		Lid Circuit Board - 24VDC	1300650-J	1	1	1	1
		Lid Circuit Board - 120VDC	1300650-D	1	1	1	1
		Lid Circuit Board - 250VDC	1300650-Z	1	1	1	1
27	G	Conduit Cover	1800610-4	1	1	1	1
28		Nameplate	1800611	1	1	1	1
-	C or G	5-Pin Mini Manaplug	1302154			1	1
-		3-Pin Mini Manaplug	1302151		1		
-		Warning label (3 Pins)	1800707		1		
-		Warning label (5 Pins)	697629			1	1
-		Warning Label (With Light Only)	697799	1			

Terminal Connections on Circuit Board or Conduit Cover



Conduit Cover Option

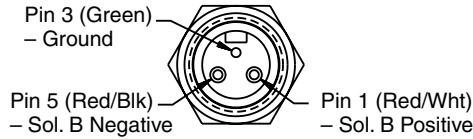


Circuit Board Option

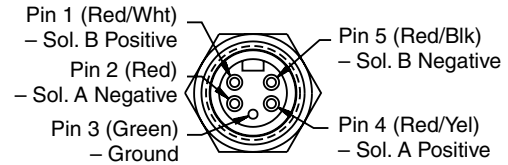
P Style DIN Plug Connection

Item	Light Option	Solenoid	Description	Part Number		Single Sol. Quantity	Double Sol. Quantity
				DC Option	AC Option		
44	With Light	A or B	Y, Q (100-120 VAC)				
			T (240 VAC)	N/A	694936	1	2
			K (12 VDC)				
			J (24 VDC)	694935	N/A	1	2
			D (120 VDC)	694936	N/A	1	2
		Z (250 VDC)	1860288	N/A	1	2	
-		A	Label	697047		1	1
-		B	Label	697648		1	1

3 Pins (Top View)



5 Pins (Top View)

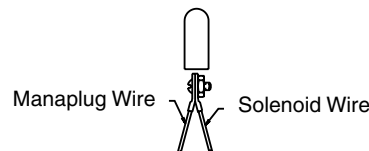


For 5, 56 and 1C with All Conduit Box Options
For 1A and 6 with Conduit Box G Option only

Style	Spool	Diode Surge Option	Manaplug Connection	Circuit Board Terminal Positive	Circuit Board Terminal Negative	Circuit Board Terminal Negative	Circuit Board Terminal Positive	Manaplug Ground
B, E, and F	All Except 008 and 009	Without	3 Pins			Red/Black and *Sol Negative	Red/White and *Sol Positive	
		With				Red/Black and *Sol Negative (Black)	Red/White and *Sol Positive (Red)	
		Without	5 Pins			Red/Yellow and *Sol "A"	Red and *Sol "A"	
		With				Red/Yellow and *Sol "A"(Black)	Red and *Sol "A" (Red)	
	008 and 009	Without	3 Pins	Red/Black and *Sol Positive	Red/White and *Sol Negative			
		With		Red/Black and *Sol Positive (Red)	Red/White and *Sol Negative (Black)			
		Without	5 Pins	Red and *Sol "A"	Red/Yellow and *Sol "A"			
		With		Red and *Sol "A" (Red)	Red/Yellow and *Sol "A"(Black)			
H, K, and M	All Except 008 and 009	Without	3 Pins	Red/Black and *Sol Positive	Red/White and *Sol Negative			Green
		With		Red/Black and *Sol Positive (Red)	Red/White and *Sol Negative (Black)			
		Without	5 Pins	Red/White and *Sol "B"	Red/Black and *Sol "B"			
		With		Red/White and *Sol "B" (Red)	Red/Black and *Sol "B" (Black)			
	008 and 009	Without	3 Pins			Red/Black and *Sol Negative	Red/White and *Sol Positive	
		With				Red/Black and *Sol Negative (Black)	Red/White and *Sol Positive (Red)	
		Without	5 Pins			Red/Black and *Sol "B"	Red/White and *Sol "B"	
		With				Red/Black and *Sol "B" (Black)	Red/White and *Sol "B" (Red)	
C and D	All Except 008 and 009	Without	5 Pins	Red/White and *Sol "B"	Red/Black and *Sol "B"	Red/Yellow and *Sol "A"	Red and *Sol "A"	
		With		Red/White and *Sol "B" (Red)	Red/Black and *Sol "B" (Black)	Red/Yellow and *Sol "A"(Black)	Red and *Sol "A" (Red)	
	Without	Red and *Sol "A"		Red/Yellow and *Sol "A"	Red/Black and *Sol "B"	Red/White and *Sol "B"		
	With	Red and *Sol "A" (Red)		Red/Yellow and *Sol "A"(Black)	Red/Black and *Sol "B" (Black)	Red/White and *Sol "B" (Red)		

* Conduit Box C Option only.

Use Ring Terminals for 1A and 6 with Conduit Box C Option



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7. Special Tooling: A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges

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8. Buyer's Property: Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property, Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

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9/91-P



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