



**Specification for Type ST Plug-in Relay
Neutral Relay, Regular Release
4FB-2F-1B HD Contacts, 900 Ohm**

Characteristic		Original Requirements	Contact/Coil Arrangement	
Coils	Nominal V or I	10-12 VDC	<p align="center">(Front of Relay)</p>	
	Resistance/Tolerance	450 Ohms \pm 5% each Coil		
	Temperature Range	-40C (-40F) to 85C (185F)		
P.U./W.C.	Voltage	8.28Volts Maximum		
	Current	9.2 milliamps Maximum		
	Speed	Pickup		Regular
Dropaway	Voltage	3.6 Volts Minimum		
	Current	4 milliamps Minimum		
	Speed	Release		Regular
Contacts	Arrangement	4FB-2F-1B HD		<p align="center">Relay register (Rear of Relay)</p>
	Rating	15 Amps/30 Volts		
	Material	N.O.	Silver/Carbon	
		N.C.	Silver/Silver	
	Dynamic Gap		.020" Minimum	
	Contact Gap		.050" Minimum	
	Pressure	N.O.	40 Grams Minimum	
		N.C.	21 Grams Minimum	
	Overtravel per Adjustment C		*See Note #1 below	
	Resistance	N.O.	90 milliohms Maximum @10 VDC, 1.0 Amps	
N.C.		30 milliohms Maximum @10 VDC, 1.0 Amps		
Armature Travel		.087" Minimum		
Retainer Gap Reference		.002" to .004"		
Residual Screw (Adjustable)		.010" Minimum		
Stop Pin (Fixed)		.008" Minimum		

Notes

- #1 N.O. Contacts to make with .032" and break with .041" between armature residual screw and core.
N.C. Contacts to make with .066" and break with .059" between armature residual screw and core.

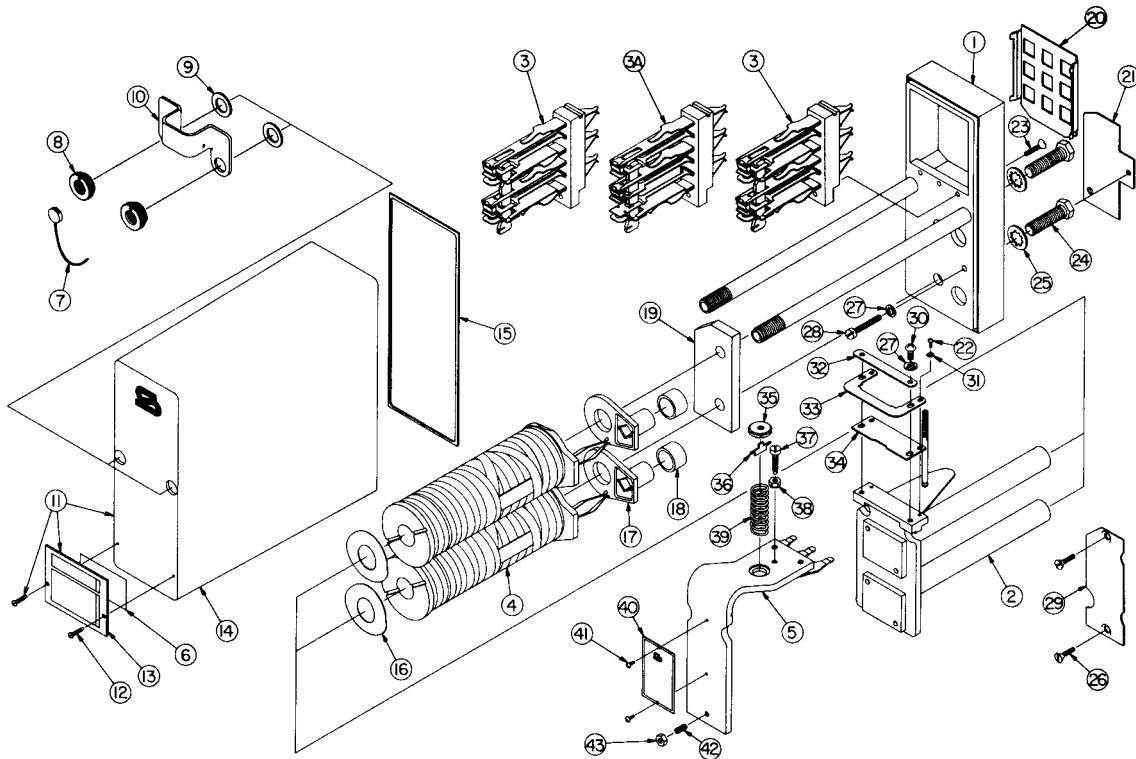
Field Requirements

Drop Away Value — Not less than 70% of original marking.
Pickup/Working Value — Not greater than 110% of original marking.

Shop Requirements

Drop Away Value — Not less than 95% of original marking.
Pickup/Working Value — Not greater than 105% of original marking.

Type ST Plug-in Relay Assembly and Replacement Parts Part Number 400022



To order, specify description and part number.

Item No.	Description	Qty. Req'd.	Part Number	Item No.	Description	Qty. Req'd.	Part Number
1	Base Assembly, Plug-in Relay	1	420050-X	22	Machine Screw, Fillister Head, #4-40 X .250"	2	420053-14
2	Frame Assembly, Coil	1	420053-X	23	Machine Screw, Flat Head, #6-32 X .531"	3	420050-36
3	Stack, 2FB HD Contact	2	420052-5X	24	Machine Screw, Hex Head, 5/16"-24 X 1.125"	2	420053-12
3A	Stack, 2F-1B HD Contact	1	420052-6X	25	Washer, Spring Lock, I, 5/16"	2	420053-13
4	Coil Assembly, 450 Ohm	2	420051-4X	26	Machine Screw, Flat Head, #6-32 X .5"	2	420050-36
5	Armature	1	420053-1X	27	Washer, Spring Lock, I, #8	3	420050-33
6	Label, Paper Identification	1	420050-3	28	Machine Screw, Fillister Head, #8-32 X .937"	1	420050-32
7	Seal, Lead	1	420050-8	29	Plate, Code Pin	1	420050-43X
8	Nut, Knurl, Locking	2	420050-5	30	Machine Screw, Pan Head, #8-32 x .375"	2	420053-16
9	Washer, Flat Rubber	2	420050-7	31	Washer, Spring Lock, I, #4	2	420053-15
10	Bracket, Cover	1	420050-4	32	Plate, Retainer	1	420053-3
11	Cover Assembly	1	420050-2X	33	Retainer, Armature	1	420053-2
12	Tap Screw, Round Head, #4 X .375"	2	420050-35	34	Plate, Hinge	1	420053-1
13	Cover, Nameplate	1	420050-2	35	Nut, Spring Post	1	420053-6
14	Molded Cover, Clear	1	420050	36	Key, Spring Retainer	1	420053-5
15	Gasket, Cover	1	420050-1	37	Screw, Tailstop	1	420053-9
16	Washer, Spring	2	420053-42	38	Nut, Tailstop	1	420053-8
17	Insulator, Terminal Retainer	2	420051-8	39	Spring, Compression	1	420053-43
18	Seal, Rubber	2	420051-1	40	Nameplate, Type ST Relay	1	420053-62
19	Plate, Base	1	420053	41	Phillips Screw, Pan Head, #4-40 X .187"	2	420053-18
20	Seal, Dust	1	420052	42	Screw, Residual	1	420053-11
21	Plate, Code	1	420050-507	43	Nut, Residual	1	420053-10

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