



**Specification for Type ST Plug-in Relay  
Biased Neutral Relay, Regular Release  
6FB Contacts, 63 Ohm**

Characteristic		Original Requirements	Contact/Coil Arrangement	
Coils	Nominal V or I	Special - See Ratings	<p>(Front of Relay)</p>	
	Resistance/Tolerance	31.5 Ohms ±5% Each Coil		
Temperature Range		-40C (-40F) to 85C (185F)		
P.U./W.C.	Voltage	1.92 Volts Maximum		
	Current	30.5 milliamps Maximum		
	Speed	Pickup		Regular
Dropaway	Voltage	.88 Volts Minimum		
	Current	14 milliamps Minimum		
	Speed	Release		Regular
Contacts	Arrangement	6FB		<p align="center"><b>Relay register</b></p> <p>(Rear of Relay)</p>
	Rating	4 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.	14 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		.073" Minimum		
Retainer Gap Reference		.002" to .004"		
Residual Screw (Adjustable)		.017" Minimum		
Stop Pin (Fixed)		.008" Minimum		

**Notes**

- #1 N.O. Contacts to make with .025" and break with .030" between armature residual screw and core.  
N.C. Contacts to make with .057" and break with .052" between armature residual screw and core.
- #2 Adjust armature compression spring to have one ounce (28.4 grams) minimum at the adjustable residual screw to just raise the armature stop screw from its stop.

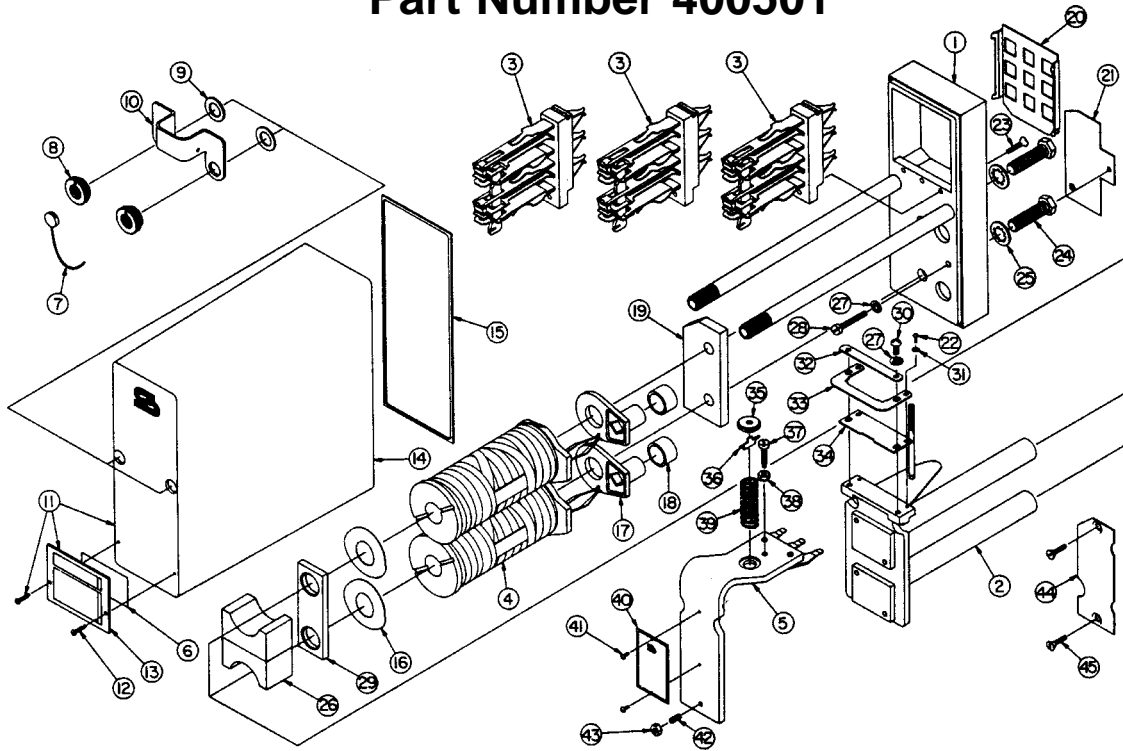
**Field Requirements**

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 400501



**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	24	Machine Screw, Hex Head, 5/16"-24 X 1.125"	2	420053-12
2	Frame Assembly, Coil	1	420053-X	25	Washer, Spring Lock, I, 5/16"	2	420053-13
3	Stack, 2FB Contact	3	420052-1X	26	Magnet	2	420053-80
4	Coil Assembly, 31.5 Ohm	2	420051-18X	27	Washer, Spring Lock, I, #8	3	420050-33
5	Armature	1	420053-1X	28	Machine Screw, Fillister Head, #8-32 X .937"	1	420050-32
6	Label, Paper Identification	1	420050-3	29	Plate, Shunting	1	420053-79
7	Seal, Lead	1	420050-8	30	Machine Screw, Pan Head, #8-32 x .375"	2	420053-16
8	Nut, Knurl, Locking	2	420050-5	31	Washer, Spring Lock, I, #4	2	420053-15
9	Washer, Flat Rubber	2	420050-7	32	Plate, Retainer	1	420053-3
10	Bracket, Cover	1	420050-4	33	Retainer, Armature	1	420053-2
11	Cover Assembly	1	420050-2X	34	Plate, Hinge	1	420053-1
12	Tap Screw, Round Head, #4 X .375"	2	420050-35	35	Nut, Spring Post	1	420053-6
13	Cover, Nameplate	1	420050-2	36	Key, Spring Retainer	1	420053-5
14	Molded Cover, Clear	1	420050	37	Screw, Tailstop	1	420053-9
15	Gasket, Cover	1	420050-1	38	Nut, Tailstop	1	420053-8
16	Washer, Spring	2	420053-7	39	Spring, Compression	1	420053-4
17	Insulator, Terminal Retainer	2	420051	40	Nameplate, Type ST Relay	1	420053-35
18	Seal, Rubber	2	420051-1	41	Phillips Screw, Pan Head, #4-40 X .187"	2	420053-18
19	Plate, Base	1	420053	42	Screw, Residual	1	420053-11
20	Seal, Dust	1	420052	43	Nut, Residual	1	420053-10
21	Plate, Code	1	420050-25	44	Plate, Code Pin	1	420050-54X
22	Machine Screw, Fillister Head, #4-40 X .250"	2	420053-14	45	Machine Screw, Flat Head, #6-32 X .5"	2	420050-36
23	Machine Screw, Flat Head, #6-32 X .531"	3	420050-36				

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