



Specification for Type ST Plug-in Relay Neutral Relay, Slow Release 4FB Contacts, 194 Ohm

Characteristic		Original Requirements	Contact/Coil Arrangement	
Coils	Nominal V or I	10-12 VDC	<div style="text-align: center;">(Front of Relay)</div>	
	Resistance/Tolerance	194 Ohms ±5% (Single Coil)		
Temperature Range		-40C (-40F) to 85C (185F)		
P. U. / W. C.	Voltage	6 Volts Maximum		
	Current	31 milliamps Maximum		
	Speed	Pickup		Regular
Dropaway	Voltage	.97 Volts Minimum		
	Current	5 milliamps Minimum		
	Speed	Release		3.0 – 3.75 Seconds Delay @ 12 Volts
Contacts	Arrangement	4FB		
	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.	21 Grams Minimum	
	Overtravel per Adjustment A		*See Notes 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)		.004" Minimum		
Stop Pin (Fixed)		.003" Minimum		
			<div style="text-align: center;">Relay register</div> <div style="text-align: center;">(Rear of Relay)</div>	

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.
- #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.

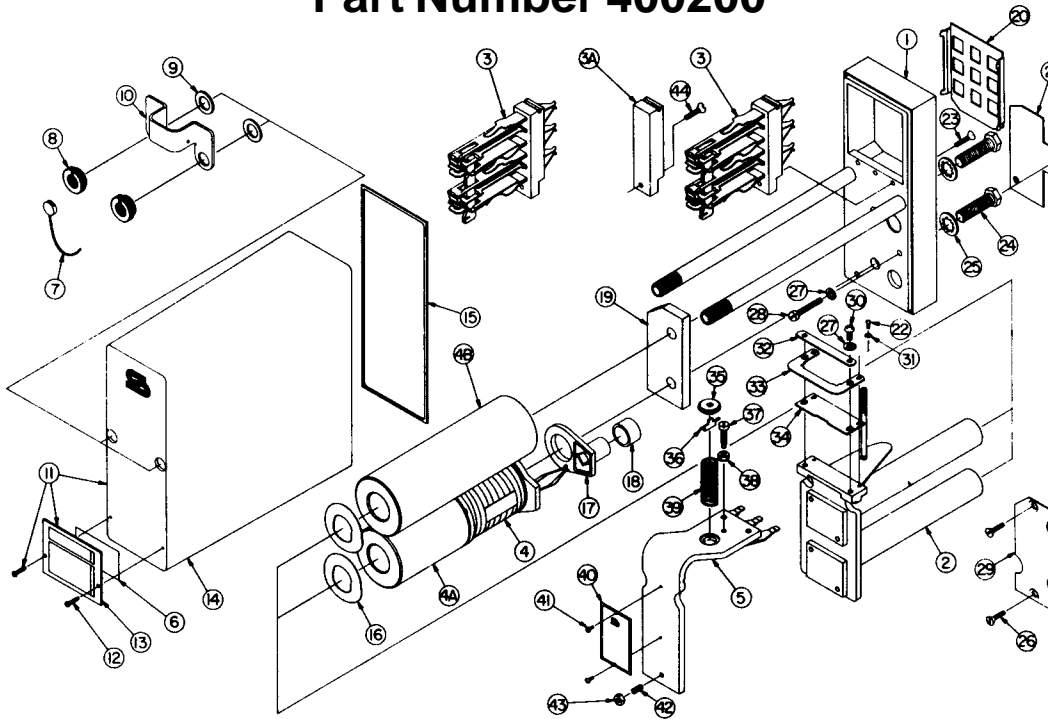
Field Requirements

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 400200



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	420050-1X	22	Machine Screw, Fillister Head, #4-40 X .250"	2	420053-14
2	Frame Assembly, Coil	1	420053-7X	23	Machine Screw, Flat Head, #6-32 X .531"	2	420050-36
3	Stack, 2FB Contact	2	420052-1X	24	Machine Screw, Hex Head, 5/16" -24 X 1.125"	2	420053-12
3A	Stack, Blank Contact	1	420052-3	25	Washer, Spring Lock, I, 5/16"	2	420053-13
4	Coil Assembly, 194 Ohm	1	420051-8X	26	Machine Screw, Flat Head, #6-32 X .5"	2	420050-36
4A	Slug, Copper	1	420051-6	27	Washer, Spring Lock, I, #8	3	420050-33
4B	Slug, Copper	1	420051-7	28	Machine Screw, Fillister Head, #8-32 X .937"	1	420050-32
5	Armature	1	420053-1X	29	Plate, Code Pin	1	420050-48X
6	Label, Paper Identification	1	420050-3	30	Machine Screw, Pan Head, #8-32 X .375"	2	420053-16
7	Seal, Lead	1	420050-8	31	Washer, Spring Lock, I, #4	2	420053-15
8	Nut, Knurl, Locking	2	420050-5	32	Plate, Retainer	1	420053-3
9	Washer, Flat Rubber	2	420050-7	33	Retainer, Armature	1	420053-2
10	Bracket, Cover	1	420050-4	34	Plate, Hinge	1	420053-1
11	Cover Assembly	1	420050-2X	35	Nut, Spring Post	1	420053-6
12	Tap Screw, Round Head, #4 X .375"	2	420050-35	36	Key, Spring Retainer	1	420053-5
13	Cover, Nameplate	1	420050-2	37	Screw, Tailstop	1	420053-9
14	Molded Cover, Clear	1	420050	38	Nut, Tailstop	1	420053-8
15	Gasket, Cover	1	420050-1	39	Spring, Compression	1	420053-4
16	Washer, Spring	2	420053-42	40	Nameplate, Type ST Relay	1	420053-28
17	Insulator, Terminal Retainer	1	420051-8	41	Phillips Screw, Pan Head, #4-40 X .187"	2	420053-18
18	Seal, Rubber	1	420051-1	42	Screw, Residual	1	420053-11
19	Plate, Base	1	420053	43	Nut, Residual	1	420053-10
20	Seal, Dust	1	420052	44	Machine Screw, Flat Head, #6-32 X .375"	1	420052-2
21	Plate, Code	1	420050-18				

Safetran Systems Corporation
2400 Nelson Miller Parkway
Louisville, Kentucky 40223
502-244-7400