



**Specification for Type ST Plug-in Relay
Biased Neutral Relay, Slow Release
6FB Contacts, 194 Ohm**

Coils		Characteristic	Original Requirements	Contact/Coil Arrangement (Front of Relay)
		Nominal V or I	10-12 VDC	
		Resistance/Tolerance	194 Ohm ± 5% (Single coil)	
		Temperature Range	-40°C (-40°F) to 85°C (185°F)	
P.U./W.C.		Voltage	5.04 Volts Maximum	
		Current	26 milliamps Maximum	
	Speed	Pickup	Regular	
Dropaway		Voltage	1.164 Volts Minimum	<p align="center">Relay register (Rear of Relay)</p>
		Current	6.0 milliamps Minimum	
		Speed	Release	
Contacts	Arrangement		6FB	<p align="center">1-2-12-18</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 Notes Below	
	Resistance	N.O.	40 milliohms Maximum @10 VDC, 1.0 Amps	
N.C.		20 milliohms Maximum @10 VDC, 1.0 Amps		
Armature Travel		.073" 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 .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 spring to have 1 oz. (28.5 grams) minimum at the adjustable residual screw, to just raise the armature stop screw from its stop.

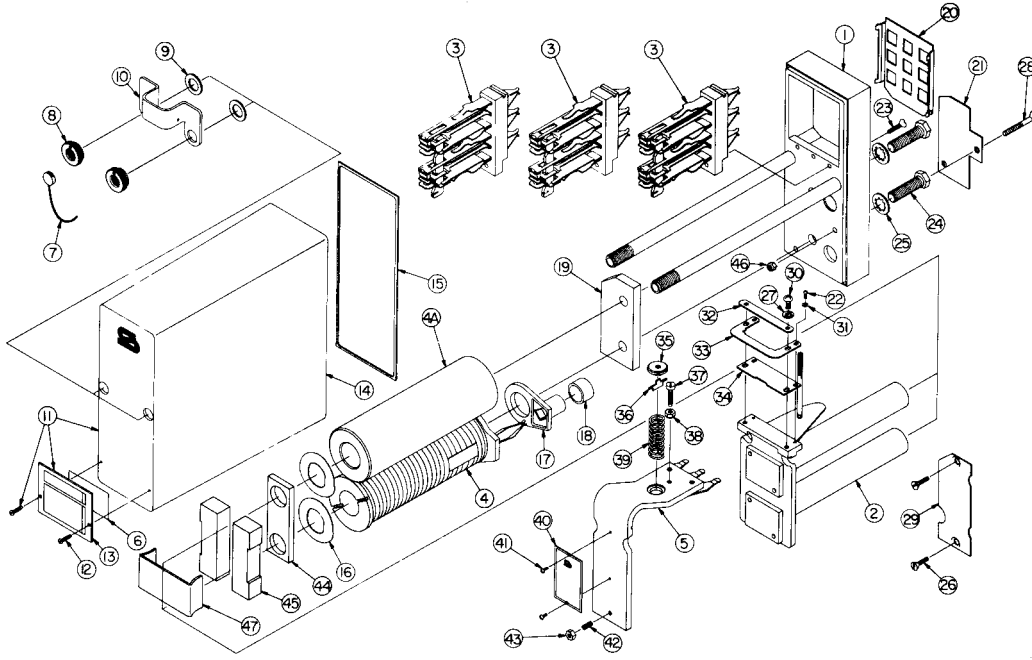
Field Requirements

- Drop Away Value — Not less than 70% of original marking.
- Pickup/Working Value — Not greater than 110% of original marking.
- Speed — ±15%

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 400530



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	24	Machine Screw, Hex Head, 5/16"-24 X 1.125"	2	420053-12
2	Frame Assembly, Coil	1	420053-7X	25	Washer, Spring Lock, I, 5/16"	2	420053-13
3	Stack, 2FB Contact	3	420052-1X	26	Machine Screw, Flat Head, #6-32 X .5"	2	420050-36
4	Coil Assembly, 194 Ohm	1	420051-33X	27	Washer, Spring Lock, I, #8	2	420050-33
4A	Slug, Copper	1	420051-46	28	Tap Screw, Flat Head, #8-32 X 1.185"	1	420050-88
5	Armature	1	420053-1X	29	Plate, Code Pin	1	420053-123X
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	420053-76
17	Insulator, Terminal Retainer	1	420058	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	Plate, Shunting	1	420053-45
21	Plate, Code	1	420050-533	45	Maget	2	420053-47
22	Machine Screw, Fillister Head, #4-40 X .250"	2	420053-14	46	Nut Hex #8-32 X .345"	1	420053-8
23	Machine Screw, Flat Head, #6-32 X .531"	3	420050-36	47	Spring Clip	1	420053-46

Safetran Systems Corporation

2400 Nelson Miller Parkway

Louisville, Kentucky 40223

502-244-7400