

SUBSTATION	BREAKERS	FEED TO	IMPULSE TRIP			CEX14A INSTANTANEOUS DISTANCE RELAY														FOR OTHER TROLLEY SEE	CIRCUIT BREAKER TYPE
			SETTING		CURRENT TRANSF. RATIO	OHM UNIT SETTING AT 60°		TAP SETTING		START. UNIT SETTING AT 60°		CURRENT TRANSF. RATIO	OHM UNIT SETTING AT 60°								
			PRIMARY AMPERES	SCREW		PRI. OHMS	SEC. OHMS	NO. 1	NO. 2	PRI. OHMS	SEC. OHMS		PRI. OHMS	SEC. OHMS							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)		
ENOLA	59V2	HARRISBURG	2200	2.2	1000/5	6.0	—	18.0	—	64	—	3.1	—	9.3	—	1500/5	4.62	—	2200G	JRA32AI	
ENOLA	5913*, 5924*	GOLDSBORO	1800	1.8	1000/5	6.0	9.9	18.0	29.7	64	38	4.5	7.3	13.5	21.9	1500/5	4.82	7.96	—	JRA32AI	
GOLDSBORO	5924*	ENOLA	1800	1.8	1000/5	6.0	9.9	14.4	23.8	80	49	4.5	7.3	10.8	17.5	1200/5	3.86	6.38	2200R	JRA32EI	
"	5813*, 5824*	ROWENNA	1800	1.8	1000/5	6.0	11.3	14.4	27.6	80	42	4.5	8.1	10.8	14.6	1200/5	3.86	7.40	2200R	—	
COLUMBIA	57A1*	"	1800	1.8	1000/5	6.5	—	15.6	—	74	—	3.3	—	7.9	—	1200/5	4.18	—	—	JRA32EI	
"	56C1, 56C2	DILLERVILLE JCT.	1800	1.8	1000/5	8.2	—	19.7	—	59	—	5.2	—	12.5	—	1200/5	5.28	—	—	JRA32X	
"	56P2*	SAFE HARBOR	1800	1.8	1000/5	6.1	10.2	14.6	24.5	79	47	4.5	5.6	10.8	13.4	1200/5	3.91	6.57	—	"	
"	56A1*, 56A2*	"	1800	1.8	1000/5	8.9	—	21.4	—	54	—	5.2	—	12.5	—	1200/5	5.74	—	—	"	
SAFE HARBOR	56A1*, 56A2*	COLUMBIA	1800	1.8	1000/5	8.9	—	21.4	—	54	—	5.2	—	12.5	—	1200/5	5.74	—	—	FG3	
"	56P2*	"	1800	1.8	1000/5	6.1	10.2	14.6	24.5	79	47	4.5	5.6	10.8	13.4	1200/5	3.91	6.57	—	"	
"	55P2*	FISHING CREEK	1800	1.8	1000/5	6.1	9.1	14.6	21.8	79	53	4.5	5.9	10.8	14.2	1200/5	3.91	5.84	—	"	
"	55A1*, 55A2*	PROVIDENCE	1800	1.8	1000/5	6.5	—	15.6	—	74	—	4.1	—	9.8	—	1200/5	4.18	—	—	"	
PROVIDENCE	55A1*, 55A2*	SAFE HARBOR	1800	1.8	1000/5	6.5	—	19.5	—	59	—	4.1	—	12.3	—	1500/5	5.23	—	—	JRA32AI	
"	52A1*	BART	1800	1.8	1000/5	7.0	—	21.0	—	55	—	4.2	—	12.6	—	1500/5	5.63	—	—	JRA32EI	
"	52A2*	"	1800	1.9	1500/5	7.0	—	16.8	—	69	—	4.2	—	10.1	—	1200/5	4.50	—	—	JRA32FI	
KINZER	6801, 6802	WITMER	1800	1.8	1000/5	6.5	—	15.6	—	75	—	5.9	—	14.0	—	1200/5	4.20	—	—	JRA32EI	
"	6804	"	1800	1.8	1000/5	6.5	—	19.5	—	60	—	5.9	—	17.5	—	1500/5	5.20	—	—	JRA32AI	
"	6701, 6702	PARKESBURG	1800	1.8	1000/5	6.5	—	15.6	—	75	—	6.7	—	16.0	—	1200/5	4.20	—	—	JRA32EI	
"	6704	"	1800	1.8	1000/5	6.5	—	19.5	—	60	—	6.7	—	20.0	—	1500/5	5.20	—	—	JRA32AI	
PARKESBURG	6702,	KINZER	1800	1.8	1000/5	6.5	—	15.6	—	75	—	6.7	—	16.0	—	1200/5	4.20	—	2200K	JRA32X	
"	51A1*, 51A2*	BART	1800	1.8	1000/5	6.6	—	15.8	—	73	—	4.11	—	9.9	—	1200/5	4.23	—	2200G	"	
"	6603, 6604	THORNDALE	1800	1.8	1000/5	5.3	—	12.7	—	91	—	4.15	—	10.0	—	1200/5	3.40	—	—	"	
THORNDALE	6601, 6602, 6603, 6604	PARKESBURG	1800	1.8	1000/5	5.3	—	12.7	—	91	—	4.15	—	10.0	—	1200/5	3.40	—	—	FG3	
"	65F1*, 65F2*	FRAZER	1800	1.8	1000/5	6.2	—	15.0	—	75	—	4.2	—	10.0	—	1200/5	4.2	—	—	"	
"	6501, 6502*, 6503*, 6504	"	1800	1.8	1000/5	6.2	—	15.0	—	75	—	5.0	—	12.0	—	1200/5	4.2	—	—	"	
FRAZER	6501, 6502*, 6504	THORNDALE	1800	1.8	1000/5	6.2	—	15.0	—	75	—	5.0	—	12.0	—	1200/5	4.2	—	—	"	
"	65F1*, 65F2*	"	1800	1.8	1000/5	6.2	—	15.0	—	75	—	4.2	—	10.0	—	1200/5	4.2	—	2200R	JRA32AI, FG3	
"	64F1*, 64F2*	EARNEST	1800	1.8	1000/5	5.5	8.8	12.2	21.1	80	55	3.5	4.5	8.4	10.8	1200/5	3.54	5.65	—	"	
COLUMBIA	57A2*	ROWENNA	1800	1.8	1000/5	8.9	—	21.4	—	54	—	5.6	—	13.4	—	1200/5	5.7	—	—	"	

NOTE:

* THESE BREAKERS HAVE THERMAL RELAYS. DATA ON DWG. 2200M

(1) THE IMPULSE TRIP SETTING IS GIVEN ON THE BASIS OF 125 V. D.C. CONTROL VOLTAGE (AT SAFE HARBOR 250V.). HIGHER CONTROL VOLTAGE INCREASES THE SETTING. LOWER DECREASES

(2) FOR INSTRUCTIONS FOR SETTING AND CALIBRATING IMPULSE TRIPS REFER TO THE FOLLOWING G.E. CO. INSTRUCTION BOOKS

FOR JRA-32 BREAKERS --GEI-46034#NOTE 6

FG-2 --GEI-7450

FG-3 --GEI-93964

CEX14A RELAYS-----GEI-9338 (AND TESTING INSTRUCTIONS 1/20/44)

(3) THE TAP SETTINGS OF COL'S. 11 & 12 ARE APPROXIMATE. FOR ACCURATE SETTINGS USE THE OHM VALUES OF COL'S. 7, 8, 9 & 10 AND COL'S. 13, 14, 15

(4) STARTING UNITS CEX 14A RELAY (SECONDARY OHMS)

16 OHMS OR ABOVE USE FULL CURRENT WINDINGS

8 TO 16 OHMS USE HALF TAP ON CURRENT WINDINGS

4 TO 8 OHMS USE FULL CURRENT WINDINGS WITH AN EXTERNAL 4:1 AUTO-TRANSFORMER

(5) DATA FOR RATE OF RISE RELAY --2200L

(6) JRA32X: THE CIRCUIT BREAKERS ORIGINALLY WERE JRA32DI WITH SPLIT CORE CURRENT TRANSF. IN N.Y. STATION AREA. WHEN MOVED TO PRES. LOCATION THEY WERE EQUIPPED WITH SOLID CORE C.T. & TRIPG. TRANSF. TAKEN FROM TYPE FG3. TRIPG. CHARACT. SHOULD NOW BE SIMILAR TO JRA32AI OR E1.

REV. FOR DOWNS TAP SETTING, 2/25/55, ABANDONMENT, 10-15-55
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① 10/14/88