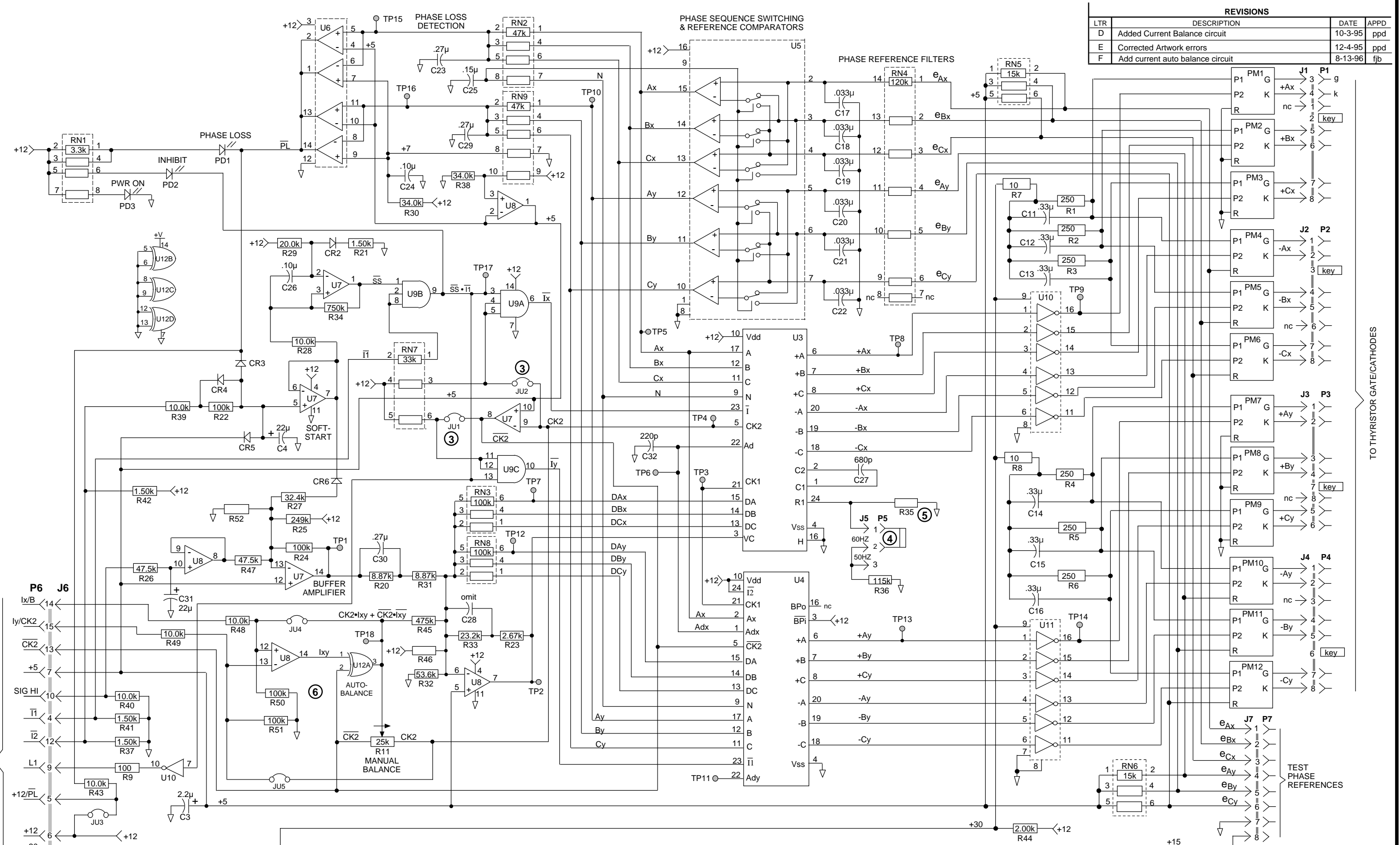


REVISIONS			
LTR	DESCRIPTION	DATE	APPD
D	Added Current Balance circuit	10-3-95	ppd
E	Corrected Artwork errors	12-4-95	ppd
F	Add current auto balance circuit	8-13-96	fjb



TO THYRISTOR GATE CATHODES

E640F

Approvals		Date	<b>ENERPRO</b>	
dwn: fjb		6-3-92		
12-PULSE FIRING BOARD			PWB PN	Dwg. No.
version			FCOG1200	<b>E640F</b>
			Sheet 1 of 2	

PART	DESCRIPTION	PART	DESCRIPTION
U1	W02M	C1	ECEA1JU102
U2	LM340LAH-12	C2-C3	ECSF1CE225K
U3	EP1014B/C	C4	ECSF1CE226K
U4	EP1015	C11-C16	MKC4-.33uF 10%
U5	EP1016	C17-C22	MKS3-.033uF 5%
U6	LM239N	C23	MKS3-.27uF 5% ①④
U7	MC34074P	C24	MKS3-.1uF 10%
U8	MC34074P	C25	MKS3-.15uF 10%
U9	MC14073BCP	C26	MKS3-.1uF 10%
U10-U11	ULN2004A	C27	FKC3-.00068uF 5%
U12	MC14070BCP	C28	MKS3-.01uF 10%
CR1	1N5352B(15V)	C29	MKS3-.27uF 5% ①④
CR2-CR6	1N914B	C30	MKS3-.27uF 10%
PD1-PD2	LN21RPH (RED)	C31	ECSF1CE226K(optional)
PD3	LN31GPH (GRN)	C32	FKC3-.00022uF 5%
RN1	750-83-R3.3k	PM1-PM12	EP1024-1 (R = 2.00M)
RN2	750-83-R47k	J1-J4	641828-1 (each keyed uniquely)
RN3	750-63-R100k	P1-P4	640582-1
RN4	760-3-R120k	J5	68024-103
RN5-RN6	750-63-R15k	P5	65474-001
RN7	750-63-R33k	J6	350714-1
RN8	750-63-R100k	P6	350736-1
RN9	② 750-103-R47k	key plug	1-640415-0
R1-R6	RS2B-R250 ohm	J7	640456-8
R7-R8	CW2C-R10 ohm	JU1-JU5	923345-01-C (optional)
R9	CW2C-R100 ohm	TP1-TP18	TP-104-01-02 (optional)
R10	CW5-R200 ohm		W1JCOMM (COMMON JUMPER)
R11	93PR25K		
R20	RN60-R8.87k		
R21	RN60-R1.50k		
R22	RN60-R100k		
R23	RN60-R2.67k		
R24	RN60-R100k		
R25	RN60-R249k		
R26	RN60-R47.5k		
R27	RN60-R32.4k		
R28	RN60-R10.0k		
R29	RN60-R20.0k		
R30	RN60-R34.0k		
R31	RN60-R8.87k		
R32	RN60-R53.6k		
R33	RN60-R23.2k		
R34	RN60-R750k		
R35	RN60-SELECT		
R36	RN60-R115k		
R37	RN60-R1.50k		
R38	RN60-R34.0k		
R39	RN60-R10.0k		
R40	RN60-R10.0k		
R41	RN60-R1.50k		
R42	RN60-R1.50k		
R43	RN60-R10.0k		
R44	RN60-R2.00k		
R45	RN60-R475k		
R46	RN60		
R47	RN60-R47.5k		
R48-R49	RN60-R10.0k		
R50-R51	RN60-R100k		
R52	RN60		

REVISIONS			
LTR	DESCRIPTION	DATE	APPD
B	Changed artwork and added C2	3-9-93	ppd
D	Added Current Balance circuit	10-3-95	ppd
E	Corrected Artwork errors	12-4-95	ppd
F	Add current auto balance circuit	8-13-96	fjb

**NOTES**

- ① Matched TO ± 1.0%.
- ② Stand R1-R6 off of the board by .50 in.
- ③ Install JU1 and JU2 for two 30° gate pulse bursts. Use this pulse profile for rectifiers with normal load inductance.
- ④ For 50 HZ operation:
  - move P5 to pins 2 & 3 of J5
  - change RN4 to 150K
  - change C23 & C29 to .33uF (matched ±1%).
- ⑤ Factory selected resistance.
- ⑥ For manual auto balance:
  - install R11
  - omit U12, R48, R49, JU4 & JU5

For off-board auto balance:

  - install JU4, JU5, & R48
  - omit U12, R11, R49

For on-board auto balance:

  - Install U12, R48, R49
  - omit R11, JU4 & JU5

		<b>ENERPRO</b>	
		12-PULSE FIRING BOARD	
dwn: fjb	Date 6-3-92	PWB PN FCOG1200	Dwg. No. <b>E640F</b>
version	8-8-97	Sheet 2 of 2	