

## Programmer Pin Wiring

RMS9C on AKR breaker

Programmer 36 pin plug	Function	12 pin disconnect on side of breaker
1	(spare)	
2	(spare)	
3	Fan on output (5000A)	
4	(spare)	
5	ZSI IN +	5
6	ZSI IN -	6
7	ZSI OUT +	7
8	ZSI OUT -	8
9	COMMNET -	11
10	Phase "A" CT (air core CT terminal # 4)	
11	Phase "B" CT (air core CT terminal # 4)	
12	Phase "C" CT (air core CT terminal # 4)	
13	COMMNET +	12
14	Phase "A" CT (air core CT terminal # 3)	
15	Phase "B" CT (air core CT terminal # 3)	
16	Phase "C" CT (air core CT terminal # 3)	
17	Neutral Sensor - Tap	
18	Phase "A" CT (CT terminal # 2)	
19	Phase "B" CT (CT terminal # 2)	
20	Phase "C" CT (CT terminal # 2)	
21	Neutral Sensor - Common	
22	Phase "A" CT (CT terminal # 1)	
23	Phase "B" CT (CT terminal # 1)	
24	Phase "C" CT (CT terminal # 1)	
25	VC (voltage conditioner)	10
26	(spare)	
27	(spare)	
28	Fluxshifter -	
29	VB (voltage conditioner)	1
30	(spare)	
31	breaker aux switch	
32	Fluxshifter +	
33	VA (voltage conditioner)	4
34	breaker aux switch	
35	Trip unit auxiliary power, - 24V RTN	2
36	Trip unit auxiliary power, + 24V EXTRN	3

EntelliGuard "C" Series Trip Units (AKR and PowerBreak) - 36 Pin Rear Connector Signals			
Pin #	RMS9C	EntelliGuard "C" Series	Signal Description
1	N/C	N/C	N/C
2	N/C	Input 1 Common	Input 1 Common
3	Fanout	Fanout	Fanout
4	N/C	Input +	Input +
5	GFZIN+	GFZIN+	Zone Select In +
6	GFZIN-	GFZIN-	Zone Select In -
7	GFZOUT+	GFZOUT+	Zone Select Out +
8	GFZOUT-	GFZOUT-	Zone Select Out -
9	HMNET-C	RX-neg	Modbus -
10	PHAHII	PHAHII	HiBreak Air Core Input+
11	PHBHII	PHBHII	HiBreak Air Core Input+
12	PHCHII	PHCHII	HiBreak Air Core input+
13	HMNET-C	TX-pos	Modbus pos
14	PHAHIR	PHAHIR	HiBreak Air Core input-
15	PHBHIR	PHBHIR	HiBreak Air Core input-
16	PHCHIR	PHCHIR	HiBreak Air Core input-
17	NRTN	NRTN	Neutral CT Return
18	ARTN	ARTN	Phase A CT Return
19	BRTN	BRTN	Phase B CT Return
20	CRTN	CRTN	Phase C CT Return
21	CTN	CTN	Neutral CT input
22	PHA	PHA	Phase A CT input
23	PHB	PHB	Phase B CT input
24	PHC	PHC	Phase C CT input
25	VC	VC	Phase C Voltage Input
26	IPC	N/C	Not connected
27	N/C	Relay_1	Output 1 Relay NO Terminal
28	FLUXSHT -	FLUXSHT -	Main Flux Shifter -
29	VB	VB	Phase B Voltage Input
30	24V -	Relay_2	Output 1 Relay Common Terminal
31	AUX-Switch	Breaker_position	Contact position switch
32	FLUXSHT +	24VDC	Main Flux Shifter +
33	VA	VA	Phase A Voltage Input
34	AUX-Switch	DGND	Contact position switch return
35	24V VRTN	DGND	24V Control Power -
36	24V EXTRN	24V EXTRN +	24V Control Power +

RMS9C on Conversion kits

Programmer 36 pin plug	Function	9 Pin Manual AMP Connector
1	(spare)	
2	(spare)	
3	Fan on output (5000A)	
4	(spare)	
5	ZSI IN +	
6	ZSI IN -	
7	ZSI OUT +	
8	ZSI OUT -	
9	COMMNET -	9
10	Phase "A" CT (air core CT terminal # 4)	
11	Phase "B" CT (air core CT terminal # 4)	
12	Phase "C" CT (air core CT terminal # 4)	
13	COMMNET +	8
14	Phase "A" CT (air core CT terminal # 3)	
15	Phase "B" CT (air core CT terminal # 3)	
16	Phase "C" CT (air core CT terminal # 3)	
17	Neutral Sensor - Tap	
18	Phase "A" CT (CT terminal # 2)	
19	Phase "B" CT (CT terminal # 2)	
20	Phase "C" CT (CT terminal # 2)	
21	Neutral Sensor - Common	
22	Phase "A" CT (CT terminal # 1)	
23	Phase "B" CT (CT terminal # 1)	
24	Phase "C" CT (CT terminal # 1)	
25	VC (voltage conditioner)	6
26	(spare)	
27	(spare)	
28	Fluxshifter -	
29	VB (voltage conditioner)	5
30	(spare)	
31	breaker aux switch	
32	Fluxshifter +	
33	VA (voltage conditioner)	4
34	breaker aux switch	
35	Trip unit auxiliary power, - 24V RTN	2
36	Trip unit auxiliary power, + 24V EXTRN	1
	Shield	7

Conversion Kit Plug Wiring

Pin #	Use
1	+24 Volts
2	-24 Volts
3	not used
4	Voltage A
5	Voltage B
6	Voltage C
7	Shield
8	+ Commnet
9	- Commnet

AKR Programmer Disconnect Plug

(Looking at the programmer mounted on the breaker)

4	8	12	16	20	24	28	32	36
3	7	11	15	19	23	27	31	35
2	6	10	14	18	22	26	30	34
1	5	9	13	17	21	25	29	33

Extraction Tool  
455822-2

22	Phase A CT Black	14	Phase A High Instantaneous CT
18	Phase A CT Return	10	Phase A High Instantaneous CT Rtn
23	Phase B CT Black	15	Phase B High Instantaneous CT
19	Phase B CT Return	11	Phase B High Instantaneous CT Rtn
24	Phase C CT Black	16	Phase C High Instantaneous CT
20	Phase C CT Return	12	Phase C High Instantaneous CT Rtn
17	Phase N CT White		
21	Phase N CT Return	31	Aux Microswitch
		34	Aux Microswitch
28	Flux Shifter -		
32	Flux Shifter +	9	Commnet -
		13	Commnet +
5	Zone Select Interlock		
6	Zone Select Interlock	35	-24v Control
7	Zone Select Interlock	36	+24v Control
8	Zone Select Interlock	25	Phase C Voltage Conditioner
		29	Phase B Voltage Conditioner
3	Fan On Output	33	Phase A Voltage Conditioner