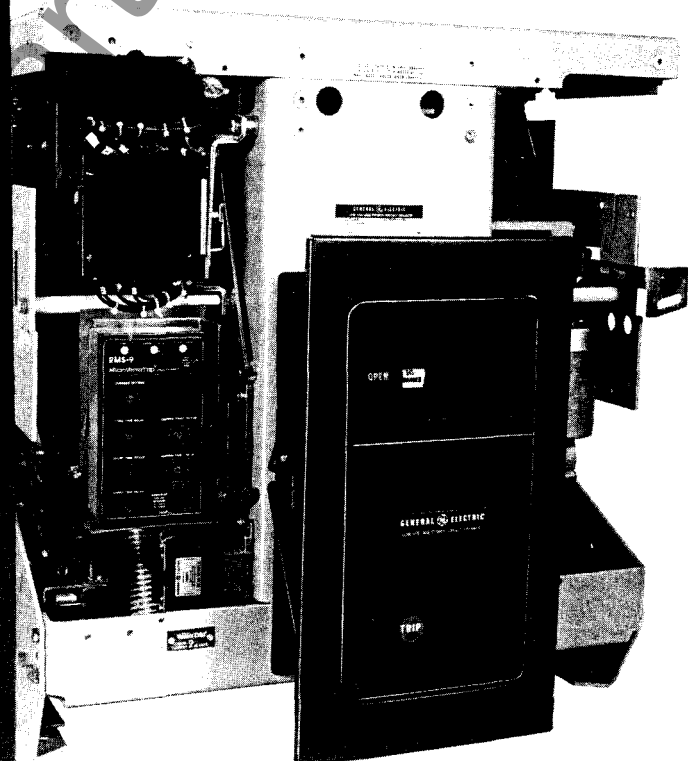
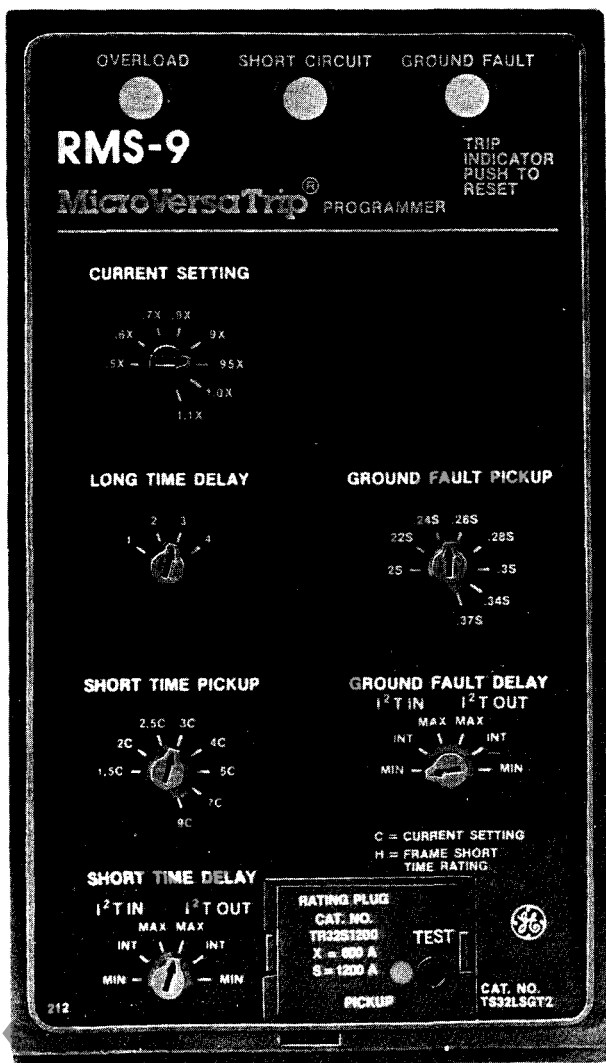




MicroVersaTrip[®] RMS-9 Conversion Kits

For AK/AKR Low Voltage
Power Circuit Breakers



MicroVersaTrip® RMS-9 Conversion Kits for AK/AKR Breakers 60-4000A; 600Vac; 50/60 Hz.

Introducing MicroVersaTrip® RMS-9 Conversion Kits for AK/AKR circuit breakers. Now your old-style AK/AKR breakers can be equipped with the new digital solid state MicroVersaTrip® RMS-9 overcurrent trip devices used on the latest AKR breakers.

Designed for breakers applied on 50/60 Hz AC systems and originally equipped with Type EC, ECS, SST, or Power Sensor trip devices, MicroVersaTrip® RMS-9 Conversion Kits offer convenient, on-site upgrading of General Electric AK/AKR breakers.

MICROVERSATRIP® RMS-9 CONVERSION KITS OFFER A LINE-UP OF FEATURES PREVIOUSLY UNAVAILABLE FOR LOW VOLTAGE SYSTEM PROTECTION

■ Improved Accuracy, Reliability and Flexibility

Installation of a MicroVersaTrip® RMS-9 Conversion Kit brings the newest technological advancement in overcurrent protection to your old-style AK/AKR breakers. The nine-function programmer provides maximum application flexibility and improved system coordination with accurate eight-point trip adjustment switches and multiple time delay bands. Increased selectivity is obtained with ramp time functions on both short-time and ground fault. The programmer, constructed with goldplated contacts and protective conformal epoxy coated printed circuit boards, provides the ultimate in accuracy, reliability, and long life.

■ RMS-9 Digital sensing of sinusoidal and harmonic wave forms

MicroVersaTrip® RMS-9 provides accurate and predictable overload and short circuit protection for distribution systems that include AC and DC variable speed drives, induction heating, and other loads that contribute non-sinusoidal wave shapes.

■ Rating plugs provide convenient flexibility in matching load requirements with fixed current sensors

RMS-9 programmers utilize a broad range of field installable rating plugs for future uprating capability, minimum size cable selection, and an extra degree of coordination flexibility.

■ Adds the security of Ground Fault with memory

The MicroVersaTrip® RMS-9 conversion kit provides integral ground fault protection with adjustable pick-up and time delay. Due to the highly intermittent and erratic nature of arcing ground faults, a memory circuit is incorporated as a standard feature. Ground fault delay is provided both with and without an I²t ramp.

■ Assures dependable, fully automatic operation

After installation, the operation of the MicroVersaTrip® programmer is fully automatic and requires no external logic or control power inputs. The self-powered, solid-state logic unit assures dependable operation.

■ Mechanical trip indication expedites trouble shooting

Pop-out trip indicators on the MicroVersaTrip® RMS-9 programmer provide clear indication of short circuit, overload, and ground fault conditions. For reliability, the indicators require no external power to operate, and remain in the indicator position until manually reset.

■ Long-time timing light

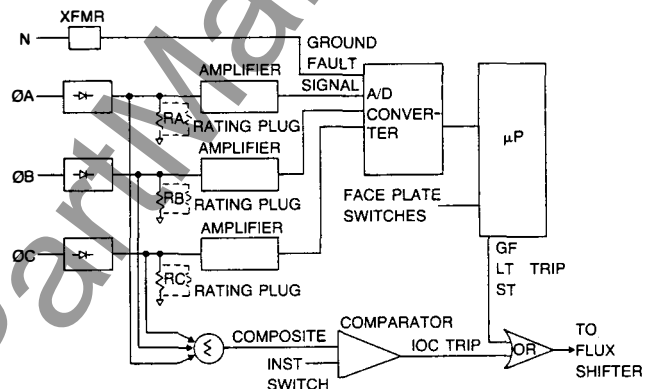
Standard on all MicroVersaTrip RMS-9 units, the long-time timing light provides a visual indication that the breaker is approaching an overload condition (flashing light), or is timing out to trip (continuous light) under an overload.

■ Requires minimum down time for installation

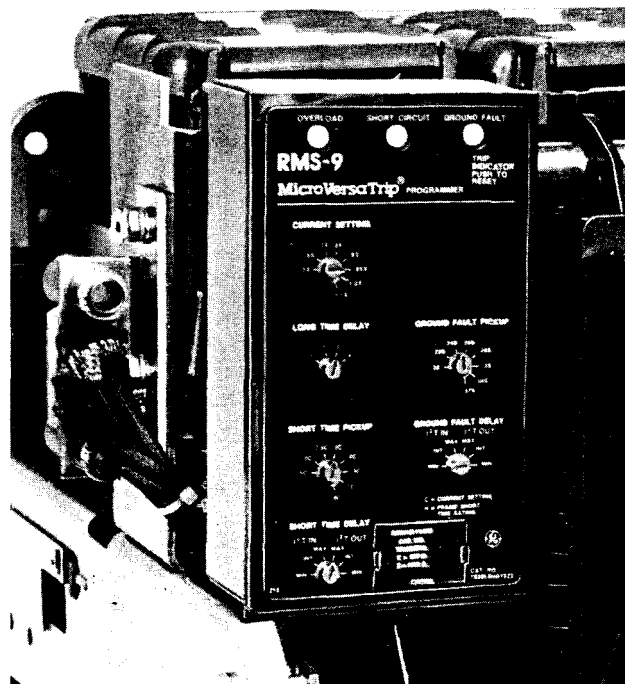
Every MicroVersaTrip® RMS-9 Conversion Kit contains all the components, hardware, wiring, and instructions necessary to completely convert EC, ECS, SST, and Power Sensor breaker types.

■ Portable test kit

The digital processor of the RMS-9 provides a communication link with the small, battery powered TVRMS test kit for programmer self test, setting confirmation, and long time, short time, instantaneous, and ground fault **no trip** or **trip** functional testing. For all test kit operations, the trip unit remains installed in the breaker, carrying normal load, and continues to provide protection unless a **trip** functional test is selected. The test kit can also be used to monitor trip current and time and provide temporary ground fault defeat with high current injection test methods.



MicroVersaTrip® RMS-9 Block Diagram



**MicroVersaTrip® RMS-9 Programmer Unit
Installed on AK-75**

Note: Applicable time-current curves are GES-6228 (ground fault) and GES-6227 (phase overcurrent).

2000 + 4
1600 . 2

MicroVersaTrip® RMS-9 Programmer Characteristics for Conversion Kits With Fixed Sensors and Interchangeable Rating Plug

Frame Size	Max. Amp Rating	Sensor Rating (Amps) (S)	Rating Plug Rating (Amps) (X)	Current Setting, C (Multiple of Rating Plug Amps) (X)	Long-Time		Short-Time	
					Pick Up (Multiple of Current Setting) (C)	Delay ① (Seconds)	Pick Up (Multiple of Current Setting) (C)	Delay (Seconds)
AKR-30 AKR-30H AKRU-30	800	150	60, 80, 100, 125, 150	.5, .6, .7, .8, .9, .95, 1.0, 1.10	Fixed at 1.0 of Current Setting	2.4, 4.9, 9.8, 20	1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 7.0, 9.0	① I ² T In: .40
		400	150, 200, 225, 250, 300, 400					
		800	300, 400, 500, 600, 700, 800					
AKR-50 AKR-50H AKRU-50 AKJ-50	1600	800	300, 400, 500, 600, 700, 800					
		1600	600, 800, 1000, 1200, 1600					
AKRT-50 AKRT-50H AKJT-50	2000	2000	800, 1000, 1200, 1600, 2000					
AKR-75	3200	3200	1200, 1600, 2400, 3200					
AKR-100 AKW-100	4000	4000	1600, 2000, 2500, 3000, 4000					

Frame Size	Adjustable Instantaneous Pick Up Without ST (Multiple of Rating Plug Amps) (X)	Adjustable Instantaneous Pick Up With ST (Multiple of Rating Plug Amps) (X)	Ground Fault		
			Pickup ③ (Multiple of Sensor Amp Rating) (S)	Delay With I ² t (Seconds)	Delay Without I ² t (Seconds)
AKR-30 AKR-30H AKRU-30	1.5, 2, 3, 5, 7, 9, 10	1.5, 2, 3, 5, 7, 9, 10, 13, 15	.2, .25, .3, .35, .4, .45, .5, .6	.40 at 200% of pickup at lower limit of band	.10, 21, .35 at lower limit of band
AKR-50 AKR-50H AKRU-50 AKJ-50					
AKRT-50 AKRT-50H AKJT-50					
AKR-75					
AKR-100 AKW-100	1.5, 2, 3, 5, 7, 9	1.5, 2, 3, 5, 7, 9	.2, .22, .24, .26, .28, .30, .34, .37		

- ① Time delay shown at 600% of current setting at lower limit of band
- ② Time delay shown at lower limit of each band
- ③ Ground fault pickup not to exceed 1200 Amps

X = Rating Plug Amps
S = Sensor Amp Rating
C = Current Setting