



## Digitrip Retrofit System for the General Electric AKR 6D-50 and AKRT 6D-50 Series Breakers



### SAFETY PRECAUTIONS



#### WARNING

**POWER CIRCUIT BREAKERS ARE EQUIPPED WITH HIGH SPEED, HIGH ENERGY OPERATING MECHANISMS. THE BREAKERS AND THEIR ENCLOSURES ARE DESIGNED WITH SEVERAL BUILT-IN INTERLOCKS AND SAFETY FEATURES INTENDED TO PROVIDE SAFE AND PROPER OPERATING SEQUENCES. TO PROVIDE MAXIMUM PROTECTION FOR PERSONNEL ASSOCIATED WITH THE INSTALLATION, OPERATION, AND MAINTENANCE OF THESE BREAKERS, THE FOLLOWING PRACTICES MUST BE FOLLOWED. FAILURE TO FOLLOW THESE PRACTICES MAY RESULT IN DEATH, PERSONAL INJURY, OR PROPERTY DAMAGE.**

- Only qualified persons, as defined in the National Electric Code, who are familiar with the installation and maintenance of power circuit breakers and their associated switchgear assemblies should perform any work associated with these breakers.
- Completely read and understand all instructions before attempting any installation, operation, maintenance, or modification of these breakers.
- **Always turn off and lock out the power source feeding the breaker prior to attempting any installation, maintenance, or modification of the breaker. Do not use the circuit breaker as the sole means for isolating a high voltage circuit. Follow all lockout and tagging rules of the National Electric Code and all other applicable codes, regulations, and work rules.**
- Do not work on a closed breaker or a breaker with the closing springs charged. Trip (open) the breaker and be sure the stored energy springs are discharged before performing any work. The breaker may trip open or the charging springs may discharge, causing crushing or cutting injuries.
- For drawout breakers, trip (open), and then remove the breaker to a well-lit work area before beginning work.
- Do not perform any maintenance: including breaker charging, closing, tripping, or any other function which could cause significant movement of the breaker while it is on the extension rails. Doing so may cause the breaker to slip from the rails and fall, potentially causing severe personal injury to those in the vicinity.
- **Do not leave the breaker in an intermediate position in the switchgear cell. Always leave it in the connected, disconnected, or (optional) test position. Failure to do so could lead to improper positioning of the breaker and flashover, causing death, serious personal injury, and / or property damage.**
- **Do not defeat any safety interlock. Such interlocks are intended to protect personnel and equipment from damage due to flashover and exposed contacts. Defeating an interlock could lead to death, severe personal injury, and / or property damage.**



# Digitrip Retrofit System for the General Electric AKR 6D-50 and AKRT 6D-50 Series Breakers

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## INTRODUCTION

Cutler-Hammer Digitrip Retrofit Kits are available in a number of configurations that provide a wide range of features. The Digitrip System starts with the 510 Basic Kit which offers true RMS sensing, overcurrent protection, and self-testing features. Advanced Digitrip Retrofit Kits feature zone interlocking, digital alphanumeric displays, remote alarm signals, PowerNet communications, energy monitoring capabilities, power factors, and harmonic content measurements.

Table 1 provides a quick reference of the components supplied with each level of Retrofit Kit. Before beginning the Retrofit process, take a minute to review the information contained in Table 1. It is important that the Retrofitter understands which level of Retrofit Kit is to be installed and which components are included with the Kit.

The instructions contained in this manual cover the installation of all levels of Retrofit Kit. If the Kit you are installing does not contain a certain component, skip the instructions for that component and proceed to the next.

Throughout the Retrofit process, refer to the Torque Tables at the back of this manual for specific torque values.

If you have any questions concerning the Retrofit Kit and / or the Retrofit process, contact Cutler-Hammer at: 1-800-937-5487.

**Table 1 Available Retrofit Kits**

Components	510 Basic	610
Trip Unit		
Rating Plug		
Auxiliary Current Transformer (CT) Module		
Auxiliary CT Harness		
Sensors		
Sensor Harness		
Direct Trip Actuator (DTA)		
Mounting Brackets and Hardware		
External Harness	Plug	2 Connector Harness

**STEP 1: GENERAL BREAKER PREPARATION**

Before attempting to remove the Breaker from the cell or perform any Retrofit Operation, be sure to read and understand the Safety Precautions section of this manual. In addition, be sure to read and understand the Instructions for the Application of Digitrip RMS Retrofit Kits on Power Circuit Breakers (Retrofit Application Data – Publication AD 33-855-2), supplied with the Digitrip Retrofit Kit.

To begin the Retrofit Process, refer to the components list at the end of this manual. Layout the components and hardware according to the steps outlined. The parts bags are labeled with the corresponding step number. The components and hardware will be used to complete each step in the Retrofit Process.

**WARNING**

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**DO NOT ATTEMPT TO INSTALL OR PERFORM MAINTENANCE ON EQUIPMENT WHILE IT IS ENERGIZED. SEVERE PERSONAL INJURY OR DEATH CAN RESULT FROM CONTACT WITH ENERGIZED EQUIPMENT. VERIFY THAT NO VOLTAGE IS PRESENT BEFORE PROCEEDING.**

- A. Trip the Breaker and remove it from the Cell.  
Move the Breaker to a clean, well-lit work area.

**NOTE:** It is the responsibility of the Retrofitter to insure that the Breaker and all original components are in good condition. Visually inspect all Breaker components for signs of damage or wear. If any signs of damage or wear are detected for components not included in the Retrofit Kit, secure the necessary replacement parts before beginning the Retrofit Process.

The force necessary to trip the Breaker should not exceed three (3) lbs.

**NOTE:** It is the responsibility of the Retrofitter to insure that the proper, manufacturer's recommended crimping tools and terminals are used for each type of connector. It is also the responsibility of the Retrofitter to insure that all wire preparations, connections, strippings, terminations, and wiring techniques are performed according to the latest IEEE, NEC, and / or NEMA industry standards, specifications, codes, and guidelines.

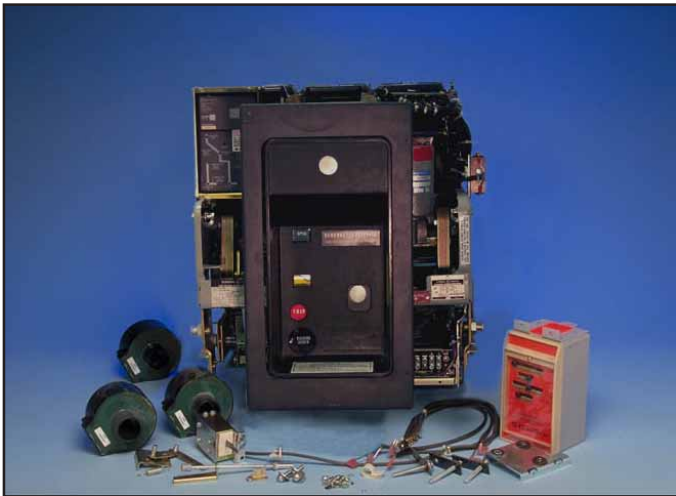
## STEP 2: REMOVING THE ORIGINAL COMPONENTS

Follow the G.E. Instruction Manual, originally supplied with the Breaker, to perform the following procedures.

- A. Remove and scrap the original Trip Unit, associated wiring, and all mounting hardware.
- B. Remove and scrap the original Trip Actuator, Trip Components, associated wiring, and all the mounting hardware.

**NOTE:** Do not remove the original Trip Finger. It will be used in the Retrofit Process.

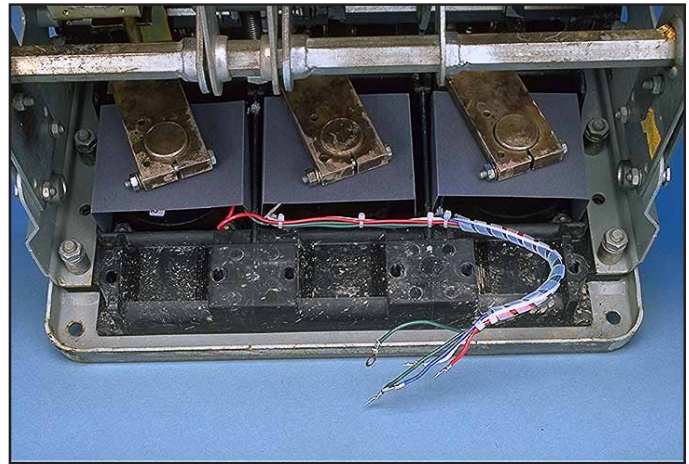
- C. Remove and save the original Copper Connectors, Spacers, and all mounting hardware.
- D. Remove and scrap the original Sensors and Sensor Harness.



*Fig. 1 Original Components Removed from the Breaker.*

**NOTE:** While it is not necessary for the Retrofit, removing the Breaker Front Covers will make the Retrofit Process easier.

## STEP 3: INSTALLING THE SENSORS AND SENSOR HARNESS (PARTIAL)



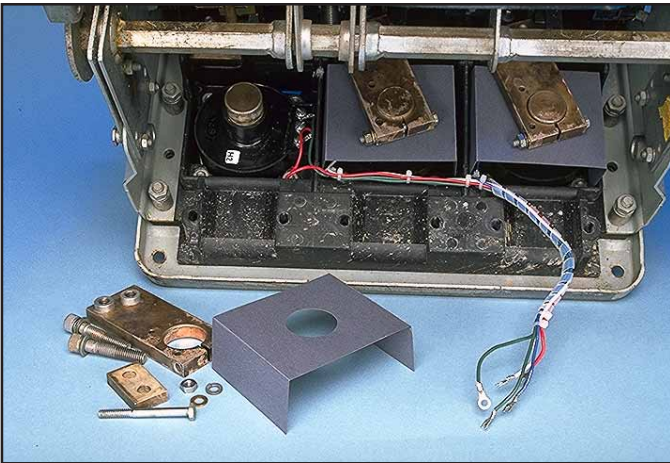
*Fig. 2 Overview: Sensors and Sensor Harness Installed in the Breaker.*

- A. Tilt the Breaker towards the back until it rests on the bottom Finger Clusters. This will provide access to the bottom of the Breaker.
- B. Set the three (3) Sensors in front of the Breaker, roughly positioned near each bottom Breaker Stab.

**NOTE:** The Sensor Terminals must be positioned as shown to reduce the possibility of Arcing to the Breaker Frame.

- C. Place the Sensor Harness near the Sensors, then connect the ring terminals of the Sensor Harness to the Sensor Terminals. Refer to Section 12 of the Retrofit Application Data, supplied with the Retrofit Kit, for detailed wiring specifications.





*Fig. 3 Sensor Harness Connected to the Sensors.*

For AKR 6D and AKRT 6D Retrofits, the following conventions apply.

**Table 2 Sensor Taps Rating**

<i>Sensor Style No.</i>	<i>Terminal Com.</i>	<i>Amps</i>
4A35746H01	X1-X2 =	800A
	X1-X3 =	1,600A
8259A59H01	X1-X2 =	2,000A

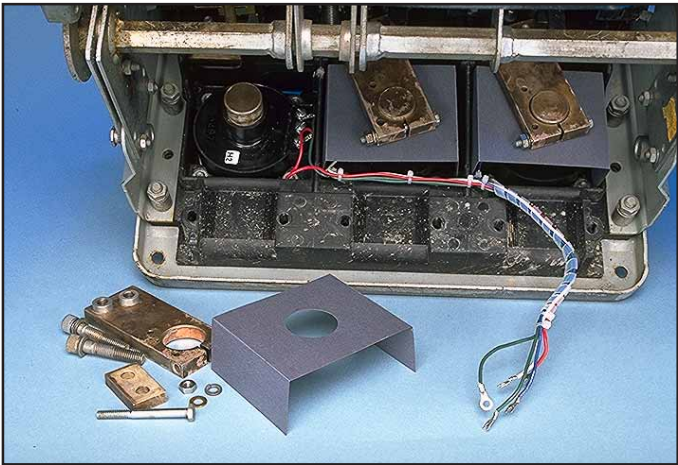
D. Slide one Sensor over each Breaker Stab and route the Sensor Harness towards the bottom of the Breaker

E. Slide a Sensor Shield over each Breaker Stab, positioned as shown.

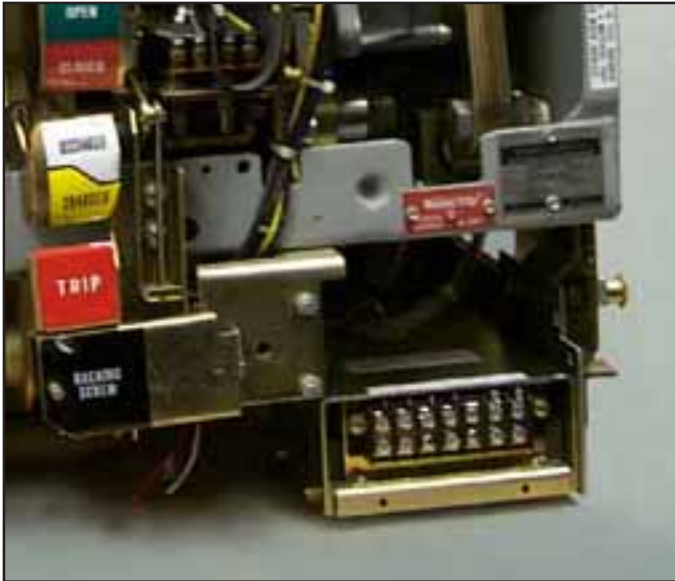


*Fig. 4 Shields Installed Over the Sensors.*

F. Using the original hardware removed in Step 2-C, reinstall the Spacers and Copper Connectors.

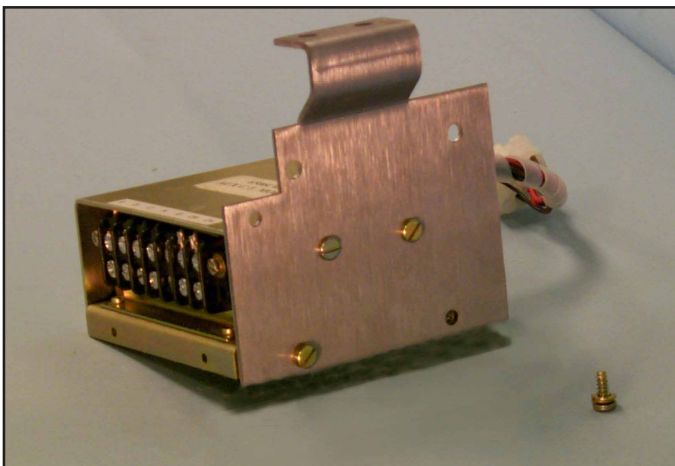


*Fig. 5 Copper Connectors Reinstalled in the Breaker.*

**STEP 4: INSTALLING THE AUX. CT MODULE**

*Fig. 6 Overview: Aux. CT Module Installed in the Breaker.*

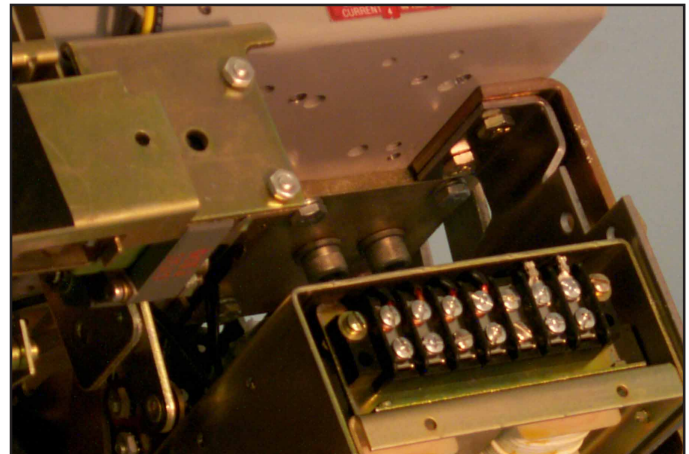
- A. Remove and scrap the two (2) screws from the bottom left side of the Aux. CT Module.
- B. Align the holes in the Aux. CT Module Mounting Bracket with the holes in the left side of the Aux. CT Module as shown.
- C. Secure the Mounting Bracket to the Aux. CT Module using the (4) .190-16 × .500" thread cutting screws supplied.



*Fig. 7 Aux. CT Module Mounting Bracket Secured to the Aux. CT Module.*

- D. Remove and scrap the two (2) bolts, washers, and nuts from the right front corner of the Breaker Shelf that secure the right Racking Pin Assembly to the Breaker.
- E. Align the holes in the Aux. CT Module Mounting Bracket and the original Racking Pin Assembly, as shown, with the holes from which the bolts were just removed. Secure the original Racking Pin Assembly and the Aux. CT Module Assembly to the Breaker using the (2) .250-20 × 1.00" bolts, (2) flat washers, (2) lock washers, and (2) nuts supplied.

*Fig. 8 Aux. CT Module Installed in the Breaker.*



- F. Connect the Sensor Harness to the proper terminals on the Aux. CT Module. Refer to Section 12 of the Retrofit Application Data, supplied with the Retrofit Kit, for detailed wiring specifications.



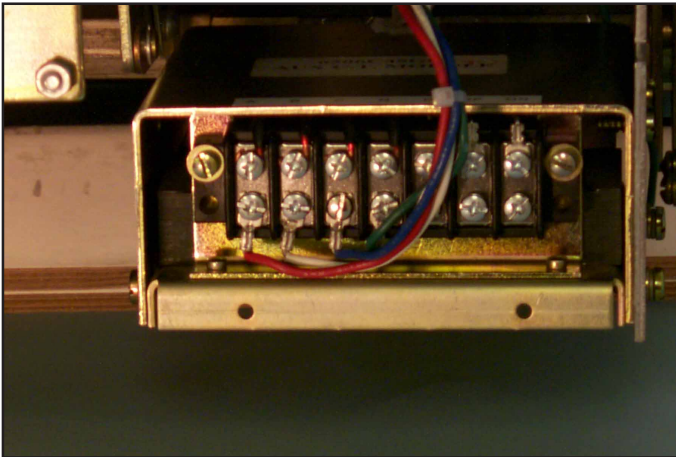


Fig. 9 Sensor Harness Connected to the Aux. CT Module.

- G. Remove one of the screws that secure the Aux. CT Module Mounting Bracket to the right side of the Aux. CT Module. Using the screw just removed, connect the green ground wire from the Sensor Harness (with ring terminal) to the Aux. CT Module.

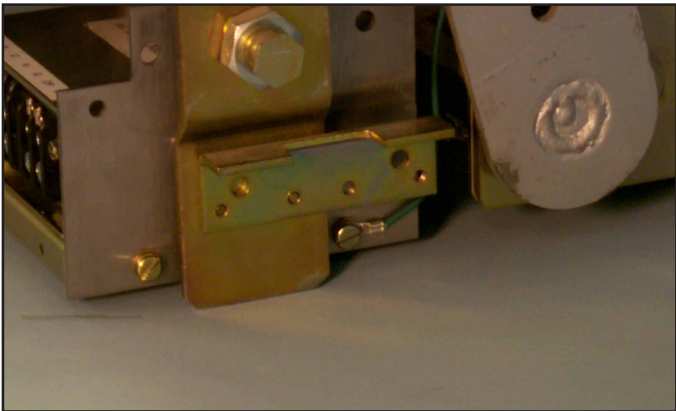


Fig. 10 Ground Wire Connected to the Aux. CT Module

- H. Secure the Sensor Harness, using the wire ties and self-adhesive mounting pads supplied, to keep it clear of any moving parts within the Breaker.

## STEP 5: INSTALLING THE DTA AND RESET ASSEMBLIES

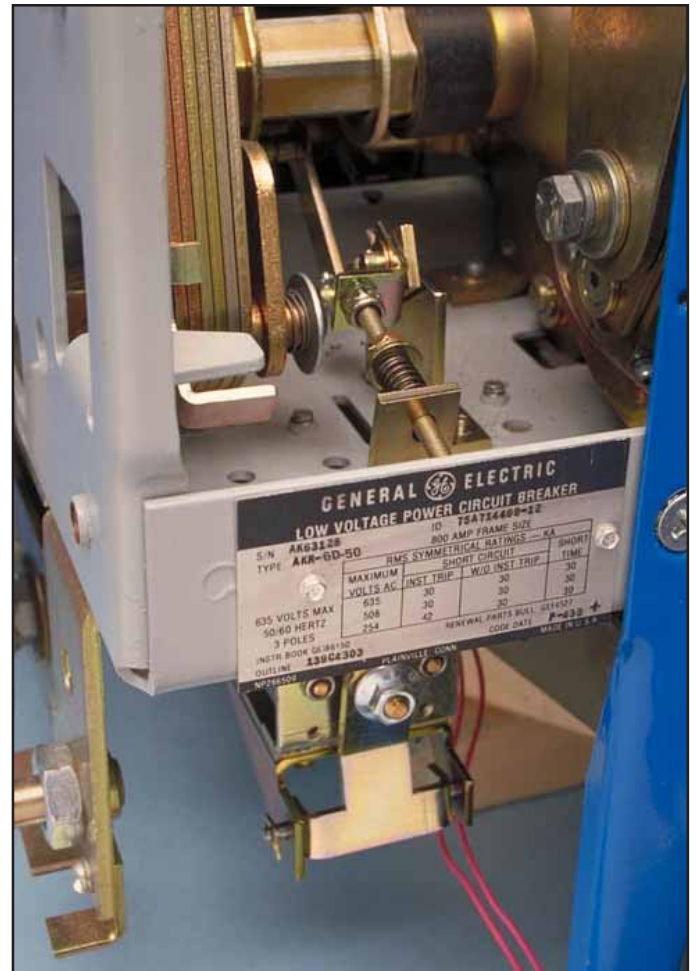


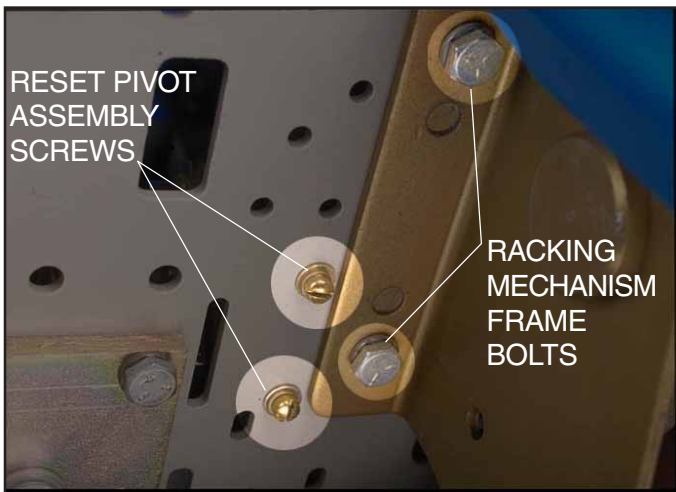
Fig. 11 DTA and Reset Assemblies Installed in the Breaker

- A. Remove the cap screw securing the existing Trip Finger to the Breaker Cross Bar. Align the Trip Finger Extension Plate with the hole in the existing Trip Finger. Secure the Trip Finger Extension Plate to the Trip Finger using the original hardware.



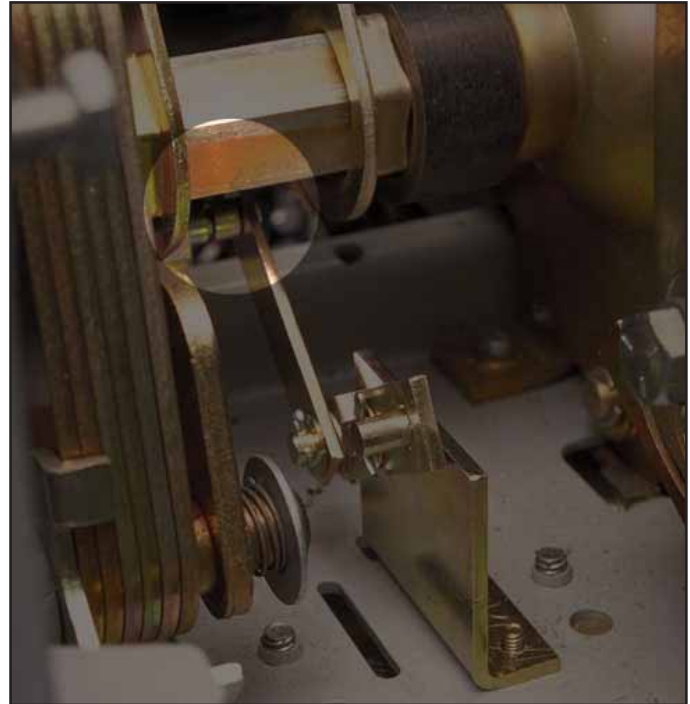
*Fig. 12 Trip Finger Extension Plate Installed on the Trip Finger.*

- B. Align the threaded holes in the Reset Pivot Assembly with the existing holes in the top of the Breaker Shelf. Apply Loc-Tite® 243 to the threads then, working from the bottom of the Breaker Shelf, mount the Reset Pivot Assembly using the (2) .164-32 x .375" screws, (2) lock washers, and (2) flat washers supplied.



*Fig. 13 Reset Pivot Assembly Screw Locations.*

- C. Connect the Reset Pivot Assembly Arm to the existing pin on the Breaker Trip Bar, as shown. Secure the Reset Pivot Assembly Arm to the pin using the .250" "E-clip" supplied.



*Fig. 14 Reset Pivot Assembly Arm Attached to the Breaker Trip Bar Pin.*

- D. Remove and scrap the original hardware securing the left side Racking Mechanism Frame to the bottom of the Breaker Shelf. (See Fig. 13 for bolt location.)

Align the DTA Assembly and the Racking Mechanism Frame with the existing threaded holes in the bottom of the Breaker Shelf. Apply Loc-Tite® 243 to the threads then secure the DTA Assembly to the Breaker Shelf using the (2) .250-20 x .750" bolts, (2) lock washers, and (2) flat washers supplied. Note the orientation of the DTA Gap Adjustment Screw to the Trip Finger.





Fig. 15 DTA Assembly Mounted to the Breaker Shelf.

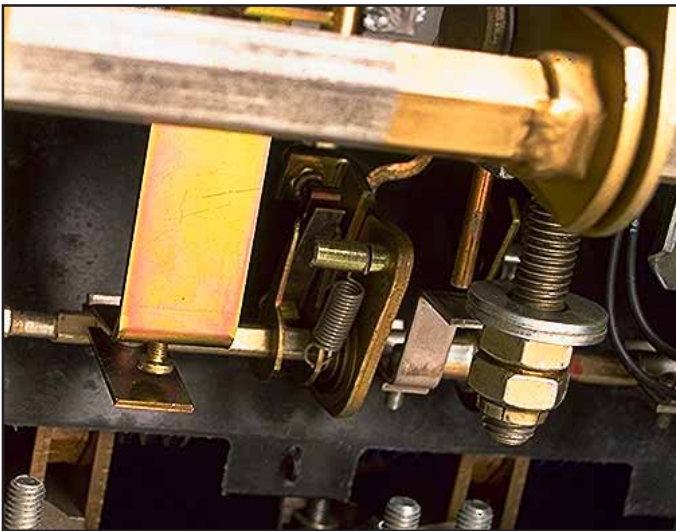


Fig. 16 Correct Orientation of the DTA Gap Adjustment Screw to the Trip Finger.

- E. Remove the flange nut from the end of the DTA Shaft. Insert the Reset Arm through the existing rectangular cut-out in the Breaker Shelf then attach the Reset Arm to the DTA Assembly using the pivot pin and (2) .188 "X" washers supplied. Apply Loc-Tite 243® to the threads of the DTA Shaft then reinstall the flange nut.

- F. Install the Reset Link through the Reset Pivot Assembly, as shown. Secure the Reset Arm to the Reset Pivot Assembly using the cotter pins, flat washers, and lock nut supplied. Note that the large flat washers must be installed on both ends of the spring.



Fig. 17 Reset Link Installed in the Breaker.

- G. Adjust the DTA Gap Adjustment Screw to achieve a gap between the screw head and the Trip Finger of approximately .09" to .12".

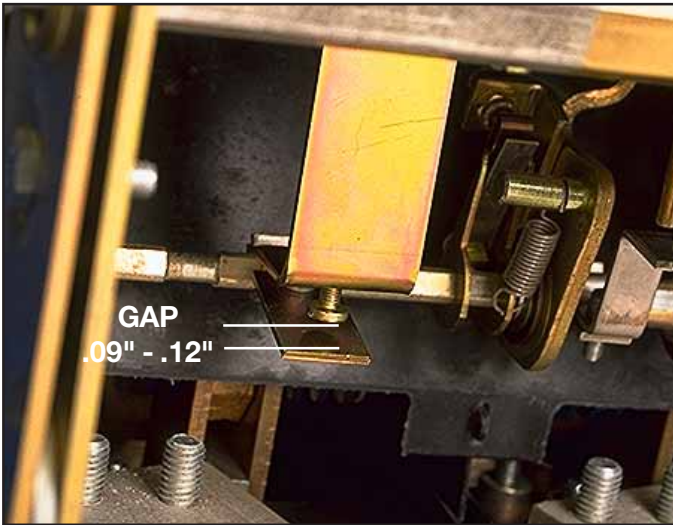


Fig. 18 Adjusting the Gap Between the Trip Finger and DTA Gap Adjusting Screw.

- H. Turn the adjusting nuts on the Reset Link until the cage height (compressed spring length) is .690". This should create a reset force of 12 to 15 lbs. when measured on the Reset Arm near the DTA flange nut. If either of these specifications are not met, adjust the nuts on the Reset Link until these specifications are achieved.

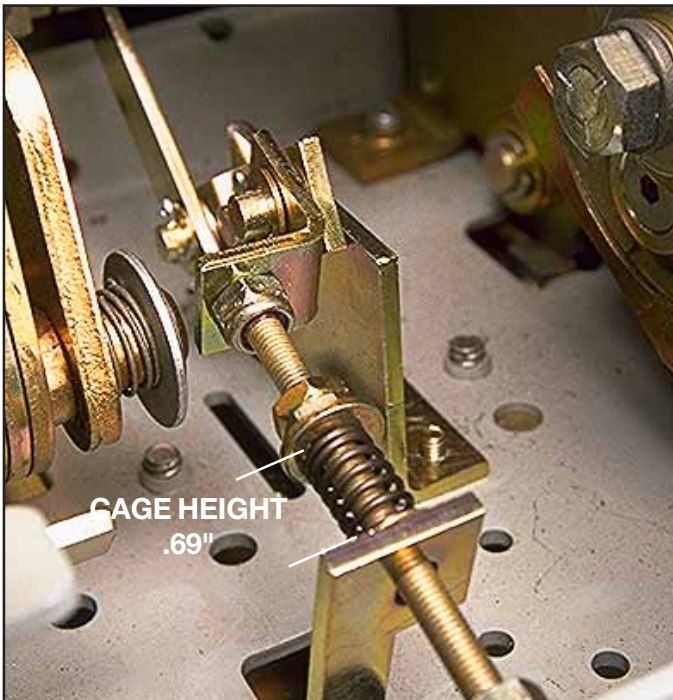


Fig. 19 Adjusting the Cage Height.

- I. Connect the DTA Extension Harness to the Terminals on the DTA Terminal Block.

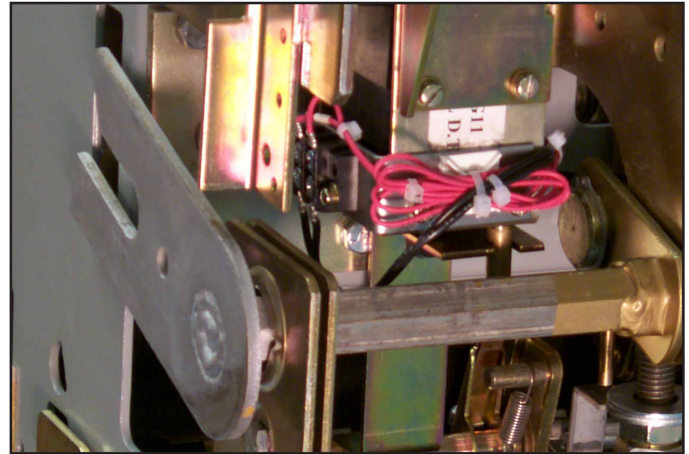


Fig. 20 DTA Extension Harness Connected to the DTA Terminal Block.

- J. Route the DTA Wires through the Breaker towards the Aux. CT Module.
- K. Connect the "+" DTA Wire to the "OP" terminal of the Aux. CT Module and the unmarked wire to the "ON" terminal.
- L. Use the wire ties and self-adhesive mounting blocks supplied to dress the DTA Wires to keep them away from any moving parts within the Breaker.

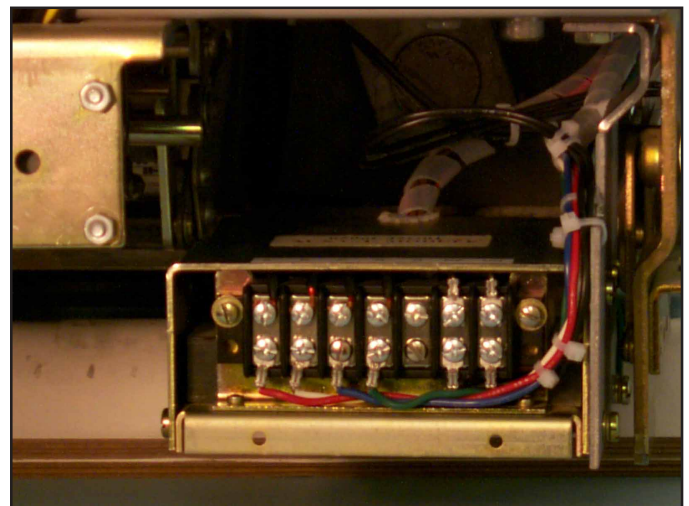


Fig. 21 DTA Extension Harness Connected to the Aux. CT Module.



**STEP 6: INSTALLING THE TRIP UNIT**

Fig. 22 Overview: Trip Unit Installed on the Breaker.

- A. Using Drilling Plan “A”, drill two (2) .281" holes in the left Breaker Frame. Care should be taken to insure that no drill shavings fall into the Breaker.

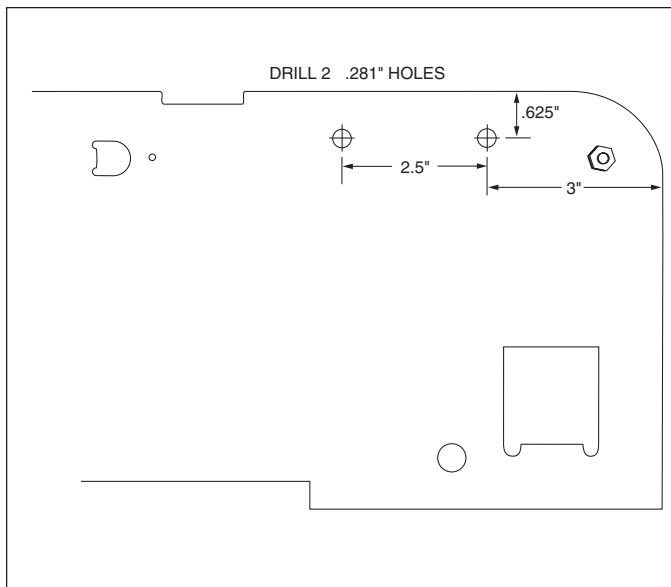


Fig. 23 Drilling Plan “A”.

- B. Remove and save the (2) screws from the bottom left side of the Trip Unit Box (Minibox).
- C. Align the smaller holes in the Trip Unit Mounting Bracket with the holes from which the screws were just removed. Secure the Trip Unit Mounting Bracket to the Trip Unit Box, as shown, using the original hardware.

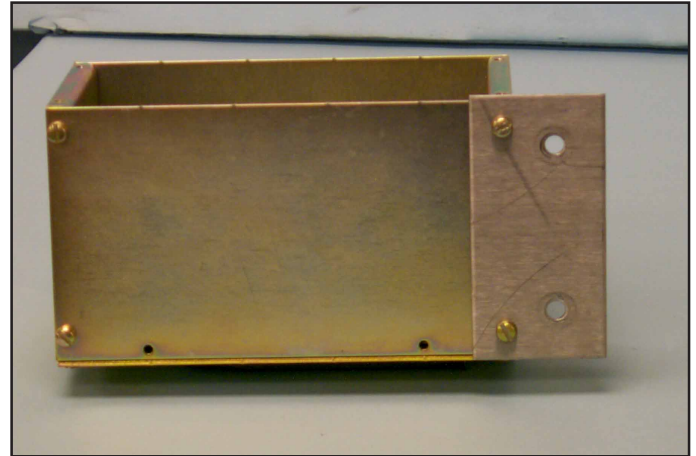


Fig. 24 Trip Unit Mounting Bracket Mounted to the Trip Unit Box.

- D. Align the Trip Unit Edge Card with the Receptacle in the Trip Unit Box. Plug the Trip Unit into the Trip Unit Box.

**CAUTION**

**DO NOT APPLY UNDUE FORCE TO THE TRIP UNIT. IF IT DOES NOT PLUG EASILY INTO THE TRIP UNIT BOX, MAKE SURE THE EDGE CARD IS PROPERLY ALIGNED WITH THE RECEPTACLE AND THAT THE JACKING (“J”) SCREWS ARE FULLY RETRACTED (SEE INSTRUCTIONS ON THE REAR OF THE TRIP UNIT BOX). APPLYING UNDUE FORCE CAN DAMAGE THE TRIP UNIT.**

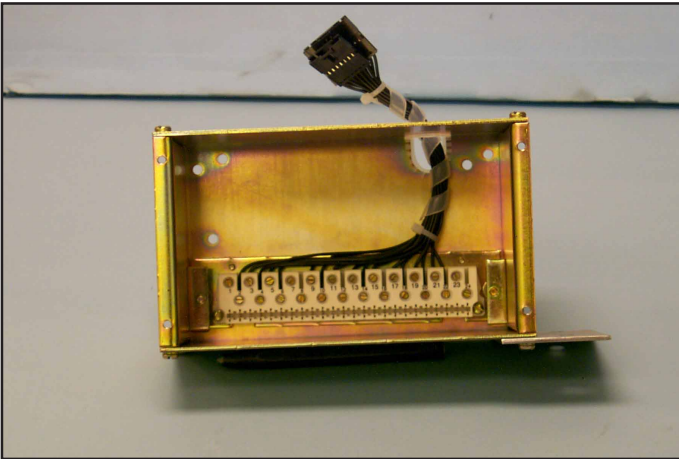


Fig. 25 Location of the Edge Card Receptacle in the Trip Unit Box (510 Kits).

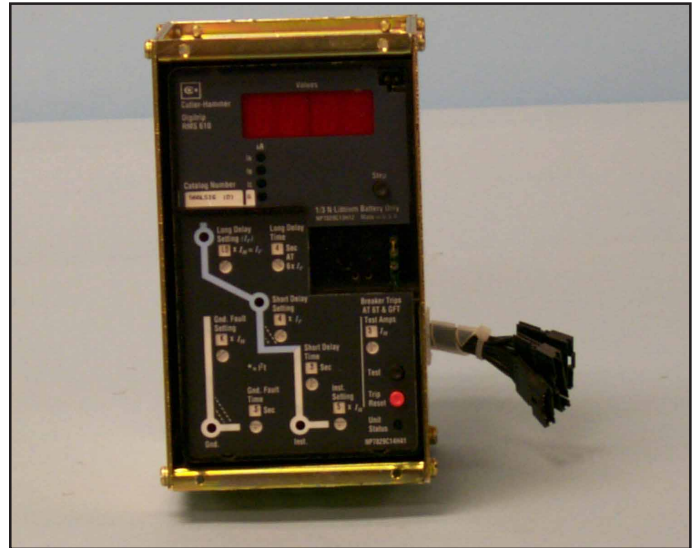


Fig. 27 Trip Unit Installed in the Trip Unit Box.

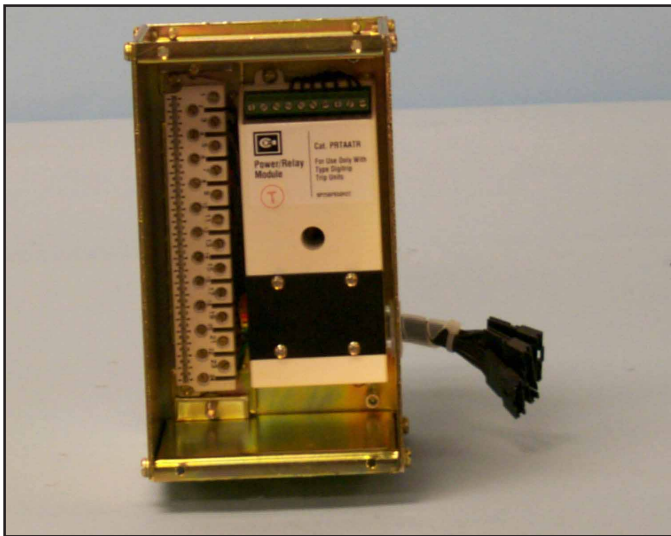


Fig. 26 Location of the Edge Card Receptacle and ATR in the Trip Unit Box (610 Kits).

- E. Install the Rating Plug in its receptacle in the Trip Unit.
- F. Align then secure the Trip Unit Box Cover to the Trip Unit Box using the (4) .164-32 x .250" screws supplied.
- G. Connect the Aux. CT Harness to the pigtail at the rear of the Trip Unit Box.
- H. Connect the External Harness to the pigtail at the rear of the Trip Unit Box. Temporarily route the External Harness over the top of the box.

**NOTE:** For 510 Basic Kits, the External Harness is the shorting plug pictured below. It is to be plugged into the corresponding receptacle on the Trip Unit Box Pigtail.



Fig. 28 510 Kits External Harness Shorting Plug.

- I. Align the Trip Unit Assembly with the holes drilled in the left Breaker Frame in Step 6-A. Secure the Trip Unit Assembly to the Breaker using the (2) .250-20 × .500" bolt, (2) flat washers, (2) lock washers, and (2) nuts supplied. As the Trip Unit Assembly is being installed, the External Harness should be routed behind the Trip Unit Assembly and towards the left of the Breaker. The Aux. CT Harness should be routed towards the right side of the Breaker.

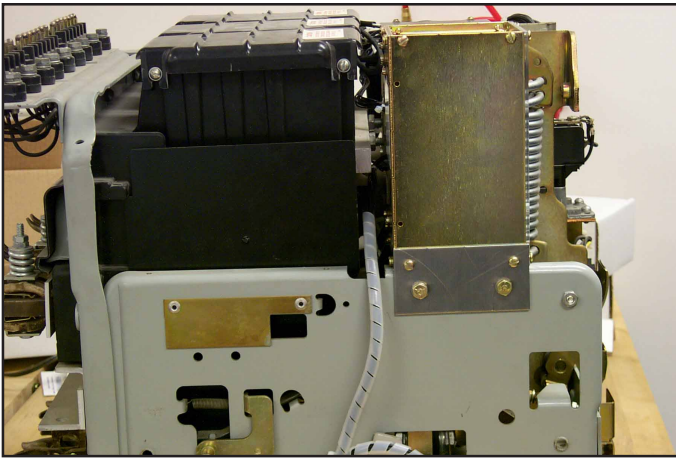


Fig. 29 Trip Unit Assembly Mounted to the Left Breaker Frame.

## STEP 7: FINAL CONNECTION OF THE HARNESSES AND WIRING

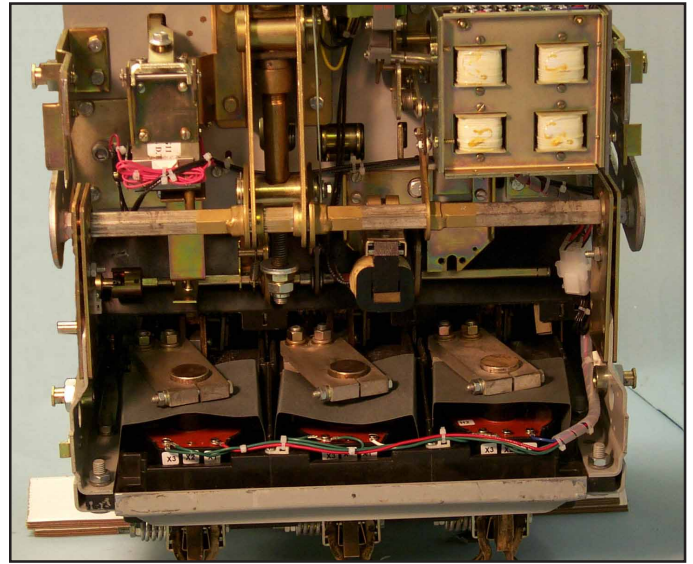


Fig. 30 Overview: Final Wiring.

- A. Route the Aux. CT Harness across the top of the Breaker, then down into the Breaker to the Aux. CT Module.

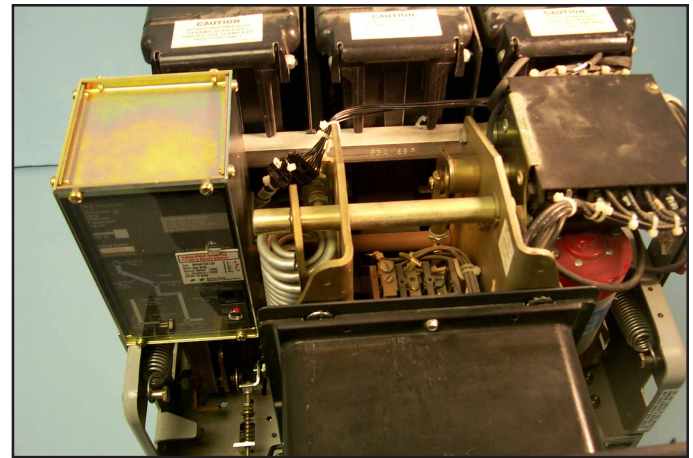


Fig. 31 Routing of the Aux. CT Harness.

- B. Plug the Aux. CT Harness into the Aux. CT Module Pigtail.



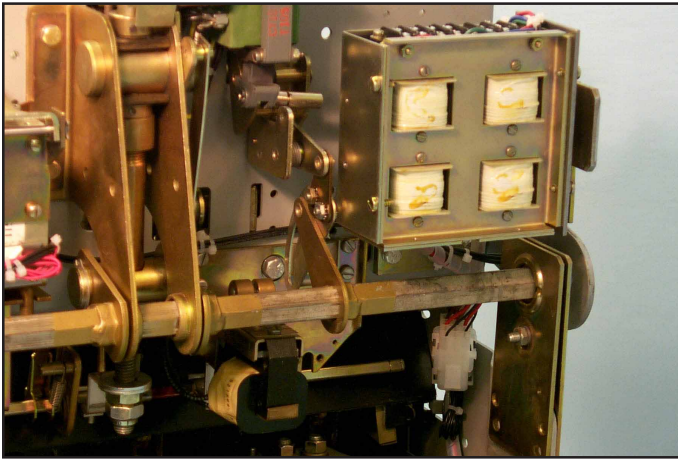


Fig. 32 Aux. CT Harness Connected to the Aux. CT Module Pigtail.

- C. Use the wire ties and self-adhesive mounting blocks supplied to dress all wires and harnesses to keep them away from any moving parts within the Breaker.

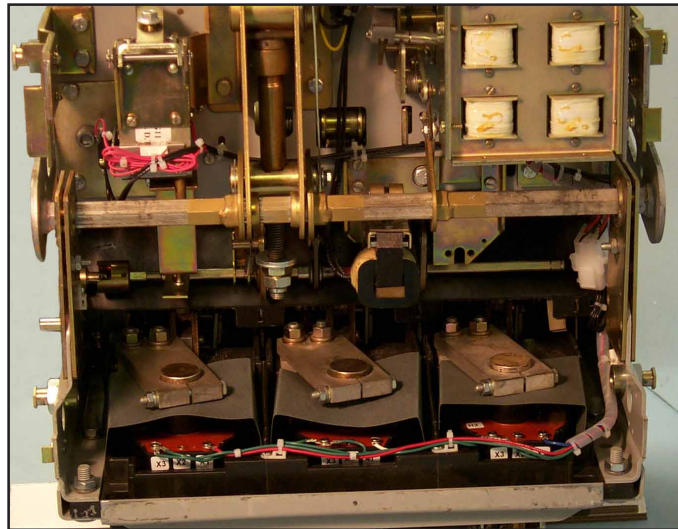


Fig. 33 Wires and Harnesses Secured within the Breaker.

- D. If the Breaker Covers were removed in Step 2, reinstall the covers using the original mounting hardware.
- E. Install the Digitrip Retrofit Label in a prominent position on the Breaker Cover.

## STEP 8: TESTING THE BREAKER

- A. Measure the force necessary to trip the Breaker at the Trip Finger. The force necessary to trip the Breaker **MUST NOT EXCEED** three (3) lbs.
- B. The Retrofit must be tested using primary injection. Refer to Section 8 of the Instructions for the Application of Digitrip RMS Retrofit Kits on Power Circuit Breakers (Publication AD-33-855-1, June 1997), supplied with the Retrofit Kit, for detailed testing procedures and specifications. For test information specific to the Trip Unit, refer to the IL publication supplied with the Retrofit Kit (see the Pick List for the IL number).
- C. While Section 8 of the Instructions for the Application of Digitrip RMS Retrofit Kits on Power Circuit Breakers provides the information necessary for testing the Breaker, please keep the following notes in mind when reviewing other sections of the publication.



### CAUTION

**WHEN ALL TESTING IS COMPLETE, THE TRIP UNIT MUST BE RESET. FAILURE TO DO SO MAY CAUSE THE BATTERY IN THE RATING PLUG TO RUN DOWN.**

### NOTES:

1. Publication AD-33-855 was created specifically for the "hundred" series (500, 600, 700, etc.) Retrofit Kits. Therefore certain sections and figures do not apply to the "ten" series (510, 610, 810, etc.) Retrofit Kits. Specifically, these are Sections 13 and 14, as well as Figures 3-2, 3-3, and 3-4.
2. For All Kits Other Than 510 Basic: If testing the Breaker with Short Delay or Ground Fault functions, be sure to either plug in the Cell Harness Assembly or use the Zone Interlock Shorting Plug. Failure to do so may result in shorter than expected trip times.



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**STEP 9: INSTALLING THE RETROFITTED  
BREAKER IN THE CELL**

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**WARNING**

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**DO NOT LEAVE THE BREAKER IN AN INTERMEDIATE POSITION IN THE SWITCHGEAR CELL. ALWAYS LEAVE IT IN THE CONNECTED, DISCONNECTED, OR (OPTIONAL) TEST POSITION. FAILURE TO DO SO COULD LEAD TO IMPROPER POSITIONING OF THE BREAKER AND FLASH-OVER, CAUSING DEATH, SERIOUS PERSONAL INJURY, AND / OR PROPERTY DAMAGE.**

**NOTE:** It is the responsibility of the Retrofitter to insure proper Breaker / Cell fit. When racking the Breaker into the Connected position, the Retrofitter **MUST FOLLOW BOTH** the manufacturer's instructions and the customer's safety standards and procedures for racking a Breaker into the Connected position.

- A. With the Breaker in the Open position and the springs discharged, slowly rack the Breaker into the Connected position, making sure there is no interference or binding. The Breaker should rack smoothly and without mechanical interference between any Breaker and Cell parts. The Retrofitter will feel some resistance when the primary fingers connect onto the stabs of the Cell. This is normal.

However, if any unusual resistance is detected that could be abnormal interference between the Breaker and Cell parts, stop immediately and move the Breaker out of the Connected position. Examine what is causing the interference and correct the situation.

### Digitrip Retrofit Kit Installation Components for the General Electric AKR 6D-50 and AKRT 6D-50 Series Breakers:

Step	Description	Style No.	Qty.	Comment
Step 3	Sensor		3	See Pick List
	Sensor Harness Parts	9A10068G04	1	
	Sensor Harness		1	
	Sensor Shield		3	
	Wire Tie Nylon		14	
	Mounting Pad 1" Nylon		14	
Step 4	Aux. CT Module	6506C44G__	1	
	Aux. CT Module Mounting Parts	9A10068G09	1	
	Aux. CT Module Mounting Bracket		1	
	.250-20 × 1.00 Lng. Hex Bolt		2	
	.250 Flat Washer Stl.		2	
	.250 Lock Washer Stl.		2	
	.250-20 Nut Hex Stl.		2	
	.190-16 × .500 Lng. T.C. Screw		4	
	Wire Tie Nylon		14	From Step 3
	Mounting Pad 1" Nylon		14	From Step 3
Step 5	DTA Assembly	9A10070G33	1	
	Reset Arm Mounting Parts	9A10070G08	1	
	Reset Pivot Assembly		1	
	Reset Assembly		1	
	Pivot		1	
	Pivot Pin		1	
	.188 X-Washers Stl.		2	
	.250 E-Clip		1	
	.164-32 × .375 Lng. Screw Fil.		2	
	.164 Flat Washer Stl.		2	
	.164 Lock Washer Stl.		2	
	Loc-Tite 243®		1	
	DTA Mounting Parts	9A10070G07	1	
	Trip Finger		1	
	.250-20 × .750 Lng. Hex Bolt		2	
	.250 Flat Washer Stl.		2	
	.250 Lock Washer Stl.		2	
	Wire Tie Nylon		14	From Step 3
	Mounting Pad 1" Nylon		14	From Step 3
Step 6	Trip Unit		1	See Pick List
	Rating Plug		1	See Pick List
	Trip Unit Box (Minibox)	6506C26G__	1	See Pick List
	Cover		1	
	.164-32 × .250 Lng. Screw Fil.		4	
	Trip Unit Mounting Parts	9A10070G05	1	
	Trip Unit Mounting Bracket		1	
	.250-20 × .500 Lng. Hex Bolt		2	

### Digitrip Retrofit Kit Installation Components for the General Electric AKR 6D-50 and AKRT 6D-50 Series Breakers: (Cont.)

Step	Description	Style No.	Qty.	Comment
	.250 Flat Washer Stl.		2	
	.250 Lock Washer Stl.		2	
	.250-20 Nut Hex Stl.		2	
	Digitrip Retrofit Label		1	
	External Harness	6502C83G__	1	Except 510 Basic
	Aux. CT Harness	6502C84G02	1	
Step 7	Wire Tie Nylon		14	From Step 3
	Mounting Pad 1" Nylon		14	From Step 3
	Digitrip Retrofit Label		1	From Step 6

**NOTE:** Due to the wide vintage of Breakers and the multiple functions of the Retrofit Components, some excess hardware may be left when the Retrofit is complete.

**Table 3 Torque Values for General Mounting and Screw Size Conversion**

<i>Decimal Size (in)</i>	<i>Standard Size</i>	<i>Torque (in-lbs)</i>	<i>Torque (ft-lbs)</i>
.112	4-40	10	0.8
.138	6-32	18	1.5
.164	8-32	36	3.0
.190	10-32	46	3.8
.250	1/4-20	100	8.3
.312	5/16-18	206	17.2
.375	3/8-16	356	29.7
.438	7/16-14	572	47.7
.500	1/2-13	856	71.3

**Table 4 Torque Values for Copper BUS Connectors**

<i>Decimal Size (in)</i>	<i>Standard Size</i>	<i>Torque (in-lbs)</i>	<i>Torque (ft-lbs)</i>
.250	1/4-20	60	5
.312	5/16-18	144	12
.375	3/8-16	240	20
.500	1/2-13	600	50



Fig. 34 Retrofit Components

- |                               |                     |
|-------------------------------|---------------------|
| A. Sensors                    | F. Rating Plug      |
| B. Trip Unit                  | G. Aux. CT Harness  |
| C. Trip Unit Box              | H. Sensor Harness   |
| D. Aux. CT Module             | I. External Harness |
| E. Direct Trip Actuator (DTA) |                     |



**Notes**

Notes

**Notes**

*We wish to thank you for purchasing the Digitrip Retrofit System. Digitrip Retrofit Kits are designed and manufactured in America with pride. All the components are engineered to fit the existing Circuit Breaker with little or no modifications to the existing Breaker. However due to the wide variety and vintage of Breakers in use today, an occasional problem may arise. Please contact us with any questions, comments or concerns.*

Phone: **1-800-937-5487** Fax. (724) 779-5899

*The instructions for installation, testing, maintenance, or repair herein are provided for the use of the product in general commercial applications and may not be appropriate for use in nuclear applications. Additional instructions may be available upon specific request to replace, amend, or supplement these instructions to qualify them for use with the product in safety-related applications in a nuclear facility.*

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