



INSTRUCTIONS

RECORD COPY
DATE REC'D. 3/8/77

GEK-45457
INSERT BOOKLET - GEK-7393

D.C. TIMING RELAY

TYPE SAM

MODEL SAM99AB(-)A

INTRODUCTION

This supplement plus GEK-45457 form the instructions for special relay model SAM99AB(-)A.

DESCRIPTION

Relay model SAM99AB(-)A is similar to model SAM11A forms 21 and up except it contains 4 additional TU normally open contacts. This necessitates the use of an S-2 case to bring out the additional contacts.

Figure 1 of this supplement is the Internal Connections Diagram for this relay.

Figure 2 of this supplement is the outline and Panel Drilling Diagram for this relay.

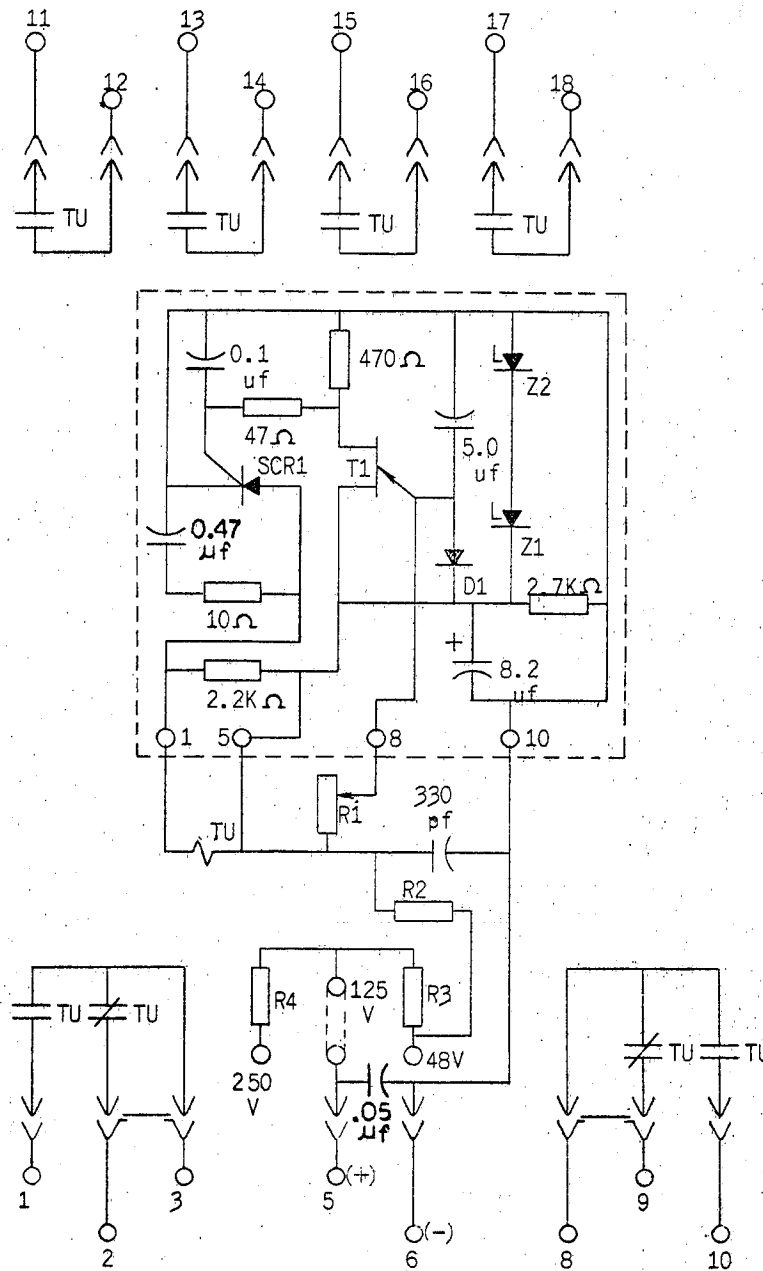
These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the General Electric Company.

To the extent required the products described herein meet applicable ANSI, IEEE and NEMA standards; but no such assurance is given with respect to local codes and ordinances because they vary greatly.

POWER SYSTEMS MANAGEMENT DEPARTMENT

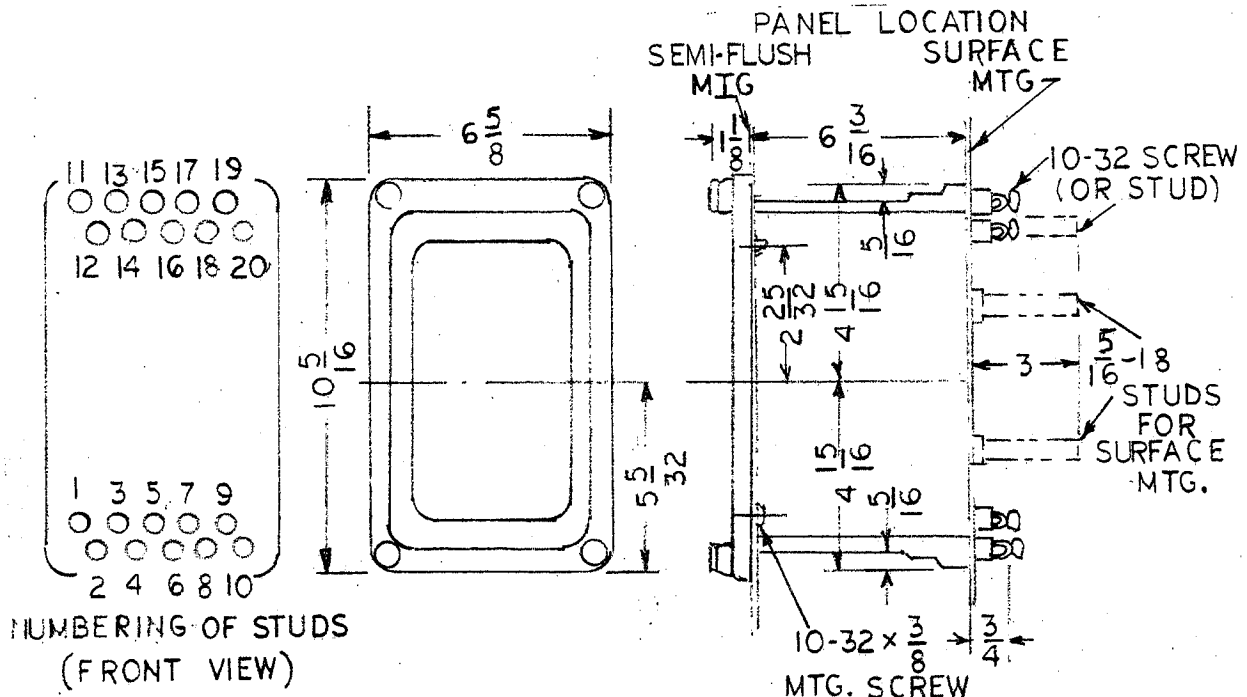
GENERAL  ELECTRIC

PHILADELPHIA, PA.



MODEL	FORM	
SAM99AB(-)A	001	002
VOLTS D.C.	48/125/ 250	48/125/ 250
RESISTANCE IN OHMS		
TU COIL	650	650
R1	0.75 MEG	1.5 MEG
R2	500	500
R3	1200	1200
R4	2000	2000

FIGURE 1 (0257A9616) INTERNAL CONNECTIONS DIAGRAM FOR THE TYPE SAM99AB(-)A RELAY



OUTLINE

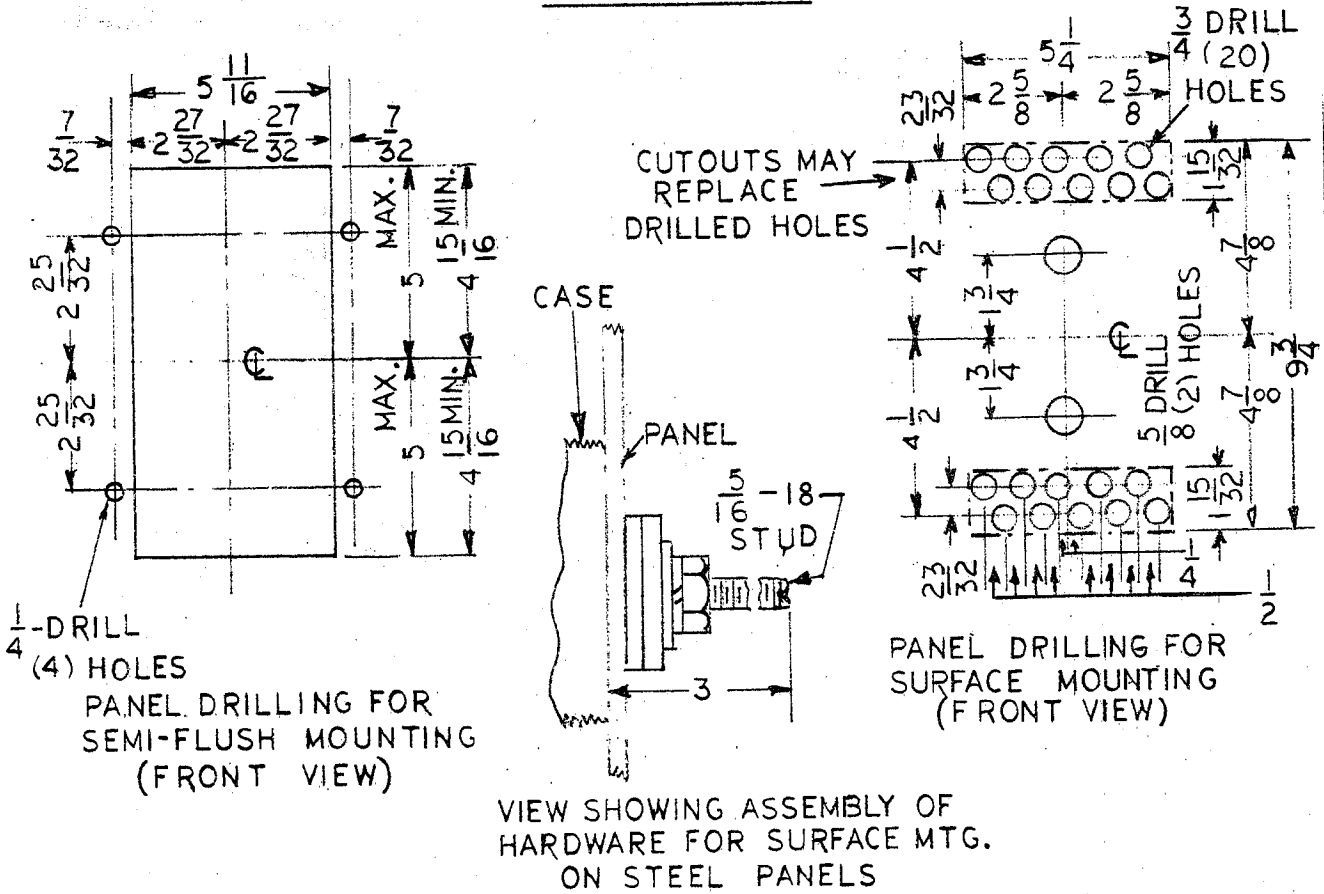


FIGURE 2 (K-6209272) OUTLINE AND PANEL DRILLING DIMENSIONS FOR THE TYPE SAM99AB(-) A RELAY.

GENERAL ELECTRIC INSTALLATION AND SERVICE ENGINEERING OFFICES

ELECTRICAL AND ELECTRONIC

FOR YOUR LASTING SATISFACTION . . . with the performance and availability of your General Electric equipment, GE provides this nationwide network of field service offices, serving utility, industrial, transportation and marine users. Qualified field engineers provide installation, start-up, employee training, engineering maintenance and other services, throughout the productive life of the equipment. For full information, call your nearest Installation & Service Engineering office.

ALABAMA Birmingham 35209 2 Metroplex Dr. Mobile 36616 600 Bel Air Blvd.	LOUISIANA Baton Rouge 70806 8312 Florida Blvd. Monroe 71201 2116 Justice St. New Orleans 70125 4747 Eathart Blvd. Shreveport 71104 2800 Youree Dr.	Cleveland 44114 1000 Lakeside Ave. Columbus 43229 5080 Sinclair Rd. Dayton 45439 3430 S. Dixie Hwy. Toledo 43606 3450 W. Central Youngstown 44507 272 E. Indianola Ave.
ALASKA Anchorage 99501 1701 E. First Ave.	MAINE Bangor 04401 27 State St.	OKLAHOMA Oklahoma City 73106 2000 Classen Blvd. Tulsa 74105 5138 S. Peoria Ave.
ARIZONA Phoenix 85016 5320 N. 16th St. Tucson 86711 40 N. Swan Rd.	MARYLAND Baltimore 21207 1 Rutherford Plaza	OREGON Eugene 97402 775 Conger St. Portland 97210 2929 N.W. 29th Ave. Medford 97501 107 E. Main St.
ARKANSAS North Little Rock 72116 2500 McCain Blvd.	MASSACHUSETTS Wellesley 02181 1 Washington St.	PENNSYLVANIA Philadelphia 19102 3 Penn Center Plaza Pittsburgh 15222 300 6th Ave. Bldg.
CALIFORNIA Fresno 93710 1530 E. Shaw Ave. El Monte 91734 9350 E. Flair Dr. (Los Angeles) Redding 96001 1708 Placer St. Sacramento 95825 2222 Sierra Blvd. San Diego 92103 2560 First Ave. San Francisco 94105 55 Hawthorne St. Santa Clara 95050 2075 De La Cruz Blvd.	MICHIGAN Southfield 48075 22255 Greenfield Ave. (Detroit) Jackson 49201 210 W. Franklin St. Saginaw 48603 4800 Fashion Sq. Blvd.	SOUTH CAROLINA Columbia 29205 2700 Middleburg Dr. Greenville 29607 741 N. Pleasantburg Dr.
COLORADO Denver 80206 201 University Blvd.	MINNESOTA Duluth 55802 300 W. Superior St. Minneapolis 55416 1500 Lilac Dr. So.	TENNESSEE Chattanooga 37411 5800 Bldg. Eastgate Center Kingsport 37664 1170 N. Eastman Rd. Knoxville 37919 9040 Executive Park Dr. Memphis 38116 3385 Airways Blvd.
CONNECTICUT Meriden 06450 1 Prestige Dr.	MISSISSIPPI Jackson 39206 5425 Executive Pl.	TEXAS Amarillo 79101 Amer. Nat'l. Bank Bldg. Beaumont 77704 1385 Calder Ave. Dallas 75247 8101 Stemmons F'way El Paso 79945 215 N. Stanton St. Fort Worth 76102 115 W. 7th St. Houston 77027 4219 Richmond Ave. Odessa 79763 2301 E. Interstate 20 (Midland) San Antonio 78209 1600 N.E. Loop
FLORIDA Jacksonville 32216 103 Century 21 Dr. Miami 33172 175 Fountainbleu Blvd. Tampa 33609 2106 S. Lois Ave.	MISSOURI Kansas City 64105 911 Main St. St. Louis 63101 1015 Locust St.	VIRGINIA Richmond 23230 1508 Willow Lawn Dr. Roanoke 24016 301 Elm Ave., S.W.
GEORGIA Atlanta 30309 1860 Peachtree Rd., N.W. Savannah 31405 5002 Paulsen St.	MONTANA Butte 59701 103 N. Wyoming St.	WASHINGTON Seattle 98188 112 Andover Park E.
HAWAII Honolulu 96819 2828 Paa St.	NEBRASKA Omaha 68102 409 S. 17th St.	WEST VIRGINIA Charleston 25314 306 MacCorkle Ave., S.E.
ILLINOIS Oak Brook 60521 814 Commerce Dr. Oak Brook 60521 0215 Spring Rd. Peoria 61603 3100 N. Knoxville	NEW JERSEY Millburn 07041 25 E. Willow St.	WISCONSIN Appleton 54911 3003 W. College Ave. Milwaukee 53202 615 E. Michigan St.
INDIANA Evansville 47714 2709 Washington Ave. Fort Wayne 46805 2109 E. State Blvd. Indianapolis 46207 3750 N. Meridian St.	NEW MEXICO Albuquerque 87108 120 Maderia Dr., N.E.	
IOWA Bettendorf 52722 1039 State St.	NEW YORK Albany 12205 15 Computer Dr., W. Buffalo 14202 625 Delaware Ave. New York 10022 641 Lexington Ave. Syracuse 13206 3532 James St.	
KENTUCKY Louisville 40218 2300 Meadow Dr.	NORTH CAROLINA Charlotte 28207 141 Providence Rd. Raleigh 27603 120 Boylan Ave. Wilmington 28401 9295 Kerr Ave.	
	OHIO Cincinnati 45206 2621 Victory Pkwy.	

GENERAL ELECTRIC SERVICE SHOPS

WHEN YOU NEED SERVICE . . . These GE Service Shops will repair, re-condition, and rebuild your electric apparatus. The facilities are available day and night, seven days a week, for work in the shops or on your premises. Latest factory methods and genuine GE renewal parts are used to maintain performance of your equipment. For full information about these services, contact your nearest service shop or sales office.

ALABAMA * * Birmingham 35211 1500 Mims Ave., S.W. * * Mobile 36609 721 Lakeside Dr.	LOUISIANA * * Baton Rouge 70814 10955 North Dual St. * * New Orleans 70114 1115 DeArmas St.	OKLAHOMA * * Tulsa 74145 5220 S. 100th East Ave.
ARIZONA * (Phoenix) Glendale 85019 4911 W. Colter St. * Phoenix 85019 3840 W. Clarendon St. * Tucson 85713 2942 So. Palo Verde Ave.	MARYLAND * * Baltimore 21230 920 E. Fort Ave.	OREGON * Eugene 97402 570 Wilson St. * Portland 97210 2727 NW 29th Ave.
CALIFORNIA * Los Angeles 90301 6900 Stanford Ave. * (Los Angeles) Anaheim 92805 3601 E. LaPalma Ave. * (Los Angeles) Inglewood 90301 228 W. Florence Ave. * Sacramento 95814 99 North 17th St. * (San Francisco) Oakland 94608 1650 34th St.	MASSACHUSETTS * * Δ (Boston) Medford 02155 3960 Mystic Valley Pkwy.	PENNSYLVANIA * Allentown 18103 668 E. Highland St. * (Delaware Valley) Cherry Hill, N. J., 08034 1790 E. Marlton Pike * Johnstown 15802 841 Oak St. * Philadelphia 19124 1040 East Erie Ave. * (Pittsburgh) West Mifflin 15122 4930 Buttermilk Hollow Rd. * York 17403 54 N. Harrison St.
COLORADO * * Denver 80205 3353 Larimer St.	MICHIGAN * * Δ (Detroit) Riverview 18075 Krause Ave. * Flint 48505 1506 E. Carpenter Rd.	SOUTH CAROLINA * (Charleston) No. Charleston 29401 2490 Debonair St.
CONNECTICUT * * (Southington) Plantsville 06479 370 Atwater St.	MINNESOTA * * Duluth 55807 50th Ave. W & St. Louis Bay * * Minneapolis 55430 2025 49th Ave., N.	TENNESSEE * Knoxville 37914 2621 Governor John Sevier Hwy. * Memphis 38107 708 North Main St.
FLORIDA * * Jacksonville 32203 2020 W. Beaver St. * (Miami) Hialeah 33010 1062 East 28th St. * Tampa 33601 19th & Grant Sts.	MISSOURI * * Kansas City 64120 3525 Gardner Ave. * St. Louis 63110 1115 East Rd.	TEXAS * Beaumont 77705 1490 W. Cardinal Dr. * Corpus Christi 78401 115 Waco St. * Dallas 75235 3202 Manor Way * Houston 77036 5534 Harvey Wilson Dr. * Houston 77036 6916 Harwin Dr. * Midland 79701 704 S. Johnston St.
GEORGIA * (Atlanta) Chamblee 30341 5035 Peachtree Industrial Blvd. * Atlanta 2379 John Glenn Dr.	NEW JERSEY * New Brunswick 08902 3 Lawrence St.	UTAH * Salt Lake City 84110 301 S. 7th West St.
ILLINOIS * * Chicago 60638 6045 S. Nottingham Ave.	NEW MEXICO * Albuquerque 87109 4420 McLeod Rd. NE	VIRGINIA * Richmond 23224 1403 Ingram Ave. * Roanoke 24013 1004 River Ave., SE
INDIANA * Evansville 47711 401 N. Congress Ave. * Ft. Wayne 46803 1731 Edsall Ave. * Hammond 46320 1138 164th Place * Indianapolis 46222 1740 W. Vermont St.	NEW YORK * Albany 12205 1097 Central Ave. * * (Buffalo) Tonawanda 14150 175 Milens Rd. * (Long Island) Old Bethpage 11804 183 Bethpage-Sweet Hollow Rd. * (New York City) North Bergen, N. J., 07012 6001 Tonnelle Ave. * (New York City) Clifton, N. J., 07012 9 Brighton Rd. * Δ Schenectady 12305 1 River Rd. * Syracuse 13208 1015 E. Hiawatha Blvd.	WASHINGTON * Seattle 98134 3422 First Ave., South * Spokane 99211 E. 4323 Mission St.
IOWA * (Davenport) Bettendorf 52722 1025 State St.	NORTH CAROLINA * * Charlotte 28208 2328 Thrift Rd.	WEST VIRGINIA * Charleston 25328 306 MacCorkle Ave., SE
KENTUCKY * Louisville 40209 3900 Crittenden Drive	OHIO * Akron (Canton) 44720 7900 Whipple Ave. N. W. * * Cincinnati 45202 444 West 3rd St. * Δ Cleveland 44125 4477 East 49th St. * Columbus 43229 6660 Huntley Rd. * Toledo 43605 405 Dearborn Ave. * Youngstown 44507 272 E. Indianola Ave.	WISCONSIN * (Appleton) Menasha 54910 1725 Racine St. * Milwaukee 53207 235 W. Oklahoma Ave.

* Electrical/Mechanical Service Shop * Instrumentation Shop Δ Special Manufacturing Shop