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BROADCAST PRODUCTS DIVISION

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TECHNICAL MANUAL

VARIABLE TRANSFORMER T2 REPLACEMENT KIT

992 5998 001



HARRIS CORPORATION

Broadcast Products Division

T. M. No. 888-9000-009

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WARNING

THE CURRENTS AND VOLTAGES IN THIS EQUIPMENT ARE DANGEROUS. PERSONNEL MUST AT ALL TIMES OBSERVE SAFETY REGULATIONS.

This manual is intended as a general guide for trained and qualified personnel who are aware of the dangers inherent in handling potentially hazardous electrical/electronic circuits. It is not intended to contain a complete statement of all safety precautions which should be observed by personnel in using this or other electronic equipment.

The installation, operation, maintenance and service of this equipment involves risks both to personnel and equipment, and must be performed only by qualified personnel exercising due care. HARRIS CORPORATION shall not be responsible for injury or damage resulting from improper procedures or from the use of improperly trained or inexperienced personnel performing such tasks.

During installation and operation of this equipment, local building codes and fire protection standards must be observed. The following National Fire Protection Association (NFPA) standards are recommended as references:

- Automatic Fire Detectors, No. 72E
- Installation, Maintenance, and Use of Portable Fire Extinguishers, No. 10
- Halogenated Fire Extinguishing Agent Systems, No. 12A

WARNING

ALWAYS DISCONNECT POWER BEFORE OPENING COVERS, DOORS, ENCLOSURES, GATES, PANELS OR SHIELDS. ALWAYS USE GROUNDING STICKS AND SHORT OUT HIGH VOLTAGE POINTS BEFORE SERVICING. NEVER MAKE INTERNAL ADJUSTMENTS, PERFORM MAINTENANCE OR SERVICE WHEN ALONE OR WHEN FATIGUED.

Do not remove, short-circuit or tamper with interlock switches on access covers, doors, enclosures, gates, panels or shields. Keep away from live circuits, know your equipment and don't take chances.

WARNING

IN CASE OF EMERGENCY ENSURE THAT POWER HAS BEEN DISCONNECTED.

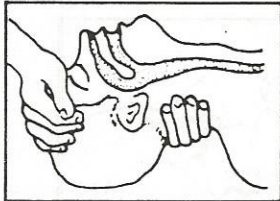
Treatment of Electrical Shock

1. If victim is not responsive follow the A-B-Cs of basic life support.

PLACE VICTIM FLAT ON HIS BACK ON A HARD SURFACE

(A) AIRWAY

IF UNCONSCIOUS,
OPEN AIRWAY



LIFT UP NECK
PUSH FOREHEAD BACK
CLEAR OUT MOUTH IF NECESSARY
OBSERVE FOR BREATHING

(B) BREATHING

IF NOT BREATHING,
BEGIN ARTIFICIAL
BREATHING

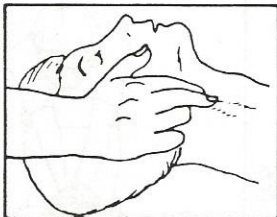


TILT HEAD
PINCH NOSTRILS
MAKE AIRTIGHT SEAL

4 QUICK FULL BREATHS

REMEMBER MOUTH TO MOUTH RESUSCITATION
MUST BE COMMENCED AS SOON AS POSSIBLE

CHECK CAROTID PULSE



IF PULSE ABSENT,
BEGIN ARTIFICIAL
CIRCULATION

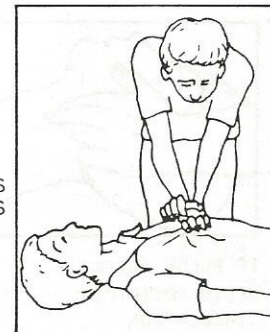
(C) CIRCULATION

DEPRESS STERNUM 1 1/2" TO 2"



APPROX. { ONE RESCUER
80 SEC. { 15 COMPRESSIONS
2 QUICK BREATHS

APPROX. { TWO RESCUERS
60 SEC. { 5 COMPRESSIONS
1 BREATH



NOTE: DO NOT INTERRUPT RHYTHM OF COMPRESSIONS
WHEN SECOND PERSON IS GIVING BREATH

Call for medical assistance as soon as possible.

2. If victim is responsive.

- a. keep them warm
- b. keep them as quiet as possible
- c. loosen their clothing
(a reclining position is recommended)

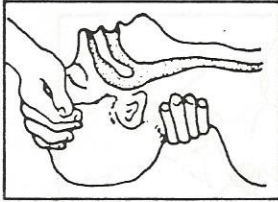
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OBSERVE FOR BREATHING

B BREATHING

IF NOT BREATHING,
BEGIN ARTIFICIAL
BREATHING

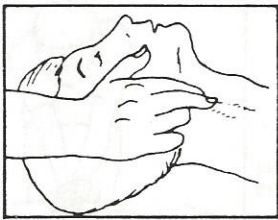


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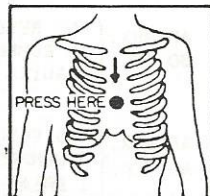
CHECK CAROTID PULSE



IF PULSE ABSENT,
BEGIN ARTIFICIAL
CIRCULATION

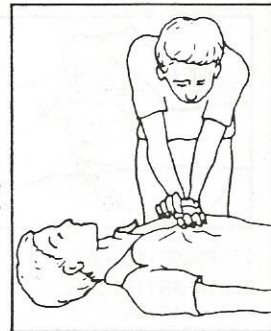
C CIRCULATION

DEPRESS STERNUM 1 1/2" TO 2"



APPROX. { ONE RESCUER
80 SEC. { 15 COMPRESSIONS
2 QUICK BREATHS

APPROX. { TWO RESCUERS
60 SEC. { 5 COMPRESSIONS
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NOTE: DO NOT INTERRUPT RHYTHM OF COMPRESSIONS
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Call for medical assistance as soon as possible.

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SECTION I

INTRODUCTION

1-1. INTRODUCTION

1-2. This manual is intended to provide the necessary information for installing the VARIABLE TRANSFORMER T2 REPLACEMENT KIT in the MW1/1A transmitter.

1-3. CONTENTS

1-4. The manual is divided into the following sections:

- a. Section I - Introduction
- b. Section II - Installation
- c. Section III - Checkout
- d. Section IV - Parts List

SECTION II

INSTALLATION

2-1. INTRODUCTION

2-2. This section of the technical manual provides the information necessary to install the VARIABLE TRANSFORMER T2 REPLACEMENT KIT.

2-3. INSTALLATION

2-4. Table 2-1 lists the parts that will be removed from the old variable transformer assembly to be reused on the new variable transformer assembly.

Table 2-1. Reused Parts From The Old Variable Transformer Assembly

	816 6141 002	Aluminum Support Posts (Between T2 Chassis and Motor Mounting Plate)	4
	614 0438 000	Standoff Terminals E7 and E8	2
	614 0003 000	Terminal Board TB3	1
	436 0061 000	Motor B2	1
	816 6215 001	Rigid Coupling (Between Motor shaft and Variable Transformer)	1
	604 0624 000	Micro Switches S12 and S13	2
	506 0016 000	Capacitor C5 (Supplied with Motor)	1
		Miscellaneous Jumper Wires	
		Miscellaneous Hardware (Screws, Nuts, Washers, etc)	

2-5. Table 2-2 lists the major new parts provided with the kit.

Table 2-2. Major Parts Provided in the Kit

	828 8333 001	Plate, Drive Motor Mounting	1
	828 8334 001	Chassis, Variable Transformer	1
	474 0120 000	Transformer, Variable	1
		Plus miscellaneous hardware as listed in Section IV.	

WARNING: Disconnect primary power prior to servicing.

2-6. The following procedure should be followed to install the new VARIABLE TRANSFORMER T2 REPLACEMENT KIT:

WARNING

ENSURE ALL AC POWER HAS BEEN REMOVED FROM THE TRANSMITTER AND THAT ALL POINTS WHERE AC POWER HAS BEEN APPLIED ARE SHORTED TO GROUND WITH THE GROUNDING STICK.

NOTE

In the following steps, the motor, terminal board (TB3), and micro switches S12 and S13 will be moved from the old drive motor mounting plate and installed on the new drive motor mounting plate in the same relative positions.

- a. Remove the ac input wires to the variable transformer noting which terminals each wire attaches to. Cut wires near ring lugs. Strip wires and attach yellow lugs supplied with kit to gray wires and blue lug supplied with kit to brown wire. Attach lug by crimping and soldering.
- b. Disconnect wires attached to TB3 noting which terminal each wire attaches to.
- c. Dismount variable transformer chassis from transmitter by removing four screws in base. Chassis assembly can now be moved from transmitter to bench to ease rest of assembly procedure.
- d. Back off setscrews in rigid coupling (at motor end) between drive motor and variable transformer.
- e. Dismount drive motor mounting plate by removing four screws that attach it to supporting posts.
- f. Drive motor mounting plate should now be free to be moved from chassis assembly.
- g. Disconnect wires from microswitches S12 and S13 noting which wires attach to which terminals on microswitches.

NOTE

Wires attaching to microswitches S12 and S13 will have to be cut near ring lugs to allow wires to pass through grommets. Note wire numbers and terminals to which they were attached.

- h. Using existing hardware transfer drive motor, capacitor C5, terminal board TB3, and microswitches S12 and S13 to new drive motor mounting plate. Also transfer the rubber grommets.

CAUTION

ENSURE PROPER POLARITY OF CAPACITOR C5 IS MAINTAINED.

- i. Remount all parts not already mounted. New drive plate should now have drive motor, terminal board TB3, grommets, microswitches S12 and S13, and capacitor C5 mounted.
- j. Insert wires to be attached to microswitches through appropriate grommets. Strip wires that mount to microswitches and attach lugs supplied with kit to the wires by crimping and soldering. Reattach wires to appropriate terminals of microswitches.
- k. Mount new variable transformer and support posts (with 1/4-20 screws, nuts and washers) to new variable transformer chassis.

NOTE

In the following step new drive motor plate can be mounted to support posts, coupling setscrews tightened, and microswitches set to limit travel of variable transformer on the bench.

- l. Mount new drive motor mounting plate to support posts with old hardware.
- m. Mount new chassis assembly in transmitter.
- n. Reattach wires removed from terminal board TB3 and from terminals on old variable transformer being careful to attach correct wires to correct terminals. Double check by referring to transmitter wiring diagram in MW1/1A Technical Manual.

2-7. TECHNICAL ASSISTANCE

2-8. HARRIS Technical and Troubleshooting assistance is available from HARRIS Field Service Department 24 hours a day. Telephone 217/222-8200 to contact the Field Service Department or address correspondence to Field Service Department, HARRIS CORPORATION, Broadcast Products Division, P.O. Box 4290, Quincy, Illinois 62305-4290, USA. The HARRIS factory may also be contacted through a TWX facility (910-246-3312) or a TELEX service (40-4347).

SECTION III

CHECKOUT

3-1. CHECKOUT

3-2. Refer to MW1/1A Technical Manual for checkout of new variable transformer.

SECTION IV

PARTS LIST

4-1. INTRODUCTION

4-2. This section of the technical manual contains a parts list containing the parts provided with the VARIABLE TRANSFORMER T2 REPLACEMENT KIT. Refer to Table 4-1.

4-3. REPLACEABLE PARTS SERVICE

4-4. Replacement parts are available 24 hours a day, seven days a week from the HARRIS Service Parts Department. Telephone 217/222-8200 to contact the service parts department or address correspondence to Service Parts Department, HARRIS CORPORATION, Broadcast Products Division, P.O. Box 4290, Quincy, Illinois 62305-4290, USA. The HARRIS factory may also be contacted through a TWX facility (910-246-3312) or a TELEX service (40-4347).

Table 4-1. Modification Kit TRANSFORMER T2 REPLACEMENT MW-1/MW-1A
992 5998 001

REF. SYMBOL	HARRIS PART NO.	DESCRIPTION	QTY.
	300 1540 000	Screw, 6-32 x 1/2	1
	302 0060 000	Screw, 4-40 x 1	4
	302 0104 000	Screw, 6-32 x 1/4	1
	302 0106 000	Screw, 6-32 x 3/8	4
	302 0108 000	Screw, 6-32 x 1/2	3
	302 0109 000	Screw, 6-32 x 5/8	1
	302 0141 000	Screw, 10-32 x 3/8	4
	302 0143 000	Screw, 10-32 x 1/2	4
	302 0215 000	Screw, 1/4-20 x 3/4	4
	304 0089 000	Nut, Hex 6-32	1
	306 0003 000	Nut, Hex 4-40	8
	306 0004 000	Nut, Hex 6-32	2
	306 0007 000	Nut, Hex 1/4-20	4
	306 0011 000	Nut, Stop 6-32	3
	310 0003 000	Washer, Flat 4	8
	310 0012 000	Washer Flat 6	9
	310 0031 000	Washer, Flat 1/4 inch	8
	312 0048 000	6 Split Washer Brz.	1
	314 0003 000	Washer, Split 4	8
	314 0005 000	Washer Split 6	8
	314 0007 000	Washer Split 10	8
	314 0009 000	Washer Split .25	4

Table 4-1. Modification Kit TRANSFORMER T2 REPLACEMENT MW-1/MW-1A
992 5998 001 (Continued)

REF. SYMBOL	HARRIS PART NO.	DESCRIPTION	QTY.
T2	344 0003 000	Screw, Set 6-32 x 1/8	6
	354 0001 000	Term Lug Red Ring 6	8
	354 0010 000	Term Lug Blue Ring 10	2
	354 0324 000	Term Lug Yellow Ring 10	4
	424 0017 000	Grommet 5/16 Mtg Dia	5
	474 0120 000	Xfmr Variable	1
	828 8333 001	Plt Dr Mtr Mtg	1
	828 8334 001	Chassis, Variable	1

Table 4-1. Mechanical Parts for the 800W to 1000W Transmitter
 (continued)

REF. SYMBOL	HARRIS PART NO.	DESCRIPTION	QTY.
1	101 0001 000	Bracket for 800W	1
2	101 0002 000	Bracket for 1000W	1
3	101 0003 000	Bracket for 800W	1
4	101 0004 000	Bracket for 1000W	1
5	101 0005 000	Bracket for 800W	1
6	101 0006 000	Bracket for 1000W	1
7	101 0007 000	Bracket for 800W	1
8	101 0008 000	Bracket for 1000W	1
9	101 0009 000	Bracket for 800W	1
10	101 0010 000	Bracket for 1000W	1

MOUNTING AND CONNECTING INSTRUCTIONS

UNPACKING YOUR TRANSFORMER: Single transformers are shipped mounted on wooden bases with the shaft positioned for table mounting. Remove the bolts which fasten the wooden base to the transformer. Remove corrugated packing under knob and dial. Save envelope of mounting hardware.

INSPECT YOUR TRANSFORMER: Ohmite variable transformers incorporate the finest materials and skilled workmanship. They are thoroughly inspected before packing and carefully packaged for maximum safety during shipment. However, due to unpredictable factors during shipment, it is wise to examine your "v.t." at the time you receive it. Pay particular attention to the brush contact. Make certain there is no damage.

MOUNTING SINGLE UNENCLOSED UNITS—VT8, VT8N, VT8H, VT8HN, VT8LN — Individual units can be either panel or table mounted. Three sets of mounting holes are provided in the base. Any set may be used to mount the transformer. (See template Fig. 8.) This variety of mounting holes, which includes a set of tapped blind holes as well as clearance holes on various centers, permits the VT8 series transformer to be used as a direct replacement for all popular brands of comparable size.

Transformers are normally shipped with shaft positioned for table mounting. For panel mounting the shaft is positioned out on the base side as follows: Simply loosen both socket head screws with a 5/64 hex key, slide shaft to desired position and retighten screws (Fig. 1). Caution: Do not overtighten screws or insulation on shaft may be damaged.

Also be sure to mark and drill holes in panel for dial. Mounting screws are provided for mounting the transformer and dial. NOTE: The dial plate is normally calibrated for clockwise increase of voltage. One side is calibrated for over-voltage connection; the other side for normal line voltage. Counter-clockwise dials can be ordered—see "Accessories," page 2.

Other Panel Mountings: Fig. 12 suggests other methods of mounting unenclosed transformers behind panels.

SINGLE ENCLOSED UNITS:

Fixed-Mounting VT8E units have knockouts to permit connection into conduit line. The units may be hung on a panel or wall, or table-mounted. Two key slots are provided on the back of the unit. Screw two 1/4" diameter screws into the wall or panel, spaced as shown on the template, Fig. 14. Hang the VT8E on the screws so as to engage the key slots. Remove top plate (see "Changing Connections . . ." below) and tighten screws.

Portable Enclosed Series VT8F (also metered types): This unit is self-contained and may be placed wherever convenient. It carries an on-off switch and an outlet for connecting the load. The output has a replaceable fuse for protection. AC input power (120 volts) is obtained through a line cord. See "Accessories," page 2 for fuses.

Deluxe, Portable, Enclosed Series VT8G (also metered types): This unit is self-contained. Its carrying handle also serves as an easel. Different positions of this handle-easel are set by positive detent points. (Fig. 13a). A circuit breaker in the output protects the transformer (Fig. 13b). It is reset by means of a button on the front panel. On-off control or selection of either the 0-to-120 volts (black scale), or 0-to-140 volts (red scale) is obtained by means of a 3-position toggle switch.

PANEL MOUNTING OF TANDEM ASSEMBLIES — VT8-2, VT8N-2, VT8H-2, VT8HN-2 VT8-3, VT8H-3, VT8HN-3: Use the template of Figure 8 to mark and drill panel. **IMPORTANT:** Only the No. 2 holes of Fig. 8 should be used for panel mounting of tandem assemblies. The use of an auxiliary brace for mounting 3-in-tandem assemblies is recommended. Bolts and nuts are provided for fastening the assembly to the panel. See Fig. 12 for other suggestions to achieve control-at-panel mounting of tandem assemblies. Tandem units employ a common thru-shaft which may be extended out at either end of the assembly. For back-of-panel mounting, the shaft should extend through the front plate of the assembly. For front of panel or table mounting, the shaft must extend through the brush side.

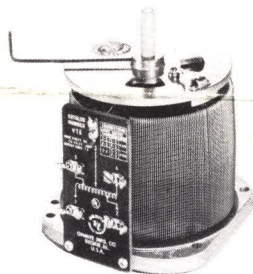


Fig. 1: Loosen set screws before repositioning shaft.

CONNECTIONS

The table (page 2) lists the output voltages and connections for various VT8 types. **Important:** The transformers can be used for controlling input voltages lower than the rated input. All transformers can be used at line frequencies from 50 to beyond 400 cps except where otherwise indicated. Terminals permit connections to obtain increase of voltage with clockwise or counter-clockwise knob rotation. On overvoltage type units, connections can be made to obtain either overvoltage or no-overvoltage output. On 240-volt "H" or "HN" models, a tap permits operation at 120-volt input with 280-volt output for the VT8H and 240-volt output for the VT8HN subject to load current limitations shown in the graph, Fig. 7A. The table indicates the connections necessary to obtain any of the foregoing conditions.

Changing Connections in Enclosed Transformers: In the VT8E, the terminal panel is exposed by removal of the top plate, which is held by four machine screws. In the VT8F and VT8G, access is achieved through the bottom plate which is held by four sheet metal screws in the rubber feet.

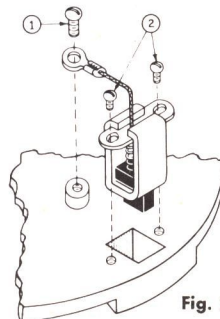


Fig. 2

MAINTENANCE: The commutator brush of your "v.t." should have an indefinitely long life under normal operating conditions. Rapid brush wear may be caused by overloading or the presence of abrasive material on the track. When the brush must be changed, the entire brush assembly is conveniently replaced. **IMPORTANT:** Be sure to select the correct brush for

your particular model transformer. Also read carefully, instructions furnished with the brush before installing.

("Maintenance" continued from page 1)

Referring to Fig. 2, remove the screw (1) that fastens the shunt lead to the radiator disc and then the two small screws (2) that hold the brush assembly proper. This can now be lifted out of the radiator disc. Replace with the new assembly. Work in the new brush assembly

RATINGS AND CONNECTIONS

Frequency 50 to over 400 cps — See Wiring Examples.

MODEL	INPUT VOLTS	AMPS OUTPUT	OUTPUT VOLTS	KNOB ROTA-TION ¹	CONNECTIONS		
					INPUT	JUMPER	OUTPUT
SINGLE UNITS—I PHASE							
VT8	120	7.5	0-140	CW	4-5		4-3
			0-120	CW	4-1		4-3
			0-140	CCW	1-2		1-3
			0-120	CCW	1-4		1-3
VT8N	120	10.0	0-120	CW	1-2		2-3
			0-120	CCW	1-2		1-3
VT8H	240	3.0	0-280	CW	4-5		4-3
			0-240	CW	1-4		4-3
			0-280	CCW	1-2		1-3
			0-240	CCW	1-4		1-3
VT8H	120	3/1.2 ⁵	0-280	CW	4-7		4-3
			0-280	CCW	1-6		1-3
VT8HN	240	4.0	0-240	CW	1-2		2-3
			0-240	CCW	1-2		1-3
VT8HN	120	2.0	0-240	CW	2-4		2-3
			0-240	CCW	1-4		1-3
VT8LN	40	22	0-40	CW	1-2		2-3
			0-40	CCW	1-2		1-3

SINGLE, CASED—I PHASE							
VT8E	120	6.0	0-120/140	CW/CCW	Determined by user ²		
VT8F	120	7.5	0-140	CW	Connected at Factory ³		
VT8FC	120	7.5	0-140	CW	Connected at Factory ³		
VT8NF	120	10.00	0-120	CW	Connected at Factory ³		
VT8NFC	120	10.00	0-120	CW	Connected at Factory ³		
VT8G	120	6.0	0-120/140	CW	Sw. selects line or ovrltg.		
VT8GC	120	6.0	0-120/140	CW	Sw. selects line or ovrltg.		

2-GANG, 1 PHASE—SERIES CONN.							
Unit 1,2							
VT8-2	240	7.5	0-280	CW	5-5	4-4	3-3
			0-240	CW	1-1	4-4	3-3
			0-280	CCW	2-2	1-1	3-3
			0-240	CCW	4-4	1-1	3-3
VT8N-2	240	10.0	0-240	CW	1-1	2-2	3-3
			0-240	CCW	2-2	1-1	3-3
VT8H-2	480	3.0	0-560	CW	5-5	4-4	3-3
			0-480	CW	1-1	4-4	3-3
			0-560	CCW	2-2	1-1	3-3
			0-480	CCW	4-4	1-1	3-3
VT8H-2	240	3/1.2 ⁵	0-560	CW	7-7	4-4	3-3
			0-560	CCW	6-6	1-1	3-3
VT8HN-2	480	4.0	0-480	CW	1-1	2-2	3-3
			0-480	CCW	2-2	1-1	3-3
VT8HN-2	240	4/2 ⁵	0-480	CW	4-4	2-2	3-3
			0-480	CCW	4-4	1-1	3-3

2-GANG, 3-PHASE, OPEN DELTA CONN.							
VT8-2	120	7.5	0-140	CW	5-4-5	4-4	3-4-3
			0-120	CW	1-4-1	4-4	3-4-3
			0-140	CCW	2-1-2	1-1	3-1-3
			0-120	CCW	4-1-4	1-1	3-1-3
VT8N-2	120	10.0	0-120	CW	1-2-1	2-2	3-2-3
			0-120	CCW	2-1-2	1-1	3-1-3
VT8H-2	240	3.0	0-280	CW	5-4-5	4-4	3-4-3
			0-240	CW	1-4-1	4-4	3-4-3
			0-280	CCW	2-1-2	1-1	3-1-3
			0-240	CCW	4-1-4	1-1	3-1-3
VT8H-2	120	3/1.2 ⁵	0-280	CW	7-4-7	4-4	3-4-3
			0-280	CCW	6-1-6	1-1	3-1-3
VT8HN-2	240	4.0	0-240	CW	1-2-1	2-2	3-2-3
			0-240	CCW	2-1-2	1-1	3-1-3

3-GANG, 3-PHASE, "Y" CONN.							
Unit 1,2,3							
VT8-3	240	7.5	0-280 ⁴	CW	5-5-5	4-4-4	3-3-3
			0-240	CW	1-1-1	4-4-4	3-3-3
			0-280 ⁴	CCW	2-2-2	1-1-1	3-3-3
			0-240	CCW	4-4-4	1-1-1	3-3-3
VT8H-3	480	3.0	0-560 ⁴	CW	5-5-5	4-4-4	3-3-3
			0-480	CW	1-1-1	4-4-4	3-3-3
			0-560 ⁴	CCW	2-2-2	1-1-1	3-3-3
			0-480	CCW	4-4-4	1-1-1	3-3-3
VT8H-3	240	3/1.2 ⁵	0-560 ⁴	CW	7-7-7	4-4-4	3-3-3
			0-560 ⁴	CCW	6-6-6	1-1-1	3-3-3
VT8HN-3	480	4.0	0-480	CW	1-1-1	2-2-2	3-3-3
			0-480	CCW	2-2-2	1-1-1	3-3-3
VT8HN-3	480	4/2 ⁵	0-480 ⁴	CW	4-4-4	2-2-2	3-3-3
			0-480 ⁴	CCW	4-4-4	1-1-1	3-3-3

¹ Based upon shaft extending from base plate side. Where shaft extends from brush side, the knob rotation directions indicated in the table, are reversed.
² User connects for desired output and rotation as shown for VT8.
³ Connected at factory. VT8F or FC can be reconnected by user as shown under VT8.
⁴ 60 cps min. frequency
⁵ Unit must be derated in accordance with Figure 7A.

with fine emery cloth (furnished). Place cloth on commutator with abrasive side facing brush and rotate brush back and forth several times. Be sure the track is free of all emery particles. If the track is dirty, clean with carbon tetrachloride. Do not use emery cloth or any abrasive cleaner on brush track.

ACCESSORIES, REPLACEMENT PARTS

Brush contact assemblies for:

- VT8 Types (except those just below) Stock No. 6516, Net 1-5 \$1.25
- VT8H, HN only Stock No. 6516H, Net 1-5 \$1.25
- VT8LN Stock No. 6519, Net 1-5 \$2.50

Extra Dials or Dials with CCW Calibrations

Dial Calibration	Stock No.	Net 1-5
0-120, 0-140 CW	5006*	\$.50
0-120, 0-140 CCW	5008	.50
0-240, 0-280 CW	5009	.50
0-240, 0-280 CCW	5010	.50
0-100, 100-0 CW	5012	.50

*Supplied on stock units.

- Adjustable Stop Stock No. 6537, Net 1-5 \$.50
- Extra Knobs Stock No. 5155, Net 1, \$1.00

WIRING EXAMPLES See table of connections left.

Recommended fuses (or use equivalents):

- VT8, VT8F, VT8FC Type 3AB, Littelfuse 314008
- VT8N, VT8NF, VT8NFC Type 3AB, Littelfuse 314010
- VT8H Type 3AB, Littelfuse 314003
- VT8HN Type 3AG, Littelfuse 312004
- VT8LN Type 3AG, Littelfuse 313025

Fig. 3: VT8 connected for 140-volt maximum output, clockwise rotation (as viewed from base side).

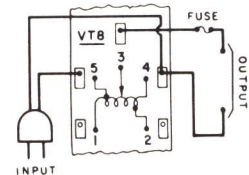


Fig. 4: VT8-2 open-delta connected for 140-volt maximum, 3-phase output, clockwise rotation.

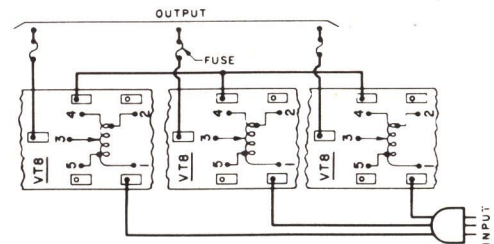
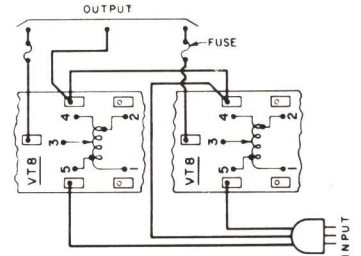


Fig. 5: VT8-3 Y-connected for 240-volt maximum, 3-phase output, clockwise rotation.

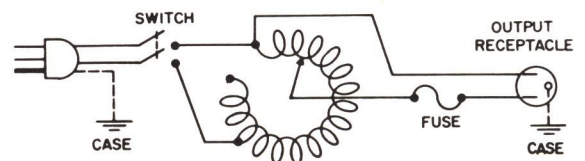


Fig. 6: General circuit of VT8F, VT8NF, VT8FC and VT8NFC. Dotted lines indicate wiring on "C" models only. See Fig. 13b for VT8G and GC wiring.

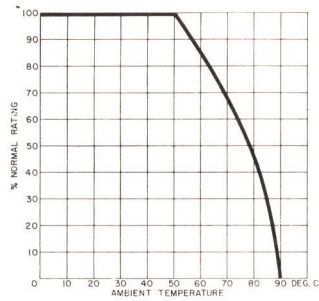


Fig. 7: Load reducing graph for transformers operating in ambient temperatures above 50° C.

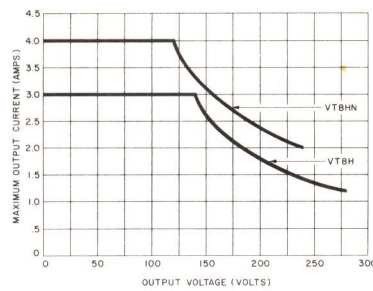


Fig. 7A: Derating for use of 120V input on 240-volt transformers ("H" type).

FOR CROSS-SECTIONAL VIEWS OF TYPICAL PANEL MOUNTING INSTALLATIONS, SEE NEXT PAGE

FIG. 8

HOLES NOS. 2 and 3 WILL CLEAR 1/4" DIAMETER SCREWS.

NO. 1 HOLES, BLIND, TAPPED 1/4"-20, USED FOR MOUNTING SINGLE UNITS.

NO. 2 HOLES FOR PANEL MOUNTING SINGLE OR TANDEM UNITS ON 3 3/4" CENTERS. NO. 2 HOLES ONLY SHOULD

BE USED FOR PANEL MOUNTING TANDEM ASSEMBLIES.

NO. 3 HOLES FOR PANEL MOUNTING SINGLE UNITS OR FOR ASSEMBLING OF TANDEMS.

DRILL ONLY THOSE HOLES NEEDED FOR MOUNTING THE UNIT AND DIAL.

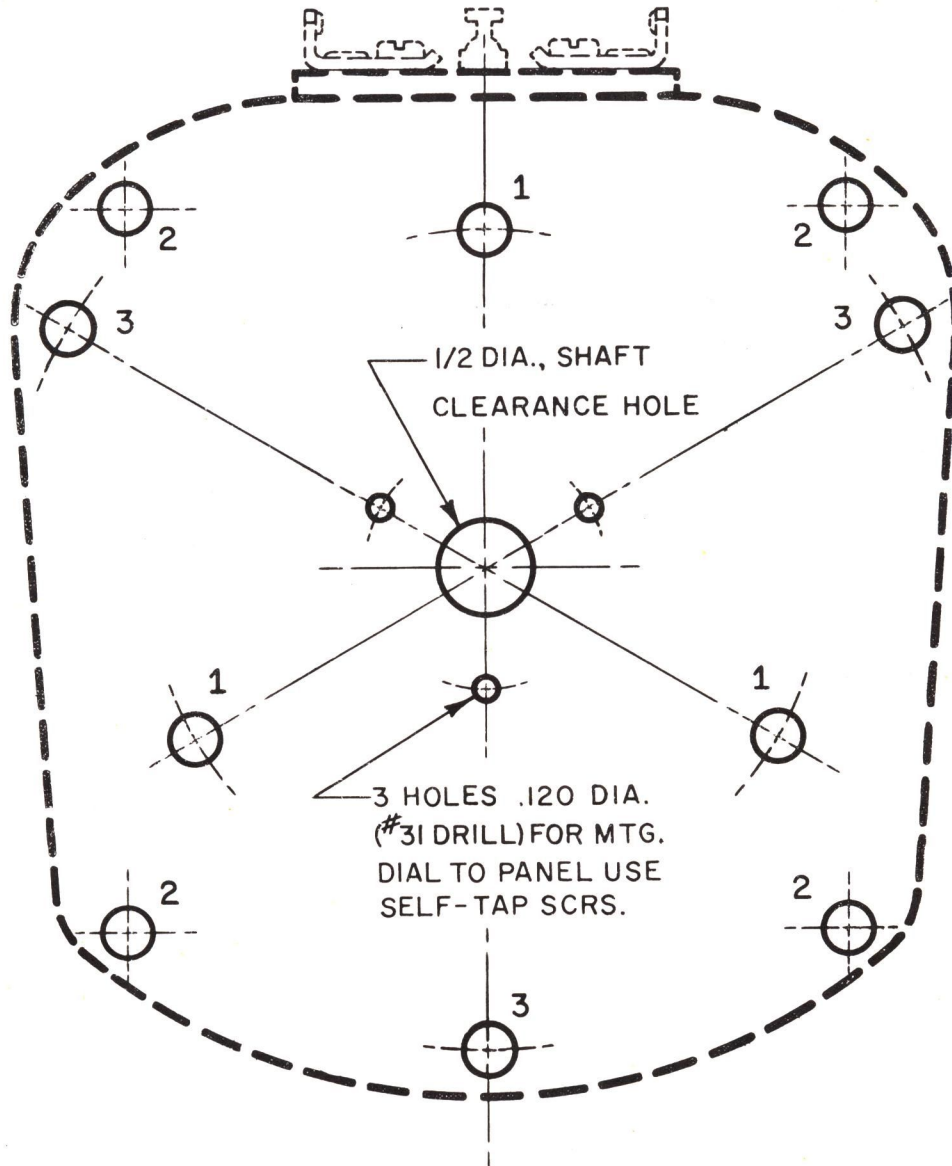


Fig. 8: Template for mounting of single and tandem, unenclosed VT8 series transformer assemblies.

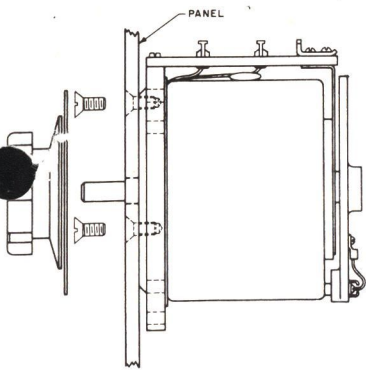


Fig. 9: Standard panel mounting, single unit, using tapped holes.

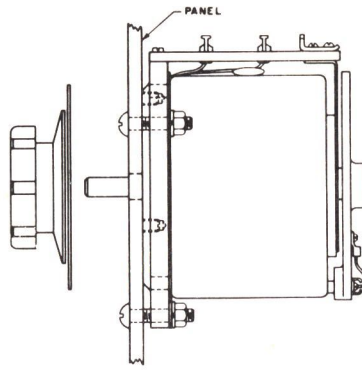


Fig. 10: Standard panel mounting, single unit, using clearance holes.

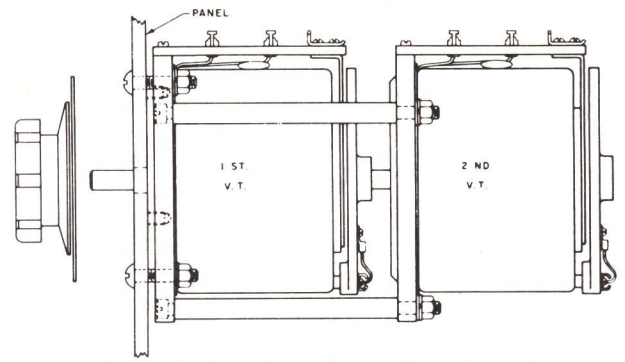


Fig. 11: Standard panel mounting, tandem unit. Auxiliary brace is recommended for 3-gang assembly.

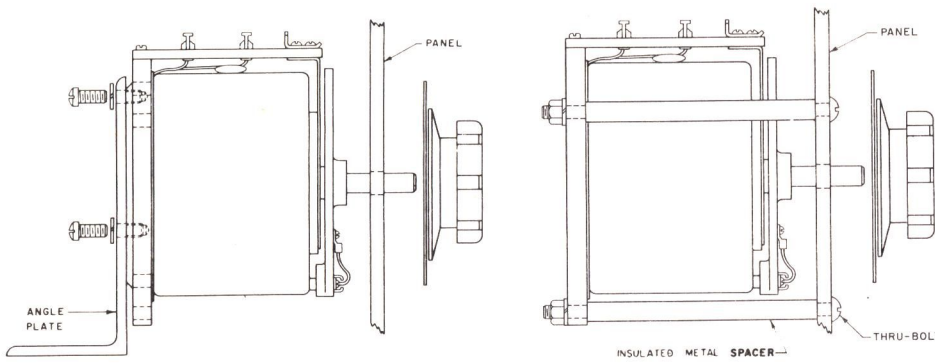


Fig. 12: Other modes of mounting variable transformers for control at panel.

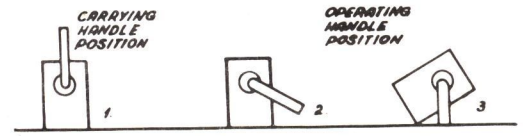


Fig. 13a: VT8G handle used as easel

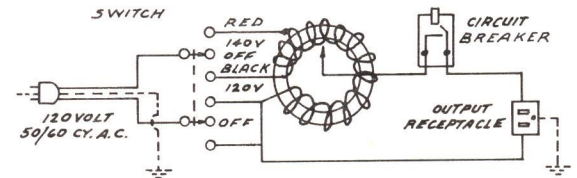


Fig. 13b: Wiring of VT8G and VT8GC. Wiring shown in dotted line used on "C" model only.

FIG. 14

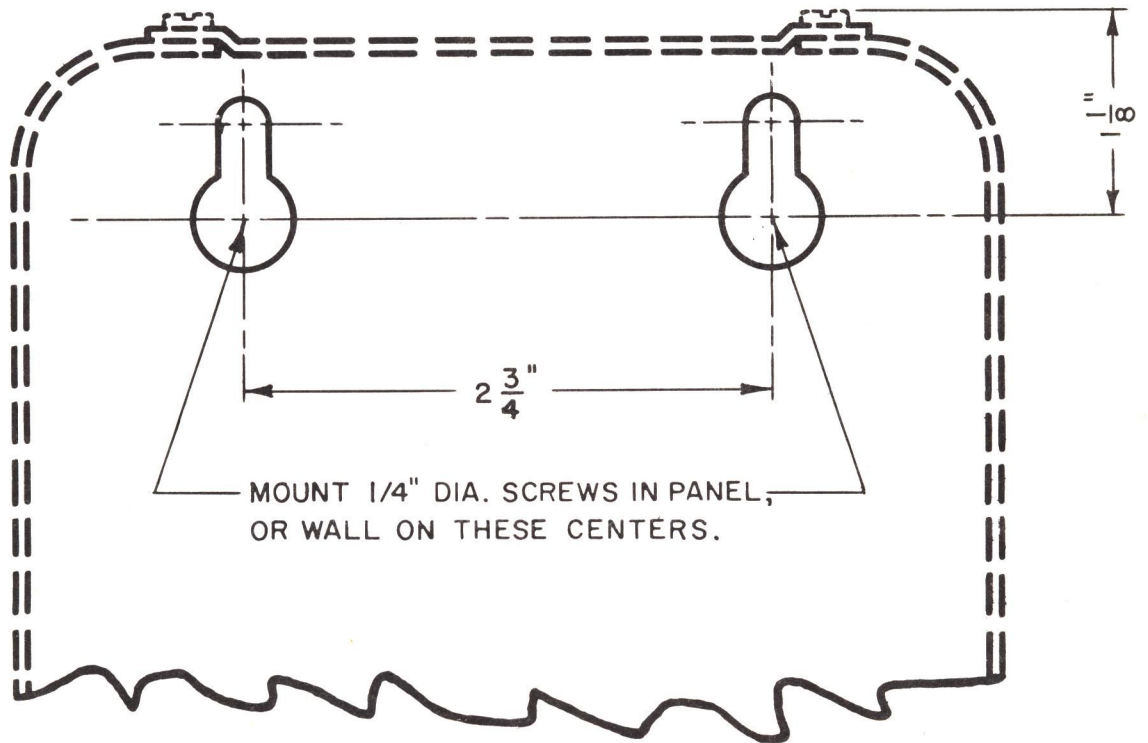


Fig. 14: Template for wall or panel mounting of VT8E