



INSTRUCTIONS

GEK-86130

POWER/VAC* REMOTE RACKING OPERATOR TYPE 115 VAC, 60/50 HERTZ

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.

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GENERAL  ELECTRIC

POWER/VAC* REMOTE RACKING OPERATOR

TYPE 115 VAC, 60/50 HERTZ

INTRODUCTION

The remote racking operator permits remote racking between the connected and disconnected positions. A control cable is connected to the operator with a thirty-foot cable per foot of control from a remote location.

The remote racking operator is portable and is designed for attachment to the metalclad. No special equipment modification or adaptation is required.

The operator attachment method provides for two metalclad door positions; the door fully open and the door fully closed. Closed door attachment is used for racking breakers between the connected and disconnected positions. The open door attachment is recommended only for racking busbar ground and test devices.

RECEIVING, HANDLING AND STORAGE

Receiving and Handling

Each remote racking operator is inspected and then checked by workmen experienced in the proper handling of electrical equipment. Upon receipt of a device, an examination should be made for any damage sustained during shipment. If injury or rough handling is evident, a damage claim should be filed at once with the transportation company and the nearest General Electric Company Sales Office should be notified.

The device should be removed from the crating with sufficient care so that no damage will result from rough handling. "Loose parts" associated with the apparatus may be included in the crate. Care should be taken to make certain these parts are not overlooked.

Storage

The remote racking operator should be protected against condensation, preferably by storing it in a warm, dry environment at moderate temperatures such as 40°F to 60°F. The storage area should be clean and contain no corrosive gasses.

When the device is stored for a length of time, it should be inspected prior to use to insure its proper mechanical and electrical working condition.

DESCRIPTION

The remote racking operator consists of a drive train, control switches, and attachment clamps. The drive train is made up of a gear motor (7, Fig. 2), a six-point drive socket (Fig. 2), and a universal joint (8, Fig. 2) which couples the motor to the socket. A supply voltage of 115 VAC, 50 or 60 Hertz, is required. The required supply voltage is identified on the motor cover (12, Fig. 2). The power connection is made via a three-prong grounding plug extending from the operator.

Two control switches and a circuit breaker are included with each remote racking operator. The ON/OFF switch (16, Fig. 1) housed in the hand-held box (17, Fig. 1) controls the power to the motor. Pushing the button closes the switch and in turn supplies current and voltage to the motor. This control switch is spring loaded; therefore, continuous pressure on the button is required to keep the motor running. The motor directional control switch (3, Fig. 1) is mounted on the motor housing. Two positions are provided, "IN" and "OUT". For racking toward the connected position the switch should be set to "IN". For racking toward the disconnected position, the switch should be set to "OUT". The circuit breaker (2, Fig. 1) senses the motor stall current when the breaker reaches the end of its travel and causes the motor to stall. The higher motor stall current trips the circuit breaker to the off position and in turn shuts off the power to the motor.

The snapslide fasteners and clamps are designed to provide the means for attaching the remote racking operator to the front of the metalclad. Two snapslide fasteners and two clamps are provided with each operator, an upper and a lower. Two locating positions on the remote racking operator are provided for each clamp, one for closed door (Fig. 1) mounting and the other for mounting with the door open (Fig. 2).

The forward clamp locating position (shown in Fig. 2) is to be used when racking is desired with the metalclad door open. Open door racking is recommended only for the Power/Vac* Ground and Test Device. The inboard clamp location (shown in Fig. 1) is the normal clamp location and is used with the snapslide fasteners (Fig. 1) for attaching the operator to the metalclad when the door is closed.

OPERATION

Attachment procedure of the remote racking operator to the metalclad unit:

Closed Door Attachment

- 1) Position the upper and lower clamps as shown in Fig. 1. Tighten the clamp attachment bolt (8, Fig. 1) to 25-20 inch-pounds.
- 2) Insert the drive socket (5, Fig. 1) into the door jackscrew opening (19, Fig. 1). The socket may have to be rotated to align it with the equipment jackscrew (4, Fig. 2). When pushing the drive socket onto the equipment jackscrew align the snapslide fastener bracket holes over the pins provided on the metalclad door (21, Fig. 1).
 - a) A firm push is required to depress the jackscrew interlock and permit the "U" channel (11, Fig. 1) to be flush with the door, if a breaker or an electrical ground and test device is to be racked, it must be "OPEN" before the remote racking operator can be installed.

- 3) Lock the snapslide fasteners onto the pins on the door by pushing down on the bottom slide and up on the top slide, locking the motor operator onto the door.
- 4) Position the clamping hook (7, Fig. 1) end behind the door hinge (13, Fig. 1). Adjust the hook length so that the operator is firmly attached. The length can be changed by simply turning the clamping hook (7, Fig. 1). A jam nut (9, Fig. 1) is provided to lock the clamping hook in place.
 - a) The clamping hook **MUST** be used in conjunction with the snapslide fasteners or the operator may jump off the equipment jackscrew.

Open Door Attachment

- 1) Position the upper and lower clamp as shown in Fig. 2. Tighten the clamp attachment bolt (19, Fig. 2) to 25-20 inch-pounds.
- 2) Insert the drive socket (5, Fig. 2) over the jackscrew (4, Fig. 2) until the clamp bracket (6, Fig. 2) rests in the equipment post corner (1, Fig. 2). Rotate the socket (5, Fig. 2) as required for alignment with the jackscrew hex.
- 3) Position the clamping hook end (7, Fig. 1) inside the equipment post as shown in Fig. 2. Adjust the hook length "A" as required so that the operator is firmly attached when the clamp is actuated.

Operating Procedure

- 1) Follow the breaker installation and breaker racking procedure recommended in the Power/Vac* metalclad switchgear instruction manual GEK-39672. Make certain the breaker racking engagement levers are down and engage the moving nut prior to starting the racking procedure.
- 2) Attach the remote racking operator as previously described and connect it to a power source.
- 3) Set the circuit breaker switch (2, Fig. 1) to "ON".
- 4) Set the direction control switch to "IN" or "OUT" (3, Fig. 1); "IN" for racking to the connected position, "OUT" for racking to the disconnected position.
- 5) Carry the hand-held control box (17, Fig. 1) to a safe remote location. Push the "ON" button (16, Fig. 1) and maintain pressure on the button until the circuit breaker has sensed the end of the travel and shuts off the motor. The time required to travel between positions is 30 to 50 seconds. The breaker is now in the connected or disconnected position and racking is complete.
- 6) As a final check, the breaker position should be confirmed by reading the indicator tape through the door. The tape should read "CONN" when in the fully connected position and it should read "DISC/TEST" when in the fully disconnected position. The remote racking operator should now be removed.

NOTE: • The breaker cannot be closed while the remote racking operator is in place.

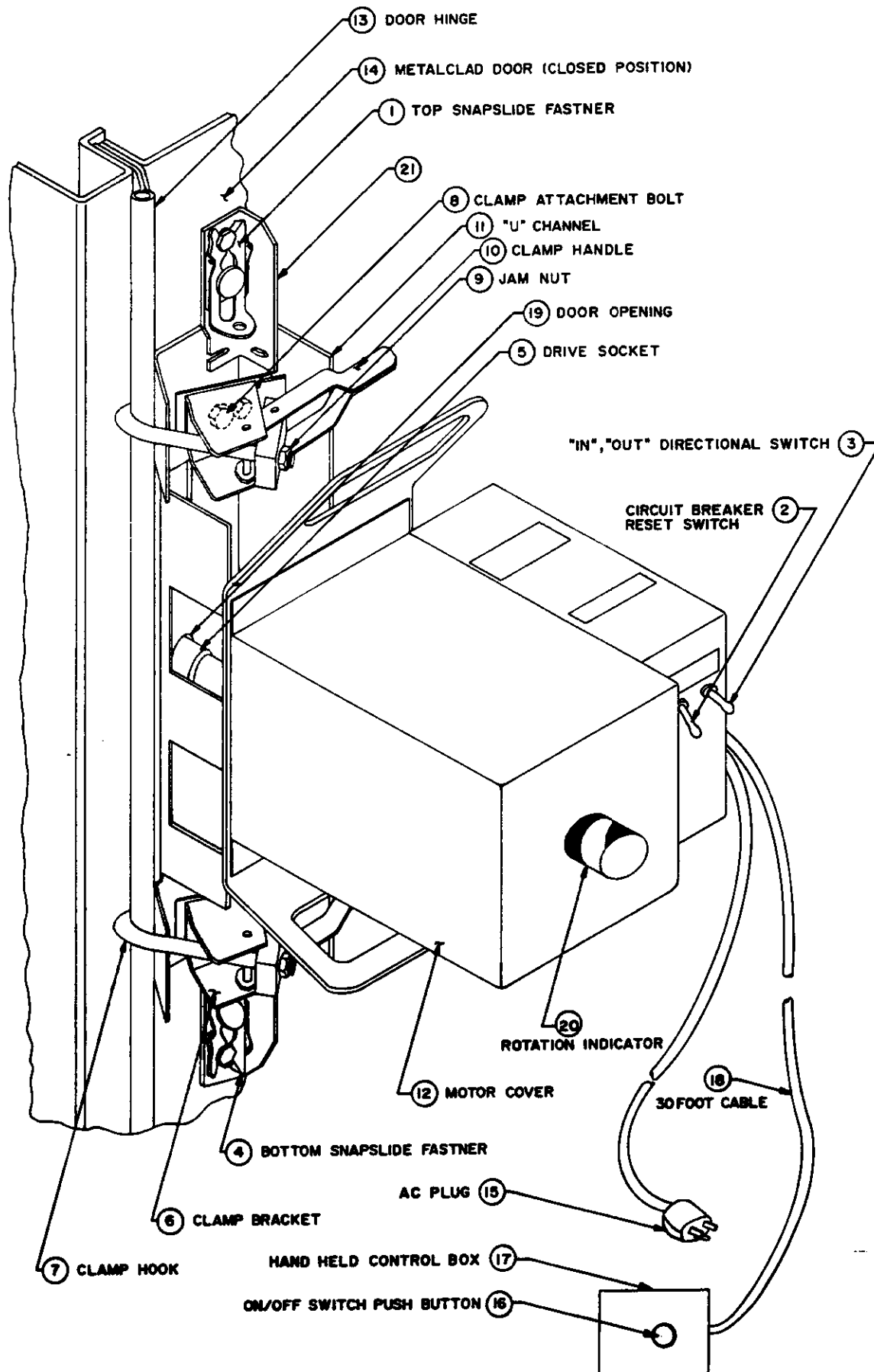
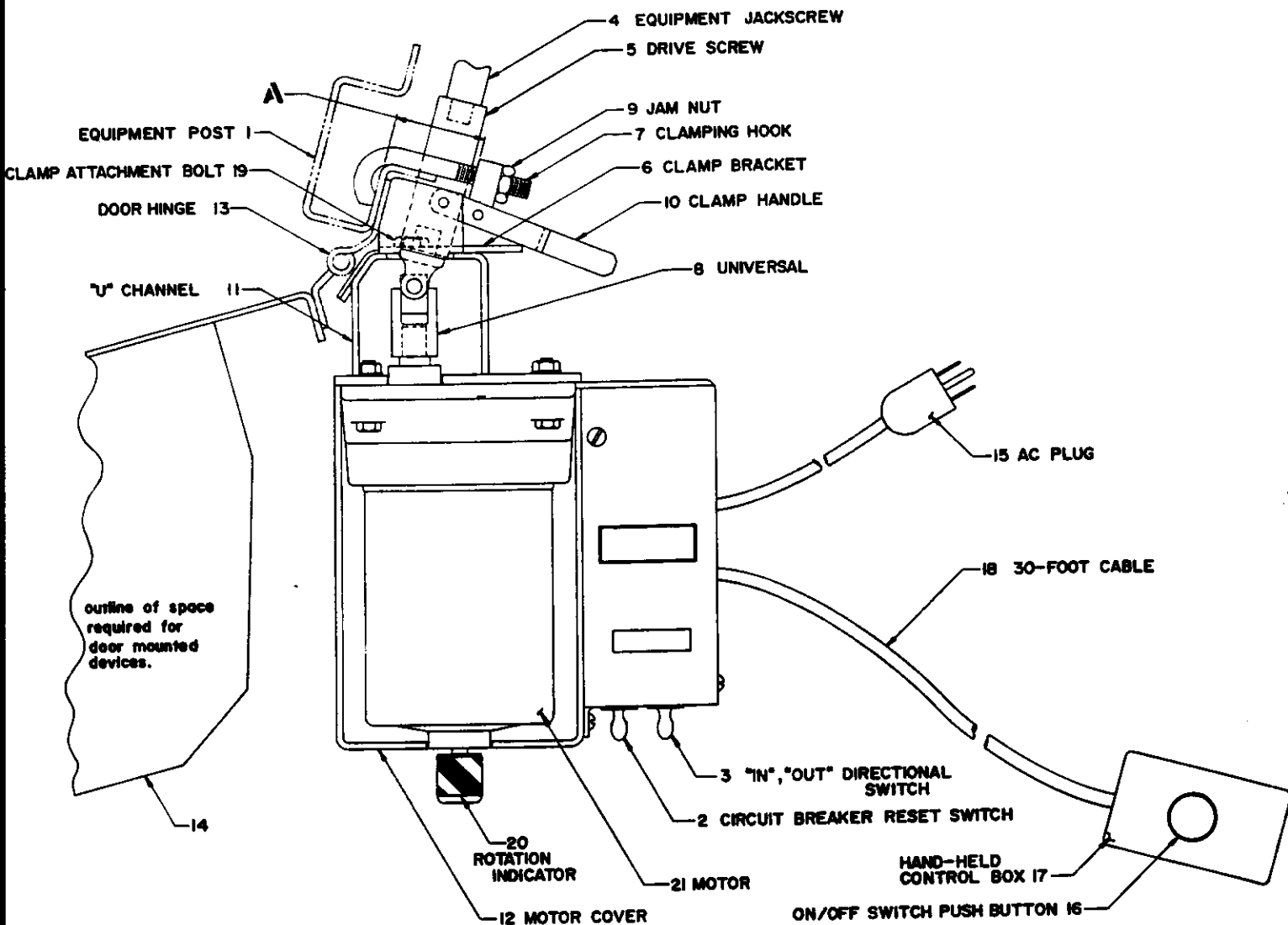


FIG. 1 REMOTE RACKING OPERATOR (SHOWN FOR CLOSED DOOR ATTACHMENT)



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