

Installation and Operating Instructions

SWITCHED NEUTRAL KIT MODEL SNK

Warning: The GenTran Switched Neutral Kit should be installed by a professional electrician familiar with electrical wiring and codes, and experienced in working with generator transfer switches. GenTran accepts no responsibility for accidents, damages or personal injury caused by incorrect installation. The Switched Neutral Kit can upgrade most manual transfer switches from non-Switched neutral to Switched neutral, as required by certain municipalities, electrical inspectors and generators.

Caution: This Switched Neutral Kit can be used in single phase manual transfer switches up to 30 Amps 120/240V. Check the transfer switch rating label BEFORE beginning installation to be sure NOT to exceed the rating of the transfer switch. Incorrect or inappropriate installations will void the warranty.

Thank you for purchasing a GenTran® Switched Neutral Kit designed to enable manual transfer switches up to 30 Amps @ 120/240V to isolate the utility and generator neutrals. Product features include:

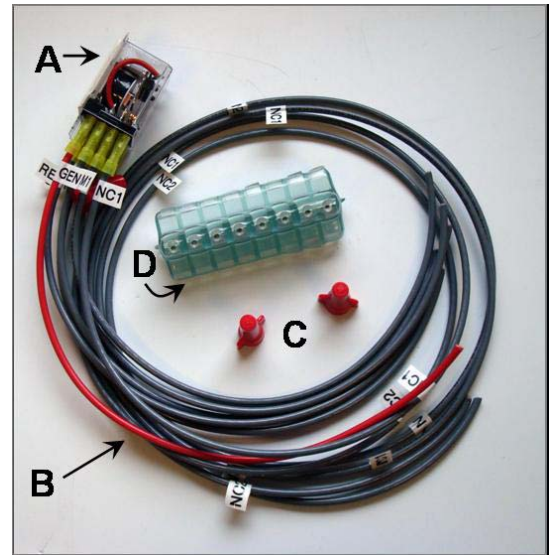
- Preserve the integrity of your generator ground fault protection system by isolating the utility and generator neutrals.
- Generator and Utility neutrals are interlocked; neutral pole is simultaneously switch and connected to only one source at any time.
- Pre wired for fast, easy connection to the transfer switch and load center.
- Retrofit most any make or model of manual transfer switch, load center or isolation style.
- All components are UL Listed and/or Recognized.

What is Included in this carton:

- Prewired Contactor, UL listed
- Wire Harness
- Wire Connectors (3)
- Insulated terminal block, 8 position
- Installation manual and Warranty Registration Card

Tools Needed for Installation:

- Screwdrivers, straight blade and Phillips
- Wire cutter/stripper
- Safety eye goggles



STEP 1: PLANNING YOUR INSTALLATION:

Determine your transfer switch model/series in which you plan to install this Switched neutral Kit. You will need this information throughout the installation procedure.

- PREWIRED Manual Transfer Switches Series Models: 2026, 3016, 3026, 3028
- POWERSTAY MTS Series Models: 200660, 300660, 301060, 301660 + R prefix
- VINTAGE Manual Transfer Switches Series Models: 15116V, 30116V, 20216V, 30216V, 30310V

STEP 2: INSTALLATION PROCEDURE:

CAUTION PLEASE READ THIS MANUAL BEFORE ATTEMPTING TO INSTALL, OPERATE OR MAINTAIN THIS EQUIPMENT. HAZARDOUS VOLTAGES ARE PRESENT INSIDE TRANSFER SWITCH and LOAD CENTER ENCLOSURE THAT CAN CAUSE DEATH OR SEVERE PERSONAL INJURY. FOLLOW PROPER INSTALLATION, OPERATION AND MAINTENANCE PROCEDURES TO AVOID HAZARDOUS VOLTAGES. **TURN OFF THE MAIN CIRCUIT BREAKER IN THE LOAD CENTER BEFORE STARTING INSTALLATION.**

A. Install contactor (Item A) into manual transfer switch:

- Referring to Figure 1, determine the appropriate location to install the contactor inside the manual transfer switch enclosure, based upon the manual transfer switch model determined in STEP 1. Clean the location from all dirt and grease. Remove the double-stick tape backing on the contactor and press the contactor tight to the enclosure. Make sure that the wires attached to the contactor are accessible for routing and termination.

B. Terminate NC1 and NC2 in load center (electrical panel):

- Locate the 67" gray wires marked NC1 and NC2 connected to the contactor. For PRE-WIRED and VINTAGE manual transfer switch models, route, insert and feed both wires into and through the conduit located at the bottom of the transfer switch. For POWERSTAY models, after the wire harness conduit has been attached to the transfers switch, insert and feed both wires along with the wire harness into and through the conduit located at the bottom of the transfer switch. For all models, terminate wires NC1 and NC2 to the load center neutral bus bar. See Figure 2 Wiring Diagrams for all wire routing and connections.

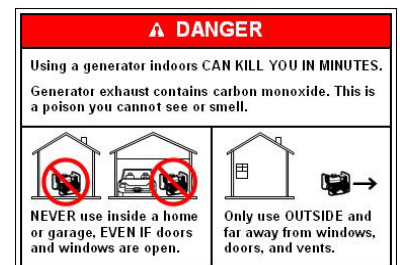
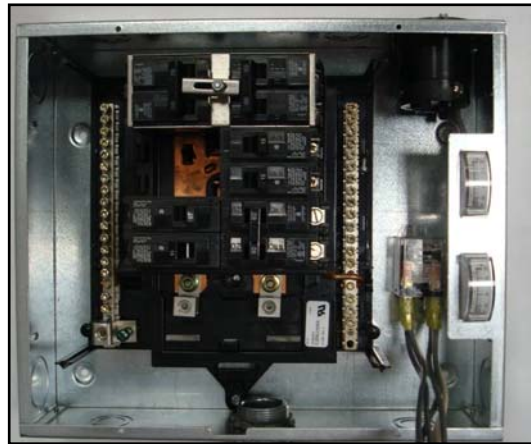


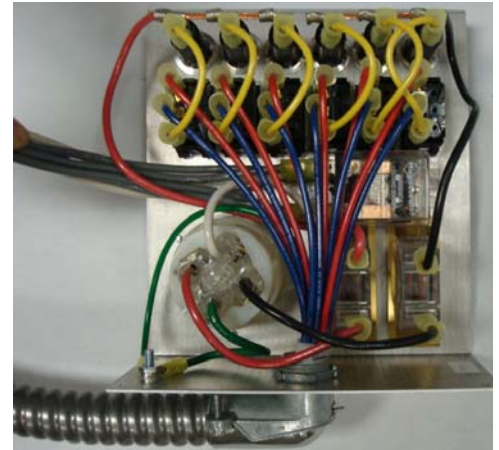
FIGURE 1: PRE-WIRED



POWERSTAY MTS



VINTAGE



B. For manual transfer switches with Flanged Inlets see below, otherwise, proceed to Step C:

1. For PRE-WIRED and POWERSTAY models: Locate neutral (white) wire terminated in the back of the flanged inlet and the neutral buss bar in the transfer switch. Disconnect the neutral (white) wire from the neutral buss bar.
2. For VINTAGE models, cut the neutral (white) wire terminated in the back of the flanged inlet 3" from the back of the flanged inlet and strip 5/8" insulation from both cut ends.

C. Terminate COM1 and COM2 wires:

1. For PRE-WIRED and POWERSTAY models: Locate and strip 5/8" insulation from the 2 - 15" gray wires labeled COM1 and COM2 and terminate both to the manual transfer switch neutral buss bar.
2. For VINTAGE models, using one of the supplied red wire connectors, connect the stripped gray COM1 and COM2 wires with the neutral (white) wire stripped in Step B2 that is part of the wire harness.

D. Terminate NO1, NO2 and RET wires:

1. Locate and strip 5/8" insulation from the 3-15" gray wires marked NO1, NO2 and RET.
2. For manual transfer switches with Flanged Inlets, using one of the supplied red wire connectors (Item C), connect together the 3 wires marker NO1, NO2 and RET with the neutral (white) wire disconnected from the neutral buss bar in Step B1.
3. For manual transfer switches without Flanged Inlets, connect these 3 wires with the generator neutral (white) wire coming from the Power Inlet Box.
4. For VINTAGE models, connect these 3 wires with the 3" neutral (white) wire stripped in Step B2.

E. Install insulated terminal block (Item D) in load center:

1. Identify and disconnect from the load center neutral buss bar all branch circuit neutral (white) wires for the circuits that have been connected to the transfer switch.
2. Locate the provided insulated terminal block close to the load center neutral buss bar and reconnect the branch circuit neutral (white) wires to the insulated terminal block removed in Step E1 above.
3. Connect the neutral (white) wire in the wiring harness coming from the transfer switch to the insulated terminal block

F. Terminate GEN wire:

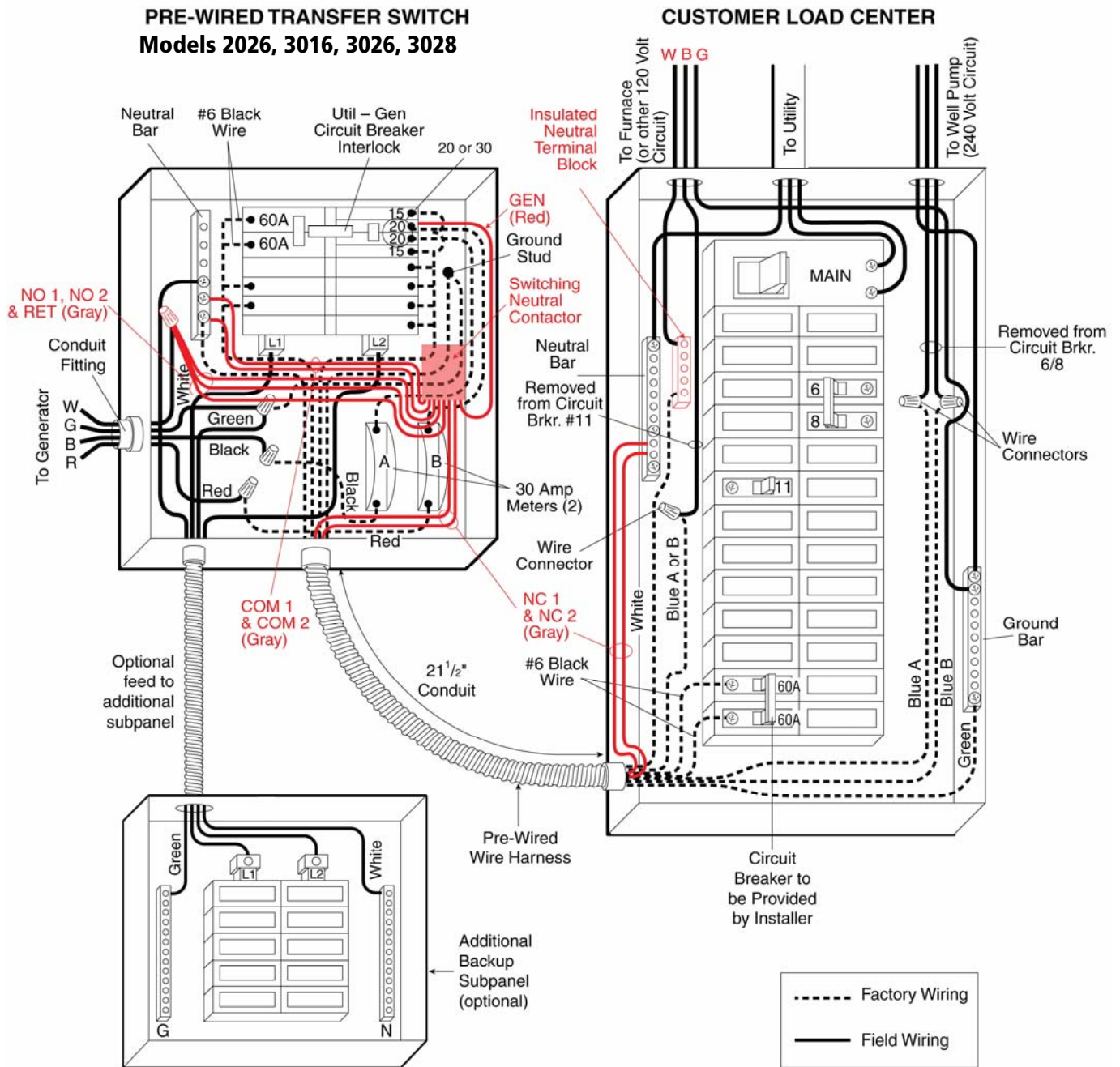
1. Locate and strip 5/8" insulation from the 15" red wire marked GEN.
2. For PRE-WIRED and POWERSTAY models, terminate the red GEN wire along with the generator input wire into one of the GEN circuit breaker lugs in the transfer switch. Torque to recommended specification.
3. For the VINTAGE models, remove the red wire from the "X" terminal of the flanged inlet. Cut and strip a 5" piece of wire off of the red GEN wire. Connect the 5" piece of red wire into the "X" terminal of the flanged inlet. Using one of the supplied red wire connectors (Item C), connect together the 5" red wire, the red wire removed from the flanged inlet and the 10" red GEN wire. Installation is now complete.

STEP 3: USING YOUR GEN/TRAN® SWITCHED NEUTRAL KIT:

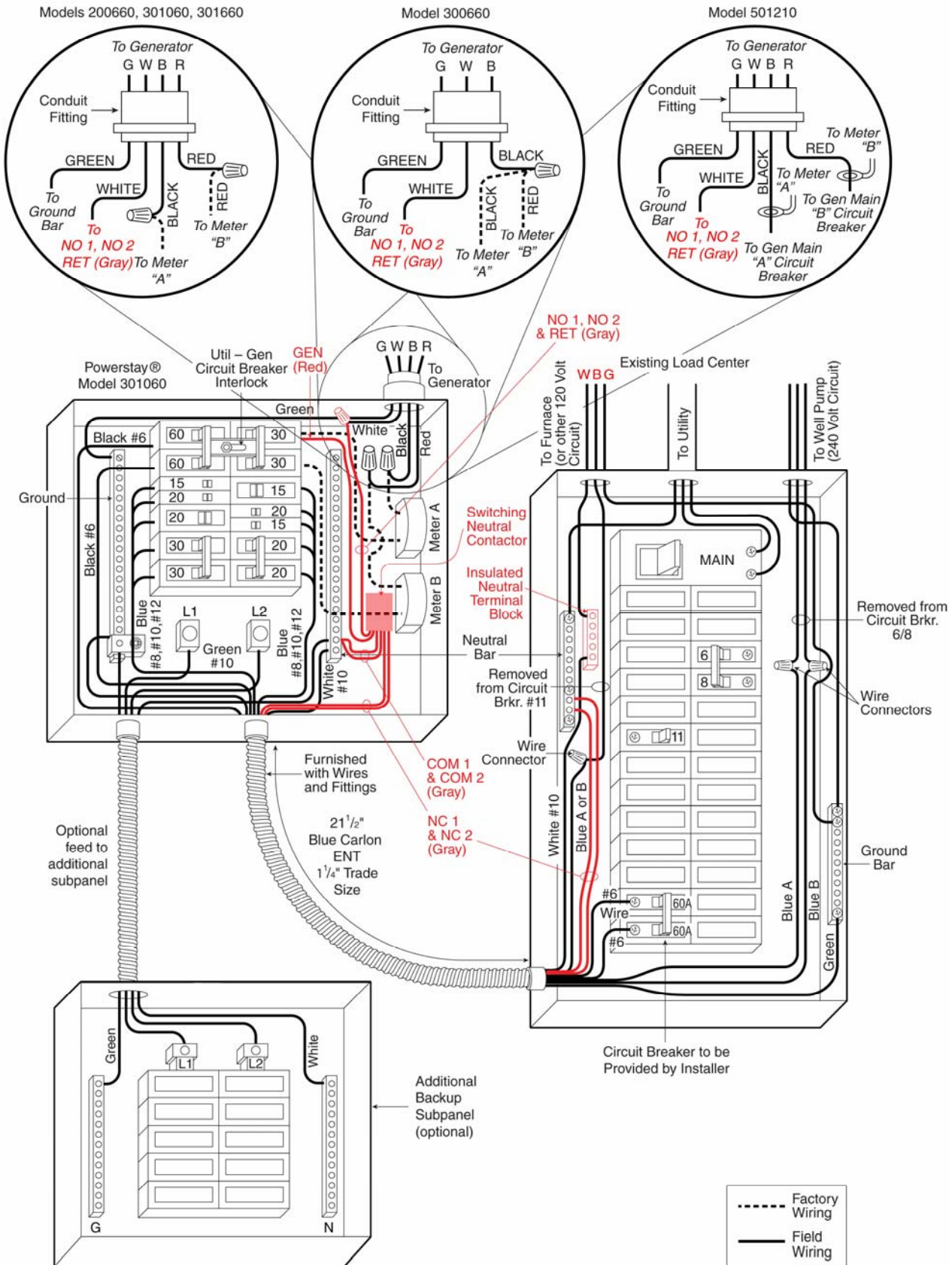
DANGER NEVER run portable generators indoors or in garages, basements, or sheds. Portable generators should always be used at least 5 feet away from windows, doors, vents, or any other opening. Carbon Monoxide (CO) from a generator is deadly and can kill you in minutes. Read and follow all generator directions before use.

The operation of the Switched Neutral Kit occurs automatically and requires no operator assistance. When the transfer switch is in utility mode, the utility neutral is connected to the circuits located in the transfer switch. When generator power is connected to the transfer switch, the Switched Neutral Kit transfers the transfer switch circuits from utility to generator neutral. When generator power is disconnected, the Switched Neutral Kit transfers back to utility neutral.

Figure 2 - WIRING DIAGRAMS:



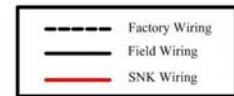
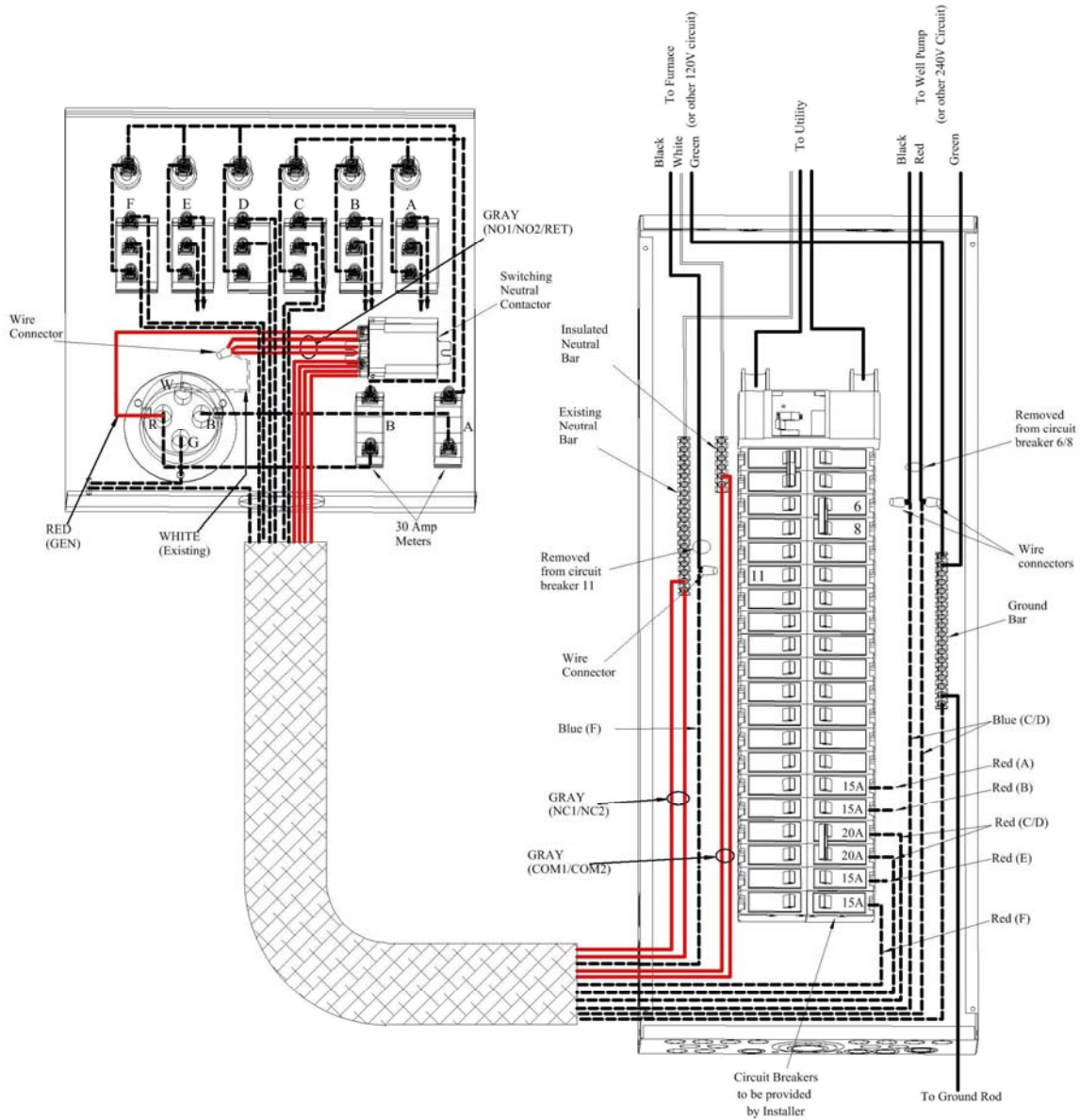
POWERSTAY MTS TRANSFER SWITCHES: R/200660, R/300660, R/301660, R/301060



VINTAGE MANUAL TRANSFER SWITCHES: 15116V, 30116V, 20216V, 30216V, 30310V

CUSTOMER LOAD CENTER

MODEL 30216V
SHOWN



Patents Pending
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PN 50624 Rev B