

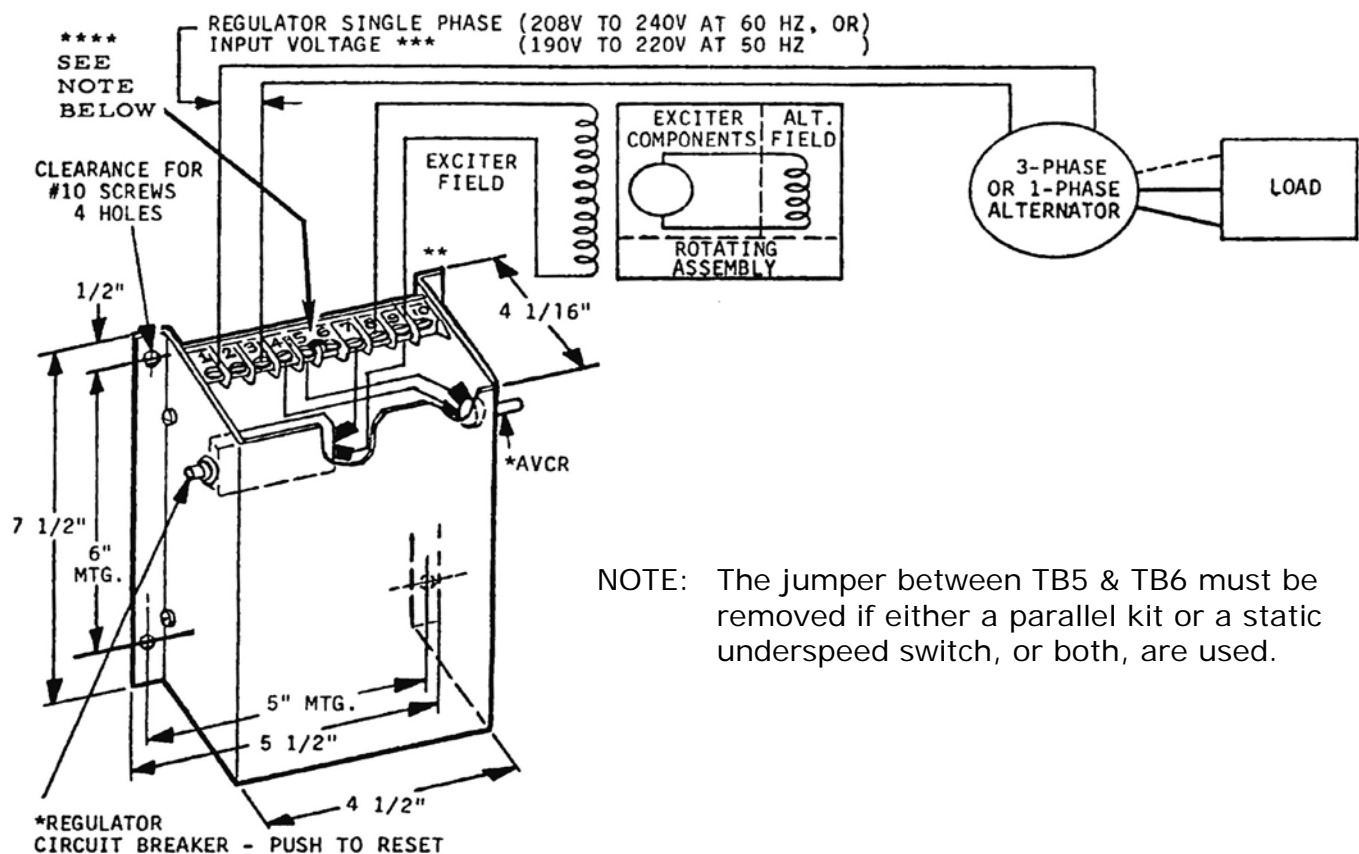
GEN-POWER CONTROLS, INC.®

VR-182

Series Voltage Regulators



Installation & Operation



Installation

- The regulator circuit breaker and the automatic voltage control rheostat (AVCR) are normally mounted within the regulator cover. Either or both can be remotely mounted as per application requirements. Observe the terminal board connections as shown.
- Remove the jumper between terminal board number 9 and 10 for alternators above 200 kilowatts.
- The input voltage to the regulator must be between 208 and 240 volts at 60 Hertz or between 190 and 220 Volts at 50 Hertz.

The regulator can be applied with various standard alternator connections having standard nameplate voltages as shown on back of this sheet.

If 208 to 240 volts at 60 Hertz or 190 to 220 volts at 50 Hertz is not available directly from the alternator, the regulator can still be used if a 400 volt ampere or greater isolation transformer is used between the regulator and the alternator. The input voltage to the isolation transformer must be the same as the voltage available from the alternator and the output must be between 208 and 240 volts at 60 Hertz or 190 to 220 volts at 50 Hertz.

Operation:

1. For new installation, turn the AVCR all the way counter-clockwise so that the line voltage will be at a minimum after the engine is started.
2. Start the driving engine and adjust to rated speed of the generator.

CAUTION: Generators operating with automatic voltage regulators should not be run at less than nameplate speed, unless equipped with underspeed protection. Reduced speed operation may damage regulator or generator.

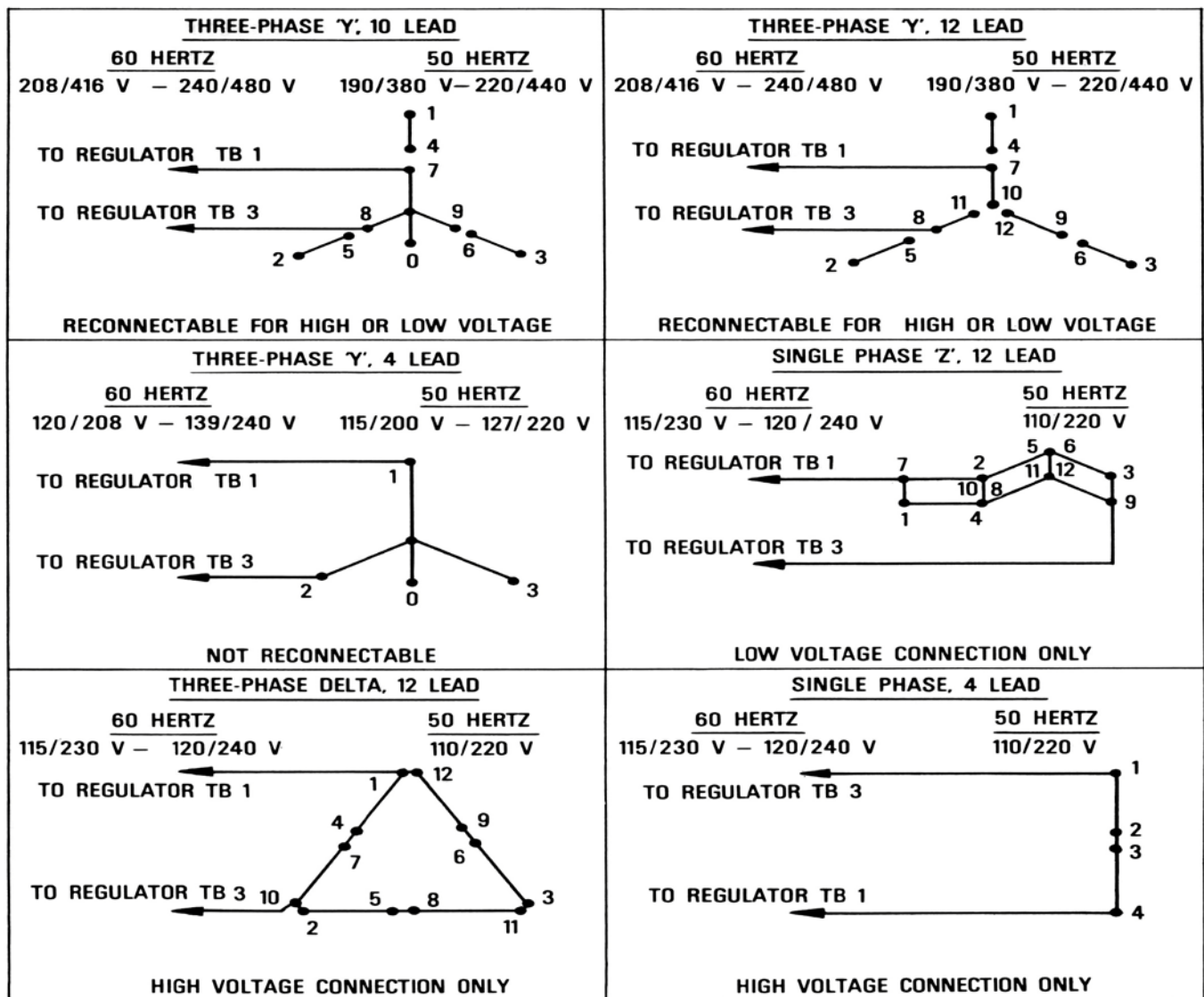
3. Adjust the generator voltage to the desired level within the nameplate rating with the AVCR.
4. Close the line switch or circuit breaker.
5. Check amperes, volts, and frequency to be certain values are within nameplate rating. Also check for line balance on both voltage and current on three-phase systems.

FIELD FLASHING

CAUTION: The rectifiers in the regulator will be damaged if the generator exciter is flashed wrong. The correct polarity for field flashing is:

Battery (+) on Regulator Terminal 8

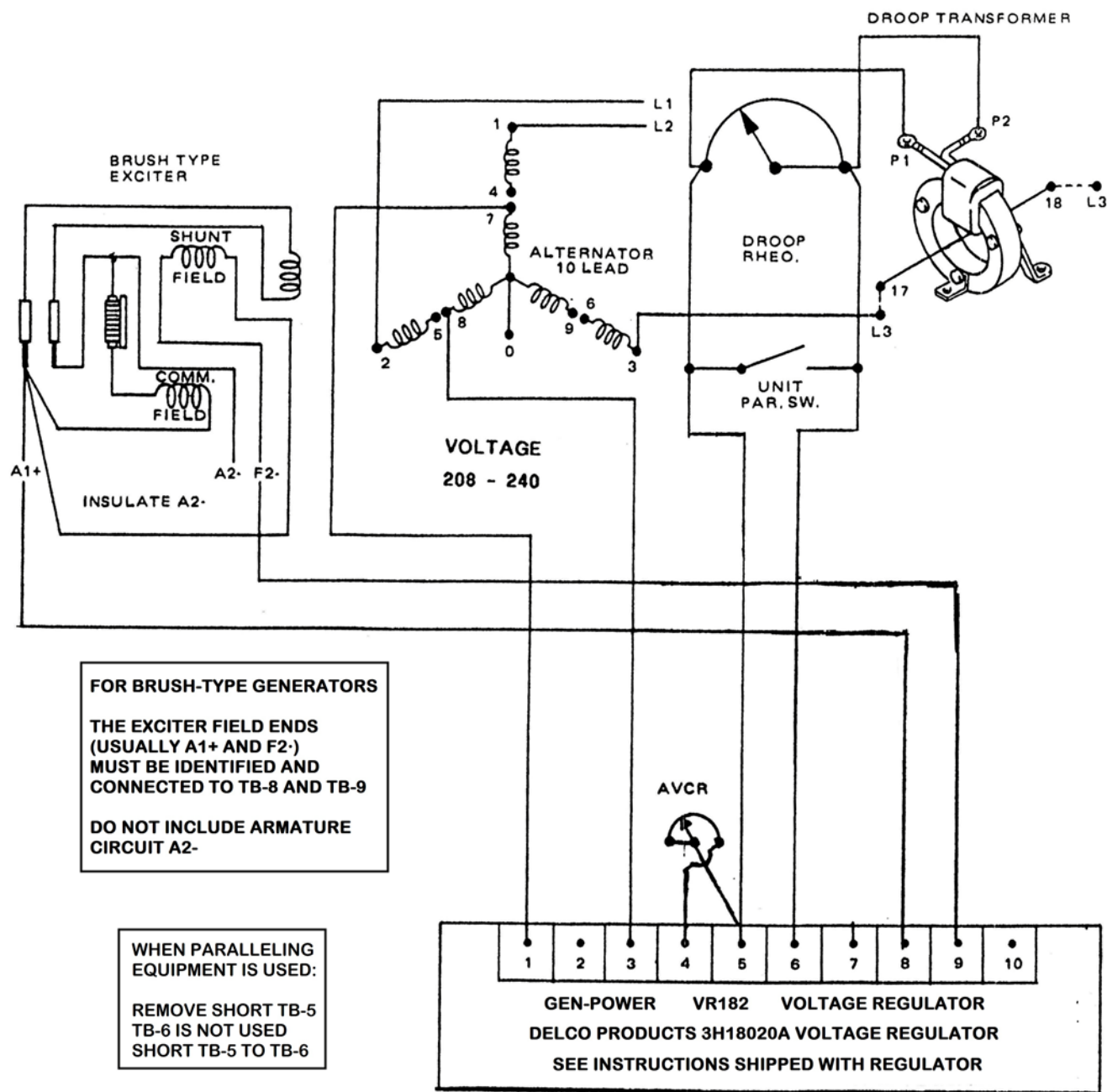
Battery (-) on Regulator Terminal 9



ACCESSORIES:

- H39180C Paralleling Kit** - for 3-phase, Wye connected, 10 or 12 lead alternator less than 550 KW. Other paralleling kit available for different alternator connections, contact the factory.
- H44000U Static Under-Speed Switch** - To protect the alternator-regulator system when the frequency is more than 10% below rated frequency.
- H43800M Manual Control** - Adjustable transformer type with automatic-manual switch included.
- 4945833 E.M.I. Kit** - Electro-magnetic Interference (E.M.I.) filter. The purpose is to reduce the E.M.I. (radio noise) level.
- H38000 Serial C Triple Action Boost (TAB)** - The TAB system improves generator-regulator performance in three ways:
 - Strong short-circuit drive.
 - Improve motor starting.
 - Increased operating current range of regulator.

WHEN ORDERING ACCESSORIES, INCLUDE THE ALTERNATOR MODEL NUMBER.



TYPICAL DIAGRAM FOR A DELCO PRODUCTS 10-LEAD, BRUSH-TYPE GENERATOR WITH PARALLELING EQUIPMENT