

ELECTRICAL CONNECTION DIAGRAMS KAMAG 14 AND KAMAG 18 GENERATORS

- NOTE 1 CAUTION: Unit must be grounded in accordance with applicable electrical codes.
- NOTE 2 See voltage range chart for applicable connection diagram. Conductors shown as dash lines to be installed by the user of the generator. Check all connections including those made to voltage regulator before operating generator set.
- NOTE 3 Connection of optional idle switch is shown in figure 1A.
- NOTE 4 In applications where voltage adjust is provided on voltage regulator, jumper must be installed across terminals 7 and 8.
- In applications where external remote voltage adjust option is provided; remove jumper from terminals 7 and 8 and connect the remote voltage adjust as shown in figure 1B. Make certain jumper wire is installed across rheostat terminals 1 and 2.
- NOTE 5 Jumper must be installed across terminals 10 and 11 when optional auto-manual voltage control option is not provided.
- In applications where auto-manual voltage control option is provided, remove jumper from terminals 10 and 11 and connect the auto-manual switch and the manual voltage adjust rheostat, as shown in figure 1C. Make certain jumper wire is installed across rheostat terminals 2 and 3.
- NOTE 6 In applications where parallel option is not provided, a jumper must be installed across terminals CT1 and CT2.
- In three phase applications where parallel operation voltage droop option is provided, remove jumper and connect the voltage droop circuit as shown in figure 1D. Current transformer must be in phase B line.
- For parallel operations of generators connected single phase, consult factory.
- NOTE 7 Boost current transformer is integral with saturable transformer on K-14 sizes thereby eliminating E and F leads.
- NOTE 8 CAUTION: When operating on a three-wire grounded leg delta system, remove the N, D and 6 leads from the ground stud, bolt them together and insulate the connection. Then, connect the phase to ground which is grounded in the distribution system. When operating four wire delta, with neutral load line N, voltage phase B to N and X2 to X4 differs from the generator phase-to-phase and phase-to-neutral voltage.
- NOTE 9 For 60 hertz operation, connect jumper across control winding terminal board terminals 60 and C.
- For 50 hertz operation connect jumper across terminals 50 and C.
- NOTE 10 For standard applications, leads are connected to reactor L1 terminals X1 and X3. If during operation no load voltage is too high, remove wire from terminal X3 and connect it onto terminal X4. If no load voltage is too low, remove wire from X3 and connect it to X2.

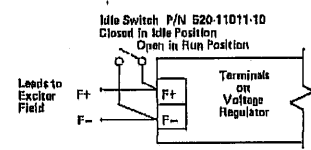


FIGURE 1A. IDLE SWITCH CONNECTION

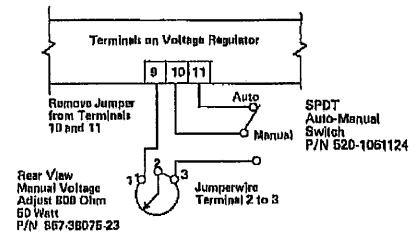


FIGURE 1C. CONNECTION DIAGRAM, AUTO-MANUAL OPTION P/N 608-00156-00

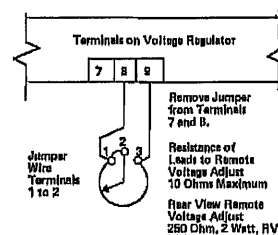


FIGURE 1B. REMOTE VOLTAGE ADJUST CONNECTION

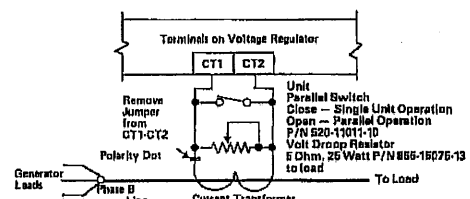


FIGURE 1D. CONNECTION DIAGRAM, PARALLEL VOLTAGE DROOP OPTION P/N 608-00156-00

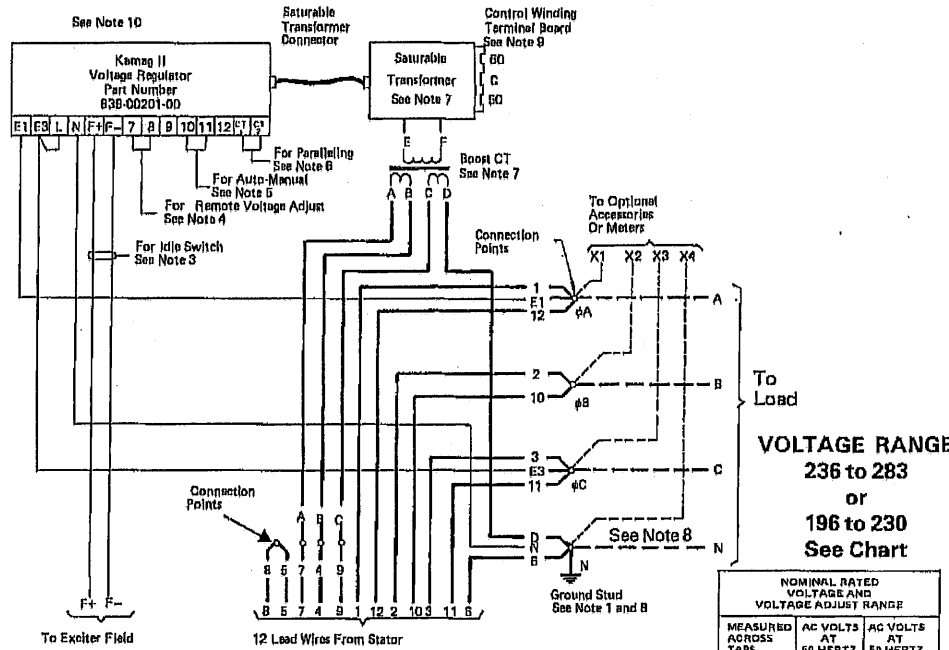


FIGURE 2 CONNECTION DIAGRAM THREE PHASE - SERIES DELTA

VOLTAGE RANGE
236 to 283
or
196 to 230
See Chart

NOMINAL RATED VOLTAGE AND VOLTAGE ADJUST RANGE		
MEASURED ACROSS TAPS	AC VOLTS AT 60 HERTZ	AC VOLTS AT 50 HERTZ
PHASE TO PHASE	NOMINAL RANGE	NOMINAL RANGE
A-B	236 TO 283	196 TO 230
A-C		
B-C		
X1-X2		
X1-X3		
X2-X3		
B-N	NOMINAL RANGE 204 TO 230	NOMINAL RANGE 178 TO 196
A-N	NOMINAL RANGE 196 TO 230	NOMINAL RANGE 150 TO 180
C-N	NOMINAL RANGE 118 TO 142	NOMINAL RANGE 98 TO 115

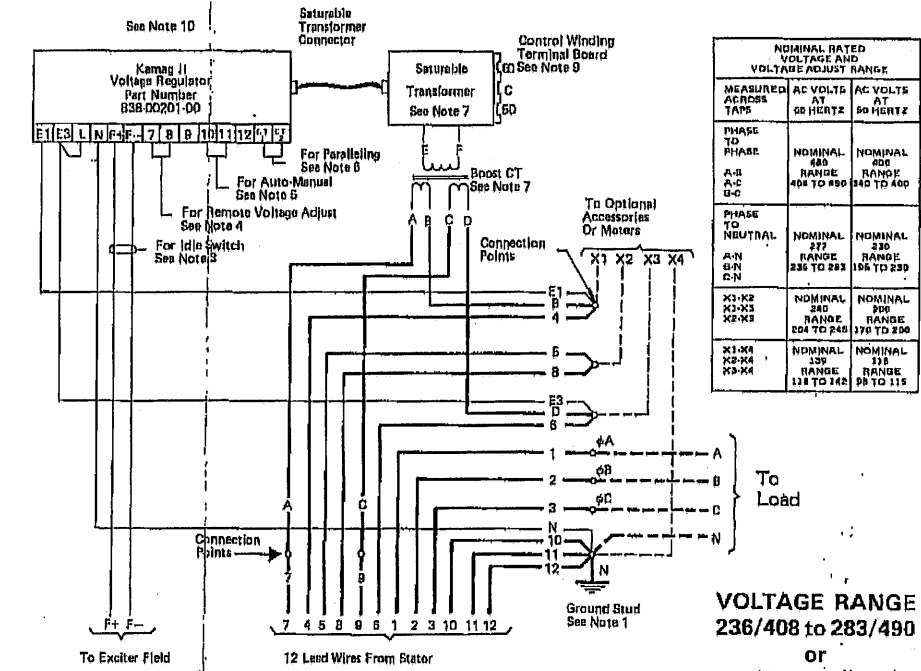


FIGURE 4 CONNECTION DIAGRAM THREE PHASE FOUR WIRE - SERIES WYE

NOMINAL RATED VOLTAGE AND VOLTAGE ADJUST RANGE		
MEASURED ACROSS TAPS	AC VOLTS AT 60 HERTZ	AC VOLTS AT 50 HERTZ
PHASE TO PHASE	NOMINAL RANGE	NOMINAL RANGE
A-B	404 TO 490	340 TO 400
A-C		
B-C		
X1-X2		
X1-X3		
X2-X3		
A-N	NOMINAL RANGE 236 TO 283	NOMINAL RANGE 196 TO 230
B-N	NOMINAL RANGE 236 TO 283	NOMINAL RANGE 196 TO 230
C-N	NOMINAL RANGE 118 TO 142	NOMINAL RANGE 98 TO 115

VOLTAGE RANGE
236/408 to 283/490
or
196/340 to 230/400
See Chart

NOMINAL RATED VOLTAGE AND VOLTAGE ADJUST RANGE		
MEASURED ACROSS TAPS	AC VOLTS AT 60 HERTZ	AC VOLTS AT 50 HERTZ
LINE TO LINE	NOMINAL RANGE	NOMINAL RANGE
L1-L2	236 TO 283	196 TO 230
L1-L3		
L2-L3		
LINE TO NEUTRAL	NOMINAL RANGE	NOMINAL RANGE
L1-N	118 TO 142	98 TO 115
L2-N		
L3-N		

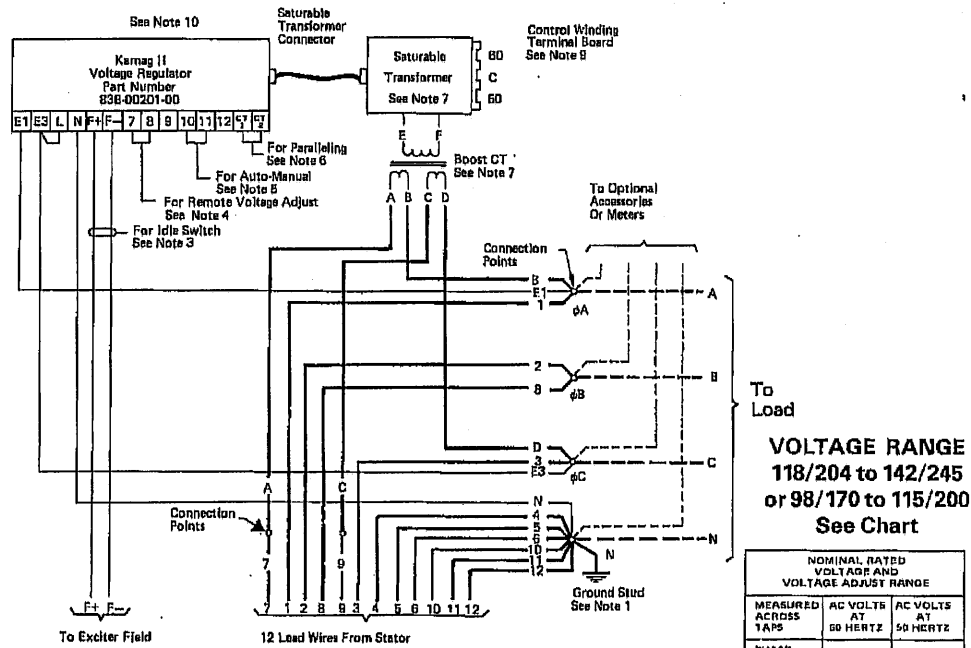


FIGURE 3 CONNECTION DIAGRAM THREE PHASE FOUR WIRE - PARALLEL WYE

VOLTAGE RANGE
118/204 to 142/245
or 98/170 to 115/230
See Chart

NOMINAL RATED VOLTAGE AND VOLTAGE ADJUST RANGE		
MEASURED ACROSS TAPS	AC VOLTS AT 60 HERTZ	AC VOLTS AT 50 HERTZ
PHASE TO PHASE	NOMINAL RANGE	NOMINAL RANGE
A-B	204 TO 245	170 TO 200
A-C		
B-C		
X1-X2		
X1-X3		
X2-X3		
PHASE TO NEUTRAL	NOMINAL RANGE	NOMINAL RANGE
A-N	118 TO 142	98 TO 115
B-N		
C-N		
X1-X4		
X2-X4		
X3-X4		

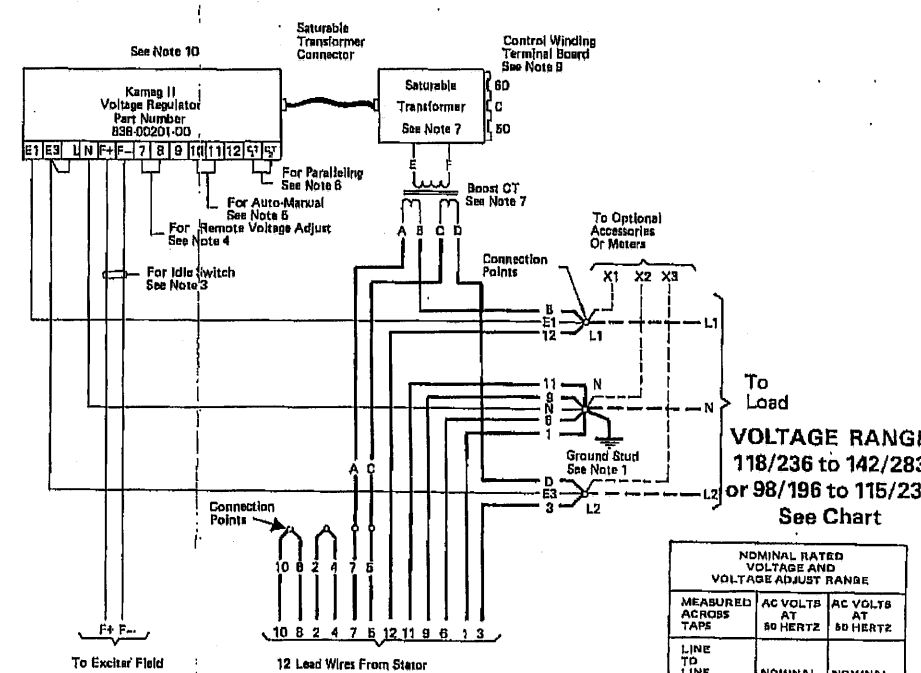


FIGURE 5 CONNECTION DIAGRAM SINGLE PHASE - THREE WIRE

NOMINAL RATED VOLTAGE AND VOLTAGE ADJUST RANGE		
MEASURED ACROSS TAPS	AC VOLTS AT 60 HERTZ	AC VOLTS AT 50 HERTZ
LINE TO LINE	NOMINAL RANGE	NOMINAL RANGE
L1-L2	236 TO 283	196 TO 230
L1-L3		
L2-L3		
LINE TO NEUTRAL	NOMINAL RANGE	NOMINAL RANGE
L1-N	118 TO 142	98 TO 115
L2-N		
L3-N		