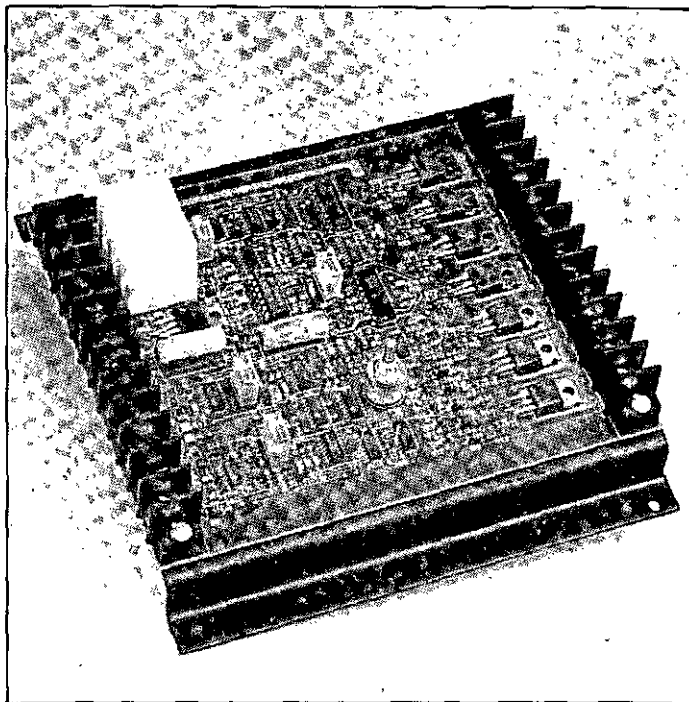




KATOLIGHT®

AUTOMATIC SOLID STATE ENGINE CONTROL TECHNICAL BULLETIN

KASSEC
available in
12 Volt
24 Volt



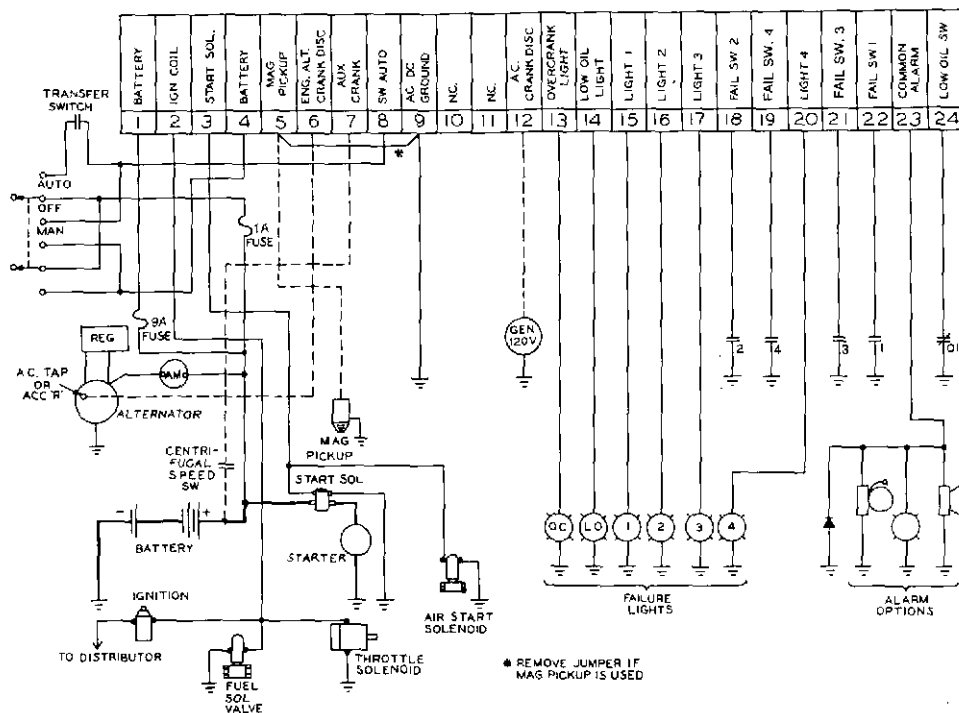
Katolight Automatic Solid State Engine Control (KASSEC) will automatically start and stop diesel, gasoline, natural gas, and LPG engines or engine-generator sets under the control of an automatic transfer switch or load start contact closed to run. KASSEC is manufactured and tested to the highest quality control standards to ensure reliability.

FEATURES

- Consistent operation from -30°C (-22°F) to $+60^{\circ}\text{C}$ ($+140^{\circ}\text{F}$) degrees.
- Reliable Katolight solid-state design.
- Accommodates requirements for NFPA-110 annunciator for hospital application.
- Compatibility with virtually all engines in today's market place.
- Ease of installation, simple mounting bracket.
- Barrier screw type terminals U.L. and C.S.A. Listed, with approved means for solderless connection of conductors.
- Adjustable seven (7) to fifty (50) second engine cranking circuit.
- Adjustable one (1) to eight (8) crank, rest cycles.
- Adjustable seven (7) to fifty (50) second oil failure circuit.
- External alarm circuit for remote failure indication.
- Available for 12 or 24 volt negative ground battery systems.
- Four (4) crank disconnects are available. (Mag pickup, engine alternator, 110 VAC, and auxiliary 12V DC or 24V DC.) The mag pickup, engine alternator, and 110 VAC crank disconnects are adjustable.
- Positive lockout circuits prohibit re cranking while engine is running.
- First failure shutdown lockout.
- 8 Amp relay contacts for start and ignition system.
- Unit is sealed with a durable conformal coating.

Specify to factory 12 or 24 volt.

DRAWING



TROUBLE SHOOTING CHART

SYMPTOM	CHECK FOR	CAUSE
FAIL TO CRANK	Blown Fuse on Terminal #1 Low Battery Voltage at Start Solenoid Voltage present at Terminal #7 Unused Terminal #5 Failure lights	Shorted leads when hooking up or overloaded circuits. Replace fuse with 8 amp fuse. Defective battery. Charger not functioning. Corroded or loose battery connection. <i>If voltage is present at starter solenoid, may have defective starter or solenoid. If no voltage at starter solenoid, may have open leads to solenoid.</i> <i>If present, check for voltage source. There should be no voltage present.</i> <i>Terminal #5 should be connected to the KASSEC Terminal #9, ground, when not in use or it may prevent unit from starting.</i> Unit will not crank if any failure lamps are on. Correct failure before trying to start.
UNIT CRANKS, DOES NOT START	Fuel Supply Voltage on Terminal #2 while cranking	Empty fuel tank. Air in fuel lines. Wrong pressure on Natural Gas or LPG units. <i>If present may have defective fuel valve, defective ignition system, or loose connection.</i>
UNIT WILL START THEN FAIL	Loss of Fuel Failure Lights Loose or Open Connections	Empty fuel tank. Restricted fuel filter. Restricted, broken, or loose fuel line. Overcrank light lit—Lost signal on Mag Pickup Crank Disconnect Terminal or lost signal on Auxiliary Crank Disconnect Terminal after unit started. Low Oil light lit—Low oil in crankcase. Oil pump failed. Defective pressure switch. High Water Temperature light lit—Low water level in radiator. Thermostat closed. Broken fan belt. Restricted flow through radiator. Ambient temperature too high. Defective temperature switch. Overspeed light lit—Lost governor control. Defective overspeed switch. May have lost power to control or ignition system.
UNIT STARTS BUT STARTER DOES NOT DISENGAGE	Voltage on Terminal #3 After Unit Running No Voltage on Terminal #3 After Unit is Running	Signal must be present at either Terminal #5, 6, 7, or 12 after unit starts to operate crank disconnect of control. Starter drive could be hanging up or the solenoid on starter is not disengaging.

Materials and Specification May Change Without Notice.

For more information contact your nearest Representative, Distributor, or Dealer below.



Performance Assurance Certification by:

KATOLIGHT CORPORATION

3201 Third Avenue, P.O. Box 3229

Mankato, Minnesota 56002-3229

Phone: (507) 625-7973

Telex: 29-0787 FAX: (507) 625-2968

Printed in U.S.A.