

# **Allmand**<sup>™</sup> NITE LITE V series

SERIAL NUMBER 39-000001 AND UP

## Kubota 905, 1005 & 1105 Parts:

- Auto Shutdown Module- (102577)
- Hot/Cool Sensor Kubota 905,1005,1105- (340302)
- Hot/Cool Sensor Kubota DeepSea 1 wire- (101069)
- Oil Sensor Kubota 905,1005,1105- (340301)
- Oil Sensor Kubota Deep Sea 1 wire -(101070)
- Fuel Shut Off Solenoid- (920751)
- Electric. Fuel Pump- (103331)
- Radiator Kit (JB)- 102910
- 15 Amp switch (lights)- 106781
- SLS Module- 108053

## Cat 1.1 Parts:

- Auto Shutdown Module- ( 650302)
- Voltage Regulator- (650446)
- 15 Amp switch (lights)- 106781
- SLS Module- 108053

## Nite Lite V Series Parts:

- 35 Amp double pole breaker- (350354)
- 15 Amp SPST breaker switch/ light- (330458)
- 20 Amp GFCI receptacle/outlet- (330499)
- Hour Meter- (340014)
- 30 Amp twist lock/ 240v receptacle- 330491

# Allmand™ NITE LITE v series

SERIAL NUMBER 39-000001 AND UP

**Note: SLS is made to save the capacitors and generator. The module ensures the 120 volts are present before the lights are turned on. Primary job is to save the relays.**

Unit runs for 45 seconds to 1 minute and shuts down:

- If the unit starts up and runs for 45 seconds to a minute then this indicates the SLS module does not sense A/C power from the generator.
- While the unit is running, check voltage at 1-10 GFCI outlet and ensure 120 is present.(see example A)
- **(Example A)**



- If the GFCI and main breaker is any lower than 120/240 volts then check the capacitor in the generator end.

# Allmand™ NITE LITE v series

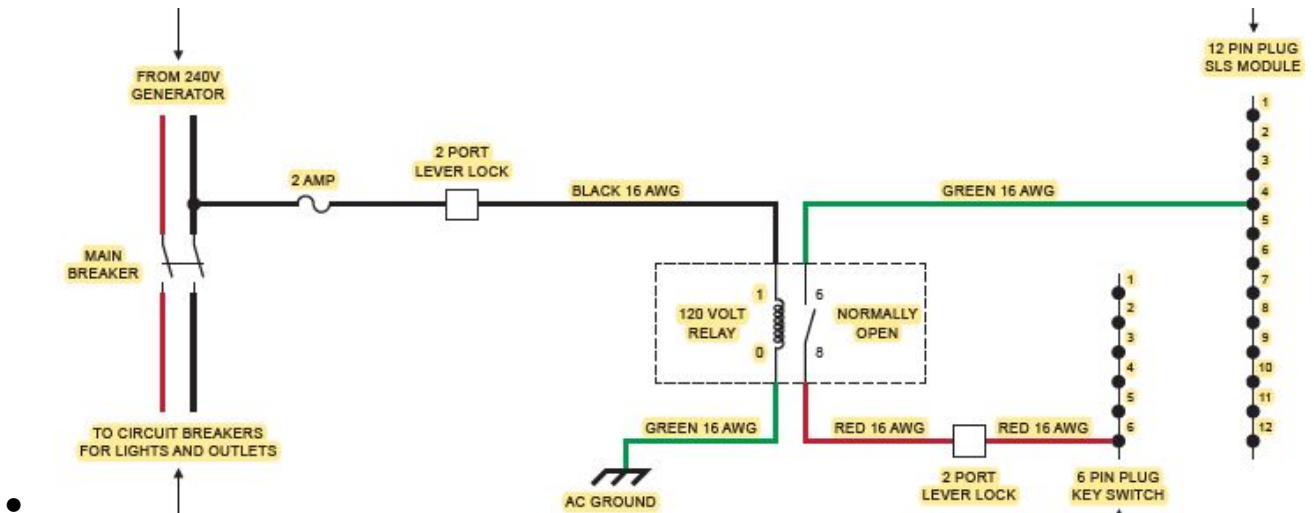
SERIAL NUMBER 39-000001 AND UP



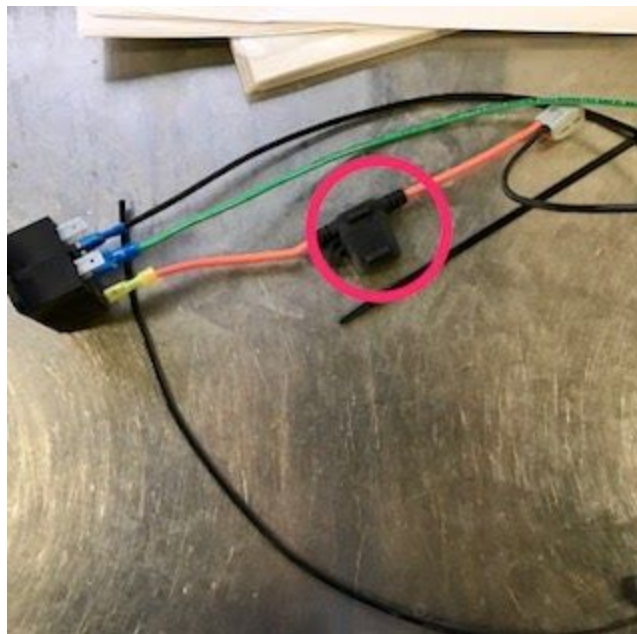
- 
- If the capacitor is good and the problem persists then the generator needs to be replaced or flashed. *See generator manufactures manual for troubleshooting.*
- If there is sufficient power at both GFCI and main breaker then the A/C power circuit will have to get tested. Locate the black 16 gauge wire connected into the back side of the main breaker (Example B, below). This wire receives 120 volts (black to orange wire w/ 2 amp inline fuse).
- Check power from the black wire through the orange to the input of the relay. Once the relay receives 120 then it will close and send 12 volts to the green wire at the other end. Green sends power to pin# 4 of the SLS module verifying generator voltage.
- Once the SLS module gets power to pin#4 from A/C circuit it will continue to send power to the hold wire of the fuel solenoid & fuel pump.

# Allmand™ NITE LITE v series

SERIAL NUMBER 39-000001 AND UP



- 



- their(*Example B*)

Multiple lights will not illuminate:





**WARNING: Dangerous voltage and/or current may be present when a voltage test is being conducted. To reduce risk of serious injury or death from electrical shock, if you are not trained to safely work with high voltage, do not attempt any of these procedures. You must seek assistance from qualified personnel.**

## How to test Capacitors for lights and generators:

- **Important:** Please contact Allmand Brothers to obtain the correct capacitor & rating. Never use a smaller Uf (Microfarad) or different voltage rating for Generators.
- Disconnect Both capacitor leads for the light capacitors.
- Using a screwdriver or similar instrument with an insulated handle, short the capacitor between the terminals to discharge any stored power, Example "A".
- Set the Ohms scale on your multimeter to the highest setting
- If the meter shows a low resistance reading which gradually increases, the capacitor is likely good and does not need to be replaced.
- If the meter shows a very high resistance that remains steady, the capacitor is open and must be replaced
- If the meter indicates a very low resistance that remains steady, the capacitor is shorted and must be replaced.

# Allmand™ NITE LITE v series

SERIAL NUMBER 39-000001 AND UP



- Example "A"



**WARNING: Dangerous voltage and/or current may be present when a voltage test is being conducted. To reduce the risk of serious injury or death from electrical shock, if you are not trained to safely work with high voltage, do not attempt any of these procedures. You must seek assistance from qualified personnel.**

# Allmand™ NITE LITE v series

SERIAL NUMBER 39-000001 AND UP

## Testing Generator output at GFCI receptacle:

- Generator output may be simply tested by using a multimeter to measure the voltage across the terminals of the GFCI power receptacle.
- To test the power output at the GFCI receptacle, the engine must be running and the main breaker and the receptacle breaker must be switched to the “ON” position.
- Set the multimeter to the AC volt position and insert the probe tips into the hot and neutral sides of the GFCI receptacle, see Example “L”.
- A meter reading of 120.0 volts +10% indicates that the generator is operating properly.
- A reading less than 120 volts +10% indicates that the generator may be malfunctioning, or that there may be a problem with the main circuit breaker, the pop-out receptacle circuit breaker, the GFCI receptacle itself, or the wiring in between any of these.
- **Note:** Many Allmand light towers designed for use outside of North America operate at 230 volts/50 Hz. Testing is done the same way following the above instructions. If you are unsure which voltage your light tower is designed to produce contact a qualified electrician for assistance.



- Example “L”



**WARNING: Dangerous voltage and/or current may be present when a voltage test is being conducted. To reduce the risk of serious injury or death from electrical shock, if you are not trained to safely work with high voltage, do not attempt any of these procedures. You must seek assistance from qualified personnel.**



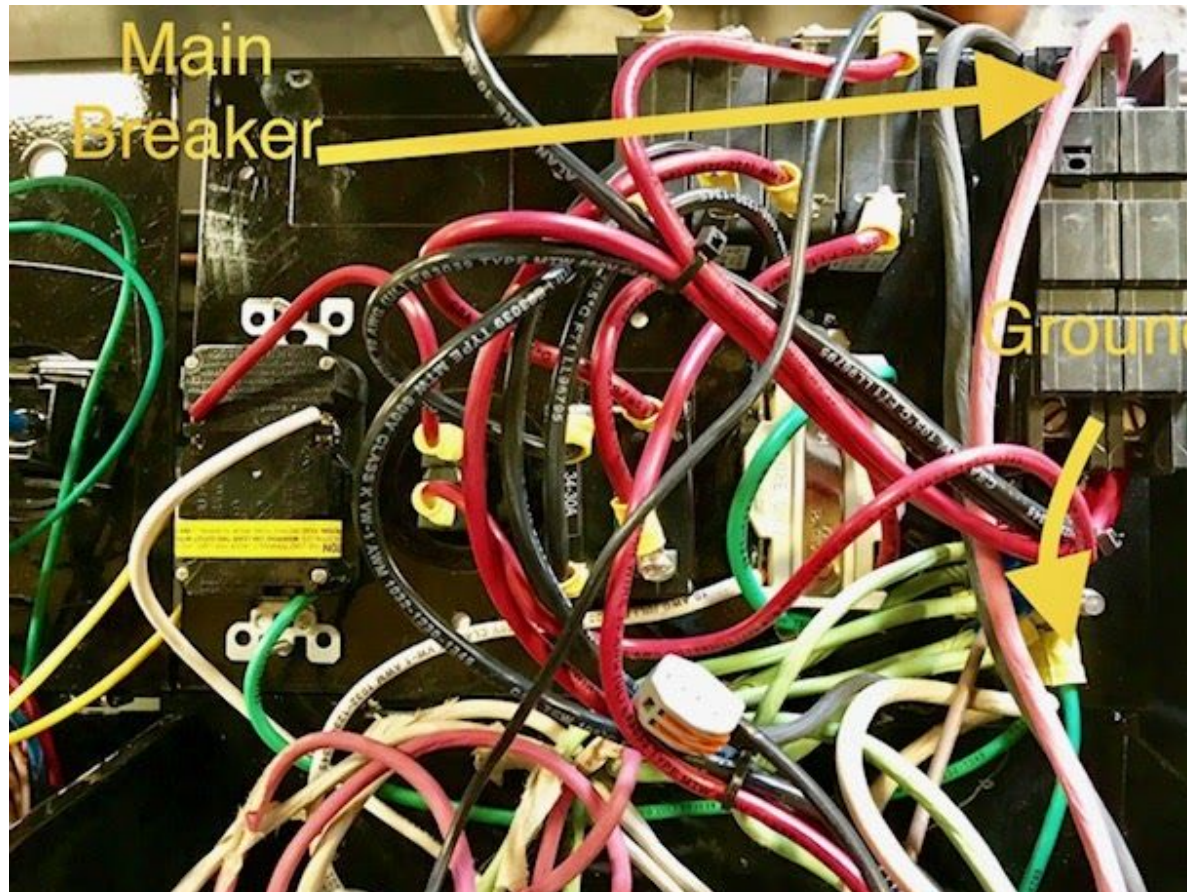
## Testing Generator output at the main circuit breaker:

- If testing the Generator output at the GFCI receptacle (Example “L” above) shows zero or low voltage, or is conclusive, it will then be necessary to test the generator voltage at the main circuit breaker. The main breaker itself may also be tested for proper function during this procedure.
- To access the main breaker, with the engine **off**, remove the four screws holding the control panel face plate in place and carefully pull the face plate away from the control panel box. Allow the face plate to hang from the attached wiring. **Caution Do not allow any of the terminals on the control panel faceplate contact the control panel box or any other metal object on the trailer.**
- Set your multimeter scale to AC volts, start the engine. When the engine has reached its full operating speed, touch one multimeter probe to the ground stud, and the other probe to one of the top (input) terminals on the main breaker. Repeat the test for both terminals ( see example “L” and “M”). 120 volts +/- 10% must be measured at each terminal. If 120 volts +/- 10% is not measured at each terminal, either the generator, the generator capacitor or the wiring from the generator to the main circuit breaker is faulty.

# Allmand™ NITE LITE v series

SERIAL NUMBER 39-000001 AND UP

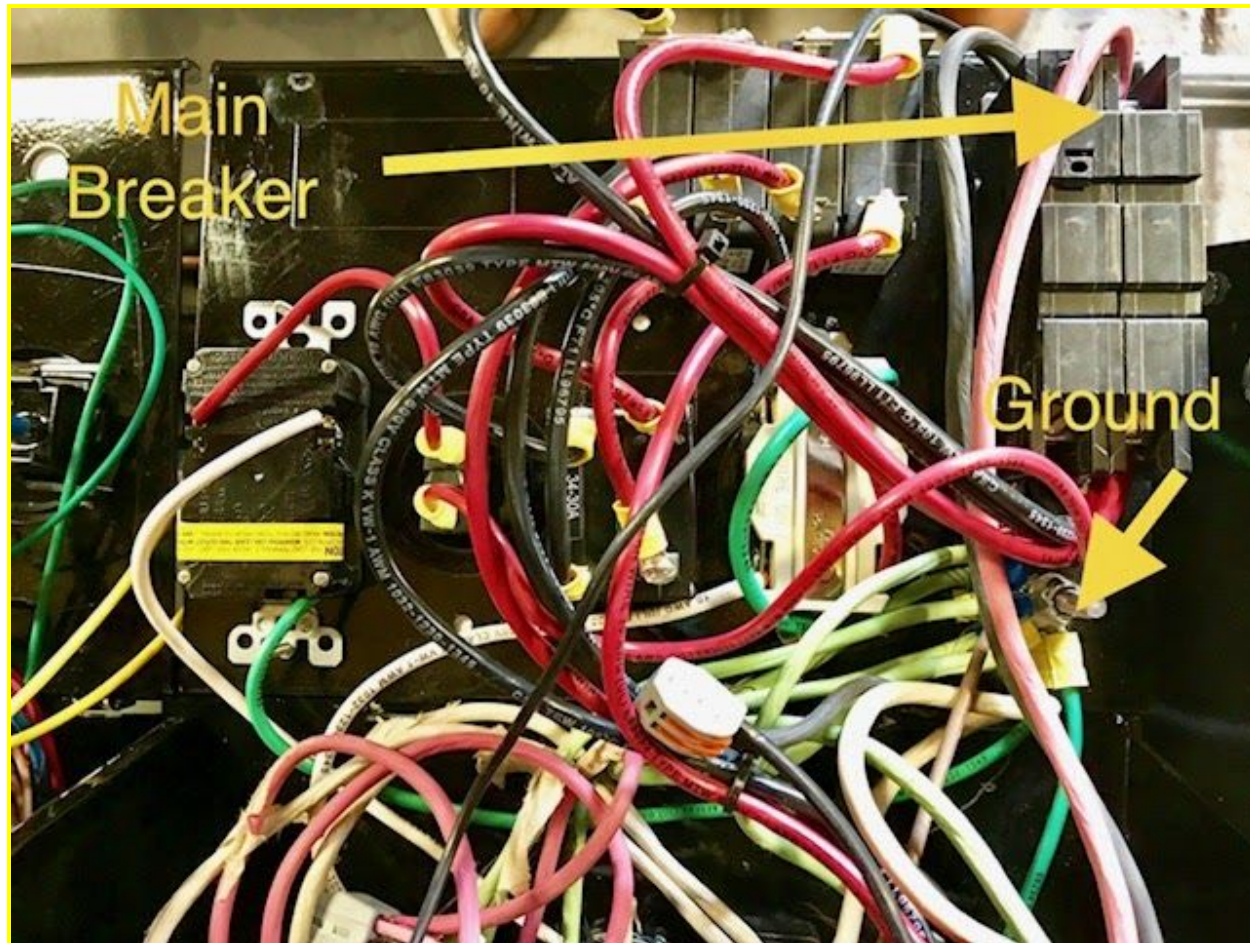
- **Example L:**



# Allmand™ NITE LITE v series

SERIAL NUMBER 39-000001 AND UP

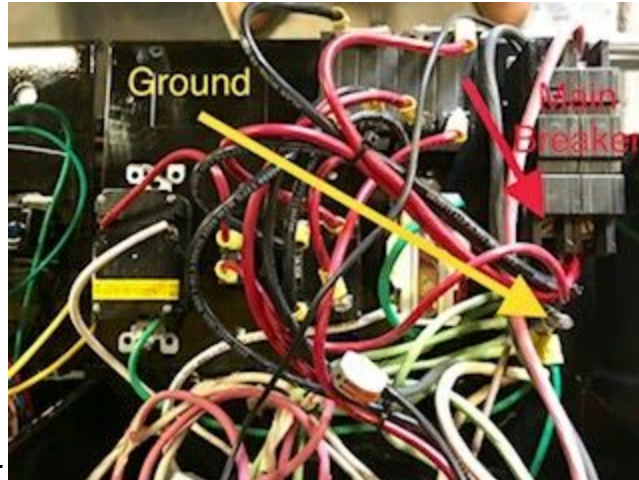
- **Example M:**



- If the previous procedure indicates proper voltage at the top (input) terminals of the main breaker, test the voltage at the bottom (output) main breaker terminals (See Example “D” and Example “B”). The meter reading should indicate 120 volts + 10%. If the reading of 120 Volts +10% is not measured at each terminal, the main breaker is faulty and must be replaced. Contact Allmand Parts Department (308-995-4495) for the correct replacement circuit breaker.

# Allmand™ NITE LITE v series

SERIAL NUMBER 39-000001 AND UP



- Example A:



- Example N:



**WARNING:** Dangerous voltage and/or current may be present when a voltage test is being conducted. To reduce risk of serious injury or death from electrical shock, if you are not trained to safely work with high voltage, do not attempt any of these procedures. You must seek assistance from qualified personnel.

Allmand Bros., Inc. | P.O. Box 888 | 1502 West 4th Avenue | Holdrege, NE 68949 USA  
Toll Free: 800-562-1373 | Phone: 308-995-4495 | Fax: 308-995-5887 | [www.allmand.com](http://www.allmand.com)

## Testing Engine speed at the GFCI receptacle:

- The operating speed of the engine may be tested by using a multimeter with the scale set to read Hertz (Hz) **NOTE: Not all multimeters have Hertz scales.**
- Set the multimeter to the Hertz (or Hz) scale. With the engine running and the light breakers switched off, insert the meter probes into the GFCI receptacle as shown in Example “D”.
- The meter should read 62.0 Hertz with no load the engine. A reading of less than 62.0 Hertz indicates that the engine is not running with enough speed to create the necessary power to operate all of the lamps consistently.



- Example D:
- **Note:** *Slow engine speed may be caused by a number of factors*
  - a. Incorrectly adjust engine governor. Adjust governor as shown in Example “B”, until a reading of 62.0 Hz is indicated on the multimeter display.
  - b. Clogged or dirty Air and/or Fuel filters. Replace filters if there is any question as to their condition.
  - c. Dirty Fuel. Drain Fuel tank and fuel system and replace it with known clean fuel. Replace fuel filter before re-starting the engine.
  - d. Worn or damaged engine. If the above steps fail to correct the engine speed this may indicate a faulty engine. Contact your local servicing dealer for the make and model diesel engine in your light tower. Repair, rebuild or replace as necessary.

# Allmand™ NITE LITE v series

SERIAL NUMBER 39-000001 AND UP

- **Note:** Many Allmand Light towers designed for use outside of North America operate at 230 volts + 10%/50Hz. Engines on these models must be set for 52.0 Hz at no load per the above instructions. If you are unsure which voltage your light tower is designed to produce contact a qualified electrician for assistance.

## No power from alternator to charge battery:

- Go to the Ignition and open up the panel behind. This will expose the SLS Module and relay block.
- In the relay block, look for the 15 amp fuse (105844) and ensure this fuse is good. If bad then replace and go.



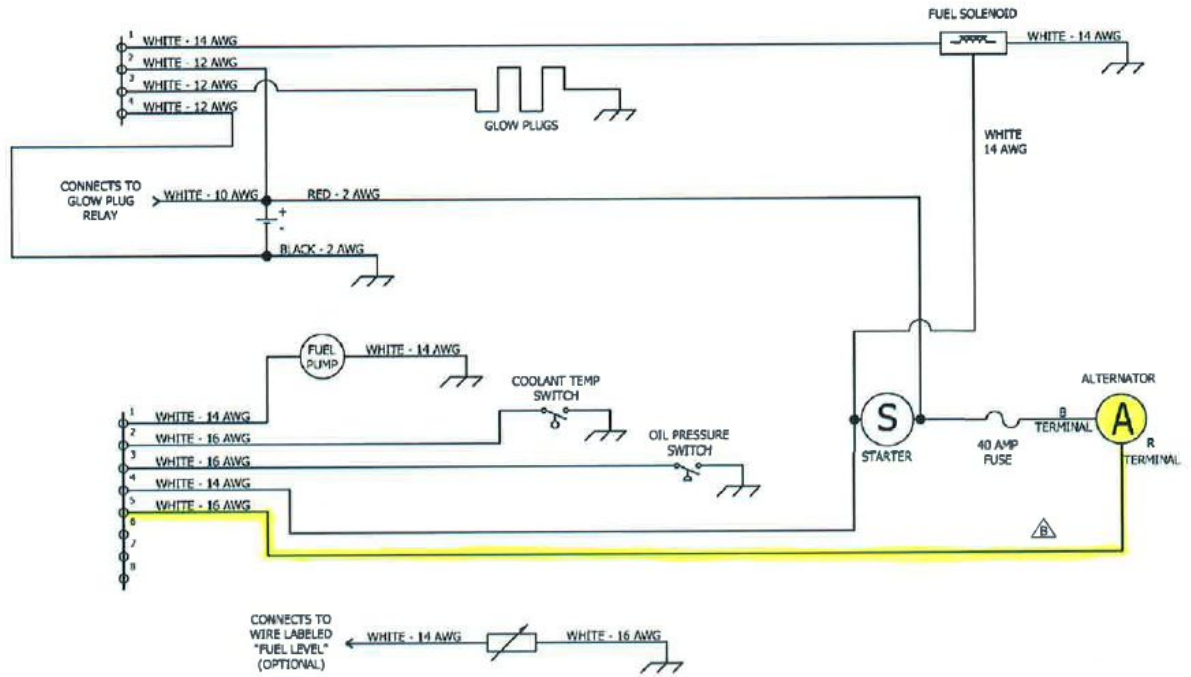
- 
- If the fuse is good then check all connections from the SLS relay panel to the engine harness. Ensure every pin is seated properly and is making contact, if one pin is not seated all the way this can cause a loss of power to excite the alternator.
- **Note:** If the unit is equipped with the Mitsubishi 3LE/ Coliseum , then double check the 12 volt excited wire in the back of the alternator going

# Allmand™ NITE LITE v series

SERIAL NUMBER 39-000001 AND UP

- into terminal "R". From terminal "R" the connection must be ran into Engine harness #5 pin. Ensure contact is being made. Example "R" - see next page for wiring instructions.

- Example R:



### Filters per Engine option:

<b>MITSUBISHI L3E 8KW</b>		
AIR	650290	
OIL	108429	

Allmand Bros., Inc. | P.O. Box 888 | 1502 West 4th Avenue | Holdrege, NE 68949 USA  
 Toll Free: 800-562-1373 | Phone: 308-995-4495 | Fax: 308-995-5887 | www.allmand.com

# Allmand™ NITE LITE v series

SERIAL NUMBER 39-000001 AND UP

FUEL	108430	
FILTER KIT (ALL FUEL)	108963	

<b>KUBOTA D905,D1005, &amp; D1105 8KW</b>		
AIR	650290	
OIL	920743	
FUEL	920745	
FILTER KIT (ALL FUEL)	108962	

<b>PERKINS 403F-11 8KW</b>		
AIR	650290	
OIL	113867	
FUEL	113874	
FILTER KIT (ALL FUEL)		

<b>CAT C1.1 8KW &amp; C1.5 NA NON TURBO 13KW</b>		
AIR	102580	
OIL	650304	
FUEL	103155	
FILTER KIT (ALL THREE)	108961	

## Oil Change Intervals:

Mitsubishi L3E- Every 750 hours  
 Kubota D1005 & 1105- Every 1,000 hours  
 Caterpillar C1.1- Every 500 hours  
 Perkins 403F-11 - Every 500 hours



# **Allmand**<sup>™</sup> NITE LITE v series

SERIAL NUMBER 39-000001 AND UP

*\*Check engine operators manual for specific recommended lubricants.*

*\*Additional warranty information & claim forms can be obtained on [Allmand.com](http://Allmand.com).*

*\*Please contact Allmand Tech line for additional help and troubleshooting @ (308) 995-3431 / Parts (800) 562-1373.*