



September 13, 2001

## G-Drive Inverter Maintenance Schedule

**Daily** – During operation, a visual inspection for abnormal operation is completed externally without removing the covers. The inspection usually cover the following:

1. The performance, note any change of machine function.
2. The environment, insure the area around the machine is clean.
3. The keypad panel display is normal.
4. There are no abnormal sounds, vibrations or odors.
5. There are no indications of overheating or no discoloration.

**Periodical** – Periodical inspections (every three (3) months) must be completed after stopping operations, cutting off power source, and removing surface cover.

**NOTE: After turning off the power, the smoothing capacitors in the DC section of the Main circuit take time to discharge. To prevent electric shock, confirm using a voltmeter that the voltage has dropped below the safety limits (25 volts DC) after the charge lamp (CRG) goes off.**

<b>WARNING</b>	<ol style="list-style-type: none"> <li>1. Start the inspection at least five minutes after turning off the power supply for inverter rated at 22 kw or less, and ten minutes for inverter rated at 30 kw or more. Check that the charge lamp (CRG) goes off, and that the voltage is 25 volts DC or less between terminals P (+) and N (-). <b>Electric shock may result.</b></li> <li>2. Only authorized personnel should perform maintenance and component replacement operations. Remove all jewelry such as watches and rings. Use insulated tools.</li> <li>3. Never modify the inverter.</li> </ol>
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### Environment

1. Check the ambient temperature, humidity, vibration and atmosphere (dust, gas, oil mist and water).
2. Be sure area-surrounding equipment is clear of debris and foreign objects.

### Keypad panel

1. Is display hard to read?
2. Are characters complete?

### Frame or cover

1. Check for abnormal sounds or vibration.
2. Check for loose nuts or bolts.
3. Check for any deformation or damage.
4. Is there discoloration as a result of overheating?
5. Are there any stains or dust on/or around inverter?

(Continued)

Main Circuit wiring

1. Is there deformation, cracks, damage or discoloration due to overheating?
2. Are there any cracks, crazing or discoloration of cable sheathing?

Main Circuit capacitor

1. Is there electrolyte leakage, discoloration, crazing or swelling of the case?

Main Circuit Resistor

1. Is there unusual odor or damage to the insulation by overheating?
2. Is there an open circuit?

Main Circuit transformer and reactor

1. Is there abnormal buzzing or any unpleasant smell?

Main Circuit Magnetic conductor and relay

1. Is there rattling during operation?
2. Are the contacts rough or pitted?

Control Circuit PC board and connector

1. Are there any loose screws or connectors?
2. Is there any unusual odor or discoloration?
3. Are there cracks, damage, deformation or excessive rust?
4. Is there any electrolyte leakage or damage to capacitor?

Cooling Fan

1. Is there abnormal sound or vibration?
2. Are any nuts or bolts loose?
3. Is there any discoloration due to overheating?

Periodical Preventive Maintenance (every three (3) months)

1. Wipe with a clean cloth
2. Vacuum all lint and dust.

**NOTE: Change to monthly if heavy build up is present.**

If during the inspection you find any abnormalities, contact the factory for assistance.