Reynolds EQUIPMENT COMPANY

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# MODEM TESTING OR VERIFYING FOR LVC UNITS (Field errors)

6-25-2002

1) **Problem:** Modem will not answer (Problems could be: Modem battery pack, phone line, modem pcb, or phone line transient protector)

a) Check modem battery power (7 to 12 volts)
b) Check phone line for dial tone. (If no dial tone, phone line may be cut)
c) Replace modem with known good modem pcb.
d) Replace “phone line surge suppresser” or wire directly into the modem pcb to verify a bad transient protector.
e) Check modem ribbon connector is plugged in correctly (Ribbon wire connects away from the pcb)(Black wire on ribbon is closest to the center of the modem pcb)

2) **Problem:** Modem answers but will not communicate (Problems could be: Modem battery pack has low voltage, LVC main pcb, modem pcb, phone line (static or bad voltage levels) or phone line transient protector)

a) Check battery pack is good (7 to 12 volts) (If battery pack is low or dead, replace batts)
b) Replace “phone line surge suppresser” or wire directly into the modem pcb to verify a bad transient protector.
c) Check LVC communication directly to verify good communication port in unit. (If comm directly is OK, move to next step)(If test fails, restart LVC & test again OR replace LVC pcb)
d) Connect a known good LVC pcb to the modem to verify comm 2 port in unit. (If test is successful, comm 2 may be bad in the pcb of the field unit)
e) Try new modem pcb and test communication.
f) Call phone company to test phone line for “Data Quality”
g) Verify wires between LVC and modem (RX,TX, CTS & Ground)

3) **Problem:** Modem is busy (Problems could be: Phone line, modem pcb)

a) Phone line is in use
b) Tip and Ring wires are melted or touching together
c) Modem pcb could be damaged (Replace modem pcb)

For questions call factory support at (800) 775-3424