

Hot Tips Report

ID	0038	Description	Troubleshooting Leads Off
Date	8/17/2005 9:08:42 AM	Status	Active
Manager	ADMIN		

Text **Troubleshooting Leads Off Indication**

Problem

A leads off condition is characterized by a drop in signal on one or more of the ECG leads. The software notifies the user that a lead is off by 1) placing a red circle with a slash on the affected lead marker (visible on the left-hand side of the screen) and by 2) sounding an alarm (optional).

To determine which lead(s) is down refer to the table below:

If Down	Software will mark the following lead(s):
RL (N)	All Leads
RA (R)	All Leads
LA (L)	All but Lead II (L)
LL (F)	All Leads
V1 (C1)	V1 (C1)
V2 (C2)	V2 (C2)
V3 (C3)	V3 (C3)
V4 (C4)	V4 (C4)
V5 (C5)	V5 (C5)
V6 (C6)	V6 (C6)

Solution

To determine the cause of the leads off indication perform the following troubleshooting steps:

1. **Ensure the patient is properly prepared:**
 - a. If necessary, shave the electrode sites.
 - b. Thoroughly clean the areas and allow to dry.
 - c. Prep skin by briskly rubbing with gauze, being careful not to break or damage the skin.
 - d. Apply each electrode, adhesive side down to desired site. Ensure the electrodes are not expired.
 - e. For positive electrode contact, start from outer edge and run your finger around the electrode several times, working toward the center.
 - f. Connect the cables to the patient ensuring correct lead placement.

If these steps are followed and the leads-off condition remains continue to step 2.

2. **Check the leadwire:**

Move the "bad" leadwire to a "good" leadwire's position. If the wire is indeed defective the leads off indication should move with the wire. If the problem moves with the wire contact a service center for repairs, if not continue to step 3.

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3. **Inspect the adapter:**

Ensure the adapter ("alligator" clip or snap adapter) is not damaged by connecting the adapter to a different leadwire. If the problem moves with the adapter then the adapter should be replaced, if not continue on to step 4.

4. **Inspect the electrode:**

If steps 1-3 do not solve the problem try replacing the electrode and ensuring the new electrode has sufficient conductive gel and contact to the skin.

If you cannot solve the problem using the steps above contact Technical Support.
