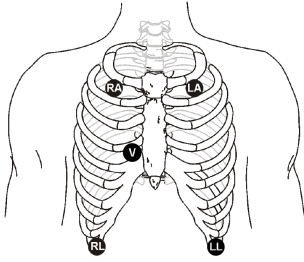


# X12+ Telemetry Transmitter Quick Reference Card

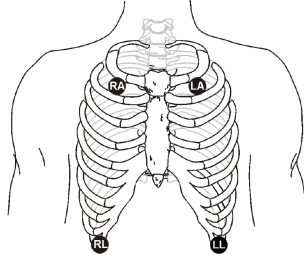
## 5-Channel Hook-up



## Hookup Instructions

1. Shave all electrode sites.
2. Wipe oil from electrode sites with alcohol prep pad provided.
3. Remove dead skin layer from electrode sites with abrasive cleaner provided. Two to three moderate rubs at each site should be sufficient.
4. Snap lead wires onto electrode snaps.
5. Peel single electrode from backing strip and apply to prepared electrode sites individually. Apply pressure to outer edge and inner ring to secure. See diagrams at left for electrode placement.
6. Run the lead check function to check the impedance of each lead. See reverse of this card for directions.

## 4-Channel Hook-up



## Call Signal

To send a CALL signal, press any one of the three keypad keys. A CALL indicator will appear on the LCD display to notify the user that a CALL signal has been transmitted.

## Changing Batteries

1. Position the X12+ Transmitter with its back facing you.
2. Press down on the battery door arrow symbol and slide the battery door away from the transmitter. Remove old battery.
3. Insert one AA alkaline battery into the battery compartment. Align the positive (+) and negative (-) indicators of the battery with the designators above the battery compartment. The X12+ will power on automatically when the battery is inserted.
4. Replace the battery door by placing it back in the same position as step 2 and sliding it until it snaps into place.

## Power On/Off

The X12+ will power up as soon as an AA battery has been inserted into the battery compartment. If the X12+ was turned off after its last use, the user has two options to power the X12+ on:

- Remove and re-insert the AA alkaline battery, or
- Press and hold the **Up/Right** arrow key on the front of the X12+ transmitter. The X12+ will power up and display the main LCD menu within three seconds.

You can power off the X12+ Transmitter by removing the battery or by pressing and holding the **Enter** key for three seconds. A "Power Off" prompt will appear. Press the **Up/Right** or **Down** key to highlight **Yes**. Press the **Enter** key.

### Lead Check

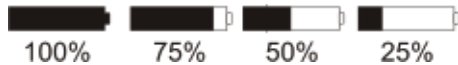
1. Select the Menu by pressing the **Up/Right** button continuously for several seconds. "Lead Check" will appear.
2. From the Menu, select **Lead Check** by pressing the **Enter** key.
3. A graph depicting the impedance measured at the Right Arm (RA), Left Arm (LA), Left Leg (LL) and optional V leads is displayed from left to right in vertical columns on the screen. The higher the bar, the better the contact is between the skin and the electrode.
4. A full-bar graph means optimal high quality and good electrode contact. For good quality transmissions, the bars should reach or exceed the horizontal line on the display. A low-bar graph means poor quality and high electrode impedance. The skin preparation should be checked for improvement and, if necessary, the electrode(s) should be replaced.
5. Once acceptable impedance levels are verified, press any of the three keys to return to the Lead Check menu.
6. Press the **Down** key to scroll to **Done**. Press the **Enter** key.

### Lead Failure

A lead failure is displayed as a lead designator on the LCD display. If the patient cable is not attached, the LCD will display all leads as disconnected.

### Battery Voltage Indicator

The X12+ is powered with a single AA alkaline battery that requires a minimum of 1.0 volts to operate. When the battery contains sufficient voltage, the main menu displays an image of a battery in the upper right corner showing the current battery voltage in increments of 100%, 75%, 50%, and 25%. If a battery with unknown voltage is inserted and the LCD menu does not appear, insert a new battery.



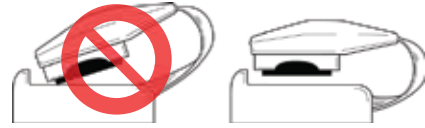
When the battery indicator shows a voltage of 25%, discard the battery and insert a new battery into the battery compartment.

REF: 70-00256-01 Rev C1

### Attaching Patient Cable

The Patient Cable consists of a connector block, main cable and four or five leadwires connected to the main cable. Each leadwire terminates in a snap connector. The leadwires are positioned on the main cable to follow the contour of the torso.

Insert the connector block into the input connector on the side of the transmitter, making sure that it is parallel to the transmitter input connector.



### Reorder Information ([www.mortara.com](http://www.mortara.com))

Part No.	Description
000310-001	Quik-Trace multipurpose electrodes (30/pouch)
036817-013	Transmitter lead set, 4-wire, AHA
036817-014	Transmitter lead set, 4-wire, IEC
036817-003	Transmitter lead set, 5-wire, AHA
036817-004	Transmitter lead set, 5-wire, IEC
042174-001	Pouch and belt for X12+ Transmitter



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