

**OPERATING TEMPERATURE:** 0°C to 50°C (32°F to 122°F)  
**SHORT TERM STORAGE TEMPERATURE:** -30°C to 65°C (-22°F to 149°F)  
**LONG TERM STORAGE TEMPERATURE:** 0°C to 35°C (32°F to 95°F)



ENGLISH  
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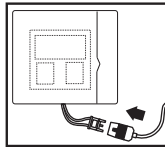
### INDICATIONS FOR USE

R2018-11 Rev. H

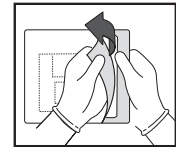
*Defibrillation Noninvasive Pacing Cardioversion ECG monitoring CPR Feedback*

For use on adult patients with ZOLL® R Series® and X Series® (software version 02.06.07.00 or higher) by trained personnel including Physicians, Nurses, Paramedics, Emergency Medical Technicians and Cardiovascular Laboratory Technicians. The OneStep Adult electrodes are not indicated for use on a patient less than 8 years of age or weighing less than 55lbs (25kg).

### PRECONNECTING THE ELECTRODES



1. Do not open until ready to use.
2. Periodically inspect electrode packaging for integrity & expiration date.
3. Attach electrode connector to ZOLL OneStep cable or Multi-Function cable.
4. Open electrode package by pulling apart at yellow arrow.
5. Self test connection disengages after the electrode has been removed from the liner.



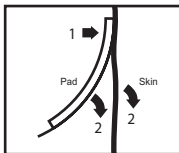
### Instructions

1. Remove excess chest hair. Clip if necessary to maximize gel to skin contact. Clipping is recommended since shaving can leave tiny microabrasions that can lead to patient discomfort during pacing.
2. Ensure skin is clean and dry under electrode. Remove any debris, ointments, skin preps, etc. with water (and mild soap if needed). Wipe off excess moisture/diaphoresis with dry cloth.

⚠ Excessive hair can inhibit good coupling (contact), which can lead to the possibility of arcing and skin burns.

### SKIN PREPARATION

### ELECTRODE APPLICATION



#### Instructions

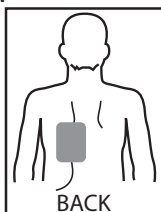
1. Apply one edge of the electrode securely to the patient.
2. "Roll" the electrode smoothly from that edge to the other. Be careful not to trap any pockets of air between the gel and skin.

⚠ Poor adherence and/or air under the electrodes can lead to the possibility of arcing and skin burns.

### ELECTRODE PLACEMENT

#### Anterior-Posterior (AP)

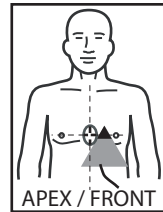
**Recommended for defibrillation, noninvasive pacing, ventricular cardioversion and ECG monitoring. Optimal for noninvasive pacing because it increases patient tolerance and decreases capture thresholds.**



#### Back (Posterior):

Grasp the Back electrode at the wire exit and peel away the plastic liner. Place to left of the spine just below the scapula at heart level.

⚠ Always apply Back electrode first. If Front electrode is already in place when patient is being maneuvered for placement of the Back, the Front may become partially lifted. This could lead to arcing and skin burns.



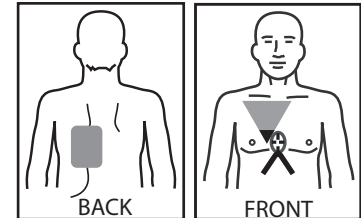
#### Apex / Front (Anterior):

Grasp the Apex/Front electrode at the wire exit and peel away the plastic liner. Apply over cardiac apex between the mid line of the chest and nipple on a male patient, with the shaded "point" facing up. Position under breast on female patient.

⚠ Avoid any contact between nipple and gel treatment area. Skin of the nipple area is more susceptible to burning.

#### Atrial Cardioversion

#### Anterior / Posterior Electrode Placement (Recommended)



#### Back (Posterior):

Grasp the electrode at the wire exit and peel away the plastic liner. Place to the left of the spine just below the scapula at heart level.

#### Front:

Grasp the electrode and peel away the plastic liner. Apply to upper right torso on the third intercostal space, midclavicular line. If CPR sensor is on the electrode, align the CPR sensor with the sternal notch.

### Noninvasive Temporary Pacing

OneStep Pacing is functional with R Series only and is intended for emergency pacing only. Electrodes should be replaced after 24 hours of use or 8 hours of pacing to maximize patient benefit.

Transcutaneous pacing longer than 30 minutes may cause burns to the skin. Periodically check the electrode site to ensure that the electrode is well adhered to the skin. Press over the entire surface of the electrode to ensure adhesion.

For pacing times in excess of 2 hours, ZOLL recommends Pro-padz® with liquid gel (part number 8900-2100-01 or 8900-2303-01).

### WARNINGS

1. After patient movement due to muscle contraction or patient repositioning, press electrodes to skin to ensure good coupling between electrodes and skin.
2. Do not conduct manual chest compressions through the electrodes. Doing so may cause damage to the electrodes that could lead to the possibility of arcing and skin burns. For electrodes with the CPR sensor, place hands directly on the CPR sensor when conducting chest compressions.
3. Electrodes should be replaced after 24 hours of use or 8 hours of pacing to maximize patient benefit.
4. To avoid electrical shock, do not touch the electrodes, patient, or bed when defibrillating.
5. Always apply electrodes to flat areas of skin. If possible, avoid folds of skin such as those underneath the breast or those visible on obese individuals.
6. Avoid electrode placement near the generator of an internal pacemaker, other electrodes or metal parts in contact with the patient.
7. Use only with ZOLL Pacemaker/Defibrillator products.
8. Do not use if gel is dry. Dried out gel can lead to skin burning. Do not open pouch until ready to use. Do not use electrodes past the expiration date printed on the pouch label.
9. Do not discharge standard paddles on or through electrodes or place separate ECG leads under pads. Doing so could lead to arcing and/or skin burning.
10. Some current generated by electrosurgical units (ESU) may concentrate in the conductive gel of pacing / defibrillation electrodes, especially if an ESU grounding pad other than that recommended by the ESU manufacturer is used. Consult the ESU operator's manual for further details.
11. Do not fold the electrodes or packaging. Any fold in or other damage to the conductive element could lead to the possibility of arcing and/or skin burns.
12. Electrode types equipped with ECG Electrodes embedded in the front pad produce modified ECG vectors. Attach conventional ECG electrodes to the patient for diagnostic purposes.
13. Device disposal should follow hospital protocol.

# ZOLL®

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