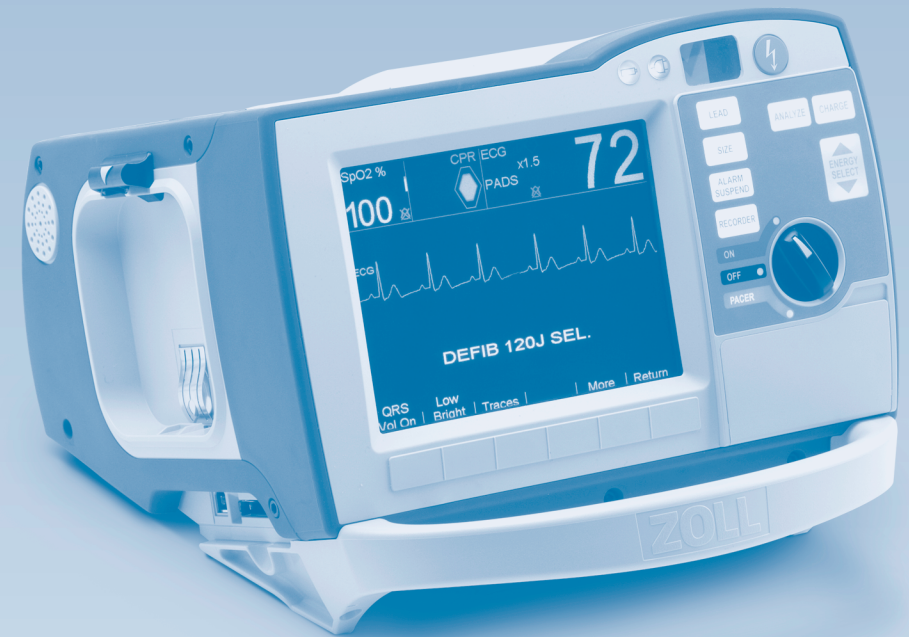


R Series

Quick Reference Guide



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R Series

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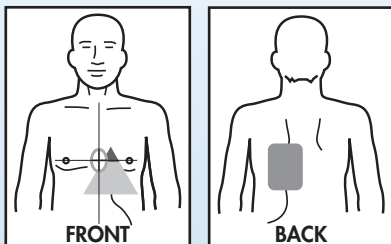
This Quick Reference Guide is intended to provide easy access to most common uses of the ZOLL® R Series®. The user must read and completely understand the intended use warnings, cautions, and instructions in the *R Series Operator's Guide* before using the R Series unit.

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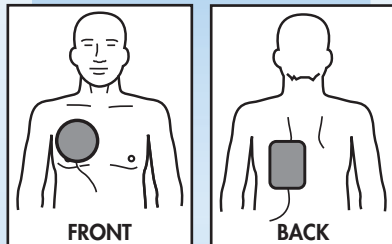
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Proper Pad or Paddle Placement

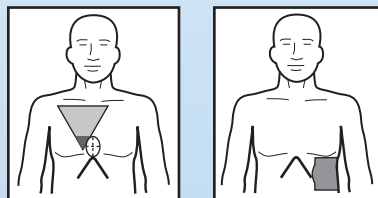
OneStep Resuscitation Electrode Anterior / Posterior Placement (Recommended)



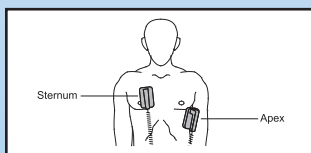
Cardioversion Electrode Anterior / Posterior Placement (Recommended)



OneStep Resuscitation Electrode Anterior / Anterior Placement



Paddle Placement



1. Grasp paddles on each side of unit.
2. Press down on RELEASE latches with thumbs and remove the paddles from their holders.
3. Apply gel to electrode surfaces or gel patches to patient. If using gel, rub electrodes together to spread gel.
4. Place sternum paddle to the right of sternum, just below clavicle.
5. Place apex paddle left of nipple on anterior-axillary line.
6. Press paddles firmly against patient's skin.

R Series BLS/Plus

Defibrillation (AED)

1. Apply pads as shown.
2. Turn selector switch to ON.
3. System will begin to analyze or instruct START CPR, depending upon configuration chosen.
4. Once analysis begins, stand clear.
5. If rhythm is shockable, defibrillator will charge and red SHOCK button will illuminate.
6. If shock button illuminates, shout "clear" – once all are clear, press SHOCK.
7. If no shock advised, check pulse – if no pulse, start CPR immediately.

Defibrillation (Manual)

1. Apply pads.
2. Turn selector switch to ON.
3. Press MANUAL, then CONFIRM soft keys. System will switch to ALS mode (depending upon configuration, your defibrillator may not require a second key press to activate ALS mode).
4. Energy select will automatically display the correct adult energy per configuration.
5. If desired, energy may be adjusted up or down.
5. If rhythm appears shockable, press CHARGE button.
6. When red SHOCK button illuminates, shout "clear" and verify others are clear.
7. Press SHOCK button.
8. Check pulse – if no pulse, return to CPR immediately.

Defibrillation (Advisory)

1. Apply pads.
2. Turn selector switch to ON.
3. Press MANUAL then CONFIRM soft keys.
4. Press ANALYZE to start advisory function and follow the instructions.
5. If rhythm is shockable, defibrillator will charge and red SHOCK button will illuminate.
6. If shock button illuminates, shout "clear" – once all are clear, press SHOCK.
7. If no shock advised, check pulse – if no pulse, start CPR immediately.

R Series ALS

Defibrillation (Advisory)

1. Apply pads.
2. Turn selector switch to DEFIB.
3. The energy will be displayed as configured by your institution.
4. Shout “Clear, Analyzing”; stop CPR and ensure patient is motionless.
5. Press ANALYZE button.
6. Read display message. If SHOCK ADVISED is displayed, shout “Clear” and verify others are clear.
7. Press SHOCK button.
8. If NO SHOCK ADVISED, check for a pulse and if no pulse, resume CPR immediately.

Defibrillation (Manual)

1. Apply pads.
2. Turn selector switch to red area labeled DEFIB.
3. Energy selected will be as configured by institution protocol. You may change settings if desired by using the ENERGY SELECT UP and DOWN arrow keys.
4. If the rhythm appears to be shockable, press the CHARGE button.
5. Shout “Clear” and verify others are clear.
6. Press SHOCK button.

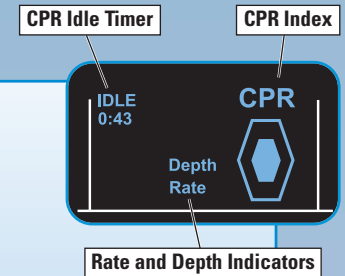
Pediatric Defibrillation

Follow the instructions as outlined above for your unit with the following exceptions:

- OneStep Pediatric pads should be used on children up to eight years of age. For children over eight years of age, use adult pads.
- When the OneStep Pediatric pad is in use, the R Series will automatically decrement the energy delivered to 50, 70, and 85 J increments when these pads are connected. These levels are appropriate for children from 30 kg or greater.
- When using OneStep Pediatric electrodes on children under 30 kg, an energy of 1 J per kilo is recommended and will need to be set manually using the ENERGY SELECT UP and DOWN arrows.
- For all other electrodes, select the desired energy manually based upon 1 J per kilogram.
- Do not use AED or Advisory mode in children under eight years of age unless OneStep Pediatric pads are attached or energy has been manually decremented in advisory mode.

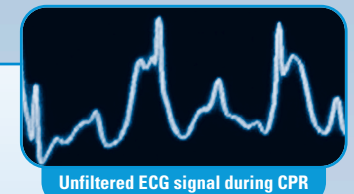
Real CPR Help

1. Place ZOLL pads with CPR Sensor (**OneStep Complete**, **OneStep CPR**, or **CPR stat•padz®**) on patient.
2. The CPR Sensor should be placed on the sternum where your hands would normally be placed for CPR.
3. Place the heel of your hand on the sensor and begin compressions normally.
4. If your compression rate and depth are appropriate to AHA/ERC Guidelines, the hexagon on the screen of the R Series (CPR Index™) will begin to fill with color and remain filled.
5. If the depth of compression is insufficient, the message “PRESS HARDER” will be heard and the “Depth” will be displayed next to the CPR Index. When compressions are correct, the message “GOOD COMPRESSIONS” will be heard.
6. If compression rate is too slow, “Rate” will be displayed next to the index and a 100 bpm metronome will be heard until rate is correct.
7. If your R Series does not display a CPR Index, your defibrillator has only basic CPR feedback and only audible prompts as outlined above will be available.



See-Thru CPR

See-Thru CPR is a proprietary algorithm that filters the CPR artifact from the ECG to allow users to see a close approximation of a patient’s organized underlying rhythm during CPR compressions, reducing interruptions in CPR.



Activating See-Thru CPR:

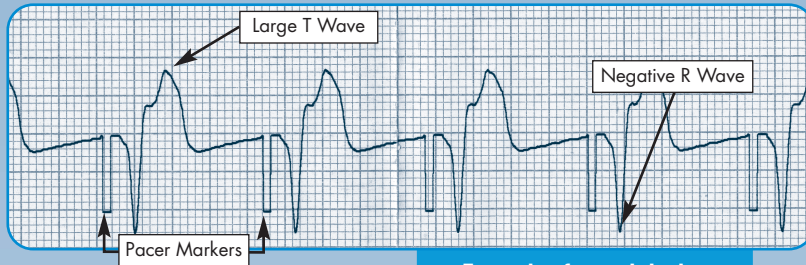
1. Press OPTIONS soft key.
2. Press TRACES soft key.
3. Press TRACE 2 soft key.
4. Press Filt ECG soft key.



Using See-Thru CPR:

1. During CPR, view the filtered ECG (second trace) on display to determine if an organized rhythm appears to be developing.
2. Pause compressions and visually confirm if rhythm is shockable or not.
3. If shockable, press CHARGE, shout “Clear” and verify others are clear.
4. Press SHOCK button.
5. Resume CPR immediately for 2 minutes before stopping CPR to check rhythm. If non-shockable, resume compressions.

Pacing / Cardioversion

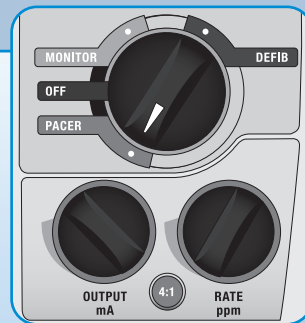


Example of paced rhythm

Pacing

1. Place OneStep Pacing or One Step Complete Pads on patient. To pace with other defibrillation pads, electrodes must be placed on the patient and the three or five lead cable attached to the defibrillator.
2. Turn Selector Switch to green area labeled PACER.
3. Turn the pacer RATE knob to desired rate.
4. Turn the pacer OUTPUT knob clockwise slowly until capture.
5. Slowly decrease output by turning OUTPUT knob counter-clockwise until capture disappears, then increase by 10%.
6. Check pulse to verify mechanical capture.
7. To check patient's underlying rhythm; press and hold 4:1 button.

Note: When using BLS or Plus models, manual mode must be activated to pace.



Dial settings for R Series Pacing

Synchronized Cardioversion

1. Apply pads or paddles to patient.
2. Turn selector switch to DEFIB. If using BLS or Plus device, press MANUAL then CONFIRM soft keys instead.
3. Press SYNC ON/OFF soft key.
4. Verify that arrows (↓) display over R-waves and display reads SYNC.
Do not cardiovert if SYNC is OFF.
5. Follow Manual Defibrillation instructions and institution protocol for energy settings.

Monitoring

ECG Monitoring

Using OneStep ECG Cable

1. Disconnect OneStep electrode from the OneStep Therapy cable.
2. Plug the OneStep ECG cable into the OneStep Therapy cable.
3. Abrade skin to remove outer layer of dead skin.
4. Snap leads on to each electrode.
5. Peel off protective backing from electrode.
6. Apply electrodes to patient's skin.

Using Standard ECG cable

1. Unplug OneStep ECG cable from back of unit.
2. Plug ECG cable connector into back of unit.
3. Abrade skin to remove outer layer of dead skin.
4. Snap leads onto each electrode.
5. Peel off protective backing from electrode.
6. Apply electrodes to patient's skin.

ECG Display

1. Turn selector switch to MONITOR on the R Series ALS unit. If using BLS or Plus device, press MANUAL then CONFIRM soft keys to activate ALS mode.
2. Press LEAD button to change leads.
3. Press SIZE button to change size of display.



Dial settings for R Series Monitoring

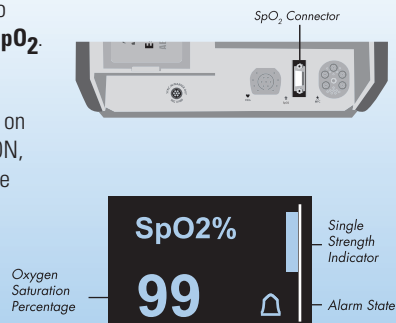
End Tidal CO₂ (EtCO₂) - Mainstream

1. Plug EtCO₂ cable into the back of the unit in the yellow port marked CO₂.
2. Attach sensor to patient's ET tube.
3. Turn selector switch to grey area labeled MONITOR. If using BLS or Plus device, turn ON, then press MANUAL then CONFIRM soft keys to use in ALS mode.
3. Press the PARAM soft key.
4. Press the CO₂ soft key.
5. Press the ENABLE EtCO₂ soft key.
6. If properly attached, the EtCO₂ values will display on the screen.
7. To display waveform: Press OPTIONS soft key. Press TRACES soft key. Press TRACE 2 or TRACE 3 soft key. Select CO₂ soft key.

Monitoring (Cont.)

SpO₂

1. Connect the SpO₂ cable to the patient sensor and to the blue SpO₂ port on the rear of the unit labeled **SpO₂**.
2. Attach sensor to patient's finger.
3. Turn selector switch to grey area labeled MONITOR on the R Series ALS. If using BLS or Plus device, turn ON, then press MANUAL then CONFIRM soft keys to use in ALS mode.
4. If properly attached, the SpO₂ values will display on the screen.
5. To display waveform: Press OPTIONS soft key. Press TRACES soft key. Press TRACE 2 or TRACE 3 soft key. Select SpO₂ soft key.



NIBP

1. Plug NIBP cable into the back of the unit in silver port marked NIBP.
2. Attach appropriate BP cuff to patient's arm or thigh.
3. Turn selector switch to grey area labeled MONITOR. If using BLS or Plus device, press MANUAL then CONFIRM soft keys to use in ALS mode.
4. For ALS: Press the PARAM soft key, then press the NIBP soft key.
5. On BLS or Plus device, press illuminated blood pressure icon on bottom left to take measurement.



Alarms

1. Press the ALARMS soft key to select alarms.
2. Press RETURN soft key to activate alarms.
3. To mute for 90 seconds: Press ALARM SUSPEND button.
4. To reactivate muted alarm: Press ALARM SUSPEND button.
5. To disable: Press and hold ALARM SUSPEND for 3 seconds. Note: Alarms are still active, but silent.



Managing Data and Cable Connections

For the R Series ALS, BLS, and Plus

Printing a Summary Report:

1. Press the REPORT DATA soft key.
2. Press the PRINT LOG or the PRINT CHART soft key.
Press the PRINT ALL or the PRINT RANGE soft key for specific events.

Transferring Full Disclosure Files to a Compact Flash Card:

1. Press the REPORT DATA soft key.
2. Press the TRANSFER MODE soft key.
3. Press the REPORT TO CARD soft key.

Erasing Summary Report and Full Disclosure:

- Press the REPORT DATA soft key.
- Press the ERASE, then ERASE ALL soft keys.

