

It is preferable to trigger on the R wave of the ECG. To insure consistent triggering, it is important to provide the IABP with a good, clean ECG signal. It is important to do a good skin prep when placing electrodes.

### Good ECG Leads for triggering



### Poor ECG Leads for triggering

Biphasic QRS could cause gaining issues and missed triggers or wandering triggering therefore wandering timing.



Could cause double triggering, triggering on R and T waves.



mA too high on pacer causing pacer tail and double triggering.



Could trigger on the artifact which would result in improper timing.



Wandering baseline can cause missed triggers.



## R-WAVE

*Trigger of choice.*

The R-wave of the ECG is the trigger event. Uses the slope of the QR segment to detect the trigger point. Automatic pacer rejection. In the arrhythmia timing mode, R-wave trigger **automatically** provides R-wave deflation to optimize all periods of diastole.

## PEAKS

The peak of the electrical signal (highest point on waveform) is the trigger event. Peaks trigger should be used as a backup to R-wave trigger for wide QRS complexes (ventricular pacing or bundle branch blocks).

*Note: Do not use in the presence of Atrial pacing spikes.*

## A-V PACE

The ventricular spike of the AV pacer is the trigger event. The pump detects *both* the atrial and ventricular pacing spikes and triggers from the ventricular spike. AV PACE should *only* be used in the presence of 100% AV sequential pacing (fixed rate).

## AP (ARTERIAL PRESSURE)

The systolic upstroke is the trigger event. A 14mmHg minimum pulse pressure is required. AP trigger may be used when ECG triggering is not possible.

*Note: To avoid late deflation, set the deflation point to occur prior to the systolic upstroke.*

*Note: AP triggering is not recommended for use with irregular rhythms.*

## INTERNAL

Internally generated signal provides asynchronous assist. To decrease the internal assist rate the wean ratio may be utilized.

*Note: Should the system detect an R-wave while in the trigger mode, an audible alarm is sounded and the message ECG DETECTED appears on the monitor screen.*

AP trigger is first trigger of choice during CPR. Internal trigger is second choice.