The Echo® On-Demand Trigger is an accessory for the EchoPlus® Wireless Junction Box that allows a user to initiate measurements whenever desired. With this addition to the EchoPlus®, a user is not limited to receiving measurements on the programmed transmission interval. The trigger device (Model 070A97) connects directly into the EchoPlus® Wireless Junction Box (Model 672A01) and initiates the measurement cycle with a simple push of the button on the wireless remote (Model 070A99).

The ability to take measurements on demand now makes the EchoPlus® Wireless Junction Box an ideal solution for monitoring non-continuously running rotating assets such as overhead cranes. Overall vibration data can be recorded, transmitted, and stored in the Echo® Wireless Monitoring software only at times when the machine is running and at specific loads. Setting alarm levels and monitoring the trends for this data fosters proactive replacement and repair of defective equipment, and can prevent costly downtime or catastrophic failures.

**Wirelessly capture data on-demand!**

**Wireless Remote**
Model 070A99
A single remote works with up to 12 EchoPlus® Trigger boxes

**EchoPlus® Remote Trigger**
Model 070A97
(pictured with EchoPlus® Wireless Junction Box)

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**Highlights**
- Monitor non-continuously running rotating assets
- Wirelessly capture overall vibration data On-Demand
- Eliminate difficult data collection within dangerous locations

**Typical Applications**
- Overhead cranes
- Barge pumps
EchoPlus® Remote Trigger

**Technical Specifications**

**Performance**
- Measurement Trigger Time: Up to 4 seconds after activation
- First Measurement Time: Completed 11.5 seconds after initiation
- Switch Activation: External Pushbutton or Wireless Remote

**Radio**
- Frequency: 433 MHz
- Output Power: 40 mW
- Range (Line of Sight): 3280 ft (1000 m)
- Channels: 1 to 12
- Encoding Type: Fixed, learning, and rolling code
- Modulation: Amplitude Shift Keying

**Physical**
- Power: 24 VDC (taken from EchoPlus®)
- Connector(s): Screw terminal to DB9 adaptor
- Size: >109 Ohm
- Weight: >100 kohm
- Enclosure Rating: NEMA 4X, IP66

**Operation**

When the external button is pressed or the wireless switch is closed via remote trigger, the red LED will illuminate indicating the trigger has been activated and a time circuit will hold the switch closed for 5 seconds. After an acknowledgement signal has been received from the EchoPlus® Wireless Junction Box (Model 672A01), a feedback circuit will illuminate the green LED indicating the measurement has been initiated. The EchoPlus® will then proceed with its normal measurement cycle and power the first active channel for data collection.

Note that each measurement lasts approximately 11.5 seconds per channel, and the pause between channel measurements is approximately 1.8 seconds. Therefore a conservative guideline is that the machinery should be running for a duration of at least \( \# \text{ of points} \times 15 \text{ seconds} \). Also note that it can take up to 4 seconds after the trigger has been activated for the EchoPlus® measurement cycle to initiate.

The Echo® On-Demand Trigger is an accessory for the EchoPlus® Wireless Junction Box that allows a user to initiate measurements whenever desired. With this addition to the EchoPlus®, a user is not limited to receiving measurements on the programmed transmission interval. The trigger device (Model 070A97) connects directly into the EchoPlus® Wireless Junction Box (Model 672A01) via serial cable (Model 059M77/XXX) and initiates the measurement cycle with a simple push of the button or click of a wireless remote (Model 070A99).

**Echo® Remote Trigger Required Models**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>070A97</td>
<td>Trigger Box</td>
</tr>
<tr>
<td>070A99</td>
<td>Wireless Remote</td>
</tr>
<tr>
<td>059M77/XXX</td>
<td>Cable that connects Trigger Box to EchoPlus® (672A01) X signifies length in ft</td>
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</tbody>
</table>

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**IMI Sensors** designs and manufactures a full line of accelerometers, sensors, vibration switches, vibration transmitters, cables and accessories for predictive maintenance, continuous vibration monitoring, and machinery equipment protection. Products include rugged industrial ICP® accelerometers, 4-20 mA industrial vibration sensors and transmitters for 24/7 monitoring, electronic and mechanical vibration switches, the patented Bearing Fault Detector, high temperature accelerometers to +1300 °F (+704 °C), 2-wire Smart Vibration Switch, and the patented Reciprocating Machinery Protector. CE approved and intrinsically safe versions are available for most products.

Visit [www.imi-sensors.com](http://www.imi-sensors.com) to locate your nearest sales office.