User Recommendations for O-84 Detonators

DET-3050-084

MAN-DET-O84 (R1)

Owen Oil Tools

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Warning: ***Explosives are destructive by nature! Do not attempt to disassemble or alter the detonator in any manner! Do not crush, hammer, pinch, impact, pull wires or abuse the detonator or any explosive!***

Warning: ***Be sure to follow safe operating practices as found in API RP-67 in accordance with governmental regulations, company policies and manufacturer's recommendations!***

Owen Oil Tools' Resistorized Bridge Detonators are designed to detonate when an electrical current greater than 0.2 amps is applied. The O-84 Detonator is a resistorized electrical detonator manufactured to API RP-67 recommendations and employs a 51 Ohm resistor in the firing circuit. It is designed to be used in hollow steel carrier or scalloped gun systems where a fluid disabled detonator will prevent the detonation of a "wet" gun when used properly. This fluid disabled detonator will be disabled and will not fire in the presence of fluid in the fluid hole between the donor and acceptor portions of the detonator. The O-84 detonator is intended to be used in operating conditions less than 475° F for 1 hour.

The user should satisfy themselves, as to the suitability of this product for the user's application.

1.0 Procedures for Panel Setup and Firing Resistorized Bridge Detonators

1.1 Before attaching a gun or detonator to the wireline cable:

- Short circuit the toolstring below the CCL.
- Apply DC voltage and adjust the rheostat to achieve 0.80 amps.
- Mark the rheostat location, then return the rheostat to zero.

1.2 When ready to fire a gun or detonator downhole, increase the power to the firing circuit from 0 to the 0.80 amp rheostat position over 4-6 seconds until the detonator fires.

Note: If an alternative firing technique is used, do not surge the firing circuit with power as it may cause the detonator to fail and a mis-run to occur.

2.0 Arming

Warning: ***Detonators should be removed from their packaging and storage in the loading/arming area at the time of arming! Always insert the detonator inside a safety tube after removal from packaging and storage!***

Note: An electrical check of the detonator's firing circuit may be conducted while the detonator is confined within a safety tube. Using electrical detonator circuit testing instruments, Owen's 51 Ohm Resistorized Bridge Detonators will measure a resistance of 51 Ohms ± 5%.

2.1 First, insert the detonator into a detonator safety tube, then insure the wireline cable is shunted. Electrically connect the detonator to the wireline cable or cable connections while the detonator is still in the safety tube. Remove the detonator from the tube. Remove the detonator from the tube, then insert the detonator in the toolstring. The O-84 detonator is a crimp-on detonator which ballistically connects to the explosive train by inserting detonating cord into the detonator body. Carefully make a square, clean cut of the 80 gr/ft detonating cord using Owen Super Cutters. Insert the newly cut end of detonating cord into the crimp sleeve of the detonator until it meets the fluid hole in the detonator body. The fluid hole should not be filled by explosive powder, detonating cord, or tape. Crimp the cord in place in a 3/8 in (0.95 cm) area from the end of the detonator using Owen Super Crimpers. When using detonating cord other than 80 gr/ft round detonating cord, use the proper detonating cord adapter to ensure a proper crimp and ballistic connection. Complete the mechanical assembly of the device, and tool assembly taking care not to force, pinch, crush, or impact the explosive components or wiring.