



Digital Shot Detection System (DSDS) H4n Digital Recorder

MAN-TC-410-000 (R02)

Owen Oil Tools LP

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Digital Shot Detection System (DSDS)





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Description and Specifications

The Owen Digital Shot Detection System (DSDS) enables the user to monitor downhole acoustics on the tubular. The system is particularly well suited for monitoring the firing of Tubing Conveyed Perforating Guns.

Owen's DSDS offers state of the art technology to process and record the acoustic data. The data is stored using a portable recorder. The signal can be monitored and recorded simultaneously. The recorded signal can also be digitally stored.

Specifications: H4n Digital Recorder	
Recording Technology	4 Track or Stereo
Monitoring	Record while monitoring or monitor on standby.
Maximum Recording Length	6 Hours on Battery Power at max sampling.
Sampling Frequency	16,000 Hz (-0.5dB)
Frequency response	44.1 KHz/48/96 kHz
Recorder Weight	.62 Lbs, (280 grams).
Recorder Dimensions	73 (W) X 156.3 (D) X 35 (H) mm
Power	2 AA 1.5V Batteries or 110 Power Adapters.
Editing and Copying	Edit with Cubase LE4, PC Version, burn CD-R Files.
Accessory Memory	1 or 2 GB SD memory card

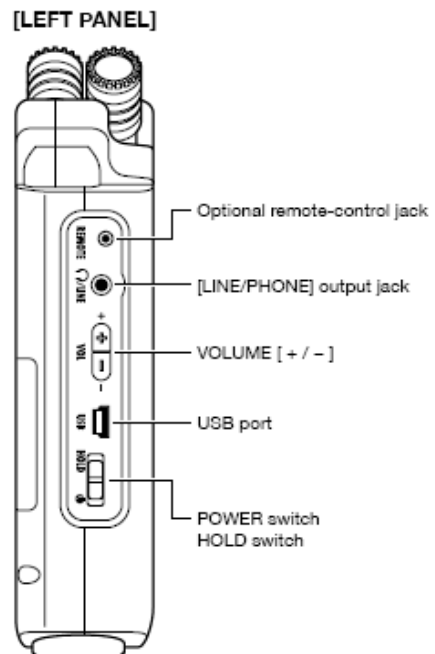
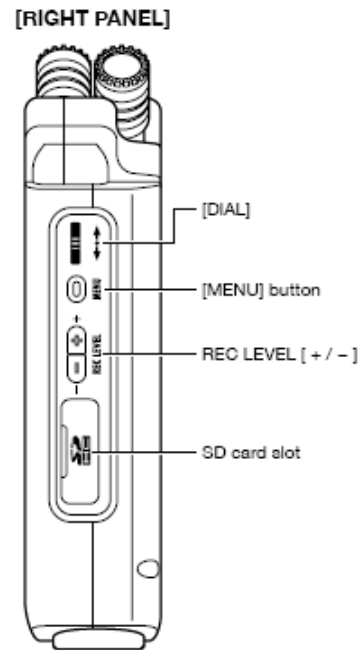
Miniature Cardoid Condenser Microphone, (lavalier type)	
Frequency response	40-20,000Hz
Microphone Weight	.1 oz, (2.8 grams)
Microphone Dimensions	.98 Long X .39 Diameter
Power Module weight	5.2 oz, (147 grams)
Power Module Dimensions	3.27 H X 2.48 W X .87 D
Power or Phantom Power	1 AA 1.5V /UM3 Battery; or – 9-52V DC 2mA TYP
Connection Type	Integral 3-pin XLR Type

Bill of Materials



Item	Part Number	Description	Qty.
1	TC-400-003-050	Headphones, AKG K55	1
2	TC-400-002-050	H4n Digital Recorder	1
3	TC-400-001-050	Cable, Microphone, Horizon CK25, 25 feet long	1
4	TC-410-0000-100	Microphone, Assembly, Owen, DSDS	1
5		Batteries, AA, 1.5V, Package of 4	1
6	Included W / H4n	Computer Program, Cubase LE4, PC Version	1
7	Included W / H4n	Adapter, AC, H4n Zoom Digital Recorder	1
8	MAN-410-3500-000	Instructions, Operating, DSDS	1
9	Included W / H4n	USB Connector Cable	1
10	TC-410-004-050	Case, Carrying, DSDS System, (not shown)	1
11	Included W / H4n	H4n Operation Manual	1

Digital Shot Detection System (DSDS)





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

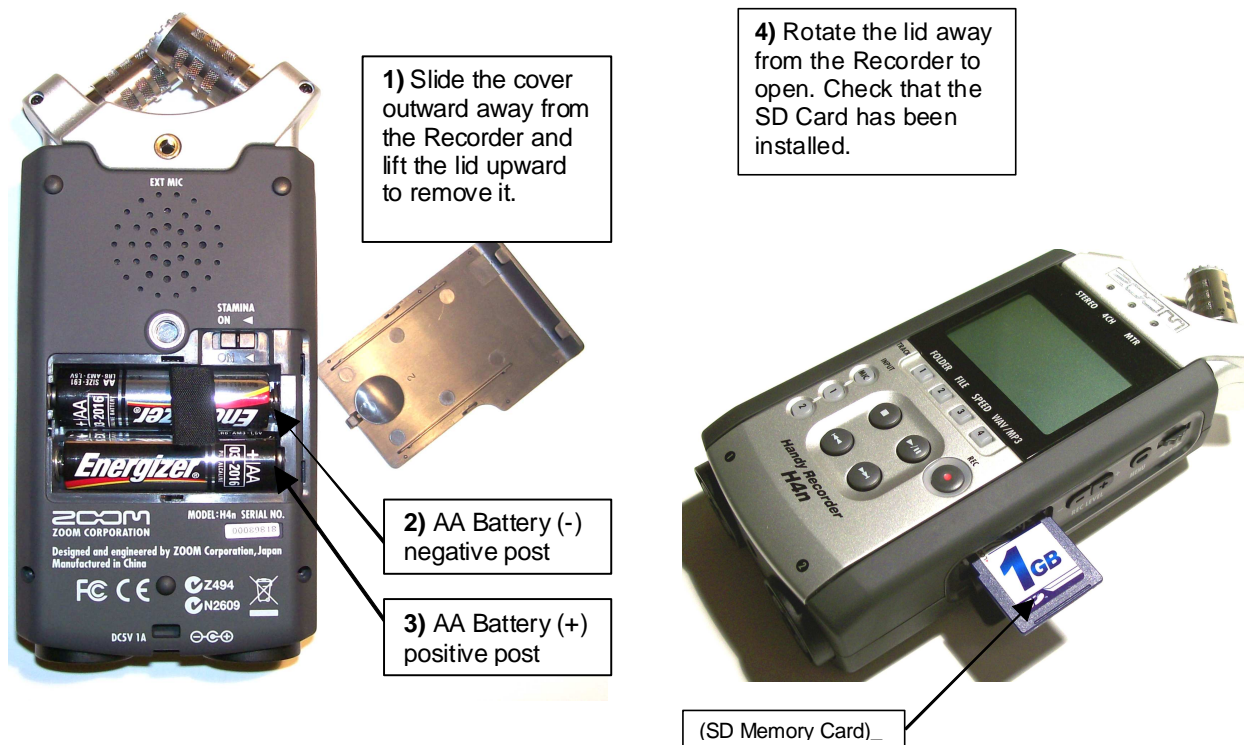
1.0 DSDS Setup and Operation

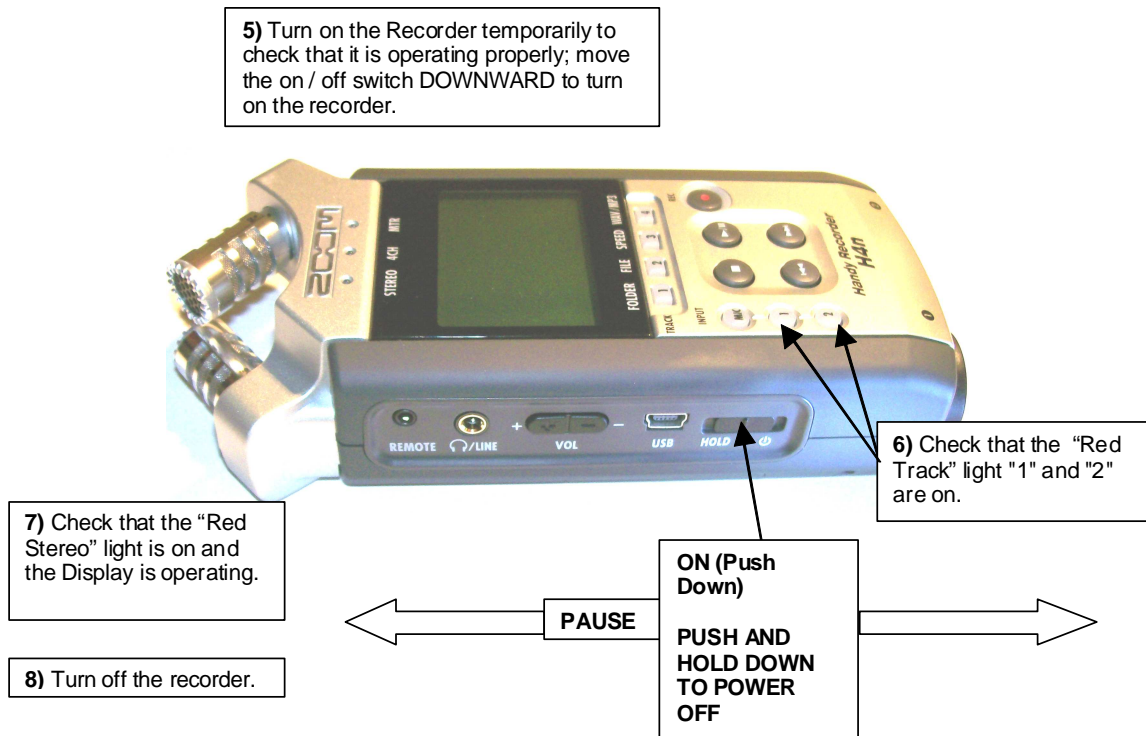
The Owen DSDS unit is simple to operate and easy to use. The recorder has been preset to operate at the well site “out of the box” with a few preliminary actions. Familiarize yourself with the H4n Recorder Operating Manual and the pre-operation checks provided in this Manual.

1.1 Set-up, Install the Batteries:


• **Recommendation: Always replace the Batteries before every job!**

Remove 2 AA Size Batteries from the package and install in the H4n Recorder:



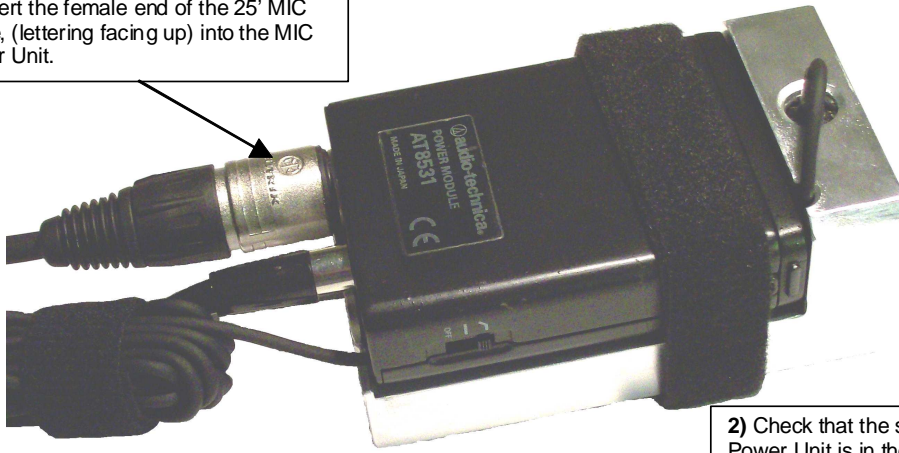


1.2 Connect the Recorder to the MIC:

 **Note:** For the DSDS System operation it is not necessary for the MIC Power Unit to have a Battery installed.

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1) Insert the female end of the 25' MIC Cable, (lettering facing up) into the MIC Power Unit.



2) Check that the switch on the MIC Power Unit is in the "ON" position and all the way up as far as possible.

1.3 Connect the MIC and Headphones to the Recorder:

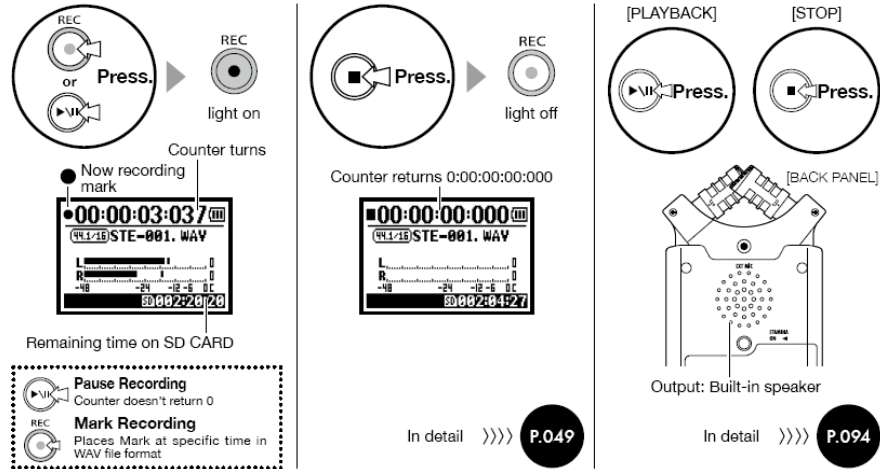


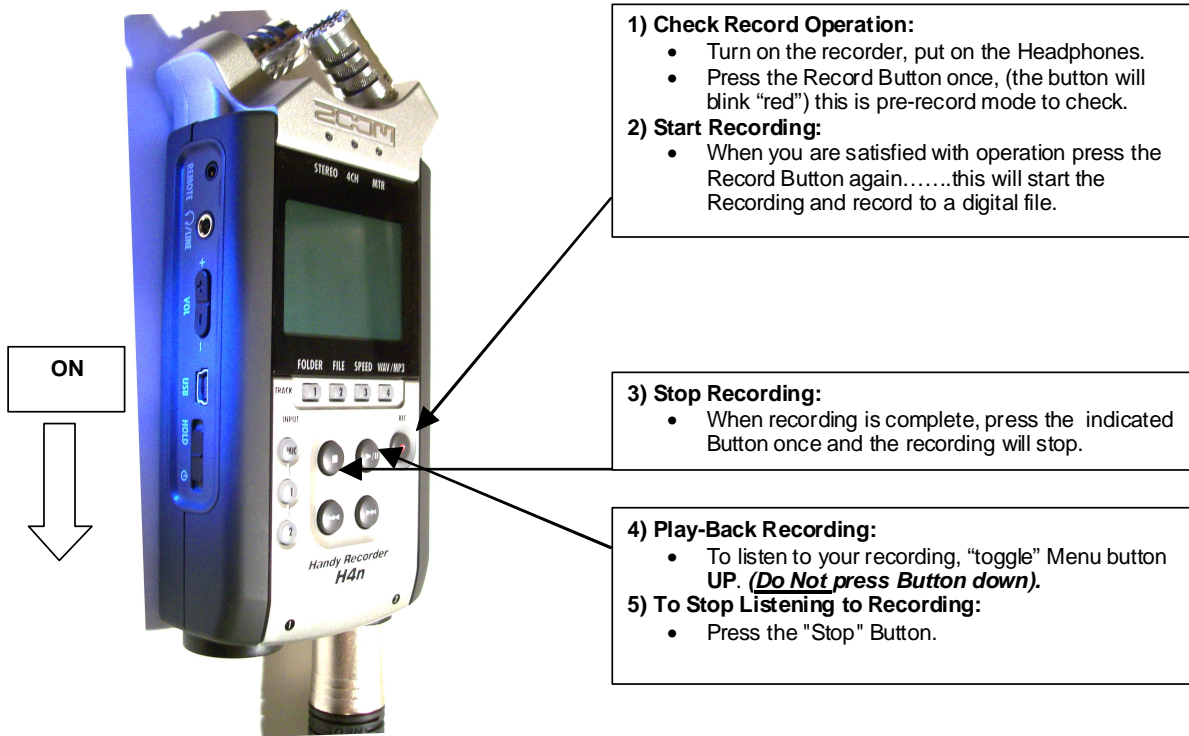
2) Insert the male connector of the Headphones into the "Phones" jack on the Recorder.

1) Insert the other end of the 25' MIC Cable into the right hand jack, (input 2) on the bottom of the Recorder.

1.4 Record Operation:

Attach the Microphone Assembly to the pipe or well head securely using the Velcro Strap. Attach the NIC Cable and Headphones to the Recorder. Attach the other end of MIC Cable to the Microphone at the well head.





1.5 Create a CD Job Record:

To create a Job Record by transferring data onto a CD, refer to the H4n Recorder Owners Manual.