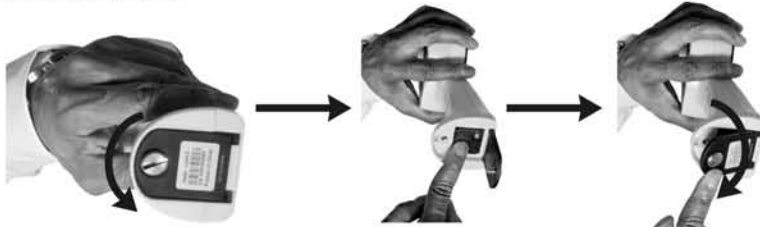


**vCamLS Handheld Viewer**

**Battery Installation**

1. Turn the slotted thumbscrew on the battery compartment door counter clockwise to open the battery compartment.
2. Slide the battery pack into the battery compartment, making sure the battery pack contacts meet with the springs in the battery compartment.
3. Close the battery compartment door and hand tighten the thumbscrew by turning it clockwise until the battery door is flush.



**NOTE**  
The vCamLS viewer's battery status is shown on the upper right hand corner on the LCD.

**Connecting the Flexible Rod Camera**

1. Push the round knurled nut towards the base on the viewer to expose the entire connector.
2. Line up the keying tab on the rod camera to the key socket on the connector.
3. Push the rod camera base into the socket so that it is flush with the connector.
4. Pull the round knurled nut towards the base of the rod camera and turn it clockwise to tighten.

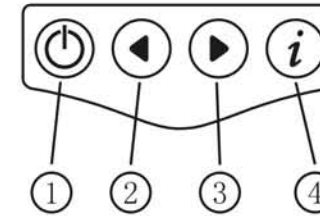
**NOTE**  
Do not use any tools to tighten this connection. Only hand tightening of this connection is needed.



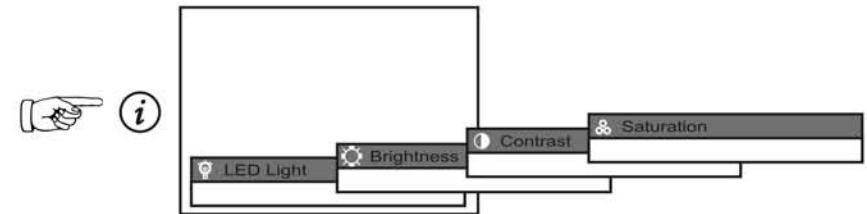
**NOTE**  
The D9 flexible rod camera has a narrow field of view for close up viewing in tight spaces. The D17 has a wider field of view for use in larger and open spaces.

**Controls**

The membrane pushbutton controls are used to adjust the rod cameras LED lights or vCamLS viewer's brightness, contrast and color saturation.



1. Power On/Off button - Push and release this button to turn it on. Push and release the button to turn the unit off.
2. Reduce Adjustments - Use this button to decrease the rod cameras LED lights or vCamLS viewer's brightness, contrast and color saturation.
3. Increase Adjustments - Use this button to increase the rod cameras LED lights or vCamLS viewer's brightness, contrast and color saturation.
4. Menu Options - Pressing this button will bring you to 4 menu options. Press continually to bring up your desired menu (rod cameras LED lights or vCamLS viewer's brightness, contrast and color saturation). When your desired menu is shown use the decrease/increase buttons to get to your desired setting.



**Video out Socket**

The video out socket allows you to record to an external source such as a MPEG or DVR recorder.



**vCamLSR System**

**Connecting to the Type-S Reel**

1. Detach the rod camera from the viewer by turning the knurled nut counter clockwise.
2. Attach the coiled cable assembly from the Type-S reel using the same directions as shown in section "Connecting the Flexible Rod Camera".
3. Seat the handheld viewer into the cradle on top of the Type-S reel, adjust the cradle to your desired position and hand tighten the cradle in place by using the thumbscrew under the cradle.



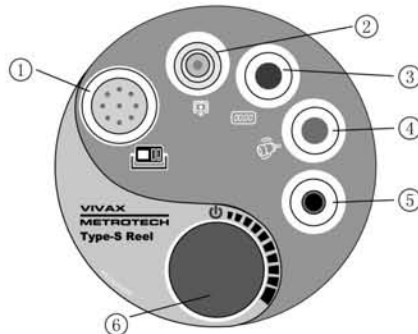
**Power Supply**

The Type-S reel can be powered by 3 methods:

1. Directly via typical household current (which will also charge the internal battery). Typical charge time is 3 hours which will provide 4 hours continuous use. The red LED indicator above power socket will blink while charging and turn off when fully charged.
2. By 12V DC source such as a vehicle or generator.
3. By charged internal batteries.



**Controls on Type-S Reel**



1	Interconnect Socket (to connect vCamModular Control Module)
2	Video Out Socket
3	Distance Reset Control (distance is shown on viewer's display)
4	Sonde On/off Control
5	Power On Indicator
6	Power On/off and LED Dimmer/Brightness Control (for push rod camera)

**Installing the Camera Head**



**NOTE**

Always power off the unit before installing or changing camera heads. Camera heads should be hand tightened only. Mechanical tools should only be used to remove the camera head as a last resort.

1. Hold the spring termination firmly with one hand.



2. Line up the camera heads internal female threads to the male threads on the termination spring. Turn the camera head clockwise until it is flush with the termination spring.

**Deploying the Camera**

1. Unlock the push rod drum by pulling the lock lever and giving it a ¼ turn.
2. Feed the push rod through the cable guide.
3. Adjust lighting and reset distance counter as needed.



**Locating the Position of the Camera Head**

The Sonde signal transmitter is positioned a few inches behind the camera head in the white plastic housing. Allowances should be made for the distance between the Sonde and camera head when pinpointing the position of the camera head.

Switch on the Sonde transmitter by pressing the red Sonde button ④ on the side of the reel. Note that the picture on the screen will disappear while the Sonde is active. The Sonde frequency will either be 512Hz or 640Hz. Pressing and holding the Sonde button will toggle between these two frequencies.

Refer to your locators' user handbook for instructions on locating Sondes.