



MiniSShot

Video Camcorder

Operation & Set-up Manual

Rev. 2010/03/10

Introduction

This document describes the procedures to configure and install the video camcorder that is to be housed in the Aft Avionics Bay of the *MiniSShot* flight vehicle. The camcorder is lightweight, compact and records in High Definition (HD) with a resolution of 1280 x 720 at a frame rate of 30 fps. The camera is fitted with a 4 Gb SD card and is powered by a 1200 mAh 3.7V Li-ion rechargeable (via USB port or 120V charger) battery.

The camcorder is illustrated in Figure 1 indicating the relevant components and control buttons. Figure 2 illustrates the various status indicator icons that are displayed on the LCD screen.

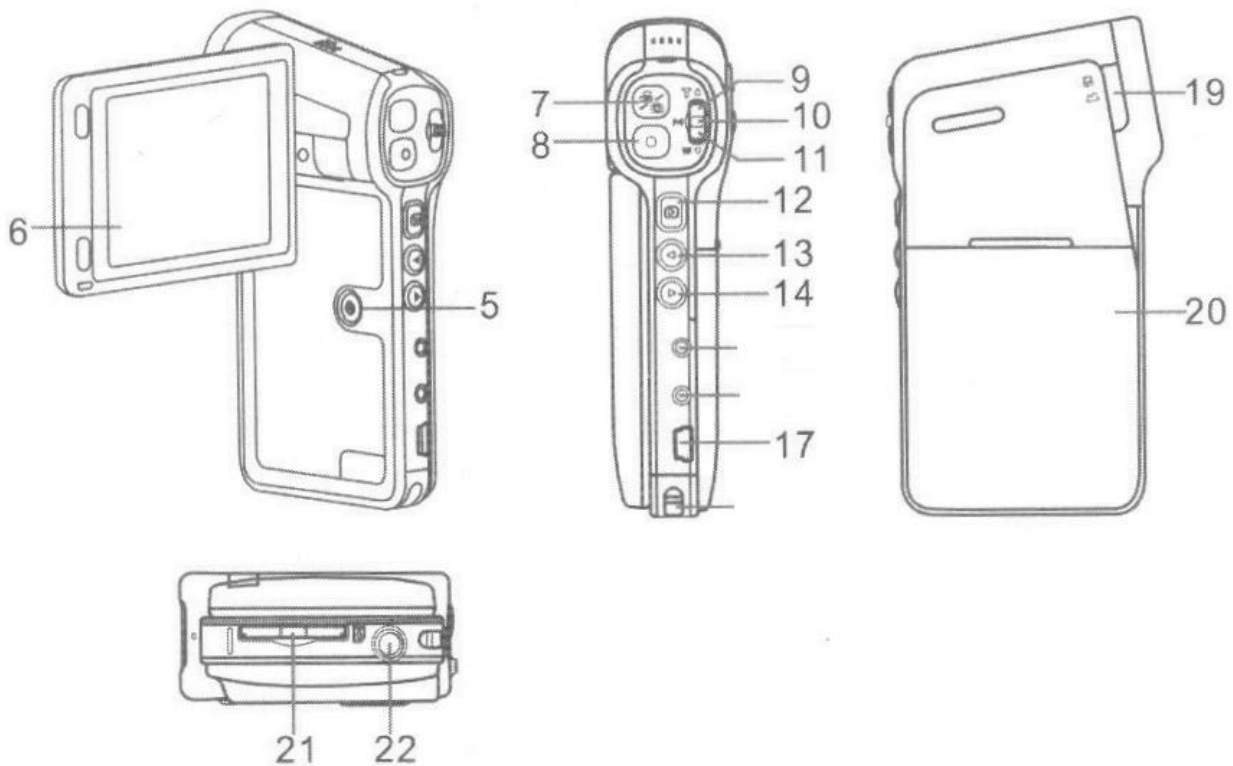


Figure 1: Components/buttons (only those relevant are indicated)

- | | |
|--------------------------|------------------------------|
| 5..... Power on/off | 13.Menu LEFT |
| 6..... LCD screen | 14.Menu RIGHT |
| 7..... Photo/Video mode | 17.USB/Charger port |
| 8..... OK or Record | 19.Macro/normal mode |
| 9..... UP or Zoom in | 20.Battery door |
| 10..... Menu | 21.SD card slot |
| 11..... DOWN or Zoom out | 22.Tripod screw fitting |
| 12..... Playback mode | |

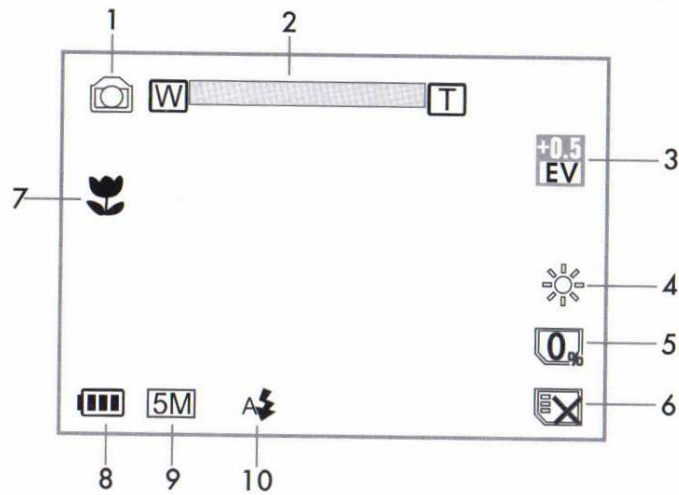






Figure 2: LCD screen showing status indicator icons (only those relevant are indicated)

Icon Function

- 1..... Recording mode: photo or video
- 2..... Digital zoom bar
- 6..... SD card indicator
- 8..... battery charge indicator (3 bars = full charge)
- 9..... Resolution setting

I. Setting up the camcorder

- 1. Verify the SD card is inserted in the camera (slot at bottom of handle)
- 2. Verify the macro/normal mode switch (19) is set to normal (down position)
- 3. Unfold the LCD screen for viewing. The camera will automatically turn on. Camera can also be turned on/off by pressing the power button (5) for one second.
- 4. Verify the battery indicator (icon 8) is at "full charge" (3 bars). If not, charge battery using 120V charger or plug into USP port of computer.
- 5. Verify the camera is set to the video mode (icon 1). If not, press Mode button (7) to change mode:
photo mode  or video mode 
- 6. Verify the resolution setting is 720P (icon 9). If not, set resolution as described in Appendix A.
- 7. Verify the Auto Power-off is set to "Off" by pressing Menu button (10) twice to enter basic setup mode. Press Menu button again to exit setup mode.
- 8. Format the SD card to delete content, as indicated below
 - 1. Press the MENU button twice to enter setup menu.
 - 2. Select FORMAT by pressing the ▲ or ▼ button and press , select by pressing the ◀ or ▶ button.
 - 3. Press the  button to confirm formatting the internal memory or SD card.

(note: all settings are retained when camcorder is powered off)

II. Mounting the camcorder in support structure

- 1. Loosen the four #40 screws attaching the angle brackets to the upper support disc.
- 2. Carefully slide the camera into position, handle end first, between the angle brackets.
- 3. Align the hole in the lower support disc to the "tripod screw" fitting in the camera handle bottom.
- 4. Install the 1/4" hex head screw. Tighten snugly with slot screwdriver.
- 5. Tighten the four #40 screws.

III. Configuring the camcorder for flight

Note: Prior to performing this step, the camcorder support structure should be mated to the booster.

- 1. Unfold the LCD screen for viewing. The camera will automatically turn on. Camera can also be turned on/off by pressing the power button (5) for one second.
- 2. Adjust Zoom IN button (9) to indicate 1 bar in the zoom display (icon 2).
- 3. Press the Record button (8) to start recording (pressing a second time stops recording). Verify the red "dot" indicating recording is displayed, along with elapsed record time.
- 4. Fold the LCD screen back into stowed position.
- 5. Wrap a band of masking tape around the camcorder handle to secure the LCD screen in position.

**** TAKE CARE NOT TO PRESS RECORD BUTTON A SECOND TIME DURING HANDLING ELSE RECORDING WILL STOP ****



Operating duration

The camcorder SD card is 4 Gb which is sufficient to record just under 2 hours of HD video.

Testing has demonstrated that, fully charged, the 1200 mA-hr Li-Ion battery has a useful life of over 2 hours.





Appendix A

Setting Video resolution

1. Press the MENU button to enter the set up menu.
2. Select the RESOLUTION by pressing the ▲ or ▼ button and press the  button to confirm.
3. Different resolutions will be displayed. Select the desired resolution by using the ◀ or ▶ buttons and press the  button to confirm the selection.
QVGA (320 x 240), WVGA (848 x 480), 720P (1280 x 720).

Playback & Deleting videoclips

5.8 Playback photographs / Videos clips

1. Press the PLAYBACK  button to enter the playback mode, and press the ◀ or ▶ button to select video clip or photo.
2. In viewing a photo, push the ▲ or ▼ buttons to zoom in or out.
3. Press the   button to choose the setting to maneuver the image up or down, right or left by pressing the ◀ or ▶ buttons.
4. In viewing a video clip, Press the  button to start playing the video and press again to stop.
5. In playing the video, press the ▶ button to fast forward or press the ◀ button to rewind.

5.9 Delete photographs and video clips

Follow the instructions given below to delete photograph or video clip.

1. Press the PLAYBACK  button to enter the playback mode, then press the MENU button to enter the delete mode.
2. Push the ▲ or ▼ button to select DELETE ONE / DELETE All / PROTECT and press the  button to confirm.
3. Press the ◀ or ▶ button to select the photo or video to delete and press the  button to confirm selection.
4. If you select PROTECT picture, your current file or images can not be deleted.
5. Press the MENU to exit.

Appendix B – Photos of camcorder & support structure



