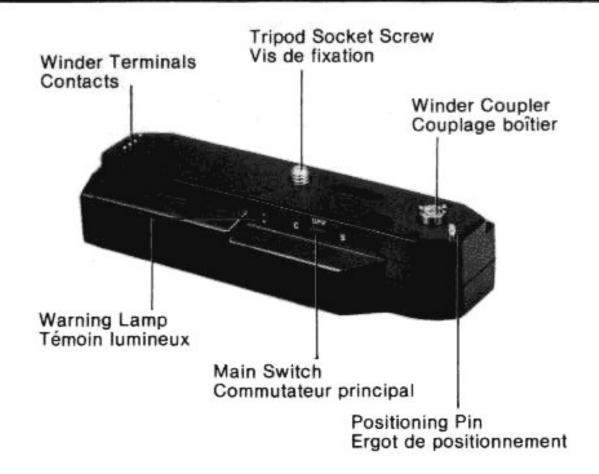
# Power Winder A2 Instructions



Thank you for purchasing the Canon Power Winder A2. Designed for use with Canon A-series SLR cameras, it automatically advances the film at a rate of about two frames per second. You have only to hold the shutter button down for continuous shooting capability, or release your finger from the button after each exposure and the film will automatically wind a single frame. Compact and easy to use, the Power Winder A2 automatically stops at the end of each roll of film. It is especially suited for fast-action photography and enables you to capture a subject's movement or changing expressions. Furthermore, when using the A-1 or AE-1 PROGRAM, Canon's remote control accessories can be attached to the Power Winder A2 thus providing greater shooting versatility.

Cameras usable with the Power Winder A2: Canon A-1, AE-1 PROGRAM, AL-1, AE-1, AV-1 and AT-1.

## Specifications

Winding Speed: Approximately 0.5 seconds.

Operation: When the shutter button on the camera is pressed, the winder will function.

Shutter Speed Coupling Range: 1/60 to 1/1000 second for continuous photography. "B," or any shutter speed of each camera for single frame photography. (However, if set at "B," AE photography cannot be performed.)

Shooting Modes: Controlled by main switch when the Power Winder A2 is mounted on A-1 or AE-1 PROGRAM.

Two Positions: "C" for continuous shooting at about two frames per second. (Shutter continuously released and film automatically wound as long as the shutter button on the camera is pressed.) "S" for single frame shooting. (Shutter released when the shutter button is pressed and film automatically wound when the shutter button is released.)

When the Power Winder A2 is attached to AL-1, AE-1, AV-1 or AT-1: Continuous shooting possible when you keep the shutter button pressed down at either "C" or "S" setting. Single frame shooting possible when the finger is removed from the shutter button each time you press it down once.

Film Counting: Performed by the frame counter on the camera.

Automatic Cut-off Circuit: If winding stops incompletely (such as when the film roll is completely wound), or if the batteries become exhausted, the winder will automatically stop and the warning lamp (LED) will light up.

Remote Control: Possible when the winder is mounted on an A-1 or AE-1 PROGRAM and using Remote Switch 3 or 60, or Wireless Controller LC-1, or Interval Timer TM-1 Quartz (optional accessories).

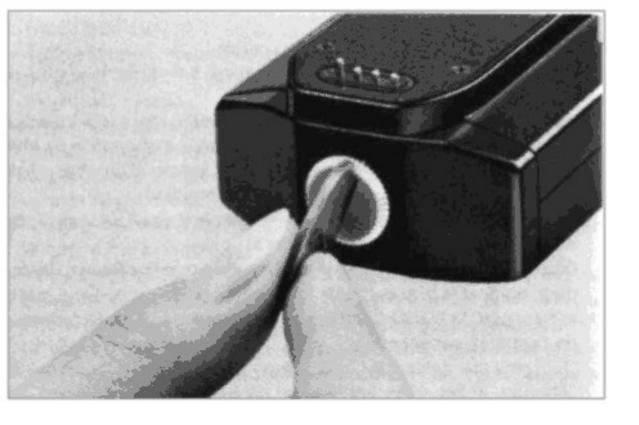
Power Source: Four AA size 1.5V alkaline, carbon-zinc or Ni-Cd batteries.

Mounting on Camera: By using tripod socket on the camera after taking off the winder coupler cover on the bottom of the camera.

Size:  $140.8 \times 27.5 \times 53.4$ mm  $(5-9/16" \times 1-1/16" \times 2-1/8")$ 

Weight: 275 g (9-11/16 ozs.) including batteries.

Subject to change without notice.

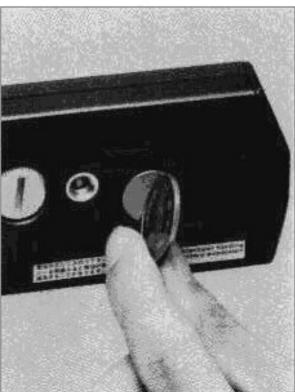


## 1. Loading the Batteries

Turn the fastening screw counterclockwise with a coin to remove the battery chamber cover. Use four new AA size batteries of the same type and brand. The batteries' contacts should be wiped with a clean, soft cloth before loading to avoid possible corrosion due to dirt or fingerprints. Insert the batteries as indicated by the diagram on the bottom of the power winder, and attach the chamber cover by turning the screw with a coin. In general, new alkaline batteries will be able to wind about 40 rolls and carbon-zinc about 20 rolls of 36-exposure film continuously under normal temperature.

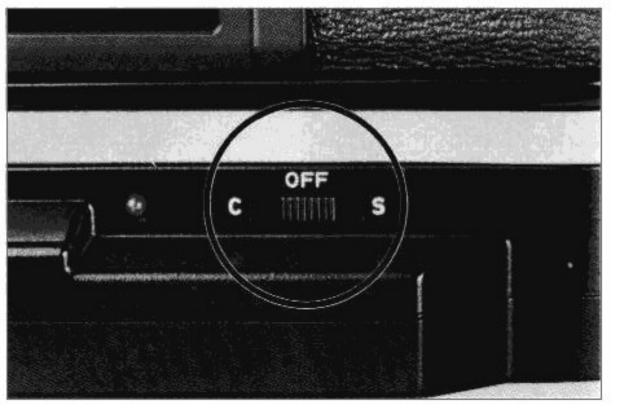
- \* AA size Ni-Cd batteries can be used in the Power Winder A2. Use fully-charged batteries and follow the manufacturer's instructions. Fully-charged Ni-Cd batteries will wind about 60-80 rolls of 36-exposure film.
- \* Load the batteries correctly. If incorrectly loaded, the batteries may burst and leak, damaging the winder.
- \* If the Power Winder A2 will not be used for about three weeks or longer, remove the batteries from the battery chamber lest they should leak.





## 2. Affixing the Power Winder to the Camera

- Remove the winder coupler cover of the camera by unscrewing it with a coin. In order not to lose the cover, screw it into the winder coupler's cover holder on the power winder (except the AL-1).
- . Make sure the power winder's main switch is set to "OFF."
- Before attaching the Power Winder A2 to the camera, clean the winder's and camera's terminals with a soft cloth to ensure proper contact.
- Attach the Power Winder A2 to the camera by turning the fastening screw clockwise with a coin to secure the power winder to the camera. If it takes a while to fasten the power winder to the camera while the main switch is set at "C" or "S," there is a possibility that the warning lamp will light up and the winder may not function; this does not mean it is out of order. In this case, manually wind the film advance lever once.

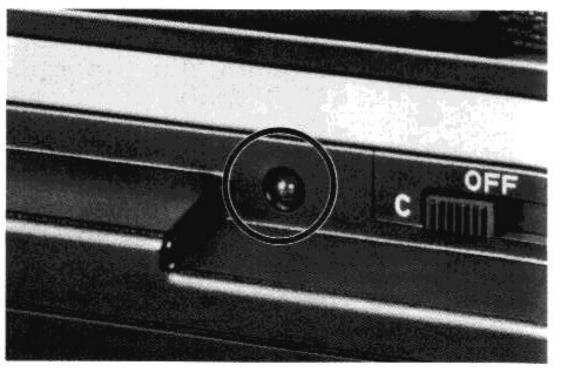


# Setting the Shooting Mode (Continuous or Single Frame Shooting)

- When using the Canon A-1 or AE-1 PROGRAM with the power winder, the changeover of continuous or single frame shooting is performed by the main switch. Set the main switch at "S" for single frame shooting or "C" for continuous shooting.
- When the power winder is mounted on an AL-1, AE-1, AV-1, or AT-1 camera, continuous photography is possible on either the "C" or "S" setting as long as you press the shutter button down. For single frame shooting with the main switch at "C" or "S", press the shutter button down once, then remove your finger from the button.
- \* In general, the film will be advanced at a rate of about two frames per second.
- When the main switch is turned to "OFF," the film can be advanced manually with the film advance lever.
- \* The main switch should be set to "OFF" whenever the power winder is not in use.

# 4. Selecting the Shutter Speed and Shooting

- When you perform continuous photography, use a shutter speed of 1/60 to 1/1000 second.
- For single frame photography, any shutter speed can be used.
- \* If using the AE-1 PROGRAM with the shutter speed selector dial set to "PROGRAM" (programmed AE), sequential shooting is possible if the aperture indicated in the view-finder is 4 or smaller, i.e., 5.6, 8, 11, etc.
- \* When the Power Winder A2 is used with the Canon A-1, sequential shooting is not possible when in the stoppeddown AE mode.
- \* The main switch of the Power Winder A2 must be turned off to make multiple exposures with the Canon A-1.



## 5. Warning Lamp for Completion of Winding

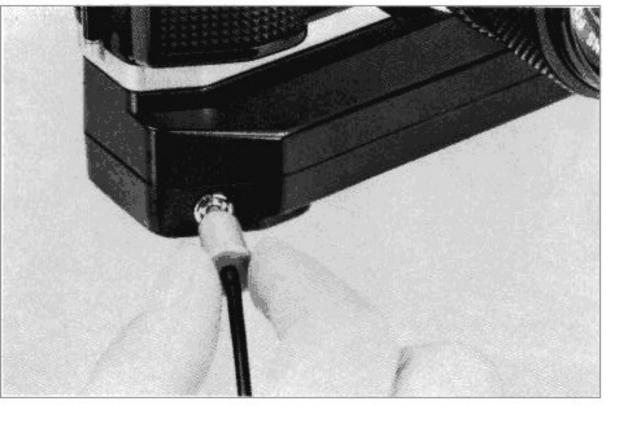
When the film roll ends or winding stops incompletely, the warning lamp lights up. Turn the main switch to "OFF," Do not turn the main switch to any other position.

 There may be a rare case when the warning lamp does not light up.

#### 6. Rewinding the Film

After pressing the film rewind button at the bottom of the winder, rewind the film as usual, turning the camera's rewind crank in the direction of the arrow until the film is completely rewound.





# 7. Remote Control Shooting

- Since the Power Winder A2 has a remote control socket for use with the A-1 and AE-1 PROGRAM, shooting from a distance is possible via the socket with Remote Switch 3 or 60, or Wireless Controller LC-1, or Interval Timer TM-1 Quartz (optional accessories).
- Make sure the winder's main switch has been turned to "OFF" before connecting the accessory. (The shutter might be released once if the accessory is connected when the winder's main switch is at any setting other than "OFF").
- When the Power Winder A2 is mounted on an AL-1, AE-1, AV-1 or AT-1, remote control shooting is not possible.

#### Precautions

#### Interruptions in Winding Due to Reduced Battery Power

When the batteries are almost exhausted and it takes over one second for one frame of the film to be wound, the batteries must be replaced after the main switch has been turned off. Also check the power of the battery in the camera. If the camera's battery has insufficient power, the winder will not function.

 When the Power Winder A2's batteries are exhausted, replace them with four new ones of the same type.

#### Avoiding Blurred Images

When a telephoto lens is in use, slight vibration may cause image blur. To avoid possible blurred images during handheld shooting, the minimum shutter speed should be faster than the reciprocal of the focal length of the lens. For a 100mm lens, for instance, use a shutter speed of 1/125 sec. or faster. Even when a tripod is used, choose the fastest shutter speed possible.

### Use of the Power Winder A2 in Cold Climates

In very low temperatures, the batteries' power is reduced and regular photography cannot be performed. Under these conditions, it is best to carry a spare set of batteries in an inside pocket to keep them warm.

Ni-Cd batteries are also recommended as an effective power source in low temperatures.