

# *Operation Manual*

## **CS-280M**



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**ACEBIL**  
CAMERA SUPPORT EQUIPMENT

# **CS-280M**

## **Tripod System Package**

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# Safety



Where there is a risk of injury, or damage to equipment, this warning symbol will appear. This equipment may cause harm if not used in accordance with this operation manual.

## Before operating this equipment, please read manual for safety.

- Always maintain payload to within the maximum capacity limit.
- Ensure slide plate lock lever is firmly tightend.
- Ensure tripod is securely positioned, and all leg locks are in the locked position.
- Do not modify, or dismantle equipment, as it may cause damage, and injury.
- When using pan and tilt features, ensure the lock knobs are fully loosened.
- Always remove camera and accessories before transporting.
- Never carry tripod system by grabbing the pan arm as it may cause damage.

## Technical Specifications

Weight	5.8kg / 12.8lb
Height	99-160cm / 39"- 63"
Payload	6kg / 13.2lb
Counter Balance	Free + 8 Steps
Pan Drag	Free + 4 Steps
Tilt Drag	Free + 4 Steps
Tilt Angle	+90/-70
Ball Diameter	75mm
Tripod Section	1 Stage
Camera Plate	Slide Plate
Slide Range	+50/-50mm
Plate Attachment	1/4"- 3/8" screw
Spare Screw	3/8" - Screw * 2 pcs

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- 1 - Pan Bar (PB-4C)
- 2 - Pan Bar Mount
- 3 - Slide Plate
- 4 - Slide Plate Lock Knob
- 5 - Tilt Lock Knob
- 6 - Pan Lock Knob
- 7 - Ball Leveler

- 8 - Bubble Level
- 9 - Ball Leveler Fixing Handle
- 10 - Counter Balance
- 11 - Tilt Drag
- 12 - Pan Drag
- 13 - Leg Lock
- 14 - Mid Spreader (MS-3)

# CS-280M

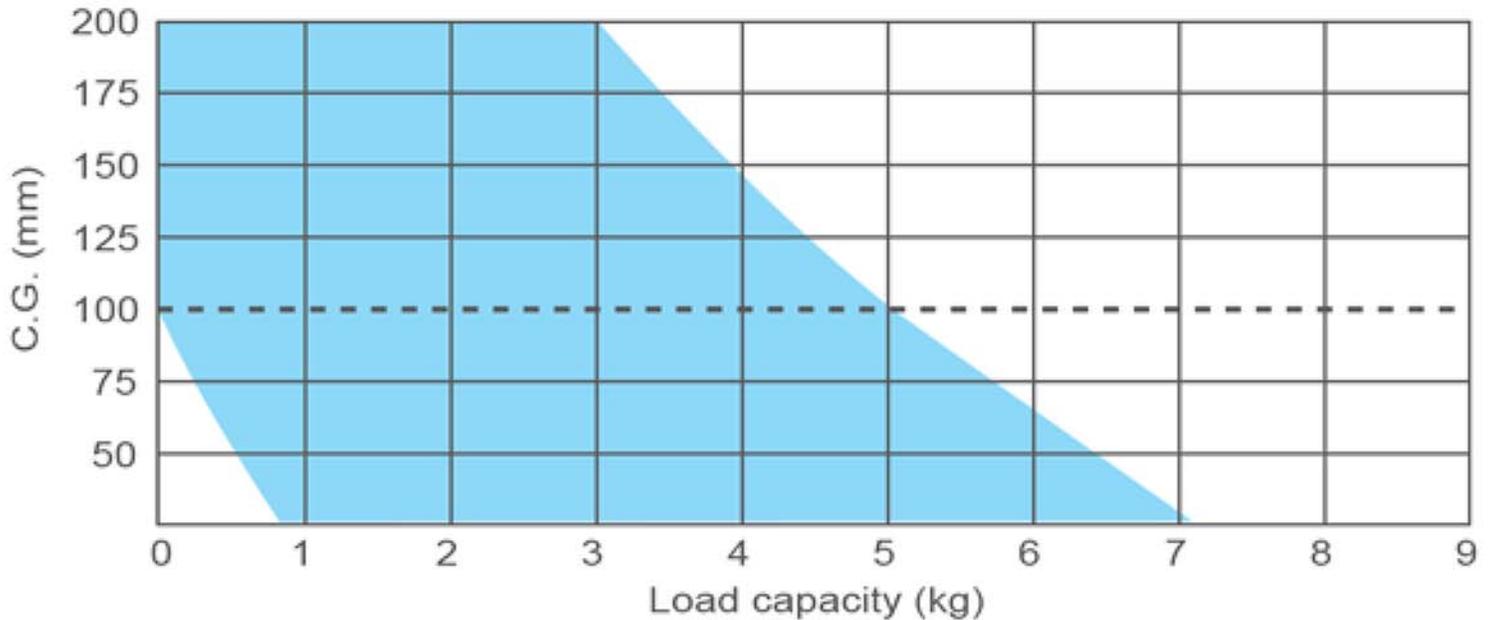
## Counter Balance

The definitive way to find the most accurate counterbalance between camera/accessories and a tripod head is to actually mount the camera on the head. However, you can use this counterbalance chart to get a rough idea of the correct counterbalance.

The vertical axis of the chart depicts the height of the gravitational center and the horizontal axis is load weight (total weight of the camera and accessories). Based on the combination of these two elements, you can find a suitable tripod head for your camera.

When a standard lens, microphone and battery are used, the normal height of the gravitational center is approximately 125mm / 4.9"(for a shoulder type camera), 100mm / 3.9" (semi-shoulder) and 75mm / 3.0" (hand-held). The height of the gravitational center will not shift much even when a different lens or a different battery is used on the back of the camera. Please be aware that attaching a light or a monitor on top of the camera will shift the center of gravity.

### CH2 Counterbalance chart



# Setting up the tripod.

1. Release tripod holding hook.
2. Extend tripod to desired height.
  - ① Unlock upper leg locks while holding the tripod.
  - ② Adjust legs to desired height, and re-engage leg locks.
3. Unfold tripod, and ensure spreader is extended and fully horizontal.
4. Adjust pan arm position.
  - ① Loosen pan arm lock knob, set to desired position..
  - ② Tighten pan arm lock knob firmly.

1.



2.



3.



4.



# Mounting the camera.



Load capacity is 6kg / 13.2lbs. - Do exceed the load capacity as it may cause damage to equipment or injury.  
When mounting and removing camera, ensure the tilt lock knob is firmly tightened.

1. Ensure tilt lock knob is tightened.
2. Loosen the ball leveler fixing handle, level the head using the bubble level, and tighten the ball leveler fixing handle securely.
3. Remove the slide plate.
  - ① Loosen the slide plate lock lever.
  - ② Press slide plate safety lock to release slide plate.
  - ③ Pull slide plate out.
4. Mount the camera to the slide plate.  
Align the camera screw and video boss with the camera, and tighten camera screw securely.
5. Mount camera and slide plate to the tripod head.  
With camera mounted, insert slide plate back into the tripod head.  
Tighten slide plate lock lever securely, for final step.



# Balancing

When balanced correctly, it will take a minimum amount of effort to tilt the head smoothly.

When perfect balance is achieved, the head and payload can be set to any tilt angle, and will maintain its position without the operator holding it ( hands free ).

Ensure all accessories, including pan arms are mounted prior to balancing.



**Prevent the payload from free falling when tilt lock knob is loosened.**

**Failure to secure the camera and payload may result in damage to equipment and injury.**

Use the counter balance adjustment, and set to the appropriate level.

If additional, or fine adjustment is needed, change the position of the camera on the slide plate.



Counter Balance Adjustment \_\_\_\_\_

# Pan and Tilt

The head can be locked at any chosen position by using the pan and tilt lock knobs.  
To lock the head, turn lock knob fully clockwise.  
To unlock the head, turn lock knob fully counter-clockwise.



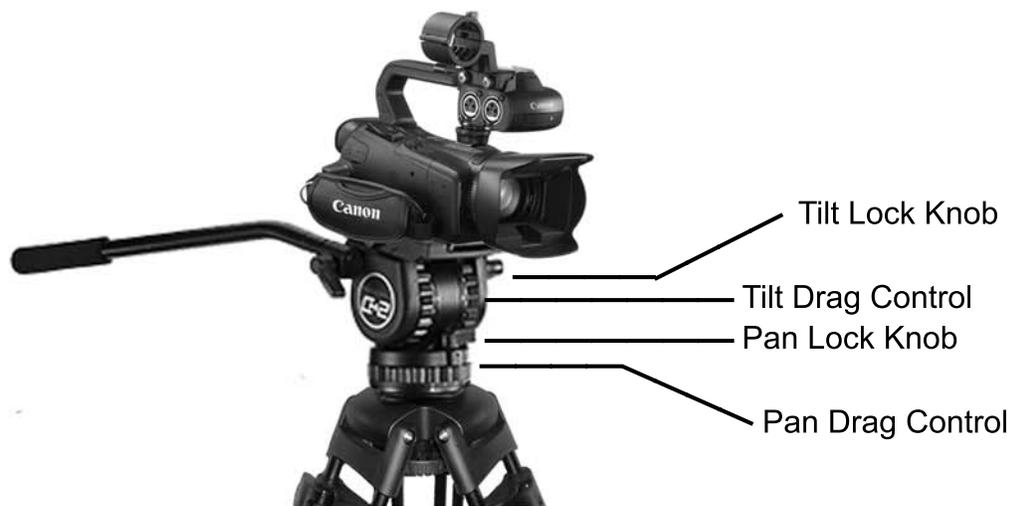
**DO NOT use lock knobs to supplement drag, as it may cause damage to the head.**

## ■ Panning

Unlock the pan lock knob by turning counter-clockwise fully.  
Pan the head left to right as needed.  
Use the Pan Drag Control to adjust Pan Drag.  
Lock into position by turning the pan lock knob clockwise fully.

## ■ Tilting

Unlock the tilt lock knob by turning counter-clockwise fully.  
Tilt the head up and down as needed.  
Use the Tilt Drag Control to adjust Tilt Drag.  
Lock into position by turning the tilt lock knob clockwise fully.



# Further Information

For more information on products listed in this manual, visit us online:

[www.acebil.com](http://www.acebil.com)

or contact us at:

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