

# **E**CARTONIE

PROFESSIONAL CAMERA SUPPORT

## C20S



USER'S MANUAL  
& Maintenance





**CERTIFICATO N. 19714/09/S**  
**CERTIFICATE No.**

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITÀ DI  
 IT IS HEREBY CERTIFIED THAT THE QUALITY MANAGEMENT SYSTEM OF

**CARTONI S.P.A.**

VIA DI PORTONACCIO, 33/B 00159 ROMA (RM) ITALIA  
 NELLE SEGUENTI UNITÀ OPERATIVE / IN THE FOLLOWING OPERATIONAL UNITS

VIA DI PORTONACCIO, 33/B 00159 ROMA (RM) ITALIA

È CONFORME ALLA NORMA / IS IN COMPLIANCE WITH THE STANDARD

**ISO 9001:2015**

PER I SEGUENTI CAMPI DI ATTIVITÀ / FOR THE FOLLOWING FIELD(S) OF ACTIVITIES

PROGETTAZIONE, FABBRICAZIONE ED ASSISTENZA POST-VENDITA DI PRODOTTI PER LA CINEMATOGRAFIA E LA TELEVISIONE PROFESSIONALE. COMMERCIALIZZAZIONE DI PRODOTTI ED ACCESSORI IN CONCESSIONE PER LA CINEMATOGRAFIA E LA TELEVISIONE PROFESSIONALE

IAF:17  
IAF:29

DESIGN, MANUFACTURE AND POST-SALE ASSISTANCE OF PROFESSIONAL BROADCAST AND FILM EQUIPMENT.  
 MARKETING OF PROFESSIONAL BROADCAST AND FILM ACCESSORIES AND PRODUCTS AS LOCAL AGENCY/REPRESENTATIVE

La validità del presente certificato è subordinata a sorveglianza periodica annuale / semestrale ed al riesame completo del sistema di gestione con periodicità triennale

The validity of this certificate is dependent on an annual / six monthly audit and on a complete review, every three years, of the management system

L'uso e la validità del presente certificato sono soggetti al rispetto del documento RINA: Regolamento per la Certificazione di Sistemi di Gestione per la Qualità

The use and validity of this certificate are subject to compliance with the RINA document : Rules for the certification of Quality Management Systems

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CISQ è la Federazione Italiana di Organismi di  
 Certificazione dei sistemi di gestione aziendale  
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SGQ N° 002 A

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# 1. SAFETY & SET-UP INTRODUCTION

Thank you for choosing **CARTONI**.

The **C20 S** is a heavy-duty action Fluid Head with a broad range of payloads from 7 kg (15 lbs) to 35 kg (77 lbs) specifically designed to provide an extremely stable support for standard EFP, Studio/Broadcast or Film configurations.

Rugged but easy to operate this Fluid Head has all the ergonomic settings at the right place. The **C20 S** features 3 award winning fluid damping modules assuring outstanding drag levels and extraordinary smoothness in both pan and tilt modes.

Movements can be selected with 7 precisely repeatable steps of drag, while free-wheeling is available by simply setting the drag selector ring into position "0". Counterbalance is activated by an easy grip selector in 7 progressive steps and "0".

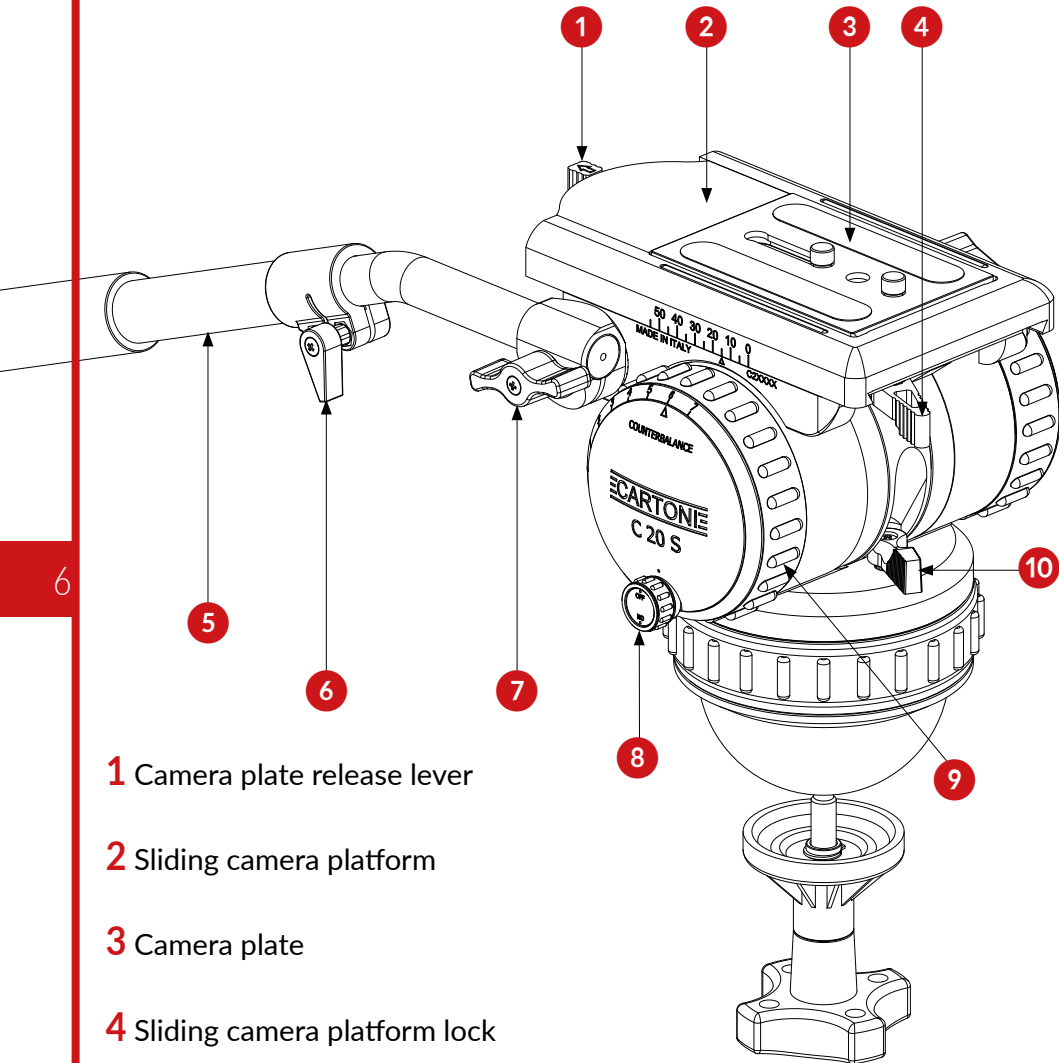
Positive locks, wide range sliding platform incorporating the European style quick release plate, a switchable illuminated spirit level completes the operating specs.

The C20S weighs 6.5 kg (14.3 lbs) thanks to the extensive use of extremely lightweight magnesium alloys.

It interfaces with all 100 mm bowl base tripods and in the optional **C20 S/150mm** version, it interfaces with all 150 mm bowl base Tripods and with Pedestals through the standard Vinten 4 bolts.

- ✓ Before using the product read this user manual.
- ✓ Before installing the Fluid Head on the Tripod check the Tripod stability.
- ✓ Verify that the Camera payload (including lenses and accessories) is lower than the maximum capacity of the Fluid Head.
- ✓ Before installing the Camera make sure that the Fluid Head is in good conditions and bears no evident damages.
- ✓ Verify that the Camera payload (including lenses and accessories) is lower than the maximum capacity of the Fluid Head.
- ✓ Do not attach heavy items to the Pan bars.
- ✓ The Pan and Tilt locks should be applied whenever the Camera is left unattended on the Fluid Head & Tripod.
- ✓ Always remove the Camera from the Fluid Head before transporting.

## 2. OPERATING ELEMENTS



1 Camera plate release lever

2 Sliding camera platform

3 Camera plate

4 Sliding camera platform lock

5 Pan bar

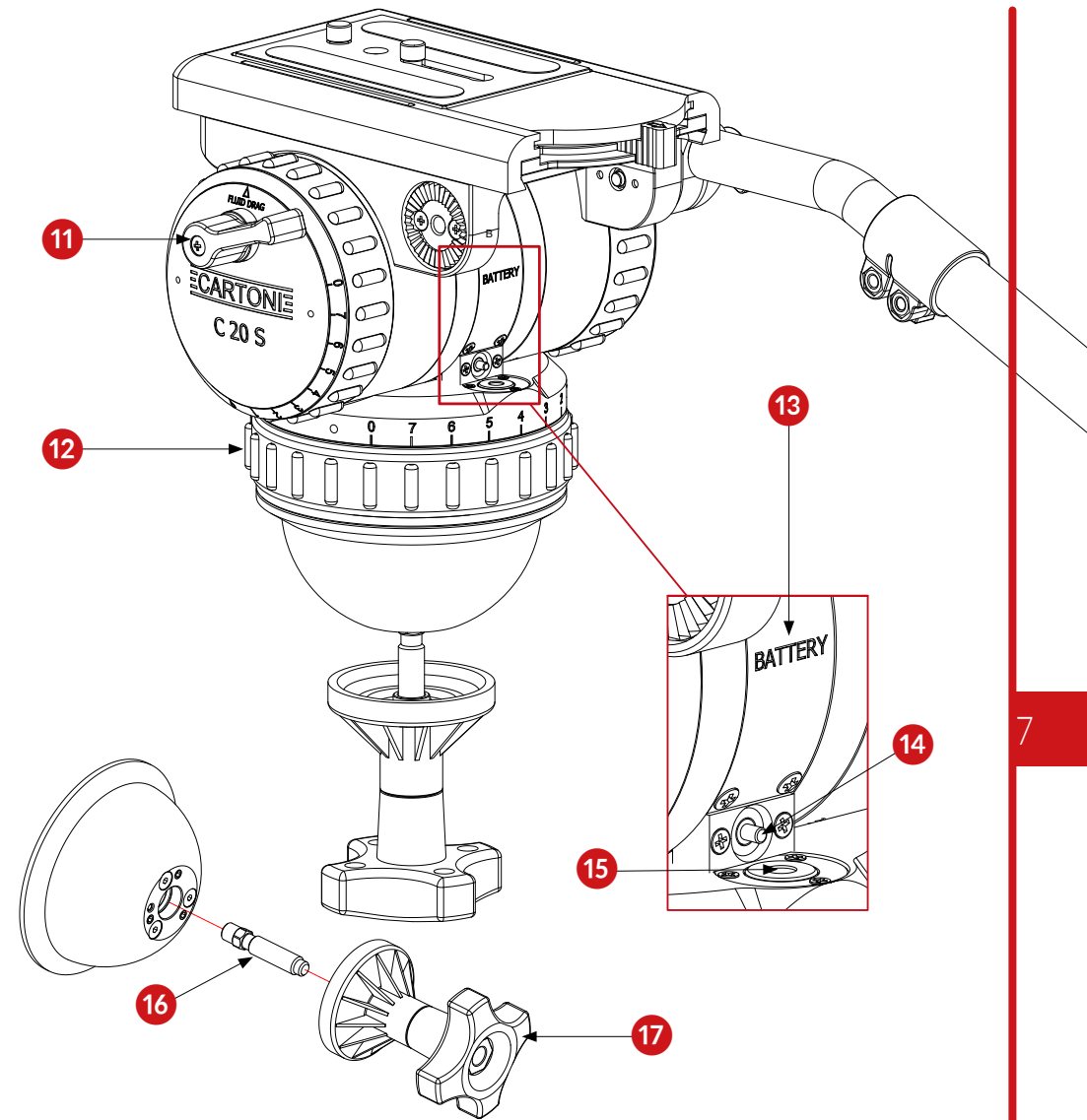
6 Pan bar extension

7 Pan bar attachment

8 Tilt angle ON/OFF selector

9 Counterbalance selector

10 Pan lock



11 Tilt lock

12 Pan selector

13 Battery housing

14 Spirit level button

15 Illuminated spirit level

16 Removable tie down shaft

17 Tie down knob

### 3. PROCEDURES

- ✓ Place the **C20 S** on your Tripod by loosening the tie-down knob **17** under the Fluid Head and level using the illuminated spirit level **15**. In low light conditions, press button for light.
- ✓ Connect one or two Pan bars **5** to the Fluid Head tightening the lever **7** on the Pan bar attachment and select your desired operating angle. The telescopic Pan bar length can be adjusted via lever **6**.
- ✓ Insert Pan **10** and Tilt **11** locks and check the sliding Camera platform lock lever **4**. Set horizontal lock **3** in position "On".
- ✓ Open the Camera plate release lever **1** completely to release the Camera plate **3**.
- ✓ Remove the Camera plate **3** from the sliding Camera platform **2** by squeezing simultaneously Camera plate release lever **1** and the safety lever **4**. Attach the Camera plate **3** to the bottom of the Camera and tighten the clamping screw to secure the Camera.
- ✓ Lock the sliding platform lever **4**, click the Camera into the quick release sliding platform **2**, the plate will lock into place.
- ✓ Hold the Camera in horizontal position with the Pan bar **5** and release the Tilt brake lever **10**. Release the sliding platform lever **4** and find the correct center of gravity (CG) position, by sliding the Camera platform **4** back and forth until you have achieved the correct balance. Fasten the sliding platform lock **4**.
- ✓ Set the Counterbalance system by turning the selector clockwise **9** to appropriate tension. The Camera must stay at any Tilt angle. Eventually, fine-tune by adjusting the sliding plate **2**.

- ✓ Unlock the Pan lock lever **10** and set the Fluid drag control by adjusting Pan selector **12**.
- ✓ Set position "ON" on the Tilt angle increase selector **8** for a +/- 65° Tilt angle. In case an extra 5° is needed, set the selector on "OFF" position, keeping in mind you are now working on the springs limit angle.
- ✓ When the illuminated spirit level **15** fails it is time to replace the 9 volts battery **13**. Remove the battery cover.
- ✓ The above set-up instructions are for the achievement of precise pan, tilt and diagonal movements. To get optimum results from your **C20 S** the equipment set up is very important.

### 4. SPECIFICATIONS

Minimum payload	7 Kg	15 lbs
Maximum payload	35 Kg	77 lbs
Weight	6,5 Kg	14.3 lbs
Bowl diameter	100 mm & 150mm optional	
Fluid control	7 steps + 0	
Counterbalance	7 steps + 0	
Pan range	360°	
Tilt range	+/- 65°	
Temperature range	-40 / +60 °C -40 / +140 °F	

## 5. MAINTENANCE

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With indoor use - when needed - just clean the **C20 S** and Tripod with a soft cloth. Dirt accumulated during storage may be removed using a brush or Air spray.

**CARTONI** products main mechanisms are sealed as they are also built for professional outdoor use.

However, use under rough conditions will require special care. Salt water is very corrosive and can cause extreme damages. In attempt to avoid further damage the Fluid Head should be washed off with fresh water at the earliest opportunity and dried before storage.

Sand and dirt are abrasive and should be removed using a semi-stiff brush or Air spray.

Disconnect the illuminated spirit level battery during long term storage.

## 6. WARRANTY

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All **CARTONI** Fluid Heads & Pedestals have a free of charge three (3) year warranty. Register your product at [www.cartoni.com](http://www.cartoni.com) within 30 days from date of first purchase/invoice to receive further two (2) year warranty for the unsurpassed free five (5) year warranty.

Tripods, spreaders, dollies and all accessories are guaranteed one (1) year from the date of first purchase/invoice.

**CARTONI** warrant that the product supplied will - under proper use - be free from defects in workmanship and materials and agrees that it will, at its option, either repair or replace any defective part within duration of warranty from date of first purchase with no labour charge.

This warranty does not apply to any **CARTONI** product that has been damaged in shipping or handling, abused, misused, operated contrary to instructions for use, neglected, normal wear or tear, modified or changed in design or construction or serviced by unauthorized parties.

Repairs or misuse by any unauthorized parties will void this warranty. Warranty claims must be submitted - in writing - to the factory for verification or to an authorized distributor/dealer designated by **CARTONI**.

It is the end user's responsibility when ordering to ensure that the products ordered conform to his requirements.

All freight of product to **CARTONI** must be prepaid. All implied warranties are limited to the time period set forth herein & subject to change without notice.

No liability can be accepted for any variation.

## 7. ACCESSORIES & PRODUCT LINE

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For the complete Accessories list & Product line please visit **CARTONI's** official website [www.cartoni.com](http://www.cartoni.com).

Every product has an updated list of compatible items sorted by groups, with descriptions and technical data.



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