

# MAINTENANCE AND USER'S MANUAL



## ***P70 PLUS PEDESTAL***



Rev. 2 – 10/2016

Thank you for choosing the P70 PLUS Pedestal manufactured by *Cartoni S.p.A.*

The P70 PLUS was designed and built using state-of-the-art technologies and procedures in order to guarantee the maximum reliability over time, as well as total safety for its users.



*In order to properly and safely use the P70 PLUS Pedestal read this manual very carefully and follow the instructions.*

*All back-up material, and this manual in particular, should be stored in a safe place for future reference.*



**CARTONI S.P.A.**

VIA GIUSEPPE MIRRI, 13

00159 ROMA – ITALIA

TEL. 064382002 – FAX 0643588293

MAILTO:CARTONI@CARTONI.COM

[WWW.CARTONI.COM](http://WWW.CARTONI.COM)

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# 1. PREFACE

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The present manual relates to the camera support *P70 PLUS Pedestal*.

The Pedestal can only operate properly and safely if it is used exactly as prescribed in the present manual and in the other documentation relevant to the P70 PLUS Pedestal.

It is therefore essential to read all the said documentation carefully and to keep it in a safe place.

Always make sure that anyone required to operate the pedestal has fully understood all instructions and regulations governing its use as well as all the symbols and controls on the machine.

Although the equipment features safety devices, not all the risks inherent its improper use can be avoided. *Cartoni S.p.A* therefore accepts no responsibility for damage to persons or property deriving from improper use of the equipment.



**WARNING!** Do not remove or erase any label, indication or warning affixed to the Pedestal.



**WARNING!** Any modification to the pedestal and/or its accessories require prior authorisation by *Cartoni S.p.A*.

## 1.1. FURTHER INFORMATION

For a more detailed description of the components please refer to the exploded views of the equipment available from *Cartoni S.p.A*. and its authorized resellers.

## 1.2. WARRANTY

The P70 PLUS Pedestal is covered by a warranty against manufacturing defects for 5 years from the date of shipment (three years basic warranty + two years upon online registration to [www.cartoni.com](http://www.cartoni.com)).

The warranty covers replacement of any defective parts and the labour required for the purpose; it is the client's responsibility to bring any product requiring repair to the *Cartoni S.p.A.* factory office in Rome or to a *Cartoni* authorized service centre.

If it is merely a matter of replacing individual components, these will be supplied free of charge from the *Cartoni S.p.A.* factory. Transport costs will be charged to the client. The present warranty is only valid if the pedestal has been properly used in accordance with the manufacturer's instructions and has not been mishandled. *Cartoni S.p.A* immediately invalidates the warranty if modifications and/or repairs are carried out by persons not authorised to do so.

Components subject to wear and tear are not covered by the warranty.

The warranty is also invalidated by one of the following:

- ✓ failure to comply with payment conditions;
- ✓ failure to carry out appropriate maintenance;
- ✓ removal or mistreatment of plates and/or labels containing data and technical specifications.

The warranty absolves *Cartoni S.p.A.* of all responsibility for any direct or indirect damage deriving from the equipment malfunction.

*Cartoni S.p.A.* accepts no responsibility for damage to the pedestal caused by improper use or the malfunction of other equipment connected to the camera support.

The warranty only covers the Pedestal damage and/or malfunction and does not entitle the Purchaser to claim any damages for loss of production time due to assumed or proven damage caused by and/or connected to the pedestal itself.

The present warranty forms an integral part of the sales contract and is included into the selling price of the machine.

### 1.3. AUTHORIZED PERSONNEL

Extraordinary maintenance and repairs to the pedestal can only be carried out by competent persons who are either employed or authorised by *Cartoni S.p.A.*

Information regarding repair/maintenance can be obtained by Cartoni website [www.cartoni.com](http://www.cartoni.com).

### 1.4. REGULATIONS AND RELEVANT DOCUMENTATION

The design and construction of the machine comply with the regulations listed below:

- ▣ EU Directive 2006/42/CE covering the harmonisation of member States' laws on machinery (*Machine Directive*)

- ▣ Presidential Decree 17/2010 of 27/01/2010: regulation implementing EU Directive 2006/42/CE and subsequent amendments (Italian implementation of the *Machine Directive*)

- ▣ UNI EN ISO 12100:2010 - Safety of machinery – General principles for design – Risk assessment and risk reduction

- ▣ UNI EN ISO 13857:2008 - Safety of machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs

## 2. 2.1. TRANSPORTATION AND HANDLING

The pedestal is splitted into the following component parts for shipment:

Component	Weight [kg /lbs.]
Skid base	14,2 / 31.2
Column	13,5 / 29.7



Fig. 1 – Skid base and column

The following items are also supplied with the pedestal:

- ✓ a pump for the manual pressurisation of the pedestal;
- ✓ a hose that connects the pedestal to a compressed air canister.

Customers are advised to check the packaging for damage on arrival and also make sure that none of the components show signs of impact. If any such damage occurs *Cartoni S.p.A.* should be informed immediately.

If the product is to be forwarded elsewhere, it should be carefully packed and the greatest care should be taken not to damage any of the components.

### 2.2. STORAGE

The pedestal requires no particular storage conditions as long as it is kept in a closed and dry environment.

### 2.3. FLOORING

Flooring should be solid and strong enough to bear the combined weight of the pedestal and the camera with accessories.

The Pedestal also needs to be positioned on floor that is smooth and flat.



**WARNING!** The flooring should be such as to guarantee the stability of the pedestal, both in movement and at rest.

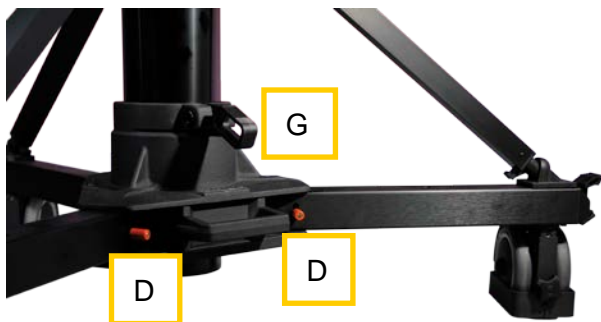


Figure 2 — Lever G to secure the stabilizing arms and D for skid arms releasing

**⚠ WARNING!** For operation on uneven floor please use the rubber-tyred wheels set (Fig. 3a).



Fig. 3a – Rubber tyred wheels

## 2.4. OPERATING CONDITIONS

The pedestal has been designed and built to operate in a dry environment and should not be used in presence of fine dust or corrosive gases.

The pedestal requires the following operating conditions:

- ✓ temperature: 5 ÷ 40 °C;
- ✓ humidity: 30 ÷ 95% without condensation.

Cartoni S.p.A. also offers an open-air, rubber-tyred version of the pedestal, which should not, however, be exposed to climatic extremes such as direct hot sunlight or heavy rain, etc.

## 2.5. ASSEMBLY

The column is mounted onto the skid as follows:

- ✓ lift the red levers (D) (see Figure 2) to open the skid arms;
- ✓ insert column base (B) into the skid center casting (A) (see Figure 1);
- ✓ adjust the height of the column, making sure that the lower end of the column does not extend beyond the base of the skid;
- ✓ lower lever C (see Figure 4) to secure the column to the skid;
- ✓ raise the stabilizing arms and insert one end (F) of each arm into the seats on the skid arms (E) (see Figure 3);
- ✓ lower lever G (Figure 2) to secure the stabilizing arms;
- ✓ raise and lower lever C (Figure 4) to complete stabilisation.

**⚠ WARNING!** When inserting the column into the base be careful not to put a foot under the aperture on the skid, otherwise your foot might be crushed if you lower the column too far and fast.



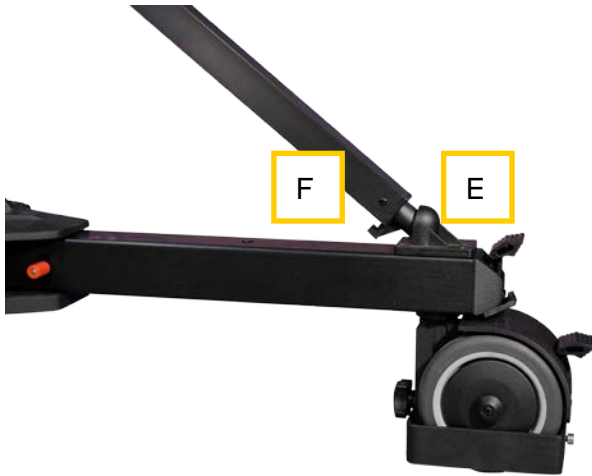


Figure 3 — Stabilizing arm with the seat

## 2.6. DISASSEMBLING

To remove the column from the skid proceed as follows:

- ✓ bleed the compressed air out of the column
- ✓ raise lever G (Figure 2) to release the stabilizing arms, then lift and fold them;
- ✓ raise lever C (Figure 4) to release the column from the skid and lift it out;
- ✓ lift the red levers D (Figure 2) to release the skid arms, then fold them.



Figure 4 — Lever C to secure the column to the skid

## 3. TECHNICAL SPECIFICATIONS

### 3.1. TECHNICAL SPECIFICATIONS

Max pressure P70 PLUS	9.0 atm (132 psi)
Max capacity P70 PLUS	70 kg (154 lbs)
Min height	75 cm (30 in)
Max height	140 cm (55 in)
“On-shot” stroke	50 cm (19,7 in)
Doorway tracking width	100 cm (39,4 in)
Dolly leg radius	50 cm (19,7 in)
Steering wheel diameter	45 cm (17,7 in)
Wheel diameter	125 mm (5 in)
Wheels	3 × 2 coupled
Total weight	28 Kg (62 lbs)


### 3.2. SPECIFICATIONS OF P70 PLUS FITMENTS


Equipment used with the P70 PLUS Pedestal should comply with the following specifications:

- ✓ optimum weight (camera + accessories + fluid head): 55 kg / 121 lbs
- ✓ maximum weight (camera + accessories + fluid head): 70 kg / 154 lbs
- ✓ these weights should be distributed in such a way that the centre of gravity of

the elements mounted on the pedestal remain well inside the rim of the wheelbase.

The fluid head adapter is compatible with all types of professional camera support heads on the market.

 **WARNING!** The pedestal should only be used to carry cameras within the weight limits outlined above. *Cartoni S.p.A.* accepts no responsibility for malfunctions or damage to persons or property resulting from using the pedestal for purposes other than those indicated in this manual.

 **WARNING!** It is strongly recommended not to stand on the pedestal.

### 3.3. NOISE

The A weighted equivalent acoustic pressure emitted by the equipment is under 70 dB (A).

### 3.4. IDENTIFICATION PLATE

The identification plate of the Pedestal carries the following information:

- ✓ manufacturer's name;
- ✓ type;
- ✓ serial number;
- ✓ year of construction;
- ✓ max. air feed pressure for column pressurisation.

## 4. DESCRIPTION

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The *P70 PLUS Pedestal* is a compact portable system for STUDIO and OB use.

It consists of a column with an air powered lift mechanism and a collapsible skid.

It is designed for a camera, fluid head and accessories with a total weight of 70 kg/154 lbs.

The central column is innovatively designed to provide maximum stability and perfect control, eliminating the risk of rebounds and ensuring exceptionally smooth wheeling combined with accurate movement.

Air can be introduced into the column using a pump or a compressor attached to the

filler valve.

The column can be fully extended while the camera remains perfectly balanced simply by activating the bleeder valve to release the excess air.

The *P70 PLUS Pedestal* is available in two (indoor and outdoor) versions, each with its own wheel design.

A foot-bar is available as an accessory (Fig. 5).



*Figure 5 — P70PLUS foot-bar*

## 5. USE INSTRUCTIONS



 **WARNING!** The Pedestal should only be used as prescribed in section 3. *Cartoni S.p.A.* accepts no responsibility for malfunctions or damage to persons or property deriving from using the product in ways other than those indicated.



Figure 6 — Air intake and locking lever

 **WARNING!** The Pedestal should only be used by personnel instructed in its proper use.


### 5.1. PRESSURISING THE PEDESTAL

In order for the pedestal to function, the column must be filled with pressurised air to counter-balance the weight of the camera.



Figure 7 — Manual pump

The pedestal can be pressurised by connecting either the manual pump (Figure 7) or the compressed air circuit to the air intake (position H on Figure 6).

 **WARNING!** Before pressurising the pedestal make sure that it is locked into position by lever L


 **WARNING!** The Pedestal must be pressurised only with clean, dry air or nitrogen.



Figure 8 – Pressure gauge



Figure 9 – Serial Number, column lock and drag control

The air pressure inside the pedestal must be adjusted to match the weight of the accessories mounted on it.

The air pressure can be monitored on pressure gauge (Figure 8).

When using the manual pump pressurisation levels can be monitored on the gauge positioned on the pump base (Figure 7).

If using a compressed air circuit, check that the air introduced is both clean and dry and that the pressure inside the circuit does not rise above 9.0 atm / 132 psi.



Figure 10 – Potential risk of fingers being trapped

Excess pressure can be released from the pedestal simply by pressing bleed valve S (Figure 6).



**WARNING!** There is a potential risk of fingers being trapped between the upper and lower sections of the pedestal (see Figure 10) when the column is being lowered and particularly when pressurised air is released; do not insert fingers into this area at such times.

## 5.2. MOUNTING THE CAMERA SUPPORT HEAD

Remove the fluid head support from the column.

Fix the fluid head to the support as per instructions supplied with the fluid head (methods vary from model to model).

Then reassemble the fluid head support on the column and secure the four bolt connections and place the camera on the camera support.

## 5.3 CAMERA HEIGHT ADJUSTMENT

To adjust camera height:

- ✓ release lever L (Figure 6) to unlock the column;
- ✓ to lock column at selected height lock lever R (Figure 9).



Figure 11 – Wheels locking

- ✓ to include some drag resistance to the column movement rotate knob N (Figure 9) to the desired degree

## 5.4. MOVING THE PEDESTAL

To wheel pedestal into position, simply grasp steering wheel Z (Figure 1) and push.



**WARNING!** Be careful to avoid hitting individuals or objects when moving the Pedestal. Also take care that the wheels do not crash into obstacles (e.g. steps) which might affect the stability of the pedestal.

## 5.5. LOCKING THE WHEELS

The casters rotate freely when lever T (Figure 11) is raised. By lowering lever T the casters can be locked into 6 different positions at 60° intervals. The wheels can be locked individually or all together in the same direction if the pedestal needs to track in a straight line.

To block all wheels and hence pedestal movement, lower levers U (Figure 11).

*N.B.:* Figure 11 shows the wheels on the studio version of the pedestal. The OB version adopts rubber-tyred wheels that are locked in exactly the same way.

## 6. SAFETY SYSTEMS

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The pedestal is equipped with safety systems designed to eliminate the risk of injury to its operators or other people in its vicinity.



**WARNING!** The presence of safety systems does not exonerate pedestal operators from taking the utmost care to avoid any action that might endanger themselves or their equipment.



**WARNING!** It is absolutely forbidden to tamper with, modify or attempt to remove any of the pedestal safety devices.

### 6.1. WHEEL GUARDS

The wheels are provided with cable and foot guards (see Figure 11) built to UNI EN ISO 13857:2008 specifications which prevent the wheels interfering with cables or other obstacles when the pedestal is being moved around.



**WARNING!** The OB version is not fitted with wheel guards since they would prevent the pedestal's use in an outdoor location. Great

care must therefore be taken not to stay too close to the wheels.

### 6.2. PRESSURE VALVE

The column is fitted with a maximum pressure valve, which prevents air pressure rising above that level in order to protect the machine from malfunctions or breakdowns.

The maximum pressure valve is set at 9.5 atm / 140 psi for the P70 PLUS Pedestal and all column component dimensions have been selected to tolerate an operating pressure up to that level.



**WARNING!** It is absolutely forbidden to modify these pressure valves in any way whatsoever. Incorrect pressure valve settings could cause malfunctions or breakdowns in the pedestal components and could also seriously endanger its operators.

### 6.3. REBOUND CONTROL

In order to prevent column rebounds when the column lock is released, the column itself is equipped with a system that releases air in a controlled and gradual way.

## 7. IMPROPER USE

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Despite the safety devices, operators must take the greatest care to avoid situations that might endanger themselves or others.

Anyone required to operate the pedestal must be appropriately trained in its proper use and must also be informed about the construction and features of the pedestal and its safety systems.

### 7.1. HANDLING

The column must be completely depressurised and detached from the compressed air system, if any, before any assembly, dismantling, maintenance or adjustment work is carried out.

To depressurise the column simply press valve H (Figure 6) until gauge (Figure 8) indicates zero pressure.

Such work should only be carried out by competent personnel trained in the correct procedures.

### 7.2. OPERATOR POSITION

All operations should be carried out at floor level.

It is strictly forbidden to handle the machine from a position on any lift, hoist or crane and equally forbidden to stand on the pedestal itself.



**WARNING!** It is strictly forbidden to climb onto the pedestal.

### 7.3. PEDESTAL STABILITY

The distribution of the weight of the elements mounted on the pedestal (fluid head and camera) should be such as to maintain their centre of gravity well inside the rim of the casted base.



**WARNING!** Items whose centre of gravity is too close to the rim of the casted base (Jib arms) could cause the pedestal to tip over eventually while moving the pedestal.

When positioning the pedestal, make sure that the wheels do not run into obstacles such as steps, since this could compromise the stability of the pedestal.

### 7.4. PROPER USE

The pedestal has been designed and built for use as prescribed in section 3 of this manual.



**WARNING!** It is strictly forbidden to use the pedestal in any other way than indicated here.



## 8. MAINTENANCE

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The pedestal has been designed and built for minimum maintenance and problem-free efficiency over time.

After any maintenance operation, the pedestal must be tested to ensure that it is working properly.



**WARNING!** Before any maintenance operation is carried out the pedestal must be detached from any air supply line and the column completely depressurised as described in section 5.1.

### 8.1. STANDARD MAINTENANCE

The standard maintenance operations described here will be sufficient, if properly performed, to keep the pedestal operating efficiently.



**WARNING!** All standard maintenance operations should be carried out by competent personnel instructed in the correct and safe use of the pedestal.

#### 8.1.1. CLEANING

Use a damp cloth and no harsh cleaning products to remove dust, grease or other substances from the pedestal. It is particularly important to keep the wheels clean so that they can rotate freely.

#### 8.1.2. PERIODIC INSPECTION

At least once a month all pedestal components should be carefully inspected and any damaged parts immediately replaced to prevent failures that might compromise the safety of the pedestal.

### 8.2. REPAIRS

Only the *Cartoni*'s own technical servicing staff or persons authorised by *Cartoni S.p.A.* should be entrusted with any repairs to the pedestal.

Information on authorised servicing staff to contact is obtainable from *Cartoni S.p.A.* or [www.cartoni.com](http://www.cartoni.com).

For fast, effective problem solving purposes *Cartoni S.p.A.* should be given the following information:

- ✓ pedestal type;
- ✓ serial number (V position in Figure 9);
- ✓ the nature of the defect or its visible symptoms and when the problem arises.



**WARNING!** All warranty conditions are invalidated should any repair operations be attempted by anyone not authorised by *Cartoni S.p.A.*

### 8.3. SPARE PARTS

All spare parts should be ordered from *Cartoni S.p.A.* which will either supply them directly or indicate where they may be obtained.

For the exploded views of the Pedestal please contact *Cartoni S.p.A.*

Remember that repairs should only be carried out by persons employed or authorised by *Cartoni S.p.A.*



**WARNING!** All warranty conditions are invalidated should any spare parts different from those originally mounted on the pedestal be employed.

## 9. DECOMMISSIONING

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If the pedestal is irreparable it should be taken out of service or at least clearly labelled as “out of order”.



Since the pedestal is largely made of steel and aluminium, most of its material can be recycled.

Once a pedestal is decommissioned, it is advisable to separate out its various materials for differentiated utilization or disposal.

Since none of the materials used on the pedestal are toxic or include any risk for the health of its operators, they can be handled without the need for any special precautions.