SKATER®

PRODUCT FAMILY

EMMY© Engineering Award 2008

© Academy of Television Arts and Sciences

Technical Achievement Award 2007

© Academy of Motion Picture Arts and Sciences

Cinec Award 2004

www.pstechnik.de

P+S TECHNIK
Professional Cine Equipment Manufacture

SKATER MINI

If you want to move the camera ... move just the camera.

Discover the power of the SKATER® Mini, the flattest camera tracking device ever with a height of only 2.0 inch / 51,4 mm! (to mounting surface of camera).

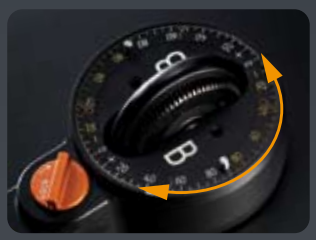
But the SKATER Mini is not only flat ...

*1

... it allows for tilt angles from +/-20°...

*2

... or an even bigger tilt range of +/-30° just by changing to an optional rocker in a few seconds ... (height 2.8“, 7.2 cm)

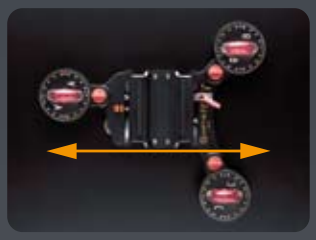


*3

... use the scale to adjust the wheel direction ...

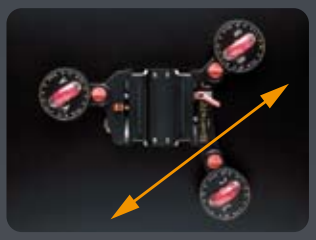
*4

... and track straight ....



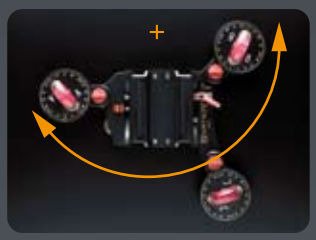
*5

... or sidewards ....



*6

... or any direction your client likes to see ....

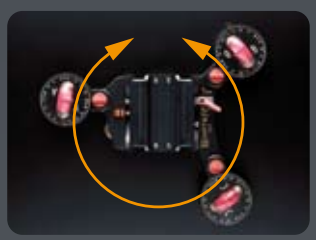


*7

... point the axis of all wheels to any point in front of the camera and circle around an object ...

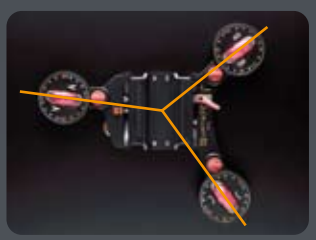
*8

... or pick any other point as a center of rotation and create interesting curved moves ...



*9

... with special marks on the scale you can even do basic panning shots ...



*10

... or simply block the wheels, giving you an adjustable rocker plate for really low camera angles.

The idea behind the SKATER®

The idea behind the SKATER® Mini is fairly simple. It basically takes advantage of a friction tilt head onto which tracking wheels are directly attached and optimized for an extremely low camera position.
Because the SKATER® Mini is so small and lightweight it allows you to move the camera manually, giving you direct control over tracking shots in any direction, as well as all sorts of curved moves. You can precisely define any center of rotation at any diameter. It's all your decision: whether you like to orbit around an object right in front of the lens or make a curved move into a final product shot ...
Shots which would usually require sophisticated riging or even motion control can now be executed with almost no prep time.

Andreas Dasser, CEO P+S Technik:
"I liked the idea of seeing a camera head and a dolly no longer as two separate units. If you melt them them together, you are suddenly capable of designing a system that is as low as a normal rocker plate."

Sebastian Cramer, Director/ DoP, who created and patented the SKATER®:
"It can be such a time saver and it's great fun to work with. That's why I put quite some energy in the development and the patents of the SKATER®. Many thanks to the great team at P+S Technik, it's such fun working with you."

Russell Carpenter, ASC, (Titanic, Charlie's Angels, True Lies) used the SKATER® with the Genesis camera on the set of "21":
"It's a precision German instrument that's fast and simple. It sets up quickly and without any fuss because you're not beholden to motion control. The movement is precise and repeatable. I fell in love with it after I first saw it at Cine Gear."

Jon Fauer, ASC:
"The SKATER® should be booked on every production, replacing the humble hi-hat with something far more useful."

➡ Find an online DVD Tutorial about the SKATER® Mini and it's accessories on www.pstechnik.de.
See how the SKATER® is used in TV productions, commercials and feature films.

Looking more closely

To precisely adjust the alignment of each wheel, detailed colored scales indicate the angle of the selected tracking direction. Additional marks in red show settings to either execute a center rotation or to block the SKATER® Mini.

The image above shows the new geared precision wheels developed by P+S Technik. These wheels show a significant reduction in drift and are standard on current SKATER® Minis. Previous wheels can be upgraded (please contact P+S Technik or your local dealer for further information).

To avoid a change of position when the system is not being operated, a brake can be used to fix the current position.

Any selected tilt angle should be fixed with a brake. To change from the standard rocker to the +/-30° rocker you simply unlock it, slide it out and replace it. No further adjustment is necessary.

An integrated dovetail is supplied allowing to work directly with bridge plates. If not required, remove the dovetail and mount any camera using 3/ 8" screws.

General Accessories

30° Rocker

The +/-30° Rocker allows to adjust tilt angles on a wide range of 60°. The mounting surface of a camera still remains extremly low with only 2.8 inch (7.1cm) above ground.

Laserpointer

Discover the power of the SKATER® Mini laserpointer! Just place it onto the two registration pins on the scale and point to any desired rotation center to adjust wheel directions.

The Case

The rigid SKATER® Mini aluminium flight case has a size of only 500 x 425 x 115mm. It also allows storing space for the +/-30° rocker and additional accessories.

Rotation Tables

For a quick setup on set use a small laminated table providing wheel angles for more than 20 rotation centers in front of the camera. Front side shows inch, back shows cm units.

Rotation Calculator

Precisely align all wheels with the Rotation Calculator available for free download in Excel or Palm versions. Define any rotation point and use calculated angles for all wheels.

General Accessories

SKATER® Smooth

The SKATER® Smooth Gear Module is a damping module for an improved smoothness on camera tracking shots with the SKATER® Mini Camera Dolly. By accelerating a rotating flywheel mass to a high speed any unevenness in a camera track is compensated.

In order to perform smooth operation this Gear Module is more efficient than standard damping systems as for example Chrosziel zoom damping units.

The SKATER® Smooth Gear Module offers the operator a convenient resistance when pushing the Camera Dolly at low speeds. It also helps not to overshoot end stops in a tracking movement.

The SKATER® Smooth Gear Module can be mounted on any wheel of the SKATER® Mini Camera Dolly using the SKATER® Motor Holder (#21258).

Levelling Support

Use the SKATER® Levelling Support to hold and easily level a custom-made tracking board for your SKATER® Camera Dolly and work at any camera height.

The 28mm pin fits directly into standart lighting equipment. An adjusted levelled height can be fixed with a blocking nut. Each Levelling Support comes with 2 Guidance Rings to be mounted on the bottom side of your tracking board to keep the board into position.

* To achieve low mounting heights for your Levelling Support the following third party products from Manfrotto and Avenger have been used successfully. (Not part of the SKATER® Mini Levelling Support).

Manfrotto/Foot Base small, #299 FBASE, Avenger Steel Extensions C622, C624, C626.

Steadybag

Use the SKATER® Mini Steadybag to place the camera directly on the SKATER® Mini. It allows to work with dutched camera angles. You can also start to track on the Steadybag and continue handheld ...

SKATER® Control Unit (SCU)

The SKATER® Control Unit (SCU) is a single axis remote control unit which allows to execute smooth camera moves on your SKATER® Mini Camera Dolly. It can also be used to control a SKATER® Turntable, the image rotation on the SKATER® Scope or act as a progammable zoom control.

Start and stop positions can be easily stored as well as operating speed and ramps for acceleration and deceleration. When "Limits on" is enabled the dolly movement is limited between two predefined positions. With this function you can precisely stop in your final image composition and the dolly will exactly hit its focus mark. The built-in ramp function determines the amount of ease in and ease out on the move to ensure soft starts and stops. All motion and any change of adjustments is controlled via a large jog wheel. With a Flip Direction (Flip Dir.) switch the orientation of the jog wheel can be altered. A clear multi-colored LED bar indicates the current position of any programmed move.

With a separate "Cam"- button a wide range of cameras can be started and stopped. The input voltage can range from 10 V to 35 V. An internal power booster brings up the voltage to a value of 26 V to maintain constant performance in case of low input voltage.

When the Zoom Cal. button is pushed, the system checks for mechanical end stops on a zoom lens. In this mode the SKATER® Control Unit will act as a sophisticated programmable zoom lens control.

SKATER® Motor and third party motors

The SKATER® Motor is an affordable digital motor, which has an optimized performance with the SKATER® Control Unit.

An internal RS connector allows to directly power motor and SCU from the camera. Arri CLM-2 and digital Heden motors are also supported by the SCU.

The motor holder is an universal mounting bracket for all sorts of motors and the SKATER® Smooth module, available with 19mm or 15mm rods allowing to also work with analogue lens control motors (e.g. an analogue microforce system).

Performance

SKATER® Control Unit and the SKATER® Motor will reach a maximum speed of 0.5m/ sec and work for weight of up to 25 kg.

➡ Please note that even if the motor precisely hits its stored position, slight drifts on a surface might occur, depending on weight, adjusted speed and the kind of surface. In any case, it is recommended to work with position marks to quickly reset to the original position.

Configurations

SCU with SKATER® Motor:

When used with the original SKATER® Motor the SCU is usually powered through a 3pin RS connector cable (#19920) utilizing the power from the camera, which can range from 10V - 35V. Only one cable (#22100) runs between SCU (#21502) and SKATER® Motor on the SKATER® Mini Dolly. With Arri cameras the run function can be activated.

Alternatively the SCU and the SKATER® Motor can be powered through an external battery (cables see order information on page 12).

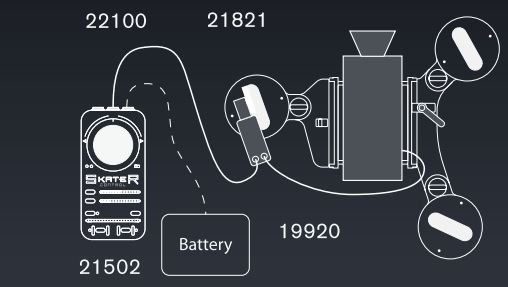
SCU with third party motor:

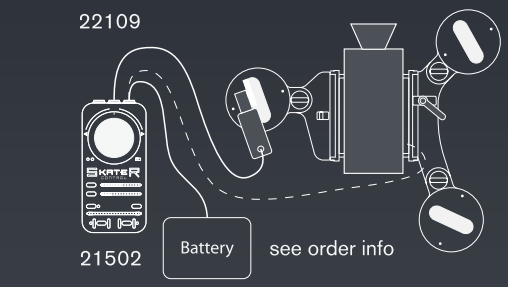
When a third party motor is used (e.g. Hédén digital motor or Arri CLM2) together with the SCU, both are powered with one cable from an external battery or the camera. When connected to the camera, camera run functions on Arri cameras are available.

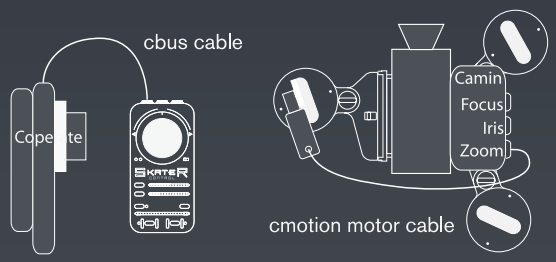
Wireless control with cmotion:

When used together with a cmotion wireless Lens Control System, the SCU can be directly connected to the hand unit coperate.

All functions are transmitted wireless to the receiver camin and the SKATER® Motor would use the 3rd axis, usually used for the zoom lens. This configuration works as well with a Arri CLM2 or Hédén digital motor.







SKATER® Turntable

The SKATER® Turntable is the ideal tool for tabletop photography, miniatures and vfx work.

Once connected to the SKATER® Control (SCU) it becomes a programmable universal turntable device, which can be mounted in any angle your shot requires. It gives you full control over speed, acceleration, deceleration, starting and end point of any rotation. No more tries and errors when your shot requires a perfectly matched angle and a slow stop of the object of your filming.

Once connected to the SKATER® Control the system is immediately ready to use and can be programmed within seconds. The turntable is capable of carrying loads of up to 12 kg (26 lbs). Due to its high end machining the SKATER® Turntable shows no visible backlash in your shot.

The ridged housing as well as the rotator itself are designed with various thru holes to mount the SKATER® Turntable directly onto any board in any angle or to fix a board on the rotator as a turning platform.

An additional mounting set, consisting of a chuck, 2 turntables (30mm/1.2" and 60mm/2.4") and two interchangable shafts (35mm/1.4" and 120mm/4.7") is available as a P+S Technik accessory for the turntable.

SKATER® Tilt Module

The SKATER® Tilt Module combines the flexibility of a fluid head with the sophisticated camera moves of the SKATER® Mini Dolly.

Using either the universal L-Bracket or the Arri 235 side bracket a wide range of film and video cameras can be mounted. It offers the convenience of a common fluid damping system with a fully adjustable drag function. All elements of a traditional bridge plate are integrated into the side mount to ensure compact design and extreme low lens heights.

The camera can be shifted back and forth within a range of 170 mm / 6.7" to balance the system. The wide range in which the camera can be moved backwards is also ideal, when used with the SKATER® Scope (www.pstechnik.de).

To quickly set the desired lens height the Tilt Module can be lifted up to 80 mm and be fixed in any position.

Side bracket for Arri 235

The mounting bracket for the Arri 235 is the first system of its kind to mount a camera directly from the side.

The 235 mounting bracket allows extremely low lens heights, even much lower than an Arri 435 on the regular SKATER® Mini 20° Rocker and still offers the ability for tilting camera movements.

The 235 mounting bracket is designed to be used together with the Arri Side Bracket SBR-1, which allows to mount lens motors as well.

Universal L-Bracket

This L-shaped bracket allows to attach all different kinds of film, HD and SD cameras, as well as the P+S Technik MINI35 Image Converter. It can even hold an Arri 435 (without the integrated focus module FEM2).

To obtain a low lens height it is recommended to mount the camera directly onto the L-Bracket as the balancing can be done in bracket itself.

An optional dovetail can be attached to the L-Bracket for quick changes between the SKATER® Tilt Module and other camera heads using an Arri sized bridge plate top.

An integrated focus motor bracket with a 15 mm rod and a 15 to 19mm adapter ring allows to use lens control motors in this configuration.

The SKATER® Tilt Module works for fully rigged cameras up to 20 kg / 44 lb.

The images below show the Tiltmodule together with a Arri 235 and the SKATER® Scope Snorkel Lens System.

Mounting plate for smaller camera heads

As a low cost alternative to mount a wide range of various camera heads from different manufactures such as Cartoni, Sachtler, Manfrotto, O'Connor and Silk P+S Technik is offering a Mounting Plate for smaller camera heads.

A wide range of smaller camera heads can be mounted directly on to the SKATER® Mini Dolly without the need of any kind of bowl, which would add additional height to the system.

Please find a list with suitable camera heads under www.pstechnik.de.

SKATER® Junior

Shortly after the SKATER® Mini Camera Dolly was awarded with the Technical Achievement Award from the Academy of Motion Picture Arts and Sciences in February 2008, P+S Technik expanded the product range with the new SKATER® Junior.

The SKATER® Junior is a smaller cost-effective version of the well-known SKATER® Mini Camera Dolly. The Junior is usable for cameras up to 12 kg / 26 lbs and offers a similar functionality to its larger brother. All sorts of circular and linear tracks can be set up within seconds.

The SKATER Junior can be equipped with a wide range of smaller camera heads from manufactures such as Cartoni, Sachtler, OConnor, Manfrotto, Silk and others or with photo heads, like three way heads, ball heads etc with a 3/8" or 1/4" mounting screw. To maintain a low lens position, these camera heads should have a flat base or a removable bowl.

Engravings on the bottom side of the base plate indicate several sets of mounting holes for different manufactures.

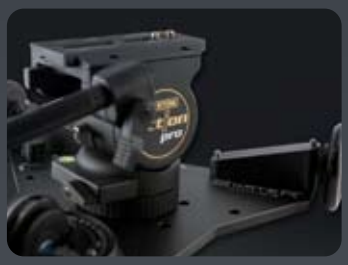
The new patented adjustable wheel shows detailled scales in metric and imperial which allows to directly determine the radius for a rotation tracking shot. No other adjustment is required. To execute linear tracking shots the adjustable wheel is set to a parallel position within seconds.

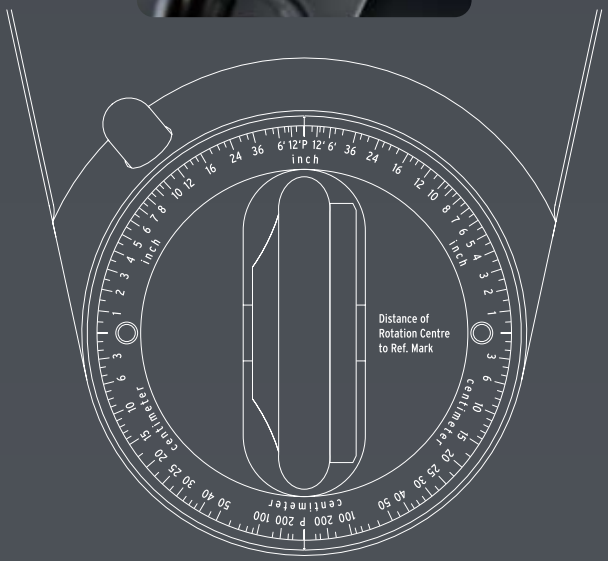
Of course rotating shots can also be set up with a laser pointer which is identical to the one used on the SKATER® Mini. A wide range of additional accessories from the SKATER® Mini can be used on the Junior as well (see below).

Selection of suitable camera heads for SKATER® Junior (must show a flat mounting base):

- Cartoni - Action Pro (bowl needs to be taken off)
- Sachtler - FSB 2, FSB 6, DV6 SB to DV12 SB, Video 15 SB (requires newer models with integrated flat base fitting)
- OConnor - 1030 HD
- Manfrotto - 128 LP or RC, 501 HDV, 503 HDV, 516, 700RC2, 701RC2
- Photo heads: three way heads, ball heads, panoramic heads or geared heads with 3/8" or 1/4" mounting screw

Find a more detailled list on www.pstechnik.de



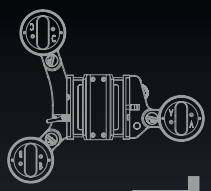


Accessories

The following SKATER® Mini accessories can be used with the SKATER® Junior:

SKATER® Laser Pointer, SKATER® Levelling Support, Holder for SKATER® motor, SKATER® Smooth Gear Module, SKATER® Control, SKATER® Motor

Technical Information



TECHNICAL INFORMATION

SKATER® Mini

Dimensions L x W	385 x 437 mm / 15.2 x 17.2 inch
Height including wheels	72 mm / 2.83 inch
Mounting height with 20° rocker	51,4 mm / 2.0 inch
Mounting height with 30° rocker	71,0 mm / 2.8 inch
Weight incl. 20° rocker	3800 grams / 8.38 lbs
Max. load	30 kg / 66 lbs
Size of flight case	500 x 425 x 115 mm / 19.7 x 16.7 x 4.53 inch
Best operating temperature	0° - 40° C / 32 - 104° F

SKATER® Junior

Dimensions L x W x H	310 x 320 x 72mm / 12.2 x 12.6 x 2.83 inch
Weight	2,1 kg / 4.63 lbs
Max. load	12 kg / 26 lbs
Best operating temperature	0° - 40° C / 32 - 104° F

SKATER® Control

Input voltage range	10 V - 35 V
Power supply	From camera or ext. battery (12V- 35V)
Adjustable functions	Speed, Start/Stop ramp
Memory functions	Start and Stop position
Max. speed	0.5m/sec (with load of 25 kg / 55 lbs)
Remote Control	Film camera RUN button

SKATER® Turntable (requires SKATER® Control Unit - SCU)

Dimensions L x W x H	132 x 170 x 38 mm / 5,2 x 6,7 x 1,5 inch
Power supply	12V- 35V from ext. battery into SCU
Max. load	12 kg / 26 lbs
Max. Speed	360° / 1 sec

SKATER® Tilt Module

Dimensions L x W x H	234 x 295 x 205 mm / 9.2 x 11.6 x 8.1 inch
Weight without camera bracket	4,85 kg / 10.7 lbs
Vertical shift	80 mm / 3.15 inch
Horizontal shift	170 mm / 6.7 inch
Max. load	20 kg / 44 lbs

Accessories

Dimensions Levelling Support (minimum 2 required)	450 x 60 x 190mm / 17.7 x 2.4 x 7.5 inch
Weight Levelling Support	2,6 kg / 5.73 lbs
Max. load on Levelling Support	50 kg / 110 lbs
Levelling Support pin	28 mm / 1.1 inch (attaches to standard light stands)
Weight SKATER® Smooth	0,45 kg / 1 lbs

Order Information

SKATER® Mini

23785	SKATER® Mini Camera Dolly, basic (no rocker included) incl. camera dolly, laser pointer and 2 rotation tables in aluminium flight case
20628	+/-20° rocker incl. dovetail for SKATER® Mini camera dolly
20629	+/-30° rocker incl. dovetail for SKATER® Mini camera dolly
20671	SKATER® Mini Steadybag with plate
22622	Set of three SKATER® precision wheels, incl. 3x wheels, gear wheels, bearings, spacers
22105	Mounting Plate (only to mount smaller camera heads) (Please visit www.pstechnik.de for information about compatible camera heads)
21035	SKATER® Levelling support width 40 cm / 15,7", 28mm-pin incl. set of 2 guidance rings (tracking board not included)

SKATER® Junior

23221	SKATER® Junior camera dolly
20803	SKATER® Laserpointer (same as for SKATER® Mini)

Accessories for SKATER® Mini or SKATER® Junior

21258	Holder for SKATER® motor or third-party motor or smooth gear module
21636	SKATER® Mini Smooth Gear Module (Note: motor holder # 21258 necessary)

SKATER® Control (for Mini and Junior)

23786	SKATER® Control, incl. SKATER® Control Unit (SCU) and Control cable SCU/ Motor
21821	SKATER® Motor incl. drive gear 0.8

Cables for SKATER® Control

19920	Power cable, 24V RS (RS 3-pin male / RS 3-pin female)
22218	Power cable 24V RS (RS 3-pin / Fischer 5-pin)
22280	Power cable 24V XLR 3-pin (Fischer 5-pin / XLR 3-pin)
22282	Power cable 12V XLR 4-pin (Fischer 5-pin / XLR 4-pin)
22283	Power cable 12V XLR 5-pin (Fischer 5-pin / XLR 5-pin)
22284	Power cable 12V Fischer 11-pin (Fischer 5-pin / Fischer 11-pin)
22546	Power cable 12V Motor-PowerTap (RS 3-pin male / Anton Bauer PowerTap male)
22103	Power cable „Open End" (Fischer 5-pin / open end)
22109	Motor cable for Heden digital motor

SKATER® Tilt Module (for Mini only)

21625	SKATER® Tilt Module, incl. tilt unit (#21968), mounting plate (#22012), tilt arm and screws
23787	Universal L-bracket for film and video cameras, incl. L-bracket, dovetail, focus motor bracket
23788	235 side bracket for ARRI 235, incl. short video extension cable and 235 battery holder (ARRI bracket K2.55015.0 needed to attach to camera)

SKATER® Turntable

23137	SKATER® Turntable (Control and cables not included)
24137	Additional Mounting Set, incl. a chuck, two turntables (30mm / 1.2" and 60mm / 2.4") and two interchangable shafts (35mm / 1.4" and 120mm / 4.7")

Rotation Calculator and Operating Manuals are available as a free download from www.pstechnik.de.
An online DVD about the SKATER® Mini and it's accessories is also available on the web.

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