FILOS II

INSTRUCTION MANUAL

Integrated Control Box For Takahashi Equatorial Mount And Mewlon

Introduction

FILOS provides the features of the original Takahashi control boxes for mount and focusing in a housing as well as some useful extensions. Using FILOS is very intuitive and convenient and your concentration remains on observing or imaging. For operation no modifications on mount or Mewlon are necessarily. Simply connect FILOS to mount and Mewlon. FILOS uses the power supply of the mount for the focusing. You do not need a separate battery for focusing anymore.

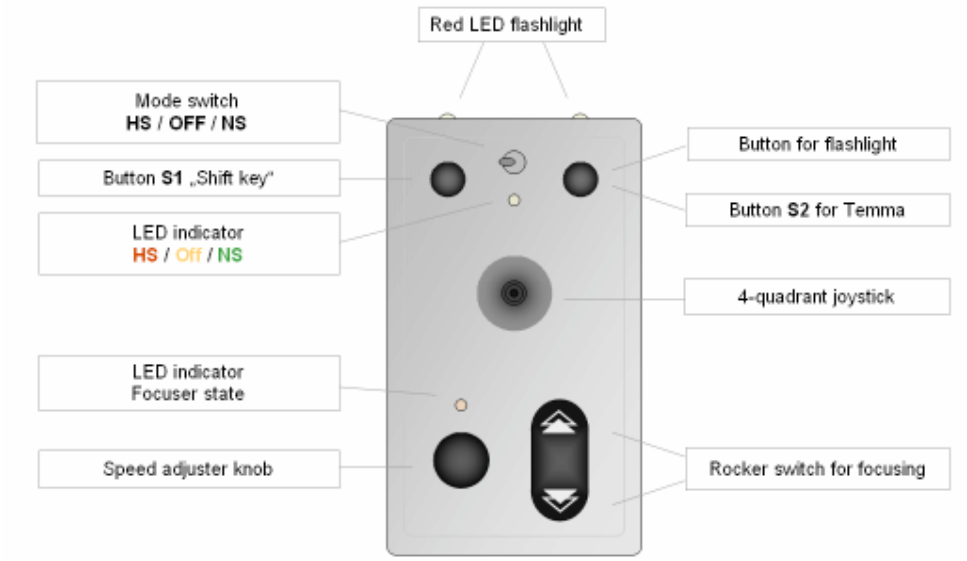
FILOS is designed to control the Takahashi mount EM200 USDIII / Temma Jr. and the Mewlon250 Telescope focusing engine. FILOS should work too with mounts and telescopes using the same original Takahashi control boxes like EM200 and Mewlon250.

Overview

The Picture shows the control panel of FILOS.

The control elements for handling the mount are located in the upper area of FILOS. The arrangement of the control elements is similar to the original Takahashi control box. Handling the mount by the joystick of FILOS is very intuitive and convenient.

The control elements for focusing are located in the bottom area. Low and high speed focusing are done by one multi level rocker switch. This way of focusing is very convenient.



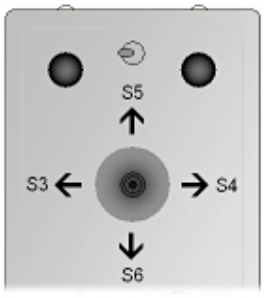
Connecting the mount

FILOS has two differently formed plugs, so it is easy to connect them to the receptacle of the mount and the Mewlon. First connect the plug with the flattened side to the panel receptacle of the mount

Controlling the mount

After establishing the connection you can control the mount very similar to the Takahashi control box. The movement of the joystick into those in the following indicated directions is equivalent to the manipulation of the appropriate buttons of the Takahashi control box. Please find detail description to the functions of the buttons S3 to S6 in the instructions manual of your mount.

Joystick leftward	=	Tak box Button S3
Joystick rightward	=	Tak box Button S4
Joystick upward	=	Tak box Button S5
Joystick downward	=	Tak box Button S6



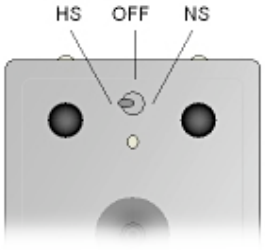
Notice: It is easy to operate both axles of the mount at the same time with FILOS. Moving the joystick e.g. to the upper left is equivalent to pushing the button S3 and S5 of the Takahashi control box simultaneous.

The movement of the mount by manipulating the joystick depends on the position of the mode switch, which is above the joystick. This mode switch provides same functionality like the Takahashi control box. Consult your instruction manual of the mount for further details.

Mode switch left = **H**igh **S**peed

Mode Switch right = **N**ormal **S**peed

Mode switch center = Joystick is switched **OFF**



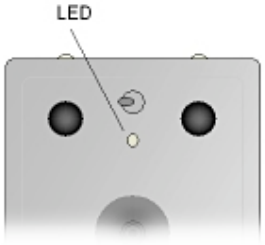
Notice: The mode switch in FILOS offers an additionally switching position in the center. Hereby you can switch off the function of the joystick. If the switch is in its center position a movement of the joystick does not have effects on the movement of the mount.

A LED below the mode switch indicates the selected function of the mode switch.

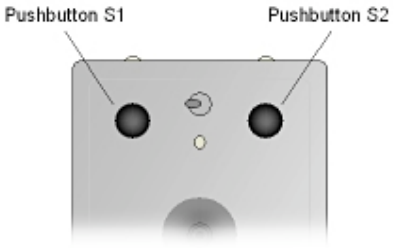
High speed positioning = LED **Red**

Joystick is switched off = LED **Yellow**

Normal speed positioning = LED **Green**



The pushbuttons on the left and on the right beside the mode switch provide the same functions like the buttons S1 and S2 of the Takahashi control box. Please consult the instruction manual of the mount for details. The functions of the buttons S1 and S2 depend on the position of the mode switch.



Configuring joystick operation

For intuitive operation it is possible to adapt the FILOS joystick movement direction to the view in your eyepiece or on your computer display. FILOS provides the following features to flip the joystick buttons:

- ❑ Flip RA movement – This exchange buttons S3 and S4
- ❑ Flip DEC movement – This exchange buttons S5 and S6
- ❑ Flip RA and DEC movement – This exchange buttons S3 & S4 with S5 & S6

Flip RA buttons

Turn the mount speed selector switch to “Normal Speed” or “High Speed” position. Move the joystick to the left or to the right to start a mount movement in RA. Press button S1 while holding the joystick. The mount will change it`s RA movement direction immediately.

Flip DEC buttons

Turn the mount speed selector switch to “Normal Speed” or “High Speed” position. Move the joystick up or down to start a mount movement in DEC. Press button S1 while holding the joystick. The mount will change it`s DEC movment direction immediately.

Flip RA and DEC buttons

Turn the mount speed selector switch to “Normal Speed” or “High Speed” position. Move the joystick to up left or up right to start a mount movement in RA **and** DEC. Press button S1 while holding the joystick.

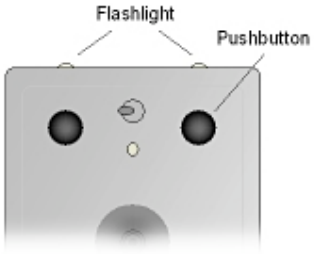
Reset joystick buttons

Turn the mount speed selector switch to “Normal Speed” or “High Speed” position.
To reset all joystick buttons to the Takahashi settings (S3 left, S5 up) press the S2 button while holding down the S1 button.

Notice:	Change of the movment directions does not affect the Shift operation mode of a Takahashi mount. In the Shift operation mode S3 is always left and S5 is always up. Please consult your Takahashi user manual for further informations about the Shift operation mode.

Using the flashlight

FILOS has a build in flashlight with red LED light. For operation press the button in the upper right. To operate the flashlight you must have a connection to the powered mount with the stand by switched in the ON position.



Focusing

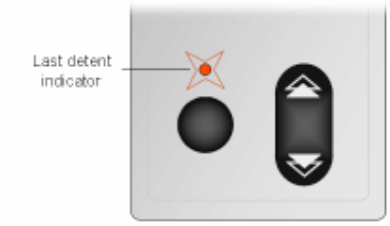
In order to operate the focusing, FILOS must be powered from the mount. First connect FILOS to the mount and turn the mounts Stand By switch in its ON position. Now insert the connector into the receptacle of the Mewlon. You can use the build in flashlight of FILOS to find the receptacle of the Mewlon at night easily. The focusing is operated by a multi-level rocker switch. Push the rocker switch into one of its two directions to activate the slow motion focusing speed. You can adjust the focusing speed by turning the speed adjuster knob. If you push the rocker switch beyond the notice, the focusing switches to maximum speed.

Press upward = Focus moves IN

Press downward = Focus moves OUT

Turn the speed adjuster knob to change focusing speed

If the focusing engine in the Mewlon telescope reaches its last detent, it switches itself off automatically. This situation is indicated by the red blinking LED above the speed adjuster knob.



To turn the focuser off completely push the rocker switch in any direction while holding down the S1 button.

The completely turned off focuser is indicated by the continously red illuminated LED above the speed adjuster knob.

To turn on the focuser press the rocker switch again while holding down the S1 button.

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