PlaneWave™ INSTRUMENTS

CDK12.5 EFA Kit

Instruction Manual

Contents

Item	125901	**Rev**	D
Description	EFA Kit	**Draft**	
Date	09/08/2020	**Last Updated**	09/08/2020

Items Included

QTY	Part	Photo Number
1	EFA Box	1
1	600196 Hand Controller	2
1	125386 Mounting post	3
1	Coiled Hand Control to EFA cable	4
1	18778 12VDC 2.5 Amp power supply	5
1	Focuser cable (with blue hoods)	6
1	EFA to CDK cable	7
1	EFA PC Port Cable kit	8
2	Thumbscrews	9

Items Included

1 2

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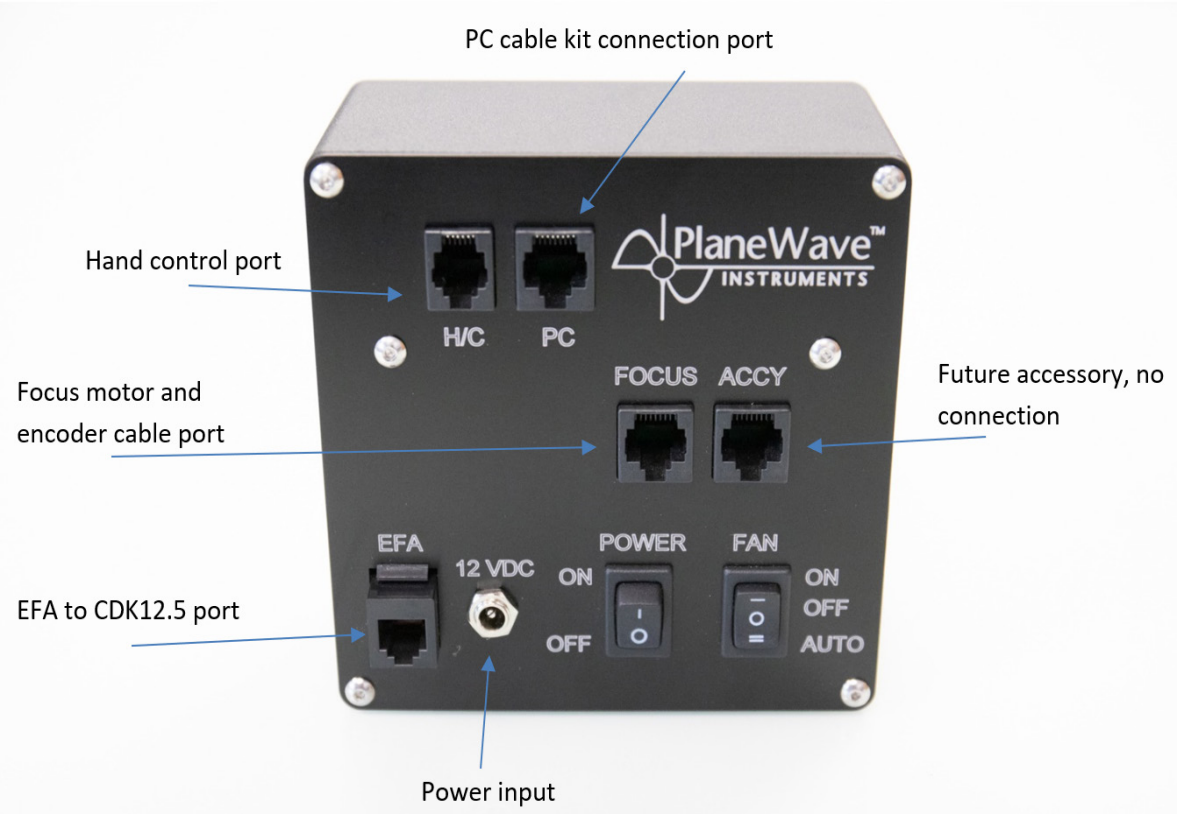
Connecting the EFA Computer Cable

While the RJ45 “PC” port on the EFA is the similar to that used for Ethernet, the protocol used for communication with the PC is serial/RS232 and the wiring differs from that of Ethernet. The included USB-to-serial adapter, USB extension cable, DE9-to-RJ45 and standard CAT5 cable must be used rather than a direct connection via Ethernet to the PC. If needed, a longer CAT5 cable can be used to extend the connection between the DE9-to-RJ45 adapter at the PC and the EFA.

EFA Kit

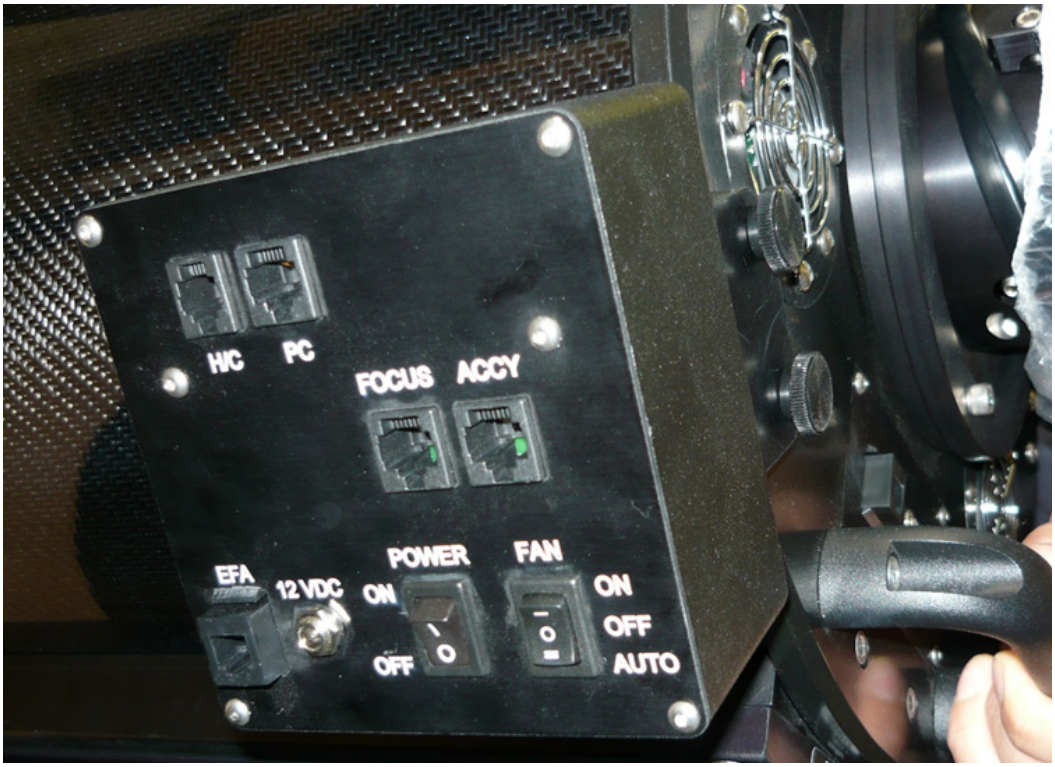


Note that the 12VDC power is attached to the EFA control electronics rather than to the rear of the telescope. Fan control and power are provided via the RJ12 6P6C modular cable from the EFA port to the rear panel of the telescope depending on switch position selection.

The cable (with the blue hoods) used to connect the Hedrick focuser and FOCUS port differs from a standard CAT5 to minimize electrical noise. Please do not use a longer standard CAT5 cable in place of this cable as operation may be erratic.

The 12VDC power input is center positive, 5.5mm x 2.1mm.

Attaching the EFA Kit to the CDK12.5

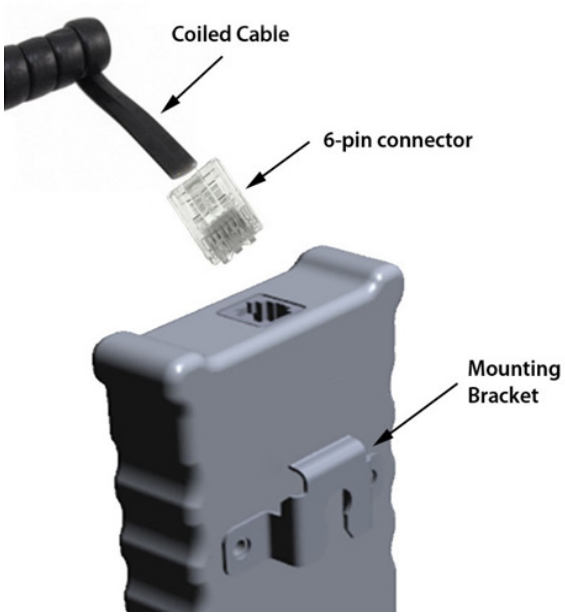


The EFA Electronics box can be attached to several places on the telescope back plate. There are eight ¼-20 threaded holes on the back of the telescope. The EFA mounting bracket, already attached to the electronics box, can be mounted to any one of the eight ¼-20 threaded holes. Use the supplied ¼-20 bolt to attach the EFA box as shown in Picture 2. The mounting position can be varied to accommodate other accessories such as finder scopes to assist with balance.

Mounting the Hand Controller

The hand control mounting bracket allows the hand control to be mounted to the telescope back plate using the included mounting post. Attach the mounting post to the telescope back plate. The telescope has eight ¼-20 threaded holes on the back plate for mounting accessories. The holes are positioned at 2, 4, 8 and 10 o'clock on the back plate in groups of two. Thread in the mounting post into one of the back plate holes. The stud can also be threaded in place of one of the mounting screws that mount the finder scope bracket or the EFA Electronics box, as shown below.

The mounting bracket on the back of the hand control will now slide over the post to hold the hand control securely in place.



EFA Hand Controller

The PlaneWave EFA Accessory comes with a hand control that will allow you to change the travel of the standard focuser and change the rotation of the optional IRF90 rotating focuser (600180). Although both focusers can be controlled remotely with the included PWI3 PC software, the hand control is invaluable when initially setting up the spacing and collimation of your CDK telescope. It is also a convenience when doing visual observation with an eyepiece.

Controlling the Focuser/Rotator

With the Hand Control plugged in and the EFA powered on, you can now use the OUT/IN button to control the travel of the focuser. Likewise, when used in conjunction with the optional IRF90, not only can you control the focus travel, but using the CCW/CW buttons will rotate the focuser counter-clockwise and clockwise respectively.

Changing the Focuser Speed

The speed of the focuser (Up/Down) buttons can be changed by pressing the Rate Button in the center of the hand control:

•Press the Rate Button once to change the focuser speed to slow
•Press the Rate Button again to return the focuser speed to fast.

The Rate Button only changes the speed rate for the focuser. It will not affect the rate of the optional IRF90 rotator.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