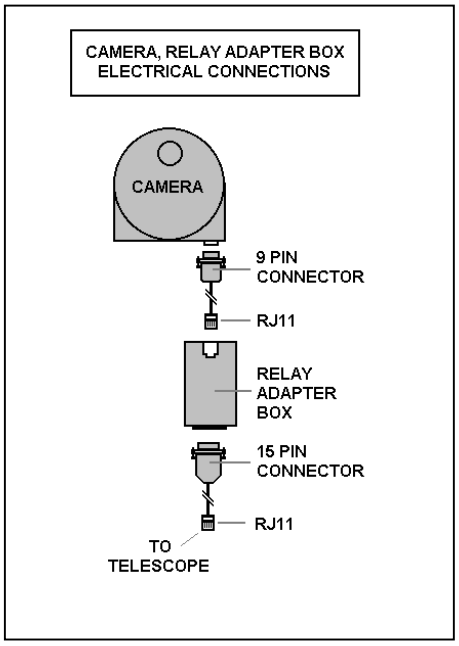
SBIG
ASTRONOMICAL INSTRUMENTS

SANTA BARBARA INSTRUMENT GROUP
147-A Castilian Drive
Santa Barbara, CA 93117
Phone (805) 571-SBIG (571-7244) FAX (805) 571-1147
e-mail:sbig@sbig.com home page:www.sbig.com

Application Note
Relay Adapter Box
January 2007

This is an update to the Application Notes provided with the Relay Box as a set of instructions. The Relay Box has been used in the same configuration for a number of years and some of the references in the instructions are dated, although the details and specifications have not changed. For instance, wherever the instructions refer to the ST-7/8 cameras, they now also apply to any ST or STL camera that has a 9 pin "AO/SCOPE/CFW" port. Also, we now provide 3 cables with the Relay Box. The basic configuration is shown below:



1. The Relay Box Power Cable is the 9 pin to RJ11 cable that goes between the camera and the Relay Box, and

2. The Relay Box Output Cable (formerly called the TIC cable) is the 15 pin to RJ11 cable that goes between the Relay Box and your telescope drive's autoguider input (sometimes called "CCD: port on LX200).

3. The Dual Relay Cable is a short ribbon cable that is used if you have more than one accessory plugged into the "AO/SCOPE/CFW" port on the camera.

The Dual Relay Cable is provided only so that the Relay Box can be used immediately in a variety of configurations. If your system requires more than one connection be made to the "AO/SCOPE/CFW" port on the bottom of the camera, we recommend that you replace the Dual Relay Cable with the more robust Port Splitter for permanent use.

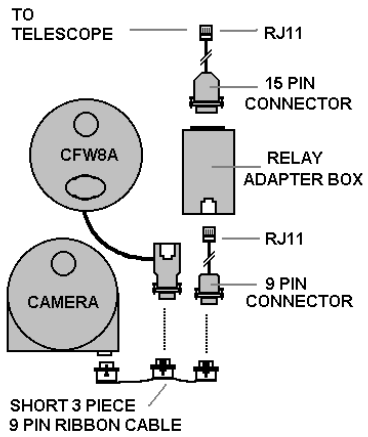
There are a variety of possible combinations of camera, filter wheels, AO and relay box. Some common configurations are shown in the diagrams on the next page.

We recommend the relay box be used with all Losmandy mounts, even the newer mounts with the Gemini GOTO electronics.

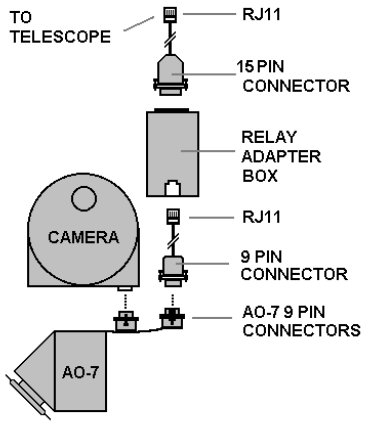
For more combinations please see the Application Notes Section of our web site. Specifically:

http://www.sbig.com/sbwhtmls/connections.htm

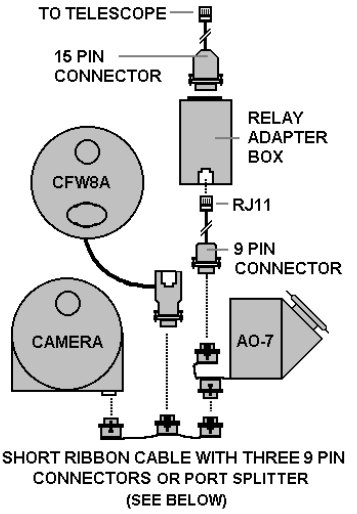
CAMERA, CFW8A, RELAY ADAPTER BOX ELECTRICAL CONNECTIONS



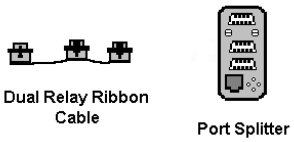
CAMERA, AO-7, RELAY ADAPTER BOX ELECTRICAL CONNECTIONS



CAMERA, CFW8A, AO-7, RELAY ADAPTER BOX ELECTRICAL CONNECTIONS



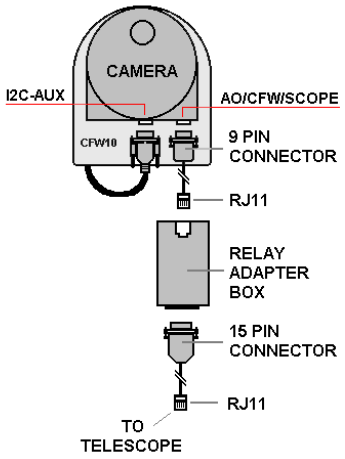
Dual Relay Ribbon Cable and Port Splitter



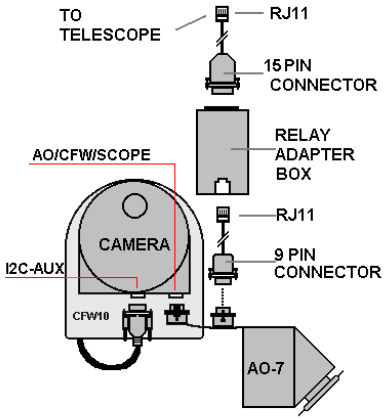
The "Port Splitter" is a more robust set of connectors to be used when attaching more than one acessory to the camera's CFW port. It can be inserted in any of the configurations shown above in place of the Dual Relay Cable for a stronger connection for long term use. The Dual Relay Cable is provided for temporary use only.

Click here to find out more information about the port splitter accessory

CAMERA, CFW10, RELAY BOX CONNECTIONS



CAMERA, CFW10, AO-7, RELAY ADAPTER BOX CONNECTIONS



The CFW9 uses the I2C port on USB cameras the same as the CFW10 shown above.