The IFW has the ability to determine the identification (ID) of a particular wheel and apply that wheel ID to a preprogrammed set of filters or apertures. The names, not just position numbers of these filters, are displayed on the eight character display and are also available to the operating software via an RS-232 interface using a simple command structure. Up to 5 different filter wheels can have separate IDs and each wheel can have up to 5 filters for a total of 25 identifiable filters.

The IFW filter wheel can easily be removed from the IFW system without tools or removal from the equipment. A hinged door is secured by a single captive thumbscrew. Once opened, the wheel can be extracted and another inserted in its place. The entire process takes only a few seconds. Hitting the HOME switch on the hand control or invoking the HOME function in the operating program will set the wheel to position one and bring up the available filters for that wheel.

The IFW can be controlled by either the switches on the hand control, an SBIG camera controller, or by an external computer via an RS-232 interface. The RS-232 operating protocol is a set of simple ASCII commands that any programmer can easily implement. While any software capable of controlling the SBIG CFW-8 filter wheel can immediately control the IFW, we believe developers will incorporate the IFW serial operating protocol since it offers full feedback including filter names. The IFW control software can be used for the filter description programming and also for filter selection and control.

A control cable with 8-pin modular connector on one end and a 9-pin sub-D connector on the other is used to connect the IFW to the hand control box. Lengths of cable 6, 12, 25 and 50 feet as well as custom lengths are available. This is the same cable used with the TCF focuser and can be interchanged.