# GANZ
## CCTV PRODUCTS

# CBF-1 Camera Back-Focus Filter
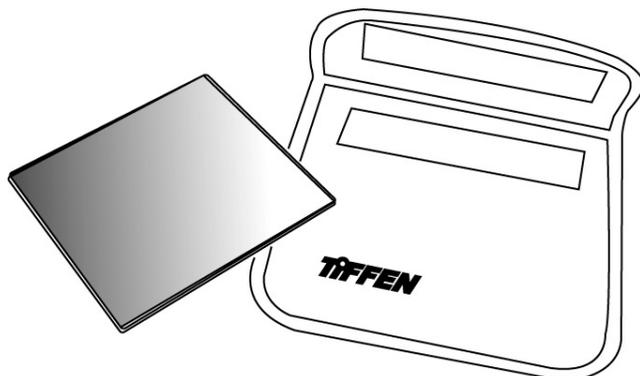### N E U T R A L  D E N S I T Y  F I L T E R

## Installation Instructions

### CBF-1 Camera Back Focus Filter

The CBF1 neutral density filter is used primarily to make a proper back focus adjustment when installing motorized zoom/auto-iris lenses.  To assure that a zoom lens stays in focus through the entire aperture range, the camera must be back-focus when the lens iris is wide open.  The CBF1 filter is placed in front of the lens to keep the auto-iris open during adjustment.  This unit is an essential tool for the professional installer!

## Back Focus Instructions

### Indoor Fixed Lens Models:

1. With the camera operating, view an object at least 75 feet away.
2. Set the lens focus ring to infinity by rotating it fully clockwise as viewed from the front of the camera
3. Set the lens iris to its widest useable opening.*
4. Adjust the imager (chip or tube) to bring the object being viewed in to the sharpest focus.

### Outdoor Fixed Lens Models:

1. Point the camera at an object, which is more than 200 feet away.
2. Set the lens focus ring to infinity by rotating it fully clockwise as viewed from the front of the camera.
3. Place the CBF-1 Neutral Density filter in front of the lens to insure the at the iris is in full open position.*
4. Adjust the imager (ship or tube) to bring the object being viewed into the sharpest focus (filter must be in place during this step).

### Zoom Lens Models:

1. With the camera operating, view an object at least 75 feet away.
2. Make sure the lens iris is wide open using the CBF-1 Neutral Density filter.
3. Set the lens focus ring to infinity by rotating it fully clockwise as viewed from the front of the camera.
4. Adjust the lens zoom to extreme wide angle.
5. Adjust the imager (chip or tube) to bring the object being viewed into the sharpest focus (filter must be in place during this step).
6. Move lens zoom to extreme telephoto.
7. Adjust lens focus (by the controller) for best picture.

**\* The lens aperture must be wide open for all back focus adjustment procedures.   This can be done in subdued lighting or with filters.**