



## INSTRUCTIONS FOR USE OF THE DSH-65-PC DRIVER WITH THE SH-65 SHUTTER/CHOPPER

07-101200

1. Carefully remove shutter/chopper from plastic box.
2. Mount shutter/chopper onto a solid mount. Use #6-32 screws.
3. Connect shutter/chopper to the DSH-65 "OUTPUT" connector.
4. Connect the DSH-65 to a 15 VDC power supply (150mA max).
5. Use the "EXT. INT." selector switch to select the mode of operation.
  - a. In the "INT." mode, the shutter/chopper operates as a low frequency chopper, with the chopping frequency is set by an internal oscillator.
  - b. In the "EXT." mode the shutter/chopper is controlled by an external TTL signal to open and close the device.
6. "INT." mode:
  - a. Set the selector switch to the "INT" position.
  - b. Turn on power. The shutter/chopper will operate as a variable frequency chopper. The chopping frequency is set by an internal oscillator and is controlled by the "FREQ" trim pot.
7. "EXT." mode:
  - a. Set the selector switch to the "EXT." position.
  - b. Turn on power. The position of the blade in this mode is controlled by a TTL input signal to the TTL input connector.
    - I. White wire: TTL input
    - II. Black wire: ground
  - a. With a "HIGH" TTL input or with no TTL input: the shutter is open.
  - b. With a "LOW" TTL input or a short to GND: the shutter is closed.
  - c. The response time of the shutter is approximately 10 msec.
8. The "MONITOR" output:
  - a. Output is a TTL output signal that can be used with a lock-in amplifier.
    - I. White wire: TTL monitor output.
    - II. Black wire: ground The scanner will oscillate at the resonant frequency of the scanner. The scan amplitude can be adjusted by using the "AMPL." trim pot.

