

TECHNICAL INFORMATION

Using Photoelectric Products

Wiring

Standard

| | |
|--------|-----------------|
| Blue: | light source + |
| White: | light source - |
| Red: | photodetector + |
| Black: | photodetector - |

C32 Series

| | |
|--------|----------------|
| Red: | supply + |
| White: | supply - |
| Black: | open collector |

C40 Series

| | |
|--------|-----------------------|
| Red: | supply + |
| Black: | supply - |
| White: | dark energize output |
| Brown: | light energize output |

FIG. 23

Every Skan-A-Matic skanner or thrubeam, except the C Series self-contained units, must be wired to a separate control. Color-coding is consistent throughout the product line. Refer to Fig. 23.

Remember that LED light sources must be wired with correct polarity and usually will need a current-limiting resistor. The LED will be destroyed immediately if it is wired incorrectly. Skan-A-Matic includes a current limiting resistor for operation with 5 VDC. For operation at other voltages calculate the resistor value as follows:

$$R = \frac{E_{\text{supply}} - V_F}{I_F}$$

Where: R = ohms
 E_{supply} = DC voltage supply
 V_F = Rated forward voltage drop across the LED.
 If a range is given, use the lowest value.
 I_F = Rated LED forward current.

Any Skan-A-Matic reflective skanner can be ordered with a 5-pin Switchcraft connector as described in the options section. Other types of connectors can be used for special orders. Thrubeams are not offered with the standard connector option, but other types of connectors can be included with special orders.

Some controls, such as the R40/T40, may be wired for either Light or Dark-Energize. Others must be ordered from the factory with the desired configuration; for example, T43007 — Light-Energize, T43008 — Dark-Energize. See the individual product data sheets for wiring details.

There is no rated maximum distance between skanner and control; in an electrically-quiet environment, the limiting factor would simply be the resistance of the wiring. Practical distances are generally limited to about 50 feet. Any Skan-A-Matic skanner or thrubeam can be ordered with extra-length leads or the user can add his own wire.