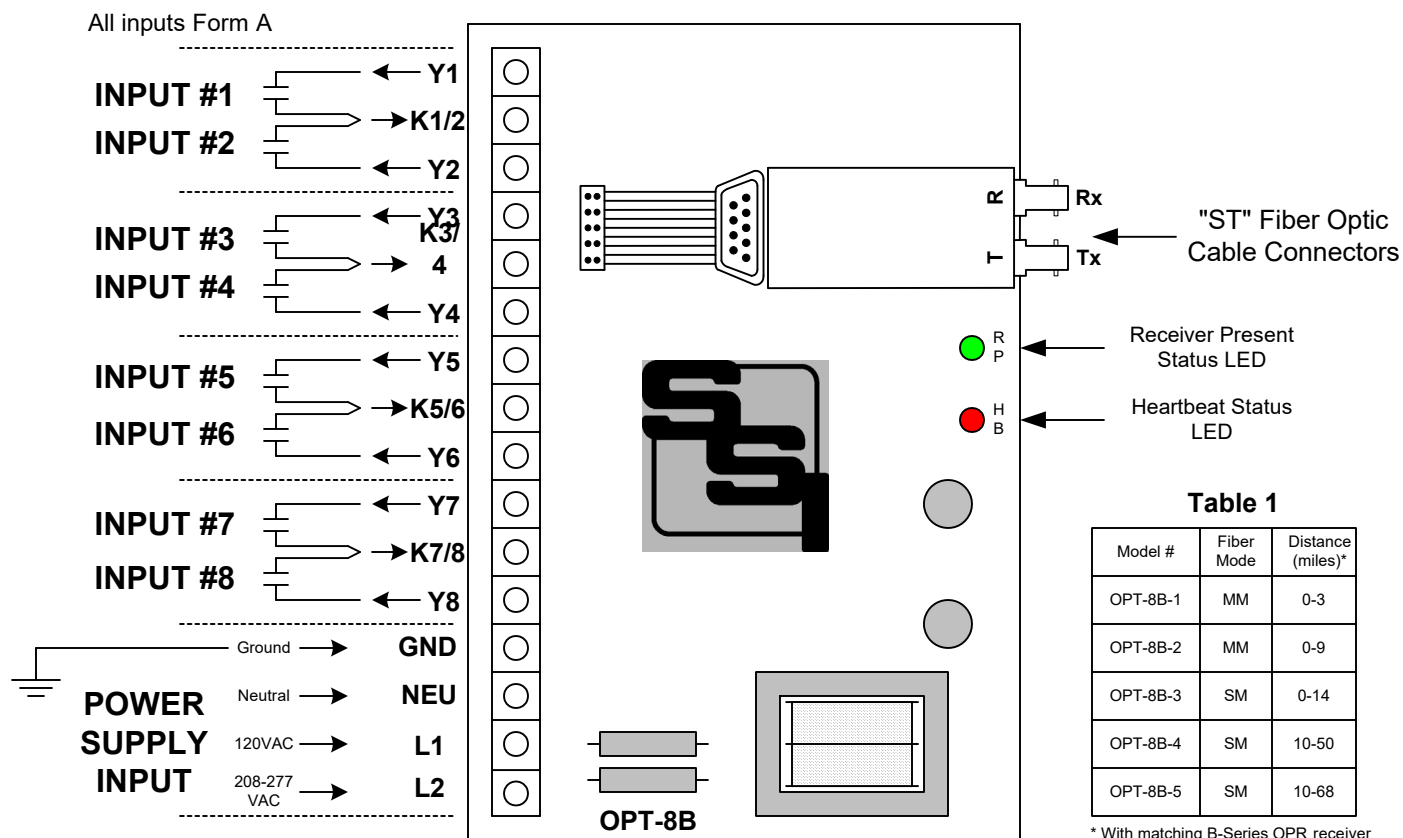


# OPTICAL FIBER PULSE TRANSMITTER INSTRUCTION SHEET

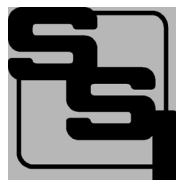


**MOUNTING POSITION** - The OPT-8B may be mounted in any position.

**POWER INPUT** - The OPT-8B can be powered by 120VAC or 208 to 277VAC. Connect the **GND** terminal to the electrical system ground. Connect the Neutral lead to the **NEU** terminal. Connect the **L1** terminal to the 120VAC "Hot" lead for 120VAC operation. Connect the **L2** terminal to the 208, 240, or 277 "Hot" lead. **Do not use both L1 and L2. \*\* Exercise caution when board is energized. There is voltage present at L1 and L2 when powered.**

**METER INPUTS** - The OPT-8B has eight 2-Wire (Form A) pulse inputs. They are K1 & Y1 for meter #1; K2 & Y2 for meter #2; etc. All inputs operate in the 2-Wire mode only and are all independent of each other. The meters' pulse outputs must be dry-contact type with NO sourced voltage. The OPT-8B supplies its own +13VDC wetting voltage to the K&Y pulse output terminals of the meter.

**GROUND** - The GND terminal on the OPT-8B is a common ground with the chassis and is connected to the Chassis by means of the lower left-hand mounting screw. Therefore, if necessary, the electrical system ground can be connected to the OPT's chassis. Do not tie the Ground and Neutral terminals together unless Neutral does not exist separately at mounting location, i.e.: at meter.



## SOLID STATE INSTRUMENTS

by Radian Research, Inc  
3852 Fortune Dr, Lafayette, IN 47905  
Phone: (765) 449-5576

Mail: [technicalsupport@radianresearch.com](mailto:technicalsupport@radianresearch.com)

# INSTRUCTION SHEET

## OPT-8B OPTICAL FIBER PULSE TRANSMITTER (con't)

**Fiber Optic Cable Connections** - Locate the two "ST" fiber optic ports in the OPT-8B's upper right-hand corner. Connect the fiber optic cable to these ports using the "ST" twist lock connections. The cables should be "crossed" such that each cable is connected from the "Tx" fiber optic port on one end and the "Rx" fiber optic port on the other end (see drawing below).

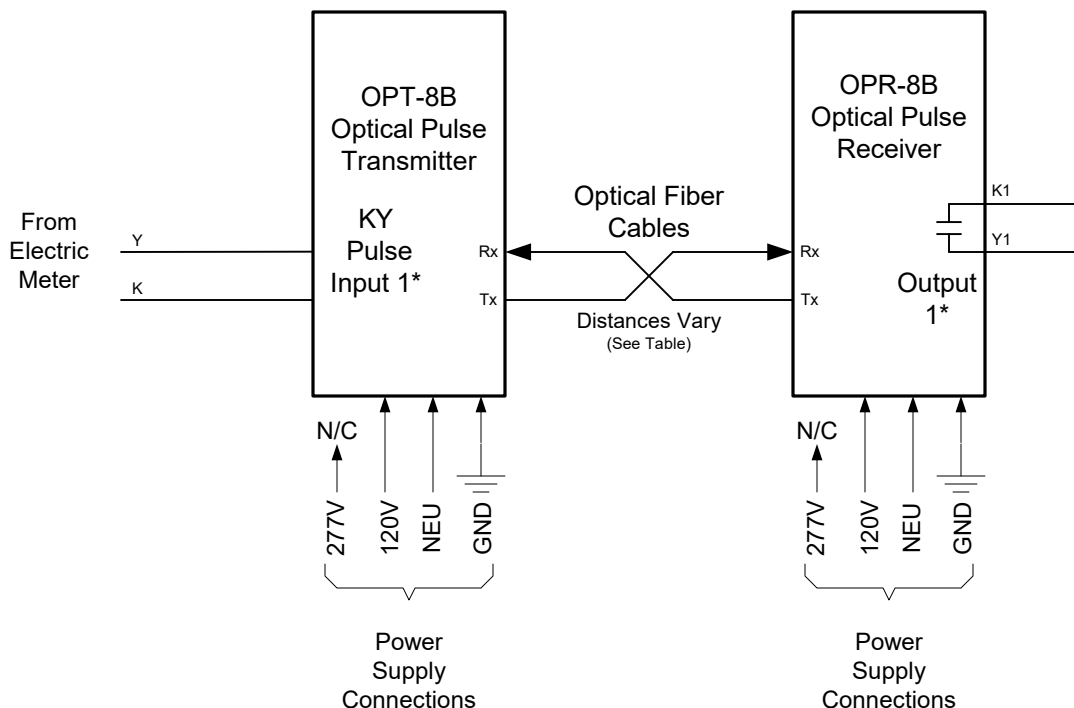
The OPT-8B will transmit pulse information to the OPR-8B Optical Fiber Pulse Receiver per the table on page 1. Care should be taken to follow all proper fiber optical cable implementation standards. Maximum distance will vary with fiber type and quality.

**Troubleshooting - LED Status Lights** - The OPT-8B has two status lights to help the installer determine system status.

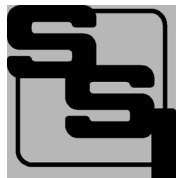
**Red "Heartbeat" LED (HB)** - This LED blinks on and off once per second indicating the system is operating and the microcontroller is running normally through its program loop. There is no other meaning to this except that the system is alive and running, and appears to be operating normally.

**Green "Receiver Present" LED (RP)** - This LED will remain on all the time as long as the transmitter is connected to and communicating with the OPR-8B Receiver.

### OPL-8B SYSTEM BLOCK DIAGRAM



\* Only 1 input/Output Circuit Shown



## SOLID STATE INSTRUMENTS

by Radian Research, Inc

3852 Fortune Dr, Lafayette, IN 47905

Phone: (765) 449-5576

Mail: [technicalsupport@radianresearch.com](mailto:technicalsupport@radianresearch.com)