JENSEN®

TP100 RJ Jack Identifier

Introduction:
The TP100 is designed to aid network technicians and MIS personnel in the identification of the equipment connected to modular jacks found through out the work place. The TP100 aids in determining what type of equipment is connected to the other end of a wall plate or cable by being able to detect cable terminators on all 4 pairs of a T568A/B wired jack or plug and by being able to detect voltage on the center pair.

Operation:
1. Connect the unknown cable directly to the TP100 or connect the TP100 to a wall jack or patch panel using the cable provided. The clear plug of the provided cable is intended to be plugged into the TP100. The transparent blue plug is a special universal plug able to be plugged into 2 through 8 position modular jacks.
2. LED indicators will light if terminators or voltage is present at the other end of the cable. If no LEDs light, the cable is most likely not connected.

3. Interpret the results:
If one or several of the upper four LEDs, marked with the pin numbers of the RJ45 pairs they represent (1-2, 3-6, 4-5 and 7-8), the other end of the cable is loaded with a termination load. The cable is most likely connected to network equipment such as a HUB or a NIC (Network Interface Card). The specific pairs terminated can tell which type of Data protocol is being used. Multi-protocol Hubs and ICs will most likely have all pairs terminated regardless of which protocol is currently selected. See chart below for common usage of pairs.

If one or both of lower two LEDs is on, voltage is present on the middle pair of the RJ jack (4-5 on RJ45's or 3-4 on RJ11's, RJ12's). Both LEDs on continuously indicates presence of an AC voltage, which is not normal. Disconnect from the line and proceed with caution. Short intervals of both LEDs blinking is usually a ringing analog line. One of the LEDs being on sold indicates the presence of a DC voltage. The LED marked NORM will illuminate if the polarity of the voltage is such as to be the "normal" polarity of an analog phone line. IF the REV marked LED is on the polarity is the "reverse" of the standard. (Most modern phone equipment is not sensitive to the polarity of the voltage.) If NORM or REV is on, the phone line may be analog or digital.

4. Disconnect the TP100 when finished interpreting the results. The TP100 draws power from the battery only when the LEDs are on. Connecting it to a network or phone line for the minimum time required to do the job will maximize battery life.

Battery Low:
When the LEDs become dim on a DATA jack, replace battery.

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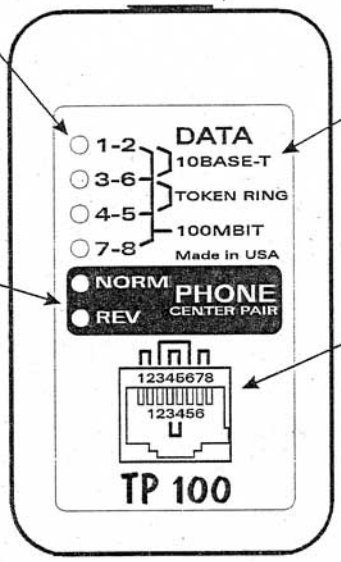
Connect clear colored plug of cable provided into the top of the TP100. The transparent blue plug is a universal plug suitable for use on 2 through 8 position modular jacks (RJ11, RJ12 and RJ45).

LED Indicators:

Terminator detected LEDs A LED will light for each pair that is terminated to a NIC or hub at the other end of the cable. Two or more LEDs being lit usually indicates a data network jack.

Voltage detected LEDs. One of the two LEDs will light to indicate presence of a DC voltage on the middle pair. The NORM LED will light if the polarity is correct for an analog phone line. The REV LED will light for the opposite polarity. Usually the jack is an anlog or digital phone line if one of these LEDs lights. If both are on at once, the voltage is AC.



Labeling shows common terminator configurations for a few network standards. NIC's capable of a 100Mbits usually have all four pairs terminated.

View into RJ jack shows pin assignments. Horse shoe shapes above the connector outline shows pairing of DATA lines monitored for terminators. The single horse shoe in the middle of the connector outline is the pair monitored for voltage.