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# TEL/COM 205 SIGNAL DETECTOR

US AND FOREIGN PATENTS APPLIED FOR

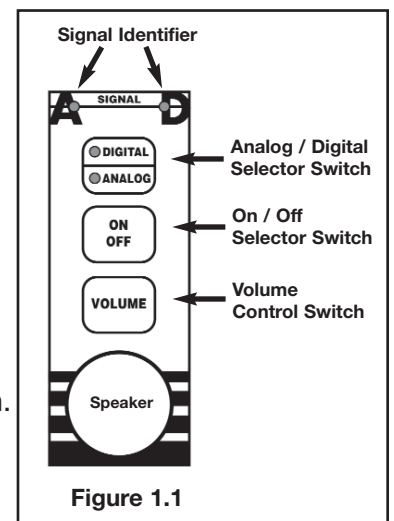
## DESCRIPTION:

Santronics developed the Tel/Com 205 Signal Detector to locate and identify analog and digital signals by communication service technicians without requiring intrusion into the circuit. This prevents many problems inherent in “clipping into the circuit.”

This instrument allows the identification of T1, E1, ISDN, DLC, and all DSL signals including ADSL. It also allows the non-intrusive identification of analog signals. Analog signals can be monitored using the built in speaker. This can be very useful during throws when working with hot cable by using it to identify tone, voices, and digital signals. The necessity for clipping into each circuit is eliminated since the Tel/Com 205 can locate signals by merely scanning along the wires requiring identification. This instrument solves particularly troublesome problems in working on circuits whether in the central office, in the field, or at the customer premise.

## TURN ON INSTRUCTIONS:

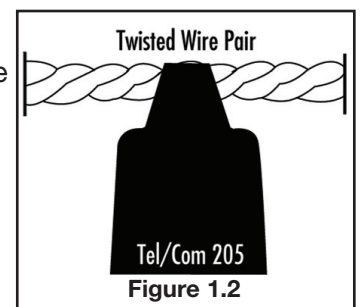
1. Remove the Tel/Com 205 from the carrying case.
2. Using the keypad selector switch on top of the case, turn on the unit by depressing the On/Off selector switch. (Figure 1.1) The unit will come on and a red LED indicator light will appear on either the digital or analog selector switch.
3. Select desired mode of operation (digital or analog) by depressing the desired selector switch. A red LED indicator light will indicate the selection.
4. The volume control consists of three levels, low, medium, and high. Depress the Volume control switch until the desired level is reached.
5. The unit automatically “turns on” at the last setting of operation.



## GETTING STARTED:

### Wire Testing For Digital

1. With the unit on and the red digital indicator light on, set the desired volume level.
2. Holding the Signal Detector perpendicular to the wire to be tested, (Figure 1.2) place the sensor tip of the Signal Detector on the wire. If there is a Digital signal on the wire, a red LED light will be turned on at the signal indicator and there will be an audible signal will be emitted from the speaker.



### Wire Testing For Analog

1. With the unit on and the red Analog indicator light on, set the desired volume level.
2. Holding the Signal Detector perpendicular to the wire to be tested, (Figure 1.2) place the sensor tip of the Signal Detector on the wire. If there is an analog signal on the wire, a red LED light will be turned on at the signal indicator and there will be an audible signal emitted from the speaker, either voice or a generated tone.

3. When searching for an analog signal in a cable with excessive noise, apply the supplied ion balancing solution to the top, bottom, and sides of the sensor tip and allow to dry. (Figure 1.3) You will notice a very significant decrease in the noise level. If the tip becomes dirty simply clean with alcohol and let it dry. Reapply the ion balancing solution, when needed. You will discover that the ion balancing solution is only needed when working in cables with excessive noise levels.

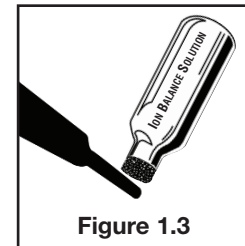


Figure 1.3

**Note: When testing for analog signals, move the Signal Detector in a lateral motion due to the twisted conductors in a cable. This will insure a clear signal.**

### **Batteries**

The Tel/Com 205 is powered by three (3) AA size batteries. To replace the batteries, remove the rubber boot from the Tel/Com 205. Turn unit over and remove phillips head screw from battery compartment. Lift battery compartment cover from end where screw was removed since opposite end has hold tabs on it. Replace exhausted batteries with three AA size alkaline batteries. Re-insert battery compartment cover, screw, and then protective rubber boot.

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Since contact is not required the following benefits are obtained:

- Identification time is greatly reduced
- There is no longer any fear of interrupting and damaging a circuit
- Since there is no intrusion, no holes are made in the insulation
- The conductor can not be crimped or crinkled by contact with a “bed of nails” which can degrade a digital signal
- Both experienced and inexperienced technicians’ work will be greatly simplified and errors reduced to virtually zero
- Liability with customers whose digital has been inadvertently disrupted is eliminated
- Customer satisfaction is greatly improved
- Technicians productivity is significantly increased
- The stress of intruding into unknown circuits is eliminated.
- This instrument will greatly enhance service and therefore significantly help the telecommunication industry in the struggle for the digital market. This instrument is a must in providing excellent service and preventing customer downtime or signal degradation.