

# Loop Test Assistant for remote controlled high performance line testing by a single person

## KE901



Remote Unit

Control Unit

### Change Test Setups without going back to the other end of the line!

NEW

- Cost and labor saving
- Subscribers' line stay in service until testing starts and will be restored after
- Multiple line access without returning to the NID or crossconnect box
- The Controller sends tracing tone
- Full spectrum of broadband DSL
- Remote operation is possible to 40,000 feet of cable
- Every command is confirmed by an audibly and visibly acknowledgement
- Works with any Test Unit
- Four remote controlled switched ports
- Low loss and crosstalk for testing up to 30 MHz
- Rugged, high performance test leads
- Crush- and water-resistant case
- Rated to 160 V AC/DC



The **KE901** Loop Test Assistant is a perfect tool for one-man testing and troubleshooting on copper subscriber lines. The KE900 Remote Unit can open, short, switch or ground leads under control of the compact KE910 Control Unit.

With **KE 901** there is no assistance required and driving costs will be reduced.

The **KE901** enables mode selectable switching, insertion of bridges, turn an a measurement device on the far end of line, connect through another exchange, switching on a second access line. Developed for the actual Communication Services as ISDN, ADSL2+ and VDSL2 the device has small impact on measurements through 30 MHz on the far end. Remote-Controlled switching functions up to 20 km distance are possible without influence on other services in the loop.

After connecting the Remote Unit KE900 at the multiplier or intermediate distribution frame a tone can be send either to one or two access lines. For acces line 1 there are two

different tones selectable. If no tone is necessary because the end of line is known, the service can be switched through to the customer. This enables him to use his service as long as possible.

After connecting the controllers on the customer's pair the control key switches the tone tracing off. The remote-commands are send with 8 keys from the Control Unit KE910. The signals are modified DTMF-Signals to avoid static. Succeeded the switching function the KE910 sends a tone and shows a short light up from the Info-LED. If the remote-command wasn't executed there will be a pulsed tone.

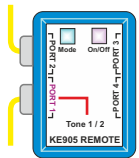
For active tests like crosstalk, balance, spectrum-analysise etc. the loop can be cleared or switched to another measurement device on the far end. In spite of the measurement device there can also be another Telephony / xDSL Port attached. This second local loop can be switched to one or another acces line so it is possible to measure the interference (NEXT).



# Specifications KE901

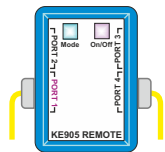
KE900 Remote Unit		KE910 Control Unit	
<b>Housing</b>	Heavy duty ABS plastic weather-resistant design Battery cover equipped with captive screws 4 test cord receptacles for alligator-to-TF cords Resistant Mylar front foil with short operation	<b>Housing</b>	Heavy duty ABS plastic weather-resistant design with silicone rubber control keys. Battery cover equipped with captive screws.
<b>Test cords</b>	2 special test cords for testing up to 30 MHz Insertion loss: 0 -30 MHz < 0,5 dB Crosstalk: -78 - -56 dB	<b>Test cords</b>	Insulated test leads with banana plugs Modified DTMF control signals Sample function min. 56 dB amplification
<b>Power source</b>	9 V alkaline battery, typical life 200 h	<b>Power source</b>	9 V alkaline battery, typical life 40 h
<b>Overvoltage protection</b>	Up to 160 V AC/DC	<b>Overvoltage protection</b>	Up to 160 V AC/DC
<b>Dimensions</b>	16.3 x 3.75 x 1.4 inches	<b>Dimensions</b>	5.9 x 2.6 x 1.0 inches
<b>Weight</b>	10.7 ounces (with battery)	<b>Weight</b>	3.5 ounces (with battery)

## Functions



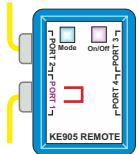
### Trace Tone On/Select

So the trace tone-loud-speaker will be activated and the trace tone send from KE900 and the Port can be changed.



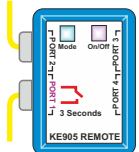
### Open Ports 1+4

Opens Port 1 and stops tracing tone. Used for measurements like open circuit noise, capacitance, leakage resistance



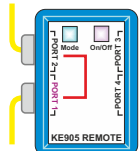
### Port 1 Loop

Port 1 pair shorted. Used to measure the loop resistance.



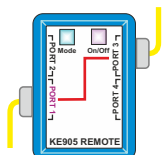
### Port 1 Loop Pulse 3sec

Port 1 loop pulse for 3 seconds. With it you can clearly detect the far end with a TDR even the loop is correct terminated on the CO side.



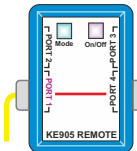
### Connect Port 1+2

Port 1 connected to Port 2. Used to restore the subscriber's line before and after testing.



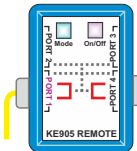
### Connect Port 1+3

Port 1 connected to Port 3. A test set on Port 3 can then be used for end-to-end measurements like attenuation in conjunction with a additional signal transmitter on the far end



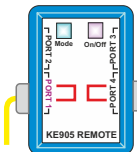
### Connect Port 1+4

Port 1 connected to Port 4.



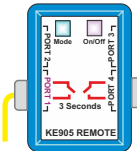
### Port 1+4 Loop to GND

Loop Port 1 and Port 4 and connected to ground e.g. for resistance symmetrical measurement



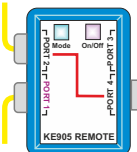
### Port 1+4 Loop

Port 1 and Port 4 loop.



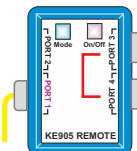
### Port 1+4 Loop Pulse 3sec.

Port 1 and Port 4 loop pulse for 3 seconds. With it you can clearly detect the far end with a TDR even the loop is correct terminated on the CO side.



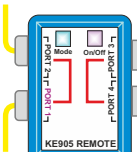
### Connect Port 2+4

Port 4 connected to Port 2. With it you can switch e.g. the exchange line on another pair of wires.



### Connect Port 3+4

Port 4 connected to Port 3, Port 1 open



### Connect Port 1+2 and 3+4

Port 1 connected to Port 2 and Port 3 connected to Port 4. This configuration allows to measure two independent loops for influence to each other.

Article-No.	Type	Description
0.49620	KE901	<b>KE901 Loop Test Assitant:</b> KE900 Remote Unit, KE910 Control Unit, two 110-ohm balanced shielded test cords, alligator clips, carry bag and manual