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# Summaries and Notices

### **Summaries**

p. 46...70

Interface at physical level between the data terminal equipment and the data circuit terminating equipment

Jean-Jacques Jaquier, Berne

The article defines the interfaces at physical level during transmission of data and describes their principles and functions. Subsequently, the standard interfaces recommended by the CCITT are explained for the data transmission over the telephone network (Series V) and over the specialized public data networks (Series X). The possible development trends are also indicated.

p. 71...78

### Remote control of sirens

Achilles Koller, Berne

The remote control of sirens, type SF 457, is a new system offered by the PTT. This system meets the conditions for application in civil defense. It can also be employed during peacetime. Its operating principle is based on the transmission of release signals by heterodyned frequency shift technique via the telephone subscriber network. The three modular equipment parts allow different types of configurations. They can be deployed as a small unit, as a unit for a metropolitan area or combined with a crew alarm equipment. The article treats the basic principles and the application areas.

p. 79...85

### Domestic telephone set Casatel FTA 1/5

Hansrudolf Leder, Berne

The domestic telephone set was mainly developed for private residential use as the name indicates. The set not only permits placing a call but also to page, to open doors and to speak to visitors at the entrance. The set is easy to install by the licensed installers.

p. 86...92

# Measurement of water vapour and gas diffusion at cable sheaths

René Fischer and Thomas Staub, Berne, and V. Horak and A. Küng, Cortaillod

The water vapour permeability test is an interesting feature of the quality tests for telecommunication cable of type ALT-sheath. The existing measuring principle,

the direct gravimetrical determination of water diffusion, is very expensive. Therefore, it is not suitable for serial tests. In cooperation with Cortaillod Cable factory, new methods were tested with the use of carbon monoxide and methane as diffuser and with infrared photometry or gaschromatography as diffusion types. The

measurement results show that the water vapour permeability of the ALT-sheaths can be proven with these methods. The most important advantages of these new methods are the remarkably shortened measurement time and the increased measurement sensitivity by the application of atmospheric-external test gases.

### **News Items**

### Telephone

The glass fibre cable system at a rate of 140 Mbit/s is ready for operation without repeaters between Zurich and Baden. To meet the communications requirements of the European Management Forum at Davos a glass fibre system was installed at short notice.

From 1 January 1986, the fee (one Swiss franc monthly) is no more collected for the control of privately procured sets, additional and auxiliary equipment connected to the public switched network. This affects 150 000 to 200 000 subscribers

A wireless subscriber equipment was installed between Thun and Niederhorn to test the applied solar cells and batteries.

## **Teleinformatics**

About 500 telex subscribers from Geneva/Champel are connected to the new electronic data switched (EDW) exchange.

The Eurodata foundation is conducting a further study on the development of data transmission in Europe on behalf of the 15 PTT administrations. A questionnaire was sent to about 1500 customers in Switzerland.

The St.Gall university has made the data processing centre available to its students. The access to the centre is via the PTT Telepac (packet switching) network which is offered at favourable conditions.

### Radio, Television

In connection with the frequency plan of the VHF/FM radio, the listeners can find

out the frequency changes in their broadcasting region via the newly available telephone No 187.

A 8 Mbit/s radio relay link consisting of a new RF signal processor with synthesizer and microprocessor came into operation for transmission of VHF/FM radio programmes and as feeder link to Natel (national mobile telephone system) between the multipurpose stations Arbedo and Pizzo Matro.

The 4th VHF simplex relay was opened for radiophone service between fixed and mobile stations at the mountain top of Rigi.

For the postal coach service, further radiophone networks were brought into operation on the routes of St.Gall/Heiden and Scuol/Samnaun.

In December 1985, the national highway tunnels Kerenzerberg and Baregg were equipped with a radio system for different services of the cantonal officials, police and fire-brigade.

38 fixed transmitting stations came into operation for local paging system B in the urban centres of Basle, Berne, Davos, Geneva, Grindelwald, Lausanne, Lucerne, Winterthur and Zurich.

## Miscellaneous

A new information and consultation centre for customer service was opened in Winterthur and one was extended in Bienne.

In 1985, 100 out of 158 candidates from licensed radio and television firms passed successfully the examination for technical supervision.