



ICU 09 / MP3 – The digital announcer

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The equipment description

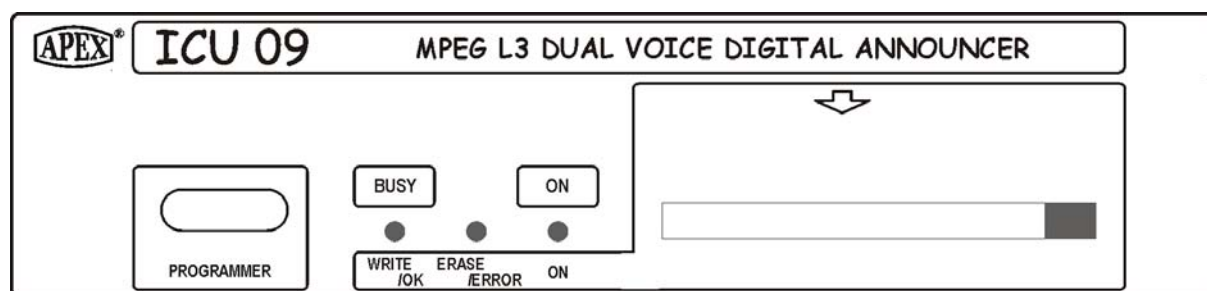
The digital announcer is the microcomputer controlled equipment for the announcement of the various messages, names of the stops and information about the state of the equipment with the digital sound recording. The announcer is in the first place identified for the multiple uses in the means of the public transportation, to what its construction, mechanical and climatic resistivity and the reliability fit.

ICU09 is solved as the two-tone (two-source) facility that means that it includes two independent decoders. This makes possible the simultaneous annunciation of the information about the stops into the carriage and the information, designated for the blind participants of the public transportation, without mutual delay.

The main function of the announcer is to inform the passengers by means of the vehicle loudspeaker system in the carriage and at the same time by means of the outside loudspeaker the passengers at the stop (with special regard to the blind passengers). The service information for the driver (the state of the vehicle equipment) and the communication with the dispatcher by means of the onboard radio station may be annunciated by the listening-in loudspeaker. On the top of this the driver has the possibility to pass on the message by means of the microphone. In case of the attachment to the supervisory system this makes it possible to reproduce the message from the dispatcher centre.

The presetting of the electro-acoustic parameters of the announcer (the volume in different modes of the activities, the filtration and gains of the individual entries) is digital, it can be operated by the help of the onboard computer; eventually it can be pre-set by means of the testing terminal.

The announcer works in the mode of the peripheral equipment of the bus-bar IBIS, controlled by the onboard computer. The announcer has in its memory the digitized messages and the tables of the access to them, their composition and the control of the messages in real-time is in cooperation with the onboard computer.



Picture 1. The front panel of the announcer ICU09

Specifications

Record coding:	MPEG layer 3 (MP3)
Maximum data signalling rate of the record:	128 kbit/s
Recommended sampling frequency:	48 kS/s
Memory size:	16 Mbyte

The names of all stops in the network and the further standard messages are stored in the memory of the type FLASH. The record length (the memory 16Mbyte – the data bitrate of the record 32 kbit/s) is cca. 3600 seconds (60 minutes).

It is possible to change the content of the message, eventually the routes of the lines and other related data in the memory of the type FLASH by the data card of the type flash PCMCIA together with the programmer PROG 02. The maximum length of the data transmission is 3 minutes.

Power supply from the onboard network	24 V (17 V - 31 V)
Dimensions	230 x 57 x 142 mm (W x H x D)

State indication of the announcer by means of LED

Parameters of the audio frequency signal for the messages to the vehicle and for the outside loudspeaker:

- Frequency response	40 – 20 000 Hz
- Output power	20 W/ 8 Ω
- Output power for listening-in of the driver	1 W/ 8 Ω
- Signal-to-noise ratio in calm	60 dB
- Signal-to-noise ratio during the message	55 dB

Possibility of the remote control of the functions START and MICROPHONE

Interface for the bus-bar connection	IBIS
Weight cca.	1200 g

The assembly, the service and the services connected with the acquisition of the studio recording of the messages and its digitizing are provided by

APEX Ltd.,

Na ochoze 581, 252 42 Jesenice u Prahy.

On request we supply the software for digitizing, coding and saving of the sound recordings to the digital announcer at the customer.