

WCKY—FIFTY GRAND IN WATTS

Plus New Speech Input Layout for Hotel Gibson Studios

By C. H. TOPMILLER

IN October of 1939 WCKY moved its main studio location from Covington, Ky., to the Hotel Gibson in Cincinnati, where three modern studios were constructed.

In order to take full advantage of the high fidelity characteristic of our new RCA 50-D, 50 KW transmitter which was put on the air in July of 1939, it was decided to install new speech input in these studios which would have frequency response, distortion, and noise level characteristics equal to or better than the transmitter. RCA speech input was chosen for the job.

Custom Built

While the speech input system was assembled from standard RCA speech input components it was "custom built" to suit our needs. A conference between the writer, Mr. Curtiss, Mr. Colvin and Mr. Wilson of RCA in Indianapolis, was held at which time the speech input system was planned which embodied all the features we desired.

Briefly the system consists of a master control assembled on four racks and two racks of studio equipment. The master control has three outgoing channels and provision for five studios. Four of



Fig. 2. The control console for Studio A.



L. B. Wilson, President and General Manager of WCKY, at the dedication of the new studios.

these studio positions are already in use. Three are assigned to the regular studios and the fourth to the Hotel Gibson Ballroom where audience shows are held. The three outgoing channels are assigned; one for feeding WCKY transmitter, one for feeding CBS, and the third for feeding the recording equipment. Master Control also has provision for terminating 24 incoming remote program lines and 24 remote order lines, as well as four tie trunks to each studio. The incoming CBS program line is fed through an 84-A line amplifier and then into an isolating pad which provides 50 DB isolation between the five branches that feed the separate studios.

Monitoring Facilities

Monitoring facilities on Master Control provide for monitoring the five studios, the three outgoing lines and the incoming CBS line. Ten office monitoring busses are also fed from master control and, by means of a selector switch at each office monitor speaker, any of the following busses may be selected in each office. These are the three outgoing lines, any one of the five local stations, the incoming CBS line and an audition buss on which special auditions are fed to

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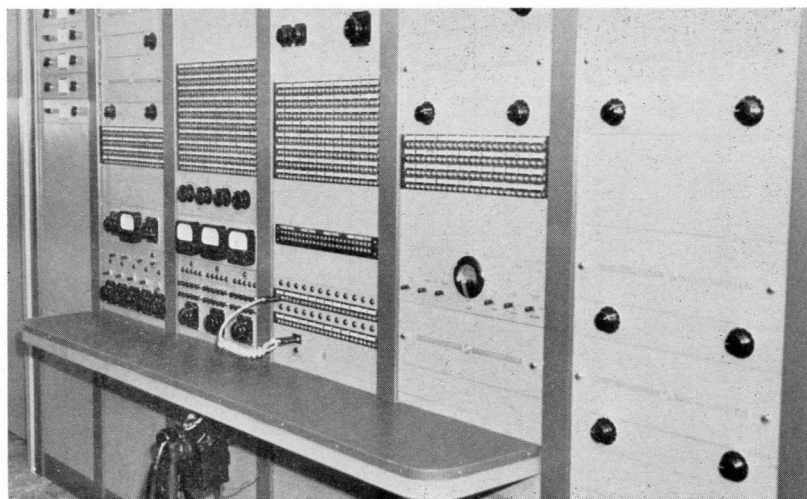
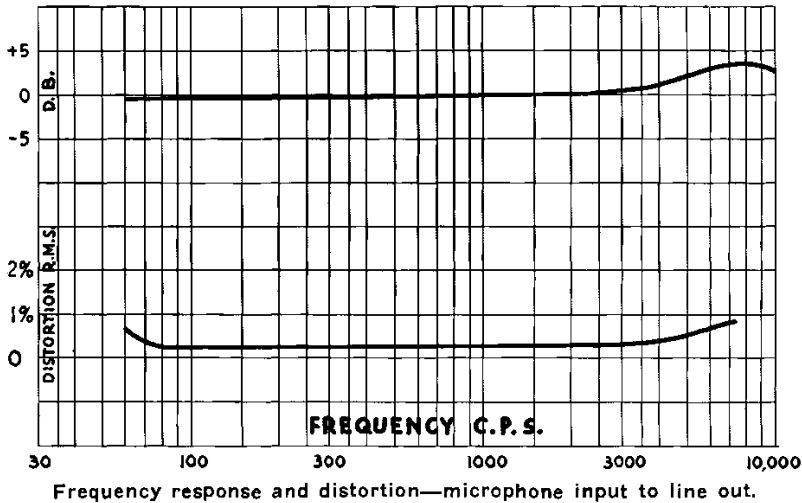
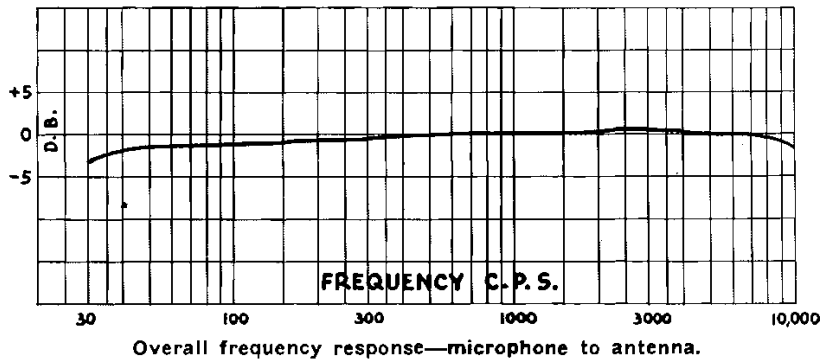


Fig. 1. A portion of the six speech input racks.



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the office speakers. This audition buss works as follows: the output of each studio channel terminates in a key which may be switched either to master control or to this audition buss. Thus if an audition is being fed from a studio, the key is thrown to the audition buss and the program does not go through master control which simplifies switching somewhat. For regular operation, of course, the key is thrown to the "line" position which feeds the program to master control where it is switched to an outgoing channel. This key is interlocked with the output switching so there is no chance of feeding a program to the audition buss that should go on the air.

Studio B where station breaks and remote programs are handled is operated from master control. This studio is provided with two separate program channels with provision for switching the faders from the regular to the "audition" channel. The 82-B monitoring amplifier is switched to this position for use as a program amplifier.

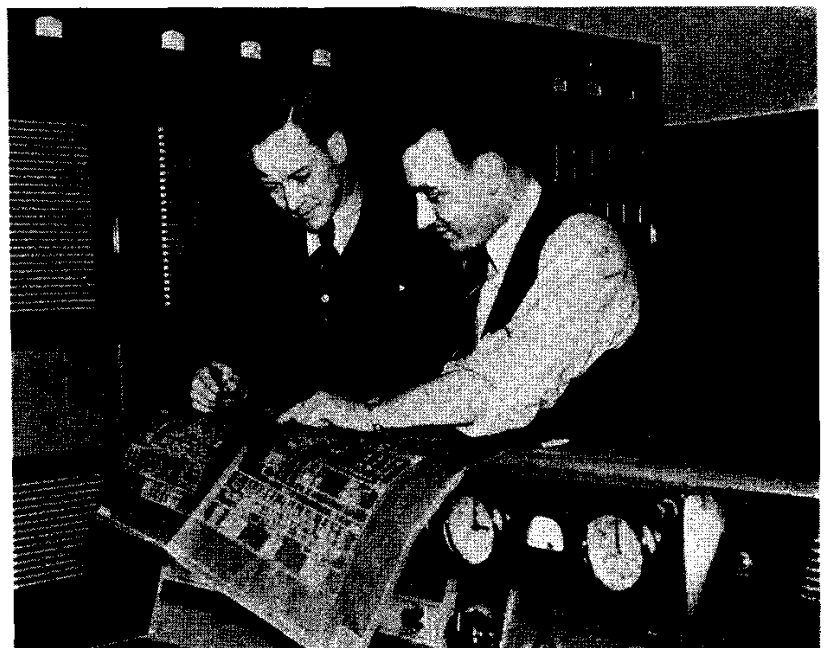
Provision is made for setting the gain of this amplifier equal to that of the program amplifier and a VU meter is connected across the output, thus making it possible to set up one program on this studio while another program is on the air from the same studio. This

allows consecutive programs to be run from this studio, and simplifies operation.

Fig. 1 shows a photograph of the six racks in master control. Rack 1 on the left carries the five receivers for "off the air" monitoring of the five local stations. At the bottom of this rack is the power supply for the receivers and an 82-B amplifier which drives one of the speakers in master control. Rack 2 carries the equipment for Studio B. As mentioned previously, this studio is operated from master control and the control panel can be seen just above the writing shelf. Rack 3 has the out-put switching as well as jack termination for the master control equipment. Rack 4 has the jack termination for the 48 incoming remote lines, the ring-downs, line equalizers and tie trunks to the studios. Rack 5 carries the equipment for studio A, and Rack 6 has the line amplifiers, the CBS amplifier and a monitoring amplifier. In addition, an oscillator and attenuator panel are provided for checking the performance of the system and for equalizing remote lines.

Figure 2 is a photograph of the control console for studio A. The other studio equipment which is in an individual control room is similar to studio A, with the ex-

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J. A. Chambers, consultant, and C. H. Topmiller, chief engineer, WCKY, conferring during the installation.

H. E. RHEA IN TELEVISION EQUIPMENT SALES



H. E. Rhea, who has recently joined the Television Equipment Sales Section, was born in 1913 at Clinton, Ill.

After completing high school he entered the University of Illinois where he was graduated in 1935 with a B.S. in Engineering Physics.

For a time after leaving school he was connected with an automotive accessory business.

In the latter part of 1935 he joined the Advanced Development and Design Section of RCA specializing in Television Equipment.

His interest in sales work led to his transfer to the Sales Department early this year.

NOISE METER 312-A

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greater will not cause overloading. Thorough shielding has also been provided, to prevent any disturbing stray pickup.

The accuracy and convenience of this new radio noise meter and its reasonable price should greatly encourage the quantitative study of radio noise, in all its aspects, by broadcaster, radio service engineer, electrical contractor, appliance manufacturer, radio manufacturer, and by technical schools, colleges, and industrial laboratories. This should do much to end the neglect of noise reduction in the battle for better broadcast service.

CLEVELAND INSTALLATION

The City of Cleveland has recently completed the largest 2-way Police Radio System in the world. All of the equipment included was designed and installed by RCA.

The value of the equipment to the city is reflected in the fact that major crime in Cleveland has dropped almost 18% since the system has been in use.

ITS MODERN — ITS WFMJ

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decorated in tones of dove gray and apricot, accented with black and contrasting colors. Reproductions of antique Persian tiles decorate the wall opposite the elevator where the visitor enters the station. The luxurious reception room, paneled in walnut, sets the color theme for the station. It has dove gray and apricot walls, an apricot-hued rug and harmonizing furniture. A blue davenport blends with upholstery of two lounge chairs in imported print damask, a fabric used also for the drapes. The dove gray theme is carried out in offices of WFMJ executives. Carpeting in the office section is of deep apricot tone in a rectangular design. The entire station is planned for effective use of indirect lighting. Some of the offices have drop lights while others have recessed illumination in the ceilings. The office of the general manager, William F. Maag, Pr., is paneled in gray English hare wood, set off by a pale apricot-toned acoustical ceiling with recessed lighting. Scenes of the 'Roofs of Paris' in tones of pastel blue and beige, provide novel wallpaper for the audition room. Swedish modern furniture in bleached mahogany is upholstered in harmonizing blue and golden brown. The ladies' lounge is Parisian in tone with modern 'Directoire' wallpaper and furnishings in bleached wood with periwinkle blue and Georgian green upholstery. The broadcasting studios continue the basic color theme of the station. Doors throughout combine the apricot hue with metal paneling. The smallest studio is in dove gray and blue; a lime-yellow is used for walls of studio No. 2. The

large studio is furnished in tones of green with a bittersweet chenille drape at one end."

A remote studio located in the Youngstown Vindicator Building is equipped with RCA type 62-A portable equipment and from this point a number of the hourly news broadcasts originate.

WFMJ is under the personal direction of William F. Maag, Jr. The department heads are Leonard Nasman, Sales Manager; Frank Dieringer, Chief Engineer; Ed. J. Lord, Program Manager.

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ception that 40-C and 41-D amplifiers are used.

The floor of the control room was raised 12 inches and channel irons were placed under this floor which carried the racks. Beneath the racks a metal race-way was placed which carried all the cross connections, and into which fed the conduits from the other studios. The wiring in this race-way was segregated into four groups, low level, medium level, high level, and signal. With this precaution, no cross talk at all was experienced. The hotel in which the studios are located has its own power supply and arrangements were made to use this as an emergency supply. The regular supply from the Cincinnati Gas and Electric Company feeds through an automatic change over switch, so in the event of failure the entire studio load including the lights and air conditioning are automatically switched to this emergency supply. We were fortunate in having an emergency supply available that would carry the entire load.

The great number of favorable comments from listeners after the installations of the new RCA 50 KW transmitter and speech input equipment on the quality of WCKY's signal has convinced us that listeners are beginning to appreciate high fidelity broadcasting.