

### Television Receivers

Two distinct groups of television receivers were produced in 1939. The first of the two receiver groups included 12-inch and 5-inch picture tube models, none having standard broadcast band receivers included. The 12-inch models (Models GM-295, GM-296,GM-297) were all console types with a mirror in the cabi-

net lid for indirect viewing of the picture tube screen. They varied only as to loudspeaker and cabinet design, one series (GM-295) being distributed in the Schenectady-Albany-Saratoga area served by the Helderberg transmitter, one series (GM-296) being purchased by the Columbia Broadcasting System, and the third series (GM-297) being placed on display at the New York Worlds Fair. These receivers are provided with seven television station selector buttons and a power-off button. There are also five picture and sound adjustment controls next to the selector switch, including picture brilliance and contrast, vernier station tuning, and sound tone and volume. The five-inch picture tube model (HM-171A) in the first receiver group produced both picture and sound. Five station selector switch buttons and six picture and sound controls are provided on the front of the cabinet, where the picture tube screen is also located for direct viewing. Several of these models were also displayed at the Fair and distributed in the Capital District area.

The second group of 1939 television receivers were built for general commercial sale and included five-, nine-, and twelve-inch picture tube models, two of the 12-inch types being equipped with standard broadcast sound all-wave receivers. The pictures are viewed directly on all models except one (HM-275). The lowest-priced 5-inch receiver (HM-171B) produces television pictures on any one of three channels selected by push buttons on the front of the cabinet, but does not contain a loudspeaker, television sound being obtained by connecting the audio sound terminals to any standard broadcast receiver. Four picture con-

trols, including brilliance, contrast, focus, and vernier station tuning are located under the screen. The other 5-inch tube model (HM-185) is a console with sound. Three television channel selector buttons and six picture and control knobs are located on the front of the cabinet. A 9-inch model (HM-225) is a console. Picture detail is naturally much greater in this larger screen model than in the 5-inch receivers, and sound reproduction is better in quality and volume. Five station selector buttons, a power-off button, and six picture and sound controls are provided. The next receiver in performance and price range (HM-226) is a 12-inch model equipped for standard all-wave broadcast as well as for television. Picture screen, television picture and sound controls, and broadcast receiver controls are located on the front panel. Five television station channel buttons, a power-off button, and six picture and sound knobs control the television receiver. A three-band tuning dial with rotor type volume and manual tuning controls, rotary switch type tone and band controls, and push buttons for stations and phonograph pickup operate the broadcast receiver. The utmost in picture clarity and detail and in sound reproduction is made available in another 12-inch model (HM-275). Standard broadcast operation is provided. Controls are located in the top of the cabinet under a hinged mirror lid. A large mirror makes possible in direct viewing at wide angles. Seven station selector buttons, a broadcast receiver changeover button, and power-off button are located at one side of the screen. There are also six picture and sound controls, the latter being used also

Worlds Fair Television

The television demonstration in the General Electric building at the 1939 New York Worlds Fair was carried on with equipment produced entirely by the company, and it will be used, with some modifications, in 1940. A television studio was located at one side of a large area, and at the other side a receiver demonstration alcove containing eight different receivers. The studio was complete with camera, pulse generator, video amplifiers and mixers, sound amplifiers, and everything necessary to form a complete video television signal in accordance with R.M.A. standards. Some of the units were in duplicate. The camera was mobile, and could be "penned". Lighting was accomplished with a set of three water-cooled mercury lamps, augmented by three 1000-watt incandescent spotlights, operated at reduced voltage. The mercury lights operated at three-phase and the spotlights on direct current to avoid 60-cycle interference in the picture equipment. All equipment was designed, built and installed in a period of seven months.

From a GE publication titled Radio and Television Development in 1939

Courtesy of Darryl Hock