A RESPONSE KEY FOR USE WITH PROJECTION-TYPE DISPLAY UNITS¹

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The availability of projection-type display units² has prompted us to design a response key which forms an integral unit with the display device. Figure 1 shows the details of a construction of a key for use with pigeons and the way it is used with the display device. The key³ was designed with the contact and spring system at the top so that it could be fastened flush on the face of the display unit. Therefore, the overall dimensions of the entire assembly do not exceed those of the display unit. Energizing the appropriate lamp will project the 12 patterns on the face of the

display unit so they are visible through the transparent armature.

Because the armature was small, we could use $\frac{1}{8}$ -in. Plexiglas to increase its rigidity without unduly increasing its mass. The adjustable extension spring permits fine adjustments in armature tension to be made and maintained. The key and display unit can be fastened to a metal plate by two threaded bushings in the display unit, by which the key also is fastened to the display unit. The bushings are behind the two screws shown on the face of the key in the illustration.

The unit described here has been adapted for use with monkeys and chimpanzees by minor modifications in the armature bearing and by the use of contact assemblies such as those used on relays.

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²Industrial Electronic Engineers, 5528 Vineland Avenue, North Hollywood, California.

³The key is manufactured commercially by Holtzman-Leckrone, 6247 Park Avenue, Indianapolis, Indiana.

Fig. 1. The response key.