

A CLOSER LOOK AT THE

EDDYSTONE BUG



by COLIN WATERS, G3TSS.

Introduction

The Eddystone S689 Bug Key holds a unique position. It is, with one small but notable exception (the Autoplex of 1932), the only Morse key of semi-automatic design manufactured in Great Britain and sold in significant numbers.

Sadly, the key was never to attain a high degree of popularity, but its construction and appearance are enough to give it a great deal of character.

History

By the late 1940's, the Birmingham based Stratton and Company Ltd, later to become known as Eddystone Radio, had built up a fine reputation for the manufacture of high class communication receivers and accessories. But it was not until late 1947 that initial work was begun on the development of a semi-automatic Morse key.

YOUR **EDDYSTONE** DEALER WILL DEMONSTRATE THIS OUTSTANDING SEMI-AUTOMATIC MORSE KEY

This is a first-class production, totally enclosed in a streamlined die-cast housing finished in fine ripple black with chrome relief. This key has a really beautiful movement (try it at your Dealers) and is fully adjustable to enable the operator to make full use of the wide range of speeds provided. The handle has been designed to give equal facility to right- or left-handed operators. A short-circuiting switch is fitted to the base which is a heavy diecasting, provided with rubber feet and holes for screwing down.

No. 689, £3/17/6

ALSO IN PRODUCTION :

No. 669, "5" Meter, 5 Gns.

No. 678, Modulation Indicator, £8/15/-.

No. 690, Crystal Calibrator, £12.

No. 687, Vibrator Power Unit, £1/17/6.

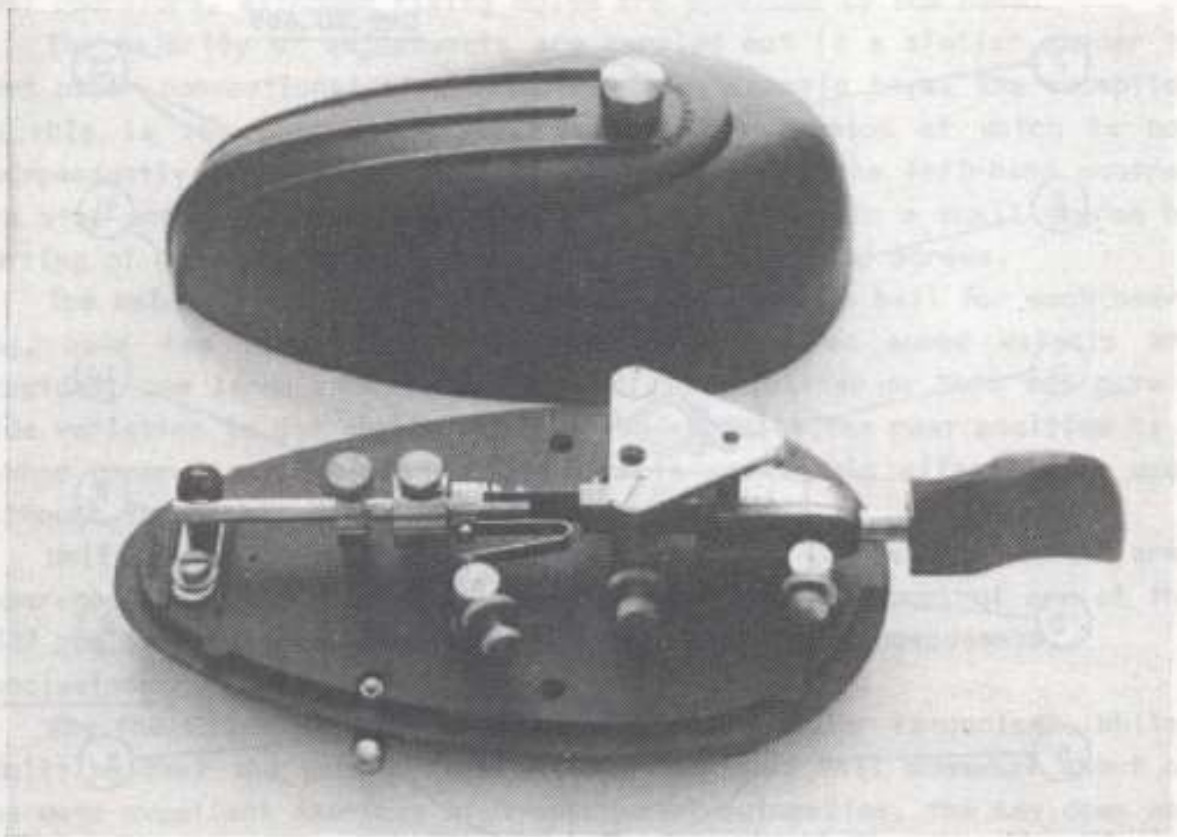
Order from your Eddystone Dealer

STRATTON & Co., Ltd., EDDYSTONE WORKS, ALVECHURCH Rd., BIRMINGHAM, 31



The Eddystone S689 with cover removed.

Photo: Colin Waters



Mechanically, it was to follow the by then well-proven principle of Martin's 1904 Viproplex Original design, but in a style in keeping with the traditional Eddystone use of die-castings. After careful testing of shapes and materials for the various components, a number of pre-production models were assembled and evaluated by the radio amateurs working for the company, one of these pre-production models being displayed at the Amateur Radio Exhibition in November 1947.

The first production run was made in early 1948, when a batch of 250 keys was assembled. Unfortunately, sales proved poor although a second production run, again of 250, was planned for late 1948. It is almost certain, however, that only 100 or so of this batch were actually assembled.

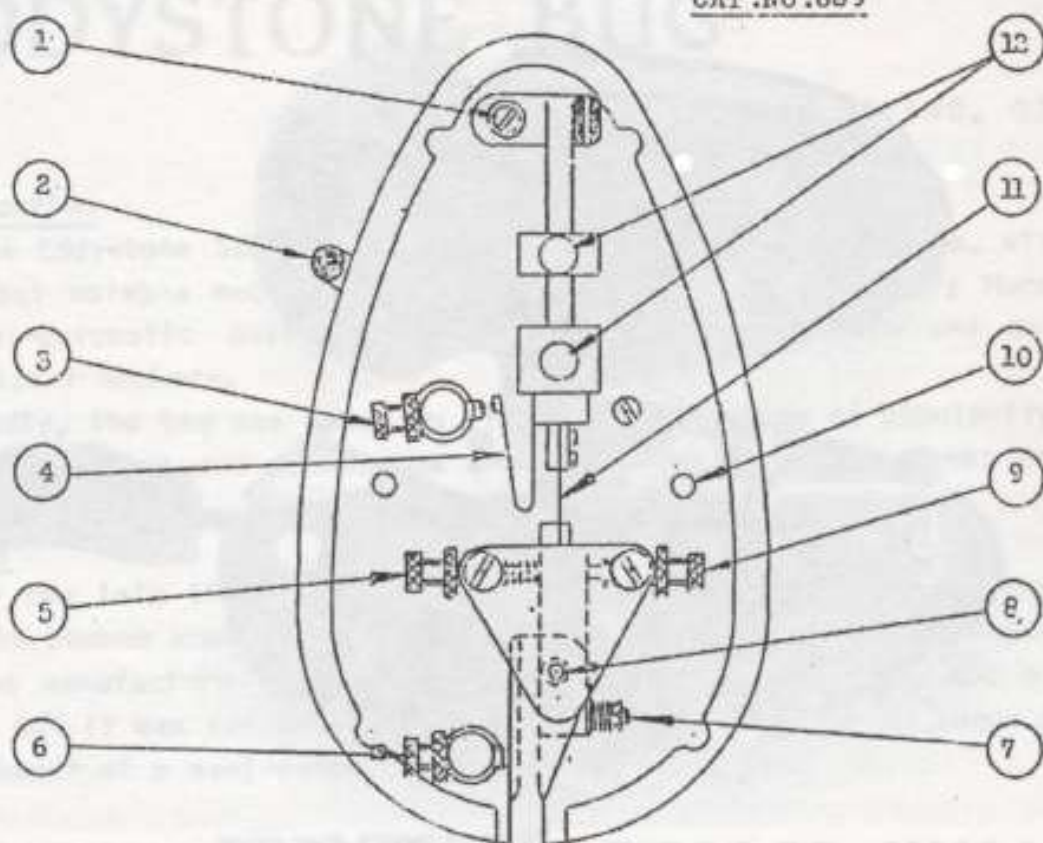
Although the S689 was undoubtedly liked by many users, sales of the key continued to be poor. Eventually the company, foreseeing no future improvement in its popularity, decided to offer the remaining assembled keys, and some unassembled components, as a job lot to Birmingham's Chas H. Young Amateur Radio Company, who placed the S689 on special offer and continued selling them until stocks were exhausted.

Construction

The key is almost entirely constructed of untreated brass and diecast aluminium, the base and cover being finished in the then almost

THE EDDYSTONE SEMI-AUTOMATIC MORSE KEY

CAT. NO. 689



- | | |
|---|---|
| 1. Back stop adjusting screw (Preset) | 7. Control lever return spring (Adjustable) |
| 2. Shorting switch. | 8. Ball pivots (Adjustable) |
| 3. Dot contact adjusting screw (Preset) | 9. Control arm stop screw R.H. (adjustable) |
| 4. Recoil spring and contact. | 10. Fixing holes (2 1/2" Crs) |
| 5. Return spring adjusting screw & control arm stop. L.H. | 11. Vibrator spring. |
| 6. Dash contact adjusting screw. | 12. Weight locking screws (For speed variation) |

The Eddystone Morse Key is of really modern design. The streamlined diecast housing affords protection to the movement, which has received special attention and is a fine example of firstclass light engineering. The handle has been designed to give equal facility to a right- or left-handed operator.

The illustration above gives details of the various adjustments which can be made. These are all set at the factory to suit an average operator and little additional adjustment will normally be required, except, of course, to the weights which vary the keying speed.

An elastic band prevents the arm vibrating during transit and should be removed before the key is put into use.

Issued by: Stratton & Co. Ltd.,
Eddystone Works,
Birmingham, 31.

TSD/JHW/CNC/22348

obligatory black crackle or wrinkle paint. Despite the base and cover being aluminium, the weight of 2lb 14 ozs (1.304 kg) is adequate for most operators, although fixing holes are provided in the base.

The majority of adjustments are carried out in a similar manner to most other conventional single lever semi-automatic keys. The exception to this is the dot return coil spring, the tension of which is not independently adjustable. This spring is held by the left-hand control arm stop screw and the tension can only be varied to a small degree by setting of both the left-hand and the right-hand stop screws.

The main pivot pin bearings consist of a single ball for each bearing, only the lower of which is adjustable. Two speed weights are provided, one large and one small, and use of either or both can give a wide variation in dot speed. The arm is damped in the rest position by a rubber grommet on the back stop. This is remarkably effective in use, although the rubber does become brittle with age.

Unlike the majority of American designs, where the lever arm, lever-rod, and main spring are riveted together, the control arm of the S689 can be completely dismantled down to individual components.

Conclusions

Why the Eddystone S689 proved to be so unpopular is unclear. Whilst admitting that the general feel of the key does fall somewhat short of the many excellent American high speed semi-automatics, the key does not suffer from any major defect in design. The combination of a number of its shortcomings may, however, have been a contributory factor to its unpopularity.

The exact number of S689s produced is unknown, but it seems clear that the figure did not exceed 500. No serial plates were fitted to the keys. A number is stamped on a connecting strip on the underside of the base, the keys in the author's possession being numbered AG1995 and EZ0829.

Unfortunately, records do not exist concerning the sequence of these numbers, and the author has been unable to contact anyone who knows their significance. He would like to receive correspondence* from any readers of MM who have used, or still use, the Eddystone S689.

Acknowledgements

The author is grateful for the help given by the following in the preparation of this article:

Chris Pettit, Managing Director of Eddystone Radio Ltd.

Chas H. Young.

Bill Cooke, former Chief Engineer and Managing Director of Eddystone Radio Ltd, now retired after 50 years with the company, who provided all the dates and figures of production.

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