PURPOSE
A teacher designed to stimulate on radar displays aircraft echoes, to provide practice in interception and telling from a F.P.I. It operates with Types 282 and 285 on small ships which have insufficient space for Teacher Outfit HRF.

RANGE
0 - 20,000 yds

ECHO SPEED
500 knots opening - 500 knots closing

POWER REQUIREMENTS
180 watts 500 c/s

MAJOR UNITS

<table>
<thead>
<tr>
<th>Pattern</th>
<th>DESCRIPTION</th>
<th>PHYSICAL DATA</th>
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</thead>
<tbody>
<tr>
<td>65165</td>
<td>Echo Generator Unit (Portable)</td>
<td>1 x 1 x</td>
</tr>
<tr>
<td>65166</td>
<td>Bearing Conversion Unit (Portable)</td>
<td>1 x 1 x</td>
</tr>
<tr>
<td>65917</td>
<td>285A, Junction for Teacher Outfit HRF</td>
<td>-</td>
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<tr>
<td>65827</td>
<td>Case, carrying (2 in box)</td>
<td>-</td>
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Patt. 65165 Echo Generator and Patt. 65166 Bearing Conversion Unit are each stored in a Patt. 65827 Case, carrying when not in use.

BRIEF DESCRIPTION
A small compact equipment which operates with Types 282 and 285. The teacher produces the display panels on an echo which can be set by hand at any range from 0 - 20,000 yds (approx.). This echo can be made to travel along the trace by an electronic system, which can be set to give any constant travel between 500 knots opening and 500 knots closing.

When used with Type 285 the bearing of the echo can be varied manually over approximately 180 degrees, there being no automatic variation of bearing. Beam switching is incorporated and the double echo can be balanced by training the Director in the normal manner.

Ships fitted with Type 285 (141' tower) and Type 282 (N' type) will be able to carry out ranging exercises only, since there is no 141' type transmission to operate the Bearing Conversion Unit.

The 141' Type motor in the Bearing Conversion Unit operates in 5 minute steps. In ships fitted with 141', Type V, Vp or VIP range Finder Director, director training is transmitted automatically. Bearing transmission is therefore taken from the gun training instead of director training.

REMARKS
Since Teacher Outfit HRF has been designed to simulate aircraft targets only, low rate settings of the echo speed are unreliable and for this reason the outfit is unsuitable as a surface target teacher.

HANDBOOK
B. R. 1830

ESTABLISHMENT LISTS
9392

INSTALLATION SPECIFICATION
Not Issued. A. P. 1917/49 gives Installation Instructions.