RANGING OUTFITS RTB AND RTE

PURPOSE
Ranging Outfit RTB is fitted in the Target Indication Room adjacent to the Target Indication Unit to provide accurate range transmission of targets selected on the Target Plot Indicator by the T.I.O. for long and close range armaments. Ranging Outfit RTE is fitted in Types 277 or 293 Radar Office to provide accurate range transmission of targets selected on the P.P.J.I. for tactical purposes, and in destroyers as stand-by range transmission for the armament.

MAJOR UNITS

RANGING OUTFIT RTB
1. Pott. W7090 Generator (Strobe) and Signal Unit Des. F (2 off)
2. Pott. 9444 Range Transmitting Unit Des. S3 (2 off)
3. Pott. W901 Panel L37 (BM)
4. Pott. 55418 Range Transmission Rack, Des. 2
5. Pott. 55196 Box, Range Indicating, Des. 2, 6 lamps

Items 1, 2 and 5 are components of Item 4.

RANGING OUTFIT RTE
1. Pott. W7090 Generator (Strobe) and Signal Unit Des. F (2 off)
2. Pott. W5173 Range Transmitting Unit Des. 52 (B type) (2 off)
3. Pott. W901 Panel L37 (BM)
5. Pott. 54985 Range Transmission Rack Des. 1 I.R.
6. Pott. 55285 Range Transmission Rack Support Frame
7. Pott. W491 Sector Selector Unit
8. Pott. 55196 Box, Indicating, Des. 2, 6 lamps

Items 1 and 7 are components of Item 4.
Items 2, 3 and 8 are components of Item 5.

PHYSICAL DATA

<table>
<thead>
<tr>
<th>Item</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTB</td>
<td>6' 7&quot;</td>
<td>2' 10&quot;</td>
<td>2' 0&quot;</td>
<td>330 lb</td>
</tr>
<tr>
<td>RTE</td>
<td>6' 4&quot;</td>
<td>2' 0&quot;</td>
<td>2' 0&quot;</td>
<td></td>
</tr>
</tbody>
</table>

BRIEF DESCRIPTION
Either outfit can deal simultaneously with two different targets in separate bearing sectors as selected by control knobs in the T.I.O. In the case of RTB, or the Sector Selector Unit in the case of RTE. When the aural of the parent radar equipment is rotating, the echoes in the two selected bearings appear on two class A scans, one for each sector, on the C.S.T. of the Panel L37. One scan is normal, the other is inverted. Two strobe generators provide ranging strobe spots for the two A scans, one per A scan, and each strobe spot is positioned by its associated R.T.D., which transmits the range to the local and remote indicators where fitted. The R.T.D.'s of both outfits operate on three ranges viz.

RANGING OUTFIT RTB
0 - 10,000 yards
0 - 36,000 yards  Megalip Transmission
0 - 100,000 yards

RANGING OUTFIT RTE
0 - 15,000 yards in 25 yard steps M type transmission
0 - 60,000 yards in 100 yard steps M type transmission
0 - 150,000 yards in 250 yard steps M type transmission
The three ranges scales provided on the Panel are

(a) **Ranging Outfit RH**:

- **Scale 1**: 0 - 15,000 yards
- **Scale 2**: 0 - 36,000 yards
- **Scale 3**: 0 - 75,000 yards

(b) **Ranging Outfit RTE**:

- 0 - 15,000 yards
- 0 - 36,000 yards
- 0 - 130,000 yards

**POWER REQUIREMENTS AND CONSUMPTION**

- **Ranging Outfit RH**: 220v, 50 c/s, 4 A, 400W
- **Ranging Outfit RTE**: 22v, D.C., 100W

**HANDBOOK**

B.Z.1904

**INSTALLATION SPECIFICATIONS**

- B.479 **Ranging Outfit RH**
- B.761 **Ranging Outfit RTE**