

TEACHER OUTFIT HRL(2)

HRL(2)

SUMMARY OF DATA

PURPOSE

To provide target acquisition training and practice for the operators of gun direction and fire control radar equipments. The principle of operation is similar to Teacher Outfit HRL(1) but certain units have been changed or modified to allow the teacher to work with Radar Types 993, 965 and 278.

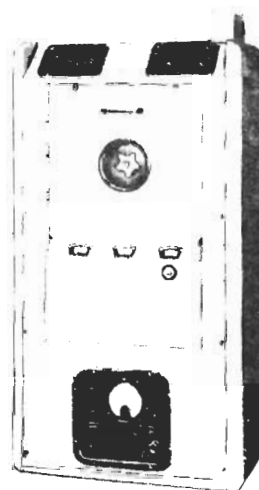
BRIEF DESCRIPTION

The Target Cam Assembly has three component cams, contoured to represent the variations in target range bearing and elevation. The cam assembly is rotated by a drive motor unit and motions are picked off from the cams and imparted to magslips and potentiometers in the teacher.

The magslips in the teacher are linked with magslip transmissions from the radar equipments, thus producing output signals which represent the angular misalignments between the radar aeriels and the teacher target; these signals are used to control the amplitude of the artificial aircraft echo pulses produced by the teacher pulse circuits.

The radar equipments feed sync pulses to the teacher pulse circuits which then generate delayed pulses to be fed back to the radar equipments. The amount of delay which represents the range of the target, is controlled by potentiometers driven by the range cam in the teacher. Subsidiary control signals from the radar equipments are fed into the teacher to simulate special characteristics of radar operation.

Teacher Outfit HRL(2) makes provision for extending the target range, when used with Type 965 and Type 278, but uses the same Target Cam Assemblies. This produces somewhat unusual attitudes of the aircraft echo particularly in height aspect, but is acceptable with the present cams.



MAJOR UNITS AND PHYSICAL DATA

<u>Patt. No.</u>	<u>Description</u>	<u>Physical Data</u>			<u>Weight</u>
		<u>Height</u>	<u>Width</u>	<u>Depth</u>	
62290A	Cabinet Design 128, Unit A (with shock mountings and A.P. 64293 Control Unit)	110.5 cm	54.6 cm	33 cm	43 kg
		(43.5 in)	(21.5 in)	(13.25 in)	(94.5 lb)
		124.5 cm	54.6 cm	33 cm	-
		(49 in)	(21.5 in)	(13.25 in)	-
5840-AP172221	Target Course Generator Chassis Unit B	-	-	-	36 kg (80 lb)
63465	Motor Drive Assembly Unit C	-	-	-	8.6 kg (19 lb)
5840-AP-172222	Pulse Unit, Unit D	-	-	-	7 kg (15 lb)
62293A	Target Data Unit, Unit F	-	-	-	9 kg (20 lb)
62294	Rectifier Unit 63BZ Unit G	-	-	-	32 kg (70 lb)

- NOTES: (1) Unit B 5840 AP 172221 does not automatically include Unit D 5840 AP172222 and Unit F AP62293A, these two items are supplied separately.
- (2) Unit B does include Unit C AP63465.

POWER REQUIREMENTS

115V or 230V, 50/60 Hz. Single phase ac
350W average consumption, 400W maximum.

BR 333(1)
Original

RESTRICTED

TARGET CAM ASSEMBLIES

<u>Patt. No.</u>		<u>Description</u>
62295	Cam Assembly No. 1	Special alignment Cam for setting up and testing.
62296	Cam Assembly No. 2	Level bombing attack on consort.
62297	Cam Assembly No. 3	Dive bombing attack on own ship.
62298	Cam Assembly No. 4	Evasive dive attack on own ship.
62299	Cam Assembly No. 5	Low approach to own ship with climb and dive attack.

REMARKS

Where references to Teacher Outfit HRL(1) occur see separate Summary of Data.

HANDBOOK

BR 204(1)

ESTABLISHMENT LIST

E1118

INSTALLATION SPECIFICATION

B808