

AERIAL OUTFIT AXN

SUMMARY OF DATA

PURPOSE

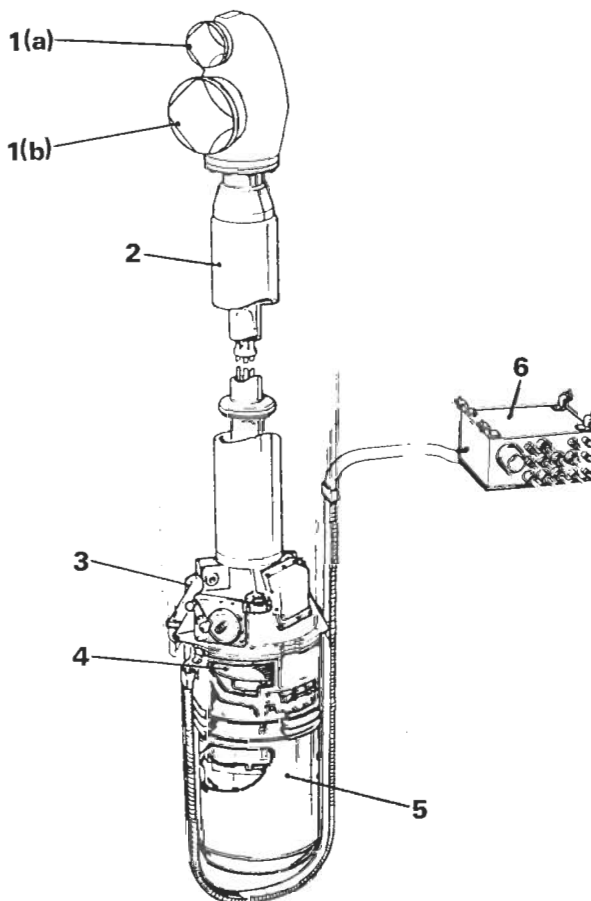
Aerial Outfit AXN is a DF aerial designed for use in submarines. The rotatable aerial consists of a directional S,C,X and J band aerial for use with DF Outfit UA12.

BRIEF DESCRIPTION

Aerial Outfit AXN comprises:

1. An aerial assembly consisting of:-
  - (a) An S and C band horn for DF Outfit UA12.
  - (b) An X and J band horn for DF Outfit UA12.

The aerial assembly is designed to have a low echoing area and the S-C and X-J horns are in azimuthal alignment and elevated 4.5° from the horizontal.
2. A 29.5 ft hollow mast enclosing a central rotating torque tube which houses the aerial waveguide and cables.
3. A base of mast crosshead which enclose the aerial drive motor, gearbox and synchros, and which also carries the receiver assembly. The hydraulically operated rams which raise and lower the mast are bolted to the crosshead.
4. A drive section containing the motor, gearbox, synchro elements and rotating joint.
5. A receiver at the base of the mast containing the four receiver units (one for each band) which provide amplification and detection of the pulse/cw signals fed from the aerial. Travelling wave tube amplifiers are used for RF amplification. The video outputs of the receivers are fed to Outfit UA12. An rf test source is incorporated from which test signals may be injected into the receiver for system check purposes.
6. An articulated sheath and interconnecting box provides the flexible connection between the Aerial Outfit and Ships Wiring.



AERIAL OUTFIT AXN

FREQUENCY RANGE

2.5 — 18.0 GHz

MAJOR UNITS

AP 63765	Control Unit RF
5895-99-972-5086	Interconnecting Unit
5895-99-972-3044	Canister Receiver
5895-99-972-3045	Receiver Unit
5895-99-972-3046	Receiver Unit
5895-99-972-3047	Receiver Unit
5895-99-972-3227	Receiver Unit
5985-99-537-3197	Antenna
5985-99-537-1496	Wiring Harness
5985-99-972-3040	Interconnecting Box
5895-99-537-8124	Mast Section
5985-99-972-3038	Motor, Gearbox and Crosshead
5985-99-537-1497	Stabilised Track Set
5985-99-972-3042	Waveguide Rotating Joint
5985-AP 186364	Waveguide Size 16 Flexible

NOTE: One of each fitted — additional units may be carried as 'onboard' spares.

