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UNCLASSIFIED

TECHNICAL INFORMATION
for
ANTENNA DISTRIBUTION UNIT
MODEL HFD-1S



THE TECHNICAL MATERIEL CORPORATION
MAMARONECK, N.Y.

OTTAWA, ONTARIO

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THE TECHNICAL MATERIEL CORPORATION

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NOTICE

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THE TECHNICAL MATERIEL CORPORATION

C O M M U N I C A T I O N S E N G I N E E R S

700 FENIMORE ROAD

MAMARONECK, N. Y.

W a r r a n t y

The Technical Materiel Corporation, hereinafter referred to as TMC, warrants the equipment (except electron tubes,*fuses, lamps, batteries and articles made of glass or other fragile or other expendable materials) purchased hereunder to be free from defect in materials and workmanship under normal use and service, when used for the purposes for which the same is designed, for a period of one year from the date of delivery F.O.B. factory. TMC further warrants that the equipment will perform in a manner equal to or better than published technical specifications as amended by any additions or corrections thereto accompanying the formal equipment offer.

TMC will replace or repair any such defective items, F.O.B. factory, which may fail within the stated warranty period, PROVIDED:

1. That any claim of defect under this warranty is made within sixty (60) days after discovery thereof and that inspection by TMC, if required, indicates the validity of such claim to TMC's satisfaction.
2. That the defect is not the result of damage incurred in shipment from or to the factory.
3. That the equipment has not been altered in any way either as to design or use whether by replacement parts not supplied or approved by TMC, or otherwise.
4. That any equipment or accessories furnished but not manufactured by TMC, or not of TMC design shall be subject only to such adjustments as TMC may obtain from the supplier thereof.

Electron tubes*furnished by TMC, but manufactured by others, bear only the warranty given by such other manufacturers. Electron tube warranty claims should be made directly to the manufacturer of such tubes.

TMC's obligation under this warranty is limited to the repair or replacement of defective parts with the exceptions noted above.

At TMC's option any defective part or equipment which fails within the warranty period shall be returned to TMC's factory for inspection, properly packed with shipping charges prepaid. No parts or equipment shall be returned to TMC, unless a return authorization is issued by TMC.

No warranties, express or implied, other than those specifically set forth herein shall be applicable to any equipment manufactured or furnished by TMC and the foregoing warranty shall constitute the Buyers sole right and remedy. In no event does TMC assume any liability for consequential damages, or for loss, damage or expense directly or indirectly arising from the use of TMC Products, or any inability to use them either separately or in combination with other equipment or materials or from any other cause.

*Electron tubes also include semi-conductor devices.

PROCEDURE FOR RETURN OF MATERIAL OR EQUIPMENT

Should it be necessary to return equipment or material for repair or replacement, whether within warranty or otherwise, a return authorization must be obtained from TMC prior to shipment. The request for return authorization should include the following information:

1. Model Number of Equipment.
2. Serial Number of Equipment.
3. TMC Part Number.
4. Nature of defect or cause of failure.
5. The contract or purchase order under which equipment was delivered.

PROCEDURE FOR ORDERING REPLACEMENT PARTS

When ordering replacement parts, the following information must be included in the order as applicable:

1. Quantity Required.
2. TMC Part Number.
3. Equipment in which used by TMC or Military Model Number.
4. Brief Description of the Item.
5. The *Crystal Frequency* if the order includes crystals.

PROCEDURE IN THE EVENT OF DAMAGE INCURRED IN SHIPMENT

TMC's Warranty specifically excludes damage incurred in shipment to or from the factory. In the event equipment is received in damaged condition, the carrier should be notified immediately. Claims for such damage should be filed with the carrier involved and not with TMC.

All correspondence pertaining to Warranty Claims, return, repair, or replacement and all material or equipment returned for repair or replacement, within Warranty or otherwise, should be addressed as follows:

THE TECHNICAL MATERIEL CORPORATION
Engineering Services Department
700 Fenimore Road
Mamaroneck, New York

Antenna Distribution unit

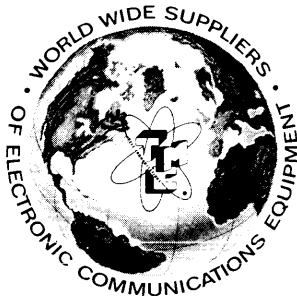
Model HFD-1S

Antenna Distribution Unit, Model HFD-1S covers the 2- to 30- megacycle frequency range. Five type UHF coaxial connectors with BNC adaptors are provided on the rear of the unit for input and output connections. A lightning arrester is provided in the input circuit.

PARTS LIST

Symbol
(Schematic
Diagram)

C1	Capacitor, fixed; mica dielectric; 910 μ f	CM20C911G
J1 thru J5	Connector receptacle; series UHF; Female; teflon insulated	S0239
P1 thru P5	Adaptor; series BNC female to series UHF male.	UG-273/u
S1	Arrester, lightning.	SW176
T1	Autotransformer, R-F; 2- to 3- megacycles; output impedance 70 ohms; 2-1/16" x 2-5/16" x 2-1/2."	TR-044
T2	Transformer, R-F; 2- to 30- megacycles; input impedance 70 ohms; output impedances 70 ohms (4) 2-1/2" x 1-1/4" x 2-7/8."	TR-137

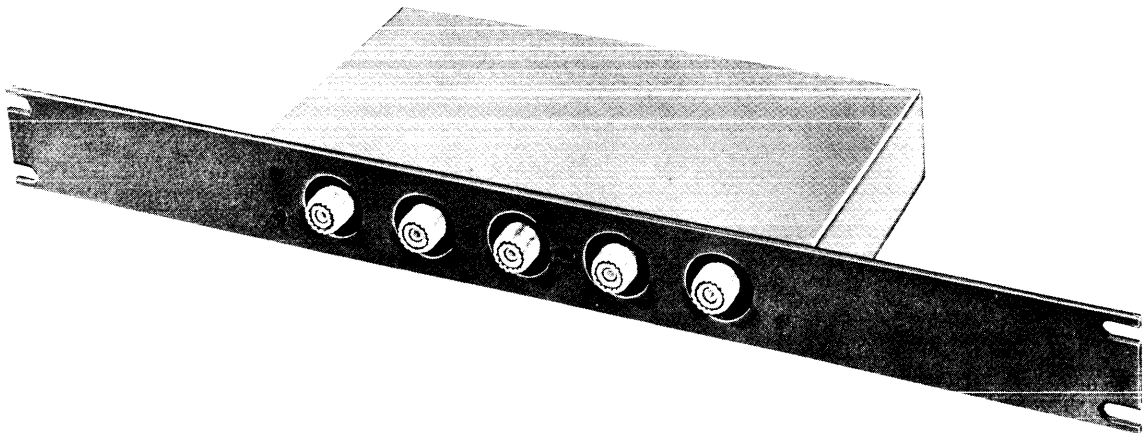


TECHNICAL BULLETIN NUMBER 8007

Antenna Distribution Units

Models HFD-1 & 2

LFD-1 & 2



- 15 kc to 2 mc — Model LFD
- 2 to 30 mc — Model HFD
- Minimum interaction and insertion loss
- Specially designed broadband transformer
- Compact design
- Four receiver—single antenna operation

The Technical Materiel Corporation's Models HFD and LFD are passive antenna distribution units incorporating a special design broadband RF transformer that provides four receiver outputs from a single antenna input with minimum receiver interaction.

Models are available to provide coverage from 15 kc to 2 mcs and 2 mcs to 30 mcs with a wide variety of front and rear RF connections. For your convenience, a chart is included showing these variations.

The standard models are supplied for unbalanced input and output. Balanced input and output may be supplied on request.

Antenna Distribution Units

TECHNICAL SPECIFICATIONS, TMC MODELS HFD AND LFD

FREQUENCY RANGE:	HFD-1 & 2 - 2 to 30 mcs. LFD-1 & 2 - 15 kc to 2 mcs.
FREQUENCY RESPONSE:	HFD-1 & 2 - Flat within ± 0.5 db LFD-1 & 2 - Flat within ± 2 db
INSERTION LOSS:	Approximately 1 db.
INPUT IMPEDANCE:	50 or 70 ohms unbalanced, nominal.
OUTPUT IMPEDANCE:	HFD-1 & 2 - 50 or 70 ohms unbalanced, nominal. LFD-1 & 2 - 50 or 70 ohms unbalanced, nominal.
RF CONNECTORS:	See chart.
MOUNTING:	Standard 19" rack mounting.
INSTALLATION DATA:	Models HFD-1 & 2, LFD-1 & 2. Weight: Approximately 2 lbs. Approximately 6 lbs., commercial packed. Size: 19" w \times 1 $\frac{3}{4}$ " h \times 5 $\frac{1}{2}$ " d.
COMPONENTS AND CONSTRUCTION:	Equipment is manufactured in accordance with JAN/MIL specifications wherever practicable.

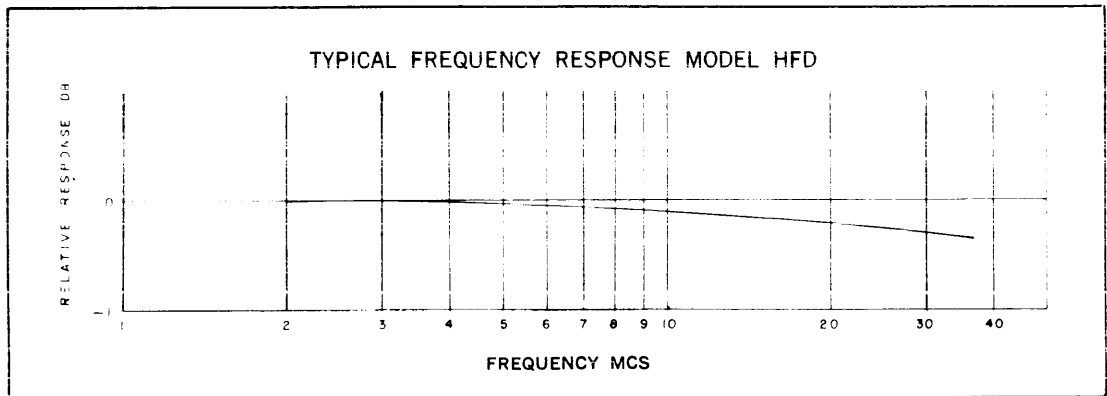
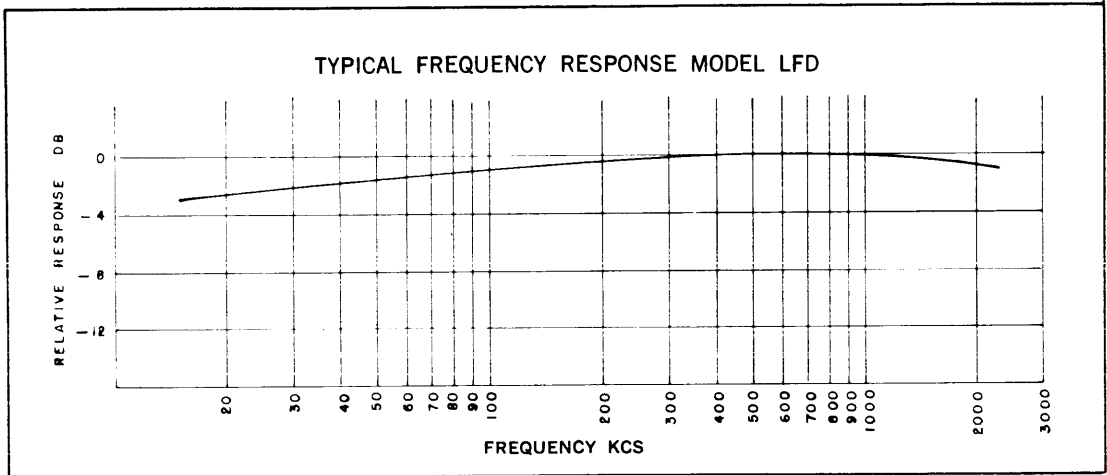
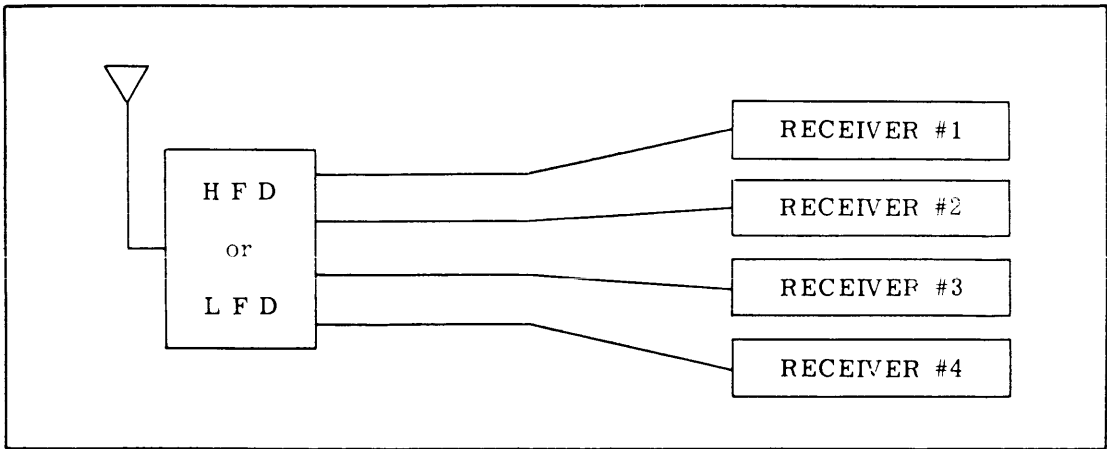
ORDERING INFORMATION:

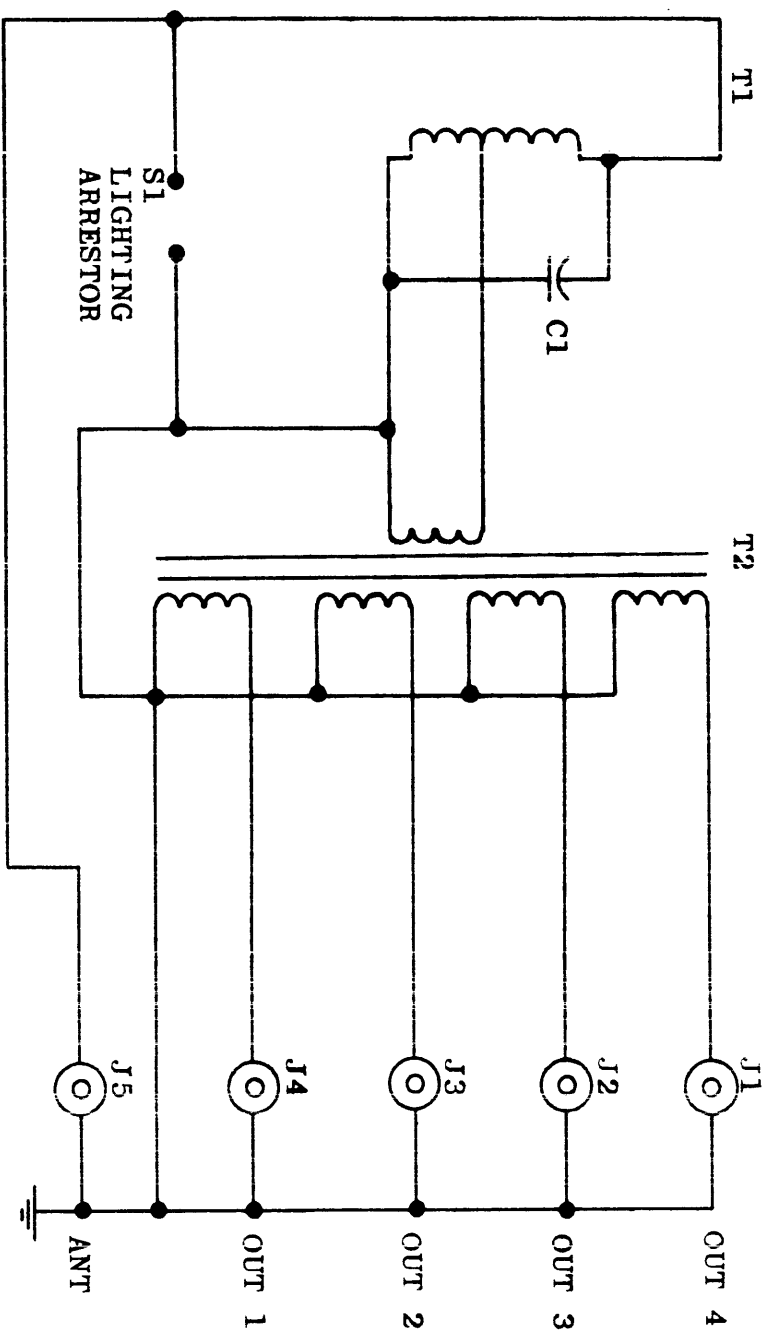
When ordering type of connector, prefix type of connector with model and design designation.

EXAMPLE:

HFD-2/BNC

FRONT OR REAR CONNECTION	TYPE OF CONNECTOR
1 (Rear Connection)	BNC C N
2 (Front Connection)	QDM QDS UHF





Schematic Diagram, Antenna Distribution Unit Model HFD 1S.

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