

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

DS, GS, AND
DEPOT MAINTENANCE MANUAL

MAST, AB-577 GRC

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TECHNICAL MANUAL

TM 11-5820-538-35

HEADQUARTERS
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**DS, GS, and Depot Maintenance Manual
MAST AB-577/GRC**

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CHAPTER 1 FUNCTIONING OF MAST AB-577/GRC

Section I. GENERAL

1-1. Scope

a. This manual covers direct support (DS), general support (GS) and depot maintenance for Mast AB-577/GRC. It includes instructions for direct and general support and depot maintenance repairmen for troubleshooting, testing, aligning and repairing equipment, replacing maintenance parts, and repairing specified maintenance parts. The manual also lists tools, materials, and test equipment required for maintenance.

b. The complete technical manual for this equipment includes TM 11-5820-538-12 and TM 11-5820-538-35P.

1-2. Reporting of Equipment Manual Improvements

The reporting of errors, omissions and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended

Changes to DA Publications) and forwarded direct to Commanding General, U. S. Army Electronics Command, ATTN: AMSEL-ME-NMPAD, Fort Monmouth N.J. 07703.

Note. For applicable forms and records, see paragraph 1-3, TM 11-5820-538-12.

1-3. Indexes of Publications

a. DA Pam 310-4. Refer to the latest issue of DA Pam 3104 to determine whether there are new editions, Changes, or additional publications pertaining to the equipment.

b. DA Pam 310-7. Refer to DA Pam 310-7 to determine whether there are modification work orders (MWO's) pertaining to the equipment.

Section II. COMPONENT OPERATION

1-4. Control

Mast AB-577/GRC consists of three groups of items: the mast carrier and launcher (fig. 2-2), a guy bag and contents (fig. 1-1), and a tools and accessories roll and contents (fig. 1-2). These items are so designed that they may all be placed together in a wooden box for storage or transport. When unpacked and assembled (as described in TM 11-5820-538-12), the three groups fit together to form an eight-section antenna support that can be extended as high as 48 feet above the ground, or with Extension Kit, Mast MK-806/GRC as high as 75 feet.

1-5. Mast Carrier and Launcher

a. The mast carrier consists of steel angle bars welded together and designed to fit into the launcher. It houses the eight mast sections which are stacked two across and four deep and are secured in the carrier by a clamp. The mast carrier is secured to the launcher by six catches (three to each side).

b. The launcher (fig. 2-2) consists of steel angle bars that are welded together and designed to contain the mast carrier during storage or transport. A winch assembly (fig. 2-1) is fastened to a

plate which, in turn, is fastened to the launcher by four screws, two at each side. The winch is operated by a handcrank. The winch cable wraps around the reel and runs from the reel, up and over a pulley at the top of the launcher, to the elevator. When the handcrank is turned, the elevator is raised or lowered. The winch reel is locked in position by a lock release lever. A bench level on the side of the launcher is used in determining whether the mast is level. The brake assembly holds the tube sections during and after assembly. The elevator is used to raise or lower the mast sections.

1-6. Guy Bag and Contents

(fig. 1-1)

a. The handcrank (2) is placed in the square hole in the winch and turns the reel clockwise or counterclockwise, thereby raising or lowering the elevator.

b. An antenna adapter (11) is used as the coupler between the first (top) mast section and a T-bar antenna support such as Support, Antenna AB-957/GRC (TM 11-5820-58812).