

## FIELD WIRE. CABLE AND RELATED RELATED EQUIPMENT



**WD-1/TT and WD-1A/TT** have two twisted, individually insulated conductors and the WD-1A/TT has two insulated conductors bonded together. The conductors have the following characteristics:

- Four tinned-copper strands and three galvanized-steel strands.
- Inner insulation of polyethylene and outer nylon insulation jacket.
- Tensile strength of approximately 200 pounds (both conductors).
- Weighs 48 pounds per I.6 kilometers (1 mile).

**WF-16/U** has four copper-cadmium alloy standard insulated conductors in two pairs. One pair is olive drab; the other brown. The olive drab conductor has a ridge along the side for night identification. Conductors have the following characteristics:

- Copper-cadmium alloy stranded.
- Tensile strength of 200 pounds.
- Weighs 62 pounds per 1.6 kilometers or 1 mile.
- Four-wire, field wire.

Spiral-Four cable is used to provide four-wire transmission line for carrier communications. It also can be used for long-distance voice-frequency (VF) circuits.

**WF-8/G** has four stranded-copper conductors separately insulated with polyethylene and spiraled around a polyethylene core. One pair of the spiral-four cable is colored for identification. The spiraled conductors are covered by an inner jacket of polyethylene, carbon-cloth stabilizing tape, steel braid, and a thermoplastic outer jacket. The steel braid adds tensile strength to the cable, permitting the cable to be used in self-supported aerial cable lines. Telephone Cable WF-8/G is part of Cable Assembly CX-1065/G and Telephone Cable Assemblies CX-1606/G and CX-1512/U.

**CX-11230** ()/**G** is inter-area coaxial cable. It provides a four-wire cable transmission medium for wideband PCM and time division multiplexing (TDM) carrier systems. Cable assembly CX-11230 ()/G has two twisted coaxial tubes jacketed in low-density polyethylene. The tubes are protected by mylar tape and a medium-density polyethylene jacket. The two tubes terminate in a universal connector at each end. A copper-clad steel braid strength member is part of the cable assembly. The cable is sturdy enough for both ground and aerial use.

**CX-4566A/G** is a twenty-six pair cable that has a stranded conductor with 26 pairs of color coded wires. It provides cable distribution for local telephone lines and circuits, interconnects communication shelters, and is used in conjunction with distribution boxes and cable stub CX-4760/U. It terminates in a universal connector at each end. The cable is sturdy enough for both ground and aerial use. It is supplied in 250-foot lengths on Metal Cable Reel RC-435/U. Other lengths and the related connectors and inserts U-185B/G, U-186A/G, U-187A/G and MX-3227/U are all produced by Associated Industries.

**Reel DR-5** is a metal spool-type container used to store, transport, lay, or recover field wire. It will hold 4 kilometers (2.5 miles) of field wire and can be mounted on Reeling Machine RL-207/G, or Reel Unit RL-31-E.

**Reel RL-159/U** is a metal spool-type container used to store, transport, lay, or recover field wire. It will hold 1.6 kilometers (1 mile) of field wire and can be mounted on Reeling Machine RL-207/G, Reel Unit RL-31-E, Reeling Machine RL-172/G, or Axle RL-27().

**Spool DR-8** is a metal container used to lay or recover field wire. It will hold .4 kilometer (1/4-mile) of field wire and can be mounted on Reel Unit RL-39 (component of Reel Equipment CE-11).

**Reel DR-15-B** is a metal spool-type container used to store, transport, lay, or recover Field Cable. It holds .4 kilometer (1/4-mile) of cable and can be mounted on Reel Unit RL-31-E or Reeling Machine RL-207/G.

**Reel RL-435/U** is a lightweight cable reel used to store, transport, and install a 100-foot length of Field Cable CX-11230/G. It can be mounted on Reel Unit RL-31-E or Reeling Machine RL-207/G.

**Wire Dispenser MX-306/G** is a cylindrical canvas and tape container that holds approximately .8 kilometer (1/2-mile) of Wire WD-1/TT or WD-1A/TT. The wire of two or more dispensers may be prespliced in tandem when it is necessary to lay a wire line of more than .8 kilometer (1/2-mile) without stopping to splice. The dispenser has many useful features.

**Axle RL-27-B** is used to lay and recover field wire. The axle is a machined-steel bar (2 1/2 feet long) used for mounting wire reels. The axle has two knurled handles, one removable for mounting Wire Reel RL-159/U on the axle. The axle has roller bearings and is equipped with a removable crank for re-winding wire. The axle can be carried by two individuals or placed on some improvised mounting.

**Reel Unit RL-31-E** is a light-weight, portable, folding A-frame of steel tubing used for paying out and recovering field wire and field cable. The reel unit features:

- Brake unit for controlling speed of the reels during payout of the wire.
- Crank for reeling in wire on reels.
- Carrying strap for carrying the reel unit litter style.
- Divided axle when two reels are mounted on the reel unit. This axle allows either reel to operate independently. (When the divided axle is used, two cranks and two brakes are necessary for operation. They are issued with the equipment.)

The reel unit can carry a single Reel DR-5 or DR-15-B, or two Wire Reels RL-159/U. Reel Unit RL-31-E can be mounted on ground or vehicle. A special vehicular installation kit is available.

**Reel Equipment CE-11** is a lightweight portable unit designed to be carried by one person. It consists of Reel Unit RL-39 and a sound-powered telephone handset with case and carrying strap. Reel Unit RL-39 mounts Spool DR-8 having a capacity of .4 kilometer (1/4-mile) or Field Wire WD-1/TT or WD-1A/TT (Spool DR-8 not included as a component). When Telephone Set TA-1/PT is used, it is carried on the belt.

**Reel Unit RL-39** is a chest-type reel having an axle with carrying handles, carrying straps, and a crank for rewinding. Reel Unit RL-39 mounts Spool DR-8-A, which has a capacity of .4 kilometer (1/4-mile) of Field Wire WD-1/TT or WD-1A/TT (wire not included as a component). Lines may be laid with this equipment either by handcarrying the reel or by strapping it to the back. To recover telephone wire, the wireman snaps the carrying handles to the carrying straps and rotates the reel with the crank and axle. This reel is normally used to lay short local circuits, up to .4 kilometer (1/4-mile) over difficult terrain, or in a forward combat area.

**Wire Pike MC-123** has a two section pole, joined by metal fittings. The top section terminates in a hook, fitted with a roller. This hand tool is used by wireman to lay or recover wire from a truck. During wire laying, it is used to place the layed-out filed wire along the side of the road. For wire recovery, it is used to provide an even feed and guide for the wire to the reeling machine.

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