

UNITED STATES POSTAL SERVICE STANDARD
RECEPTACLES, APARTMENT HOUSE, MAIL

This change forms a part of U.S. Postal Service Standard USPS-STD-4B, May 1, 1975, and is mandatory for use by all Departments and Offices of the U.S. Postal Service.

1. Remove the following page:

<u>Page No.</u>	<u>Date</u>
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2. Add the following page:

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U.S. POSTAL SERVICE STANDARD
RECEPTACLES, APARTMENT HOUSE, MAIL

1. SCOPE AND CLASSIFICATION

1.1 Scope - This standard establishes the minimum acceptable manufacturing requirements and procedures for testing and accepting apartment house mail receptacles. The use of this standard is mandatory and the receptacles must conform to this standard in order to be approved by the U.S. Postal Service.

1.2 Classification - This standard covers apartment house mail receptacles of the following types, as specified:

Type I Vertical. A receptacle designed for loading of mail thru the top of compartments and removing it thru a compartment door. A maximum of seven (7) and a minimum of three (3) compartments shall be controlled by one Arrow lock in the master door.

Type II Horizontal. A receptacle designed for loading mail from the front or rear. A minimum of four (4) and a maximum of thirty-five (35) compartments shall be controlled by one (1) Arrow lock in the front loading receptacle. The rear loading receptacle shall have a minimum of four (4) compartments.

2. APPLICABLE DOCUMENTS

2.1 Specifications and Standards - The following documents form part of this standard to the extent specified herein.

SPECIFICATIONS

MILITARY

MIL-W-8604	Welding of Aluminum Alloys, Process for
MIL-W-8611	Welding, Metal Arc and Gas, Steel, Corrosion and Heat-Resistant Alloys, Process for
MIL-A-8625	Anodic Coating for Aluminum and Aluminum Alloys

STANDARDS

FEDERAL

Federal Test Method Standard 141, Method 6191

Federal Test Method Standard 406, Method 2021

MILITARY

MIL-STD-171 Finishing of Metal and Wood Surfaces

(Application for copies of specifications and standards may be obtained from the Commanding Officer, Naval Supply Depot, 5801 Tabor Avenue, Philadelphia, Pennsylvania 19120, Attention: Code, CDS).

OTHER PUBLICATIONS

Handbooks - National Bureau of Standards

H-28 Screw-Thread Standards for Federal Services

(Application for copies of NBS Handbooks should be addressed to Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402).

2.2 Non-Government Documents - The following documents form a part of this standard to the extent specified herein.

STANDARDS

American Welding Society

AWS A2.0 Standard Welding Symbols

AWS C1.1 Recommended Practice for Resistance Welding

AWS C1.2 Recommended Practice for Spot-Welding Aluminum and Aluminum Alloys

AWS C1.3 Recommended Practice for Resistance Welding Low Carbon Steels

(Application for copies should be addressed to the American Welding Society, 2501 N.W. 7th Street, Miami, Florida 33125).

3. REQUIREMENTS

3.1 Materials - Latitude will be allowed in the materials used. Materials must be compatible with each other; non-toxic and non-irritating to humans. Dissimilar metals shall be protected against galvanic corrosion. The material used in the fabrication of this equipment shall be new, suitable for the purpose used, free from all defects and the best commercial quality for this type of equipment.

3.2 Compartment Doors - The doors shall be designed to operate freely without binding or excessive play. The doors shall, once opened, remain in the opened position until the customer pushes it to a closed position and locks it. The door formed from sheet metal shall have a ninety (90) degree flanged edge of a minimum one-quarter (1/4) inch on the top, bottom and side. The section of extruded aluminum doors shall be such as to provide strength and stiffness at all points of the door. The fitting of the door into the frame shall be of such tolerance and shape to preclude prying with instruments such as knives, screwdrivers, thin metal strips, etc. The surface of the door shall be unbroken with the exception as described in 3.5.

3.3 Master Loading Door - The master door of the horizontal front loading receptacle shall be hinged and non-removable, and sufficiently supported to prevent binding or twisting. The door shall operate freely. When the master door in the horizontal front loading unit is in a minimum ninety (90) degree open position, all individual compartments shall be accessible for deposit of mail by the carrier. All horizontal front loading receptacles shall have fixed solid backs. The master door shall accommodate an Arrow lock which shall be furnished and installed by the local postmaster or his representative. The master door shall not exceed thirty-four (34) inches in width.

The horizontal rear loading receptacle shall have a cover or door which can be opened or removed and closed or replaced by the mail carrier which will permit delivery of mail to each compartment. The cover or door shall prevent the mail from falling out between the cover or door and shelves, and be strong enough to prevent theft of the contents of the receptacle by manually forcing the rear door or cover from the front of the receptacle thru a compartment. The cover or door shall be capable of being latched or secured, locking is not required.

The vertical receptacle shall be attached to the receptacle frame with either permanently affixed and side-mounted pivots, a suitable bottom-mounted full-length hinge or any other means which will preclude the removal of the receptacle from the frame when in a closed and locked position. If hinges are used the hinge pin shall be non-removable. An Arrow lock shall be mounted in one of the compartments, preferably in the middle compartment, to lock the cabinet in the frame. The Arrow lock shall not be accessible for removal through any customer compartment after installation, and the receptacle is in a closed and locked position. The Arrow lock shall be furnished and installed by the local postmaster or his representative.

3.4 Locking Provisions - Each compartment door shall be secured by a five-pin tumbler cylinder lock with a minimum of 1000 key changes per production lot. Each compartment lock shall be keyed differently in each multiple or gang unit. The locks must be securely fastened to the door. If locks are mounted on a backing plate, the plates shall be constructed of metal or proper design and thickness to preclude punching out of locks. If the lock extends more than 5/8 inch on the inside of a vertical type receptacle, a deflector

shall be provided over the lock barrel for the easy deposit of mail. Each lock shall be numbered on the back.

3.5 Numbers and Name Cards - Vertical type receptacles may be numbered or lettered, optionally, in numerical or alphabetical sequence from left to right. Horizontal type receptacles may be numbered or lettered, optionally, in sequence from top to bottom. A cutout in the compartment door for a customer's name card is permissible provided there is a backup plate to the cutout to preclude entry into the compartment.

Each compartment shall be either equipped with a clasp or holder to accommodate a name card or supplied with a designated flat surface for a permanent type pressure sensitive label for identifying the customer using the compartment. The holder or clasp shall be located on the frame above each compartment or inside of the compartment where the customer's name will be easily visible to the carrier when the box is opened for loading. The holder shall be of sufficient size to hold a name card of 3/4 x 2 1/2 inches in the vertical-type installation and in the horizontal-type installation, as large as space permits.

3.6 Compartment Configuration - The horizontal and vertical type compartments will receive long letter mail, small parcels and bulky magazines, unrolled as well as rolled. The individual horizontal compartment shall be of such size that a parcel 5-7/8" wide x 4-7/8" high and 14-7/8" long can be inserted and removed. The individual vertical compartment shall be of such size that a parcel 4-7/8" wide x 14-7/8" high x 5-7/8" long can be inserted and removed (see paragraph 4.2.1 for testing requirements).

3.6.1 Collection Compartment - All Type II front loading horizontal units shall have accommodation to convert the Arrow-lock compartment into a collection receptacle. A mail deposit slot 5-3/4 inches wide 3/4 inch high shall be provided with some means to protect the deposited mail from rain and snow, and prevent removal of mail from the compartment through the deposit slot. A suitable slot cover must be provided to seal the deposit slot when the Arrow-lock compartment is not in use.

3.7 Cleaning, Treatment and Painting - All receptacle parts (ferrous metals) not inherently corrosion resistant or otherwise treated to be corrosion resistant shall be cleaned, treated and painted in accordance with Specification MIL-STD-171.

3.8 Color, Coating and Finishes - Colors of the receptacles, in general, are optional with the manufacturer, but should reflect good taste and project a good image of the U.S. Postal Service. Finishes shall be compatible with receptacle materials and protected with suitable primers or other methods.

3.9 Anodizing - The front exposed aluminum surfaces of the receptacle (doors, frame and trim) shall be finished by anodizing or painting. The surface of the aluminum shall be properly cleaned and given an anodic film

coating according to MIL-A-8625, Type I, Type II or Type III and Class 1 or Class 2 or painted per paragraph 3.7.

3.10 Marking - Manufacturers are required to place on each unit the markings "U.S. MAIL" in a minimum of .50 inch high letters and "Approved By The U. S. Postal Service", "USPS-STD-4B+" and the effective date of this standard (month and year) in a minimum of .18 inch high letters. Markings may be accomplished by applying a decal, embossing on sheet metal, raised lettering on plastic or other methods that are permanent. Markings must be in a location on the outside surface of the unit which is readily visible.

3.11 Instructions - A complete set of instructions including illustrations for assembling and installing the receptacle shall be prepared and provided with each receptacle. The instruction sheet shall carry a notice that the receptacle met all requirements of the U.S. Postal Service standard.

3.12 Workmanship - Workmanship shall be of the highest quality throughout. All parts shall be clean, straight, accurately formed and assembled, properly fitted, and uniform in size and shape. Parts shall be free from delaminations, cracks, warpage, bulges, kinks, dents, porosity, voids, lumps, foreign matter and other defects. Finished or coated surfaces shall be smooth and uniform; and free from soft areas, stain, chips, crazing and cracks. Seams and connections shall be tight. Welding, riveting and other joining shall be done in a neat and approved manner. The receptacle shall be free from sharp edges, sharp corners, protruding rivets and operational features which might injure or hamper the carrier or customer.

3.12.1 Bolted Connections - Bolts or screws which can be removed in any exposed area shall not be used for joining parts of the receptacle. Sheet metal screws shall not be used in the assembly of the receptacle.

3.12.2 Riveted Joints - Hollow-type eyelets or grommets shall not be used in the fabrication of the receptacle.

3.12.3 Welding - Any type of weld electric-arc, resistance, gas, etc., may be used in the fabrication of the receptacle providing it produces a satisfactory and safe joint, and performed in accordance with applicable American Welding Society or Military Specifications mentioned in Section 2.

3.12.4 Fabrication and Assembly - All components and parts shall be fabricated and assembled to be permanently square and rigid to preclude binding, warping or misalignment which may reduce or prevent proper equipment operation or maintenance or may result in a premature failure of any part or component.

4. QUALITY ASSURANCE PROVISIONS

4.1 Requirements for Approval - Manufactures of vertical-type receptacles shall submit two 7-gang units. Manufacturers of the horizontal-type receptacles shall submit two 35-gang units; front and rear loading. Each receptacle shall be made of the exact materials, construction, coatings, paint, etc., and to be

identical in every way with the receptacles intended to be marketed. One of the receptacles will be subjected to destructive testing. All parts of the receptacles shall be identified by model number or name, material, alloy, heat treatment and (for non-metallic parts) physical properties. The complete composition, formula, trade name, and designation of all paints and non-metallics shall be specified.

The manufacturer shall also submit a copy of the instructions required by 3.11. Receptacles must be submitted in the packaging proposed for shipping them. Written notification of approval or disapproval, including reasons for disapproval, will be issued. After the receptacles are approved the U.S. Postal Service reserves the right, at any time, to examine receptacles coming off the production line either at the manufacturer's plant or at the U.S. Postal Laboratory, for compliance with standard. The standard is required to be maintained for U.S. Postal Service approval.

4.2 Test Methods - The receptacles shall be tested as specified herein. All receptacles which fail to pass all tests shall be rejected.

4.2.1 Capacity Requirements - Conformance to paragraph 3.6 shall be tested by inserting and removing thru a compartment door and the master loading door a dummy parcel 5 7/8 inches x 4 7/8 inches x 14 7/8 inches. The individual compartment which has provisions for an Arrow lock shall be taken as an exception. Space occupied by the lock barrel and deflector, if applicable, will be considered part of the dummy parcel dimension. The master door shall close with the test parcel inserted in the compartment.

4.2.2 Cycled Door Openings - Compartment and master loading doors shall each be capable of operating 10,000 normal opening and closing cycles without breakage or replacement of parts, and failure to operate correctly and positively.

4.2.3 Compartment Doors - The compartment doors shall be tested by a Tinius-Olsen testing machine or equivalent by applying an outward pull of 50 pounds on any part of the door when in a locked position. The door shall not be damaged or inoperable after application of the load.

4.2.4 Master Loading Door - The master front loading door shall be tested by a Tinius-Olsen testing machine or equivalent by applying an outward pull of one-hundred pounds on any part of the master door when in a locked position. The door shall not be damaged or inoperable after application of the load. This test is not applicable to rear covers.

4.2.5 Locks, Compartment and Master Loading Door - A minimum of eight foot-pounds of shock force (2 pounds dropped 4 feet) shall be required to punch out the locks. If the lock is slowly pushed inward, a minimum of 70 pounds of force shall be required to punch the lock out. The lock shall remain operable and undamaged after each test.

4.2.6 Coating Abrasion Resistance - The coating (paint) applied to the receptacles made from ferrous or other material subject to corrosion shall meet the abrasive sand test requirements specified herein. Receptacles formed from corrosion-resistant alloys of stainless steel and other corrosion-resistant materials are exempt from this test. The test is an abrasive sand test in accordance with Federal Test Method 141, Method 6191, rate of flow of two liters of sand in 22 seconds, plus or minus one second. Not less than 15 liters of sand shall be required to penetrate painted coatings.

4.2.7 Impact Requirements - The front exposed surfaces of the receptacles and any coatings applied to them shall not be cracked, chipped, broken, dented (more than 1/16 inch in depth), or visibly permanently deformed by a hard steel one-pound ball with a one-half inch spherical radius dropped from a height of two feet.

4.2.8 Flammability - A flammability test shall be conducted on all plastic parts used in the receptacles. The test shall be conducted in accordance with Method 2021 of Federal Test Method Standard 406. The plastic parts shall be non-burning or self-extinguishing by this test. (It is the building owner's responsibility to make sure that the box is in compliance with local building and fire codes).

4.2.9 Ambient Conditions - The boxes shall operate properly under the following ambient conditions: temperatures minimum 32°F to plus 150°F.

4.2.10 Security Test - For all Type I and front-loading Type II receptacles, the designated Arrow lock compartment shall be engineered to prevent unauthorized access to all patron compartments. The receptacle will be subjected to a pry test by one person, using flat head screwdrivers (up to 13 inches in length) for a period not to exceed 2 minutes. Boxes will have failed this test if access to all compartments is achieved by failure of the Arrow lock compartment in less than two minutes.

5. PREPARATION FOR DELIVERY

5.1 Packaging - The receptacle and accessories shall be packaged in a manner which will insure arrival at destination in satisfactory condition. Containers and packing shall comply with Uniform Freight Classification Rules or National Motor Freight Classification Rules.