

Battery Maintenance Safety Board – Central Office Equipment

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1. General

- 1.1 Purpose** This practice describes uses and guidelines for the battery maintenance safety boards and portable battery maintenance safety kit.
- 1.2 Filing Instructions and Supersedures** Discard all previous issues and associated addenda of this practice and file this issue numerically in your GTE Telephone Operations practices set.
- This practice supersedes:
- All local practices, policies, procedures, general instructions, letters, and memoranda which address this subject.
 - Any document which provides information contrary to the information contained in this practice.
- 1.3 Reason for Reissuing** This practice has been reissued to incorporate information on:
- A new smaller size battery maintenance safety board.
 - A new portable battery maintenance safety kit.
 - The uses for the safety board(s) kit.
 - The standard materials.
- 1.4 Responsibility** This practice was published by the GTE Telephone Operations Administrative Services Department. For more information about this practice, contact the Headquarters Network Administration Department.
- 1.5 Disclaimer** This practice was prepared solely for the use of GTE Telephone Operations. It must be used only by its employees, contractors, customers and end users, when installing, operating, maintaining, and repairing GTE Telephone Operations' equipment, facilities and services. Any other use of this practice is forbidden. The information contained in this practice may not be applicable in all circumstances and is subject to change without notice. By using this practice the user agrees that GTE Telephone Operations will have no liability (to the extent permitted by applicable law) for any consequential, incidental, special, or punitive damages that may result.

2. Overview

2.1 Introduction

The battery maintenance safety boards and portable battery maintenance safety kit permit easy access and convenient storage for safety items and some maintenance tools that are required in routine battery maintenance. These boards/kits are located at:

- Central offices.
- PABX locations.
- Remote units (RSO, RSU, RLU, etc.).
- Pair gain device huts.
- Pad-mounted pair gain devices.
- Emergency restoration trailers.
- Controlled Environmental Vaults (CEVs).

2.2 Manufacturer

The safety boards and portable kit are:

- Manufactured by J.G. Tucker and Son.
- Addressed in Product Standardization Bulletin (PSB) 2616, Revision 6 or later.

NOTE: PSBs are published by the GTE Telephone Operations Standardization Management Department.

2.3 Specifications

The three types of battery maintenance safety boards/portable kits available are listed in the following chart.

Type		Vert. Length	Horiz. Width	Depth	Approx. Weight
Standard Board	1003-I (Item ID 580345)	29"	34 1/4"	5 1/2"*	23 lbs
Small Board	1004-I (Item ID 327542)	29 1/4"	17"	5 1/2"	12 lbs
Portable Kit	1005-P-I (Item ID 327545)	23 1/4"	20 3/4"	9"	12 lbs

NOTE: * Approximate depth with supplies in place.

2. Overview, continued

2.4 Safety Boards

Battery maintenance safety boards consist of:

- A mounting board.
- Detachable equipment holders.

NOTE: The battery maintenance items are not included with the boards and must be ordered separately. Do one of the following:

- **Use:**
 - 1006G (Item ID 589619) kit for Safety Board 1003-I (standard).
 - 1007G (Item ID 327546) kit for Safety Board 1004-I (small).

OR

- **Order items separately by individual item. Refer to Section 4.1.**

The back board and equipment holders are epoxy-coated for maximum protection from acid and abrasion.

The color of the back board is yellow. The holders are high-visibility orange to:

- Attract attention to the safety station.
- Serve as a visual aid in quickly identifying missing items.

Each of the detachable holders of the safety board is:

- Attached to the safety board by louvers.
- Labeled to show the product it contains.
- Removable for cleaning.

2.5 Portable Kit

The portable battery maintenance safety kit consists of a heavy-duty gray plastic carrying case. Inside cutout holders are labeled for storage of both tools and safety gear.

NOTE: The battery maintenance safety items are not included in Portable Kit 1005-P-I and must be ordered separately. Do one of the following:

- **Use 10076 (Item ID 327546) kit for Safety Board 1004-(small).**

OR

- **Order items separately by individual item. Refer to Section 4.1.**

2.6 References

The following documents are referenced in this practice, and could be required for performing certain related tasks.

For Information About...	See...
Emergency Eyewash/Chemical Bum Station	205-005-101
Batteries, Central Office, and Remote-Installation and Maintenance	205-005-101

3. Provisioning Guidelines

3.1 Safety Board/ Kit Locations

Either a battery maintenance safety board or a portable battery maintenance safety kit must be in immediate proximity and available when personnel are working with flooded or valve-release type batteries. The type of board or kit requirements are dependent on the location and type of the batteries.

The larger Standard Battery Maintenance Safety Board (Item ID 580345) is required for the following office location types (even if valve-release type batteries are used) :

- Central offices.
- Remote locations (RSO, RSU, RLU, etc.).

The smaller Battery Maintenance Safety Board (Item ID 327542) for flooded cells or valverelease type cells, is required at all new installations for:

- Pair gain device huts.
- CEVs.
- Emergency restoration trailers.
- PABX locations maintained by GTE.

The larger Standard Battery Maintenance Safety Board (Item ID 580345) may be substituted for the smaller board where desired and where wall space permits. The board must be:

- Mounted.
- Properly equipped.
- In immediate proximity to the batteries being placed on-line at new power points.

If the maintenance safety board is provided as a part of the work order, COE Construction mounts the board. Otherwise, the CO Maintenance supervisor is responsible for ensuring that this task is completed.

NOTE: When installing or removing batteries, an emergency spill kit (Item D-881725, PSB 4932) must be on site. Refer to GTE Telephone Operations Practice 205-005-200 for additional details including battery installation and maintenance procedures.

When maintenance and installation personnel visit battery sites which do not have a permanently mounted safety board, they take Battery Maintenance Portable Safety Kit (Item ID 327545). The kit includes all pad-mounted pair gain devices and pair gain device huts which were in service before January 1, 1992.

3. Provisioning Guidelines, continued

3.2 Mounting Instructions

The safety board manufacturer supplies:

- A paper template to use in pre-drilling holes in a wall.
- Four neoprene washers to provide proper clearance between the board and wall.

Securely mount the battery maintenance safety boards:

- Flush against the wall or other appropriate surface.
- On the wall near the batteries for fast and easy accessibility.

NOTE: Screws are not included because the types of wall surfaces to which the safety board can be attached vary.

Do not store equipment, tools, or material in front of the safety board.

3.3 Monthly Inspection

Inspect the battery maintenance safety boards monthly to ensure that they are equipped with minimum quantities of items specified in Section 4.1.

Visually inspect the:

- Protective apron.
- Chemical safety goggles.
- Acid gloves.
- Electrical rubber insulating gloves, when equipped.

NOTE: Replace any item that is damaged or that is in questionable condition.

3.3.1 Sterile Neutralizer Solution

Ensure that three containers of sterile neutralizer solution are available. Replace any neutralizer solution bottle that has the cap seal broken, or on which the expiration date has passed.

NOTE: When a neutralizer bottle is opened, use it in its entirety. Do not store partial or open bottles.

3.4 Protective Equipment Requirements

When working with batteries (sealed or unsealed), wear:

- An acid-resistant apron.
- Mono goggles-chemical.
- Acid gloves.
- A mono shield-face (optional).

CAUTION: Goggles must always be worn while working around or with batteries. The face shield is not a replacement for eye goggles.

3. Provisioning Guidelines, continued

3.5 Spills and Leakage

Use the following guidelines if battery electrolyte is splashed on personnel or equipment:

If Battery Electrolyte Is Splashed...	Then...
On the skin or in the eyes and eye wash is available	<p>Use the complete contents of all three bottles of eye wash by VERY SLOWLY pouring and rinsing the affected area.</p> <p>NOTE: The eye wash neutralizer solution is a sterile liquid composed of phosphate; to neutralize both acids and alkalis.</p> <ul style="list-style-type: none">• Obtain immediate medical attention for eye contact.• Obtain medical treatment as necessary for skin contact.
On the skin or in the eyes and eye wash is not available	<p>Apply running water continuously to the affected area for a minimum of fifteen minutes.</p> <ul style="list-style-type: none">• Obtain immediate medical attention for eye contact.• Obtain medical treatment as necessary for skin contact.
On equipment, battery maintenance safety boards, safety board contents, or on the floor, and the Battery Spill Kit (Item ID 881725) is not available	<p>Use battery spray cleaner or baking soda to neutralize the acid by applying it directly to the spill.</p> <p>NOTE: If baking soda is used as a cleaning agent, use one pound of baking soda to one gallon of water.</p>

4. Components

4.1 Description, Quantity, and Ordering Information

The following charts describe battery maintenance safety board/portable kit components that can be ordered as original, replacement, or optional items.

The minimum quantities required are one, with the following exceptions:

- Three containers are required for the eyewash solution.
- Two of the 1/2" by 9/16" battery-box wrenches are required.

NOTE: The Item IDs for the set of items listed in the below are:

- 327546 for the Portable Kit.
- 327546 for the Small Board.
- 589619 for the Standard Board.

CODES: Y = Yes, N = No, FL = Flooded Cell Type Batteries, VR = Valve Release Type Batteries, NR = Not Required, * = Optional)

Description	Item ID	Portable Kit	Small Board	Standard Board
Apron, Acid Resistant Frontal and Arm Protection	589620	Y	Y	Y
Baking Soda (1 pound)	763825*	N	N	N
Battery History Forms	90002546	N	Y	Y
Bracket, Hydrometer	327547	N	Y-FL N-VR	Y-FL N-VR
Cleaner Battery Spray	589631	Y	Y	Y
Drip Cup	589630	N	Y-FL	Y-FL
Fuse Puller, Grip (giant-size cartridge-type fuses)	589625	N	Y	Y
Fuse Puller, Grip (pocket-size cartridge-type fuses)	589626	Y	Y	Y
Fuse Puller (midget-size)	589627	Y	Y	Y
Gloves, Acid, Nitrile Pair	589622	Y	Y	Y
Gloves, Electrical Rubber Insulating				
Size 9	574069*	N	*	*
Size 10	574070"	N	*	*
Size 11	574071*	N	*	*
Glove Bag for High-Voltage Gloves	570070*	N	*	*

(continued)

4. Components, continued

4.1

Description, Quantity, and Ordering Information, continued

Description	Item ID	Portable Kit	Small Board	Standard Board
Goggles, Mono-Chem	589367	Y	Y	Y
Holder, Drip Cup	327548	N	N-VR	NR-VR
Hydrometer, Syringe (.002 scale)	589629	*	Y-FL N-VR	Y-FL NR-VR
NOTE: Refer to GTE Telephone Operations Practice 200-005-200 for optional types of hydrometers.				
Shield, Mono-Face	589366"	N	N	N
Solution, Neutralize Eyewash (32 oz. bottle)	589621	Y-3	Y-3	Y-3
NOTE: Bottle contains an expiration date.				
Voltmeter, VOM or Equivalent	821588*	N	N	N
Wrench, Battery Box 12" by 9 1/2"	327551	Y-2	Y-2	Y-2
Wrench, Universal 3/4" by 17 1/2"	589628	Y	Y	Y

4.2

Optional Item Considerations

This section describes situations when to order optional items.

4.2.1 Electrical Rubber Insulating Gloves

The electrical rubber insulating gloves are optional only if another pair of the gloves are readily available for use from another location (e.g., SSOC, manned central office, etc.).

4.2.2 Hydrometer and Holder Provided with Batteries

When a hydrometer is required for flooded-cell batteries and the smaller type safety board is used, it is acceptable to use the hydrometer and holder provided with the batteries. Locate the hydrometer holder on the inside rail/upright near the battery rack end or on the wall in close proximity to the batteries. Typical hydrometers/holders are GNB Item ID-58281 6/881198 and C&D ID-881663/729389.

4.2.3 Additional Chemical Burn Stations

If multiple battery strings exist, it is advisable to supplement the neutralizer eyewash solution on the safety board with additional chemical burn stations as described in GTE Telephone Operations Practice 205-005-I 01.

Exhibits

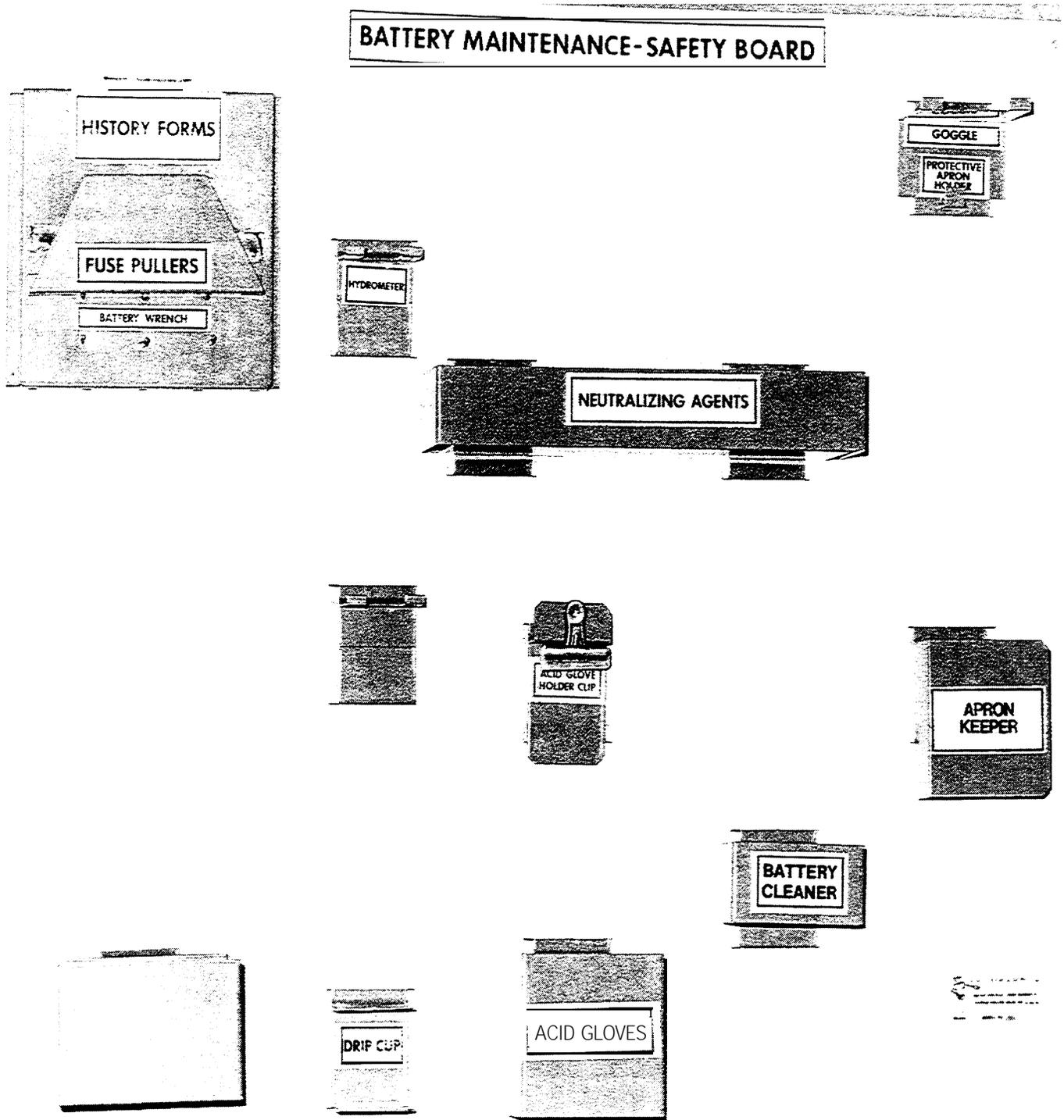


Exhibit 1 - Battery Maintenance Safety Board - Standard

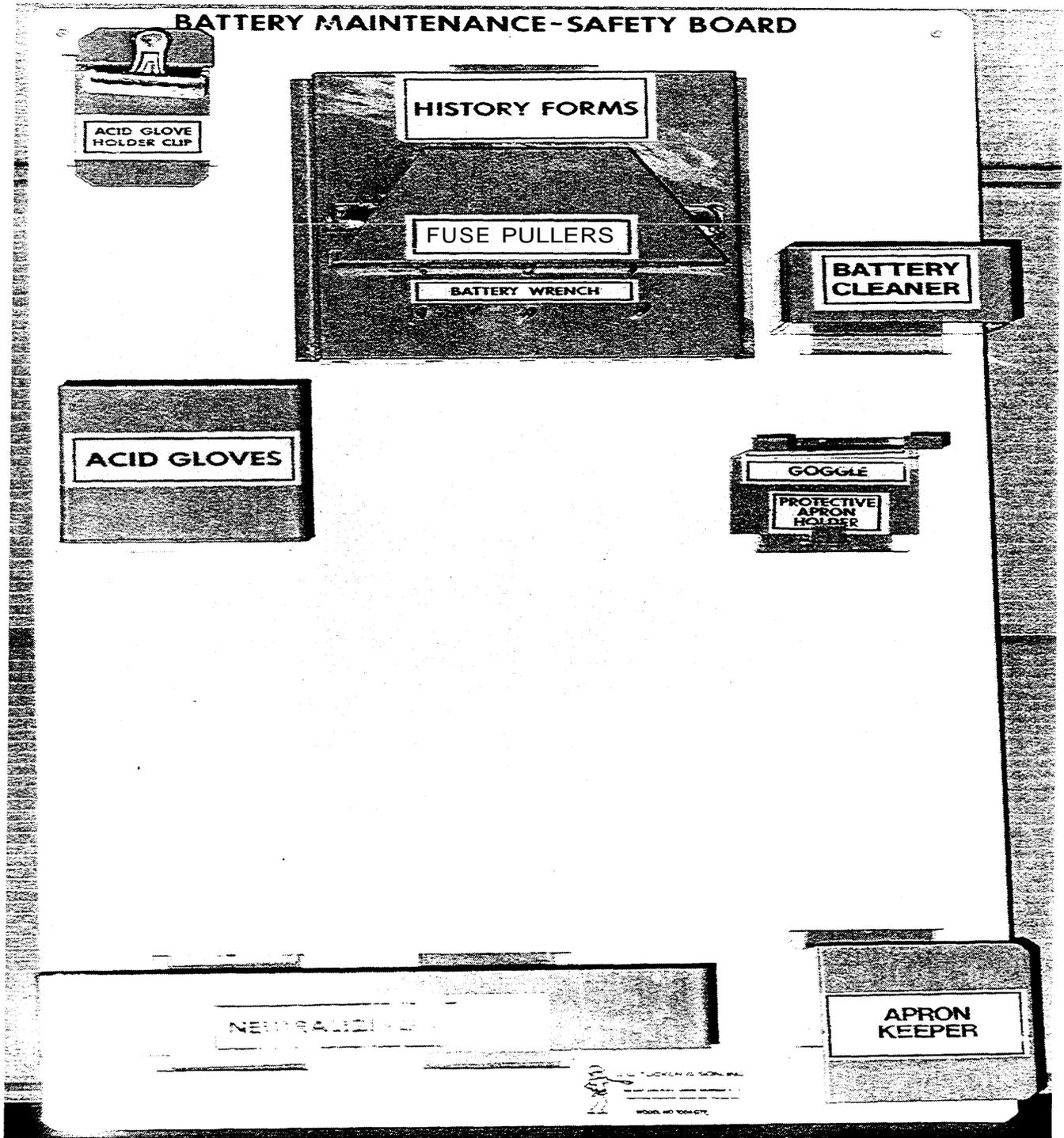


Exhibit 2 - Battery Maintenance Safety Board - Small



Exhibit 3 – Portable Battery Maintenance Safety Kit