SWITCHBOARD EQUIPMENT
GENERAL CLEANING

CONTENTS PAGE

1. GENERAL

1.01 This section describes methods of removing dirt, dust, lint, etc, from inside and outside surfaces of manual switchboards and operating room desks.

1.02 The reasons for reissuing this section are listed below. Revision arrows are used to emphasize the more significant changes. The Equipment Test List is not affected.

(a) To change reference to Section 770-170-320 in paragraph 1.03 to Section 770-140-140

(b) To update to standard format

(c) To add warnings to paragraph 1.04

(d) To rate the KS-14377, L2, Vacuum Cleaner Mfr Disc. replaced by KS-14377, L6.

1.03 The extermination of insects such as fleas, gnats, roaches, bedbugs, or ants from switchboards is covered in Section ⧫770-140-140.⧫

1.04 In general, cleaning should proceed downward from the top of the switchboard section or sections. The work should also progress in a direction away from exposed contacts in order to prevent dust or lint loosened by cleaning from being deposited on them.

⧫Warning 1: All cleaners and polishes used on operator, central office equipment or apparatus must be silicon free (see Section 065-330-103).

Warning 2: Spray cleaner should not be used unless specifically specified.⧫

1.05 Cleaning should be scheduled and performed consistent with local requirements. The frequency of required cleaning is affected by the type of

ventilation and the presence of filtering systems. Little trouble will result from the presence of undisturbed dust. However, as the amount of dust increases it becomes increasingly difficult to remove it without service reactions. The cleaning should be such as to maintain the equipment in a presentable appearance at all times.

1.06 The cloths specified in this section are the twill jean type used for equipment cleaning. These cloths should not be used after their dust holding properties have been exhausted or if the cloth surfaces have received abrasions to the point where they may release lint. The cloths should be washed as described in this section. They should not be laundered by commercial laundries unless arrangements have been made with them to have the cloths washed in accordance with requirements in this section.

1.07 Impregnated polishing cloths may be washed several times before the impregnation is removed. After the impregnation has been removed, they should be used as cleaning cloths.

1.08 Where damp cloths are specified, wet them with clean water and wring as dry as possible by hand before using. Fold cloths while damp to retain their moisture until used.

Danger 1: Use dry cloths where they may come in contact with current carrying parts such as fuse panels, etc. Do not use moistened cloths for this purpose.

Danger 2: Use extreme care when carrying or using pails of water around equipment. Do not under any circumstances carry a pail of water up ladders or place on any part of a switchboard or operating room desk.

1.09 When an area of the cloth has picked up a noticeable quantity of dust, fold that part inside clean portions so that the dust cannot fall out of the cloth. Prepare enough clean cloths and have near at hand to replace cloths that have become laden with dirt. Deposit used cloths in a pail to prevent unnecessary spreading of dust. Use a 2-compartment pail to carry the cloths.

1.10 Most people can use the cleaning materials recommended without adverse effect on the hands, but those whose hands may be affected should wear suitable rubber gloves.

2. APPARATUS

2.01 ***List of Tools and Materials:*** The following tools and materials are used in this section.

TOOLS	DESCRIPTION
358	Cleaning Tool
KS-6320	Orange Stick
KS-14377, L6	Vacuum Cleaner, or equivalent, and attachments as required
—	All-Angle Drill, Albertson and Co, 1495-E, or equivalent, (equipped with a cloth buffing wheel obtained locally)
—	Cleaning Paddle (Fig. 1) (obtain locally)
MATERIALS	
KS-14356	Dry Cleaning Fluid
KS-14666	Cleaning Cloth Unimpregnated
KS-14668	Polishing Cloth, impregnated (identified by a black thread woven in the selvage edge)
—	Automobile Paste Cleaner (obtained locally)
—	Bon Ami or Babo
—	Chamois (obtained locally)
—	Furniture Polish (obtained locally)
—	Liquid Toilet Soap (obtained locally)
—	Pails as required (10-quart and 2-compartment for carrying both clean dampened cloths and soiled cloths)
400-407-417	Pyrophosphate Cleaner
—	Rubber Gloves

Waterless Hand Cleaner, AT&TCo Specification C-33a.

3. METHOD

A. Wood Surfaces

3.01 If the dust and lint are not excessive and furniture polish will not be applied after the initial cleaning, use polishing cloths to clean the wood parts of switchboards and operating room desks.

3.02 Where wood surfaces have a dull or grimy appearance, they may be cleaned by washing with cleaning cloths and a solution of liquid toilet soap and water. This solution consists of 1/2 pint of concentrated soap to one pail (10 quarts) of water, preferably warm.

3.03 To wash wood surfaces, immerse the cleaning cloth in the solution and wring out by hand so that there will be no dripping of the solution from the cloth. Apply the cleaning cloth to the surface with light scrubbing strokes.

3.04 After washing with the soap solution, wipe the surface with a cleaning cloth slightly dampened with clean water until all traces of the soap have been removed. Do not permit the soap solution to dry before rinsing.

3.05 If furniture polish will not be applied immediately, brighten the dried surface by buffing with a dry, cleaning cloth.

3.06 If the wood surfaces are to be polished, apply furniture polish using a slightly dampened cleaning cloth.

Note: Furniture polish also cleans during application, and its regular use should practically eliminate the need of washing wood surfaces.

3.07 Apply polish sparingly with the grain of the wood or in straight strokes rather than circular motions.

3.08 Allow polish to dry (usually 15 to 20 minutes); then polish with a clean cleaning cloth using

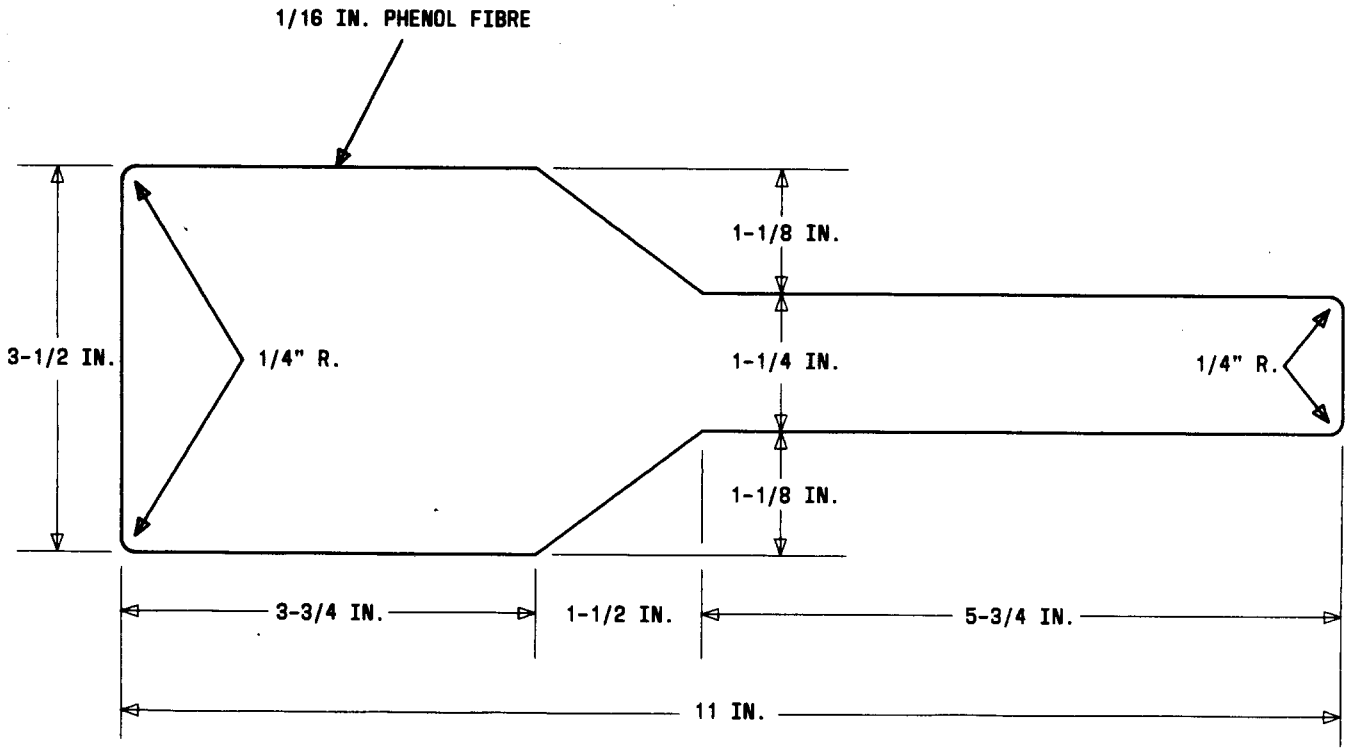

Fig. 1—Cleaning Paddle

light straight strokes at the beginning and increasing the pressure for the final finish if necessary. Use another clean cloth for the final polishing as the first one will accumulate wax and become unfit for producing the final lustrous finish.

Note: Do not attempt to polish surfaces until application of the wax polish is dry; otherwise, the polish will be wiped from the surface.

B. Glass, Phenol Fibre, or Hard Rubber Surfaces

3.09 Using a slightly dampened chamois or cleaning cloth, wipe the surface gently to remove dust and lint. Remove excess moisture by wiping the surface with dry, cleaning cloths.

3.10 Where the moist-cloth method of cleaning is ineffective, wash the surfaces as described in paragraphs 3.02 through 3.04. Remove excess moisture by wiping the surface gently with a slightly dampened chamois or cleaning cloth. If further drying is necessary, use a dry, cleaning cloth and wipe the surface lightly. If the parts to be washed are removable, there might be some advantage in removing them and washing them at some designated location.

Note: The lower front panels of some switchboards are phenol fibre, which becomes dirty from the shoes of operators to the extent that it cannot be cleaned by the prescribed method of washing. If this should occur, wash the phenol fibre with Bon Ami or Babo. If, after washing, the phenol fibre is discolored, an application of furniture polish should restore it to its original appearance.

C. Plastic (Lucite, Plexiglas, etc) Surfaces

Warning: Do not use solvents or abrasive cleaners such as mineral spirits (except as covered in paragraph 3.15), alcohol, window cleaning compounds, etc, as these agents tend to scratch or cause small cracks in plastic surfaces.

3.11 Using a chamois or cleaning cloth dampened slightly with clean water, wipe the surface gently to remove dust and lint. Remove excess moisture by wiping the surface with dry, cleaning cloths.

Note: Polishing or buff drying plastic surfaces tends to build up electrostatic charges which may attract dust particles or affect equipment operations.

3.12 Where the moist-cloth method of cleaning is ineffective, wash the surfaces as described in paragraphs 3.02 through 3.04. Remove excess moisture by wiping the surface gently with a slightly dampened chamois or cleaning cloth. If further drying is necessary, use a dry, cleaning cloth and wipe the surface lightly. If the parts to be washed are removable, there might be some advantage in removing them and washing them at some designated location.

3.13 To remove stains, such as IBM mark sensing lead or Calculagraph ink, from bulletin holders and multileaf bulletin holders, use the waterless hand cleaner. Using a cleaning cloth, apply a small quantity of the cleaner to the plastic surface. Remove cleaner with a few brisk wipes of a dry cloth. The cleaner may be used on a daily basis, if necessary, as it does not impair the transparency of the plastic.

3.14 To remove small scratches in plastic bulletin holders, use automobile paste cleaner, and polish with the rag wheel of the all-angle drill. Polishing should be done when the accumulated scratches begin to obscure reading matter. Apply the cleaner with a cleaning cloth; then using the all-angle drill with the cloth buffing wheel attachment, remove the cleaner and polish the plastic surface. Use care to avoid generating excess heat during the polishing process. It may be desirable to remove bulletin holders during the polishing operation in order to avoid the possibility of lint or dust being thrown into the keys.

3.15 To remove masking tape adhesive from new plastic bulletin holders, use KS-14356 dry cleaning fluid and apply with a cleaning cloth.

D. Armor Hide Surfaces

3.16 Armor hide or textured vinyl surfaces of the type used on some switchboards may be cleaned by washing with cleaning cloths and a solution of liquid toilet soap and water. This solution consists of 1/2 pint of concentrated soap to one pail (10 quarts) of water, preferably warm.

3.17 To wash the vinyl surfaces, immerse the cleaning cloth in the solution and wring out by hand to prevent excessive dripping from the cloth. Apply the cleaning cloth to the surface with light scrubbing strokes.

3.18 After washing with the soap solution, wipe the surface with a cleaning cloth, dampened with clean water, until all traces of the soap have been removed. Do not permit the soap solution to dry before rinsing.

3.19 Dry surface thoroughly by wiping with a dry, clean cloth.

E. Ticket Bins

3.20 To clean ticket bins, use the vacuum cleaner with appropriate attachment.

F. Key Pans

3.21 To clean key pans, use a dampened cleaning cloth and wipe the sides and bottom thoroughly. Dry with a dry, cleaning cloth. If key pans are extremely dirty, use a vacuum cleaner with appropriate attachments, and then clean with a dampened cleaning cloth as just described.

G. Multiple Cables and Local Forms

3.22 Clean multiple cables and local forms with a vacuum cleaner equipped with appropriate attachments. Do not use cloths for this purpose.

H. Cord Fastener Shelves

3.23 Clean cord fastener shelves, using a dampened cleaning cloth. Where the surfaces are not accessible to the cloth held in the hand, wrap the cloth around a KS-6320 orange stick. Hold the loose ends of the cloth in the hand to prevent loose dust and lint from being shaken from them while cleaning.

I. Relay Covers and Other Equipment Surfaces

3.24 Clean the outside of relay covers and other equipment surfaces, such as condensers, coils, etc, with a dampened cleaning cloth and dry thoroughly with a dry, cleaning cloth. When cleaning surfaces which are not accessible to the cloth held in the hand, wrap a cloth around the paddle shown in Fig. 1, the No. 358 cleaning tool, or the KS-6320 orange stick, whichever is appropriate. Do not clean the inside of relay covers unless they have already been removed for some other purpose. If previously removed, clean as just described.

J. Floor under Switchboard and Other Rear Equipment and Parts

3.25 To clean the floor under the switchboard and other rear equipment and parts, use a dampened cleaning cloth when possible as described in paragraph 3.15. Use the vacuum cleaner when necessary; then clean with a dampened cleaning cloth where possible.

K. Washing Cloths

3.26 To wash cleaning and polishing cloths, prepare a solution consisting of 1 to 2 ounces of pyrophosphate cleaner dissolved in a pail (10 quarts) of warm water. Mix the solution outside the switchboard or desk room.

Note: One heaping tablespoonful equals approximately 1 ounce.

3.27 Immerse the cloths in the solution, allowing them to soak for approximately 1 hour followed by agitation and stirring. It is not necessary that all soiled spots be completely removed from the cloths; it is only required that they be free from all loose dust and lint.

Note: Do not rub the cloths during the washing process.

3.28 After washing, wring cloths free of soap solution by hand and rinse thoroughly in clean, warm water. Then wring cloths by hand and allow to dry. Use at least three changes of clean rinse water to insure that residue from the cleaning agent and lint particles which may have been loosened during the washing operation are removed from the cloths. Do not subject impregnated cloths to artificial heat while drying.