

RELOCATING FRAMES

CONTENTS

- | | |
|--|---|
| 1. GENERAL | 7. SHIPPING FRAMES USING THE R-4754 DOLLY TRUCKS |
| 2. ITEMS REQUIRING ADVANCE PLANNING | 8. CRATING FRAMES |
| 3. COORDINATION BETWEEN SENDING AND RECEIVING JOBS | 9. REINSTALLING FRAMES |
| 4. DIRECT REUSE | 10. EQUIPMENT OR APPARATUS FURNISHED BY THE OPERATING COMPANY |
| 5. REMOVAL OF FRAMES | |
| 6. PREPACKING FRAMES | |

1. GENERAL

1.1 Scope of Section

1.1.1 It is the purpose of this section to outline the procedures for relocating Bulb Angle (Step-by-Step relay racks, No. 1, Tandem, and No. 4 Crossbar), and sheet metal box (No. 5 Crossbar) frames. Specifically, this section outlines those areas which require advance planning, coordination between sending and receiving jobs, removal procedures, prepacking and packing procedures, and procedures for reinstalling the frames. Methods covered are direct reuse using the R-4754 Horizontal Bulb and Box Dolly Trucks and crating the frames for conventional shipment.

1.2 Precautions Against Personal Injury and Equipment Damage

1.2.1 The precautions to be taken against personal injury and to prevent damage to equipment and service interruptions are covered in this section with the associated operation. General precautions are covered in Handbook 0 and are to be observed at all times as they apply to the particular operations being performed.

1.2.2 Equipment selected for reuse is valuable; it shall be removed with extreme care. To prevent any possible apparatus damage, use temporary mechanical protection per Handbook 0, Section 20. Canvas (RM-626122) shall be used to prevent against any solder splashes or wire clippings from falling into the apparatus. The success of reinstalling previously-used equipment is greatly dependent upon a high quality of installation performance during removal, prepacking, and packing operations.

1.2.3 Review the safety requirements in Handbook 0, and Handbook 42, Sections 100 and 110 for information on potential safety hazards which may be present in reuse operations.

2. ITEMS REQUIRING ADVANCE PLANNING

2.1 Tools, Materials, and Facilities

2.1.1 Prior to the starting operations covered by this section, the tools and other items required should be arranged at the work locations so as to minimize fatigue and inconvenience while handling.

2.1.2 Periodic checks shall be made to insure that all tools and materials are in good working condition.

2.1.3 In addition to those tools found in the general tool kits, the tools listed below will be required for the operations covered within this section. These tools will be required at both sending and receiving jobs for both types of frameworks.

- a. Tool Kit 43 (Bulb Angle Framework)
- b. Tool Kit 48 (Sheet Metal Box Framework)
- c. R-3113 Wrench, Electric Impact
- d. R-3626 Hoist, Electric One-Ton or equivalent

NOTE: Two hoists are required for reinstalling frames.

- e. R-4013 2" Pneumatic Cable Cutter*
- f. R-4571 Dispenser, Portable Hand Held*
- g. R-4572 Tape, Adhesive Back Polyester, 2 Inch*
- h. R-4754 Truck, Horizontal Bulb and Box

NOTE: Two dolly trucks are required per frame. See Paragraph 2.1.6 for determining total required for each job.

- i. 1-1/8" Wrench, Socket (obtain locally) for 3/4" head of cap screw on R-4754 Dolly Trucks.

30 - 90
42 - 415
67 Vol. VI - 2220
69R - 2
97 -220

- 2 -

- j. Clear Plastic Sheeting (e.g., Visqueen)
- 4 mils thick x 12' wide x length of
roll (obtain locally as required)
required at sending jobs only.

NOTE: The length of plastic sheeting
required for each frame is twice
the width of the frame plus 3'. On
the average, one 100' roll is suf-
ficient for ten frames.

- k. R-5084 Stud Remover

2.1.4 Dedicated Tools for Bulb Angle Frames

- a. R-2640 Clamp, Hoisting (TK-43)
- b. R-2755 Guide, Chain** (TK-43)
- c. R-4176 Truck, Dolly

2.1.5 Dedicated Tools for Sheet Metal Box Frames

- a. R-2842 Truck, Dolly (TK-64A)
- b. R-2847 Clamp, Hoisting (TK-48)
- c. R-3265 Guide, Chain** (TK-48)

2.1.6 There are two methods for determining the number of R-4754 Dolly Trucks required at both the sending and receiving job locations.

2.1.6.1 Method A - Will depend on the number
of frames shipped. Refer to Para-
graph 4.8 for example. Two R-4754 Dolly
Trucks are required per frame; therefore, a
maximum of eighty-four R-4754 Dolly Trucks
will be required at each of the sending and
receiving job locations. Frames are taken
down on R-4754 Dolly Trucks and prepacked in
advance of the ship date, then rolled to the
trucker's pickup point. This is the preferred
method.

2.1.6.2 Method B - Also depends on the number
of frames shipped. However, a lesser
amount of R-4754 Dolly Trucks can be used on a
rotating basis. Additional installers will be
required to remove frames from lineups, take
down frames, prepack, and roll frames to the
trucker's pickup point. This additional
effort will be required in order to keep up
with the truckers in supplying frames to be
loaded into the vans. The reverse order will
take place in unloading the frames from the
van at the receiving job location. This
method is less efficient than Method A.

2.2 Hoisting Centers

2.2.1 Local conditions will dictate how a
frame is to be removed from a lineup.
Frames may be removed from their lineup posi-
tion on dedicated frame dolly trucks and taken
to a hoisting center, or they may be moved
from their lineup position into the front
aisle and lowered by a R-3626 One-Ton Electric
Chain Hoist (or equivalent) onto the R-4754
Horizontal Bulb and Box Dolly Trucks, secured,
and then rolled to the trucker's pickup point.

2.2.2 For shipping and receiving crated
frames, a hoisting center will be
required. When crating frames, the frame is
lowered onto a skid (for safety, the hoist is
left attached to the frame when crating and
uncrating), crated, then transported on a R-
2599 Dolly Truck to the trucker's pickup
point.

2.2.3 A hoisting center (with two hoists)
will be required on the receiving job
regardless of the method of shipping frames.

2.3 Tagging of Equipment

2.3.1 Prior to starting any removal activity
the equipment designated for reuse in
the job specifications is to be identified in
the presence of the Operating Company
Representatives. This equipment shall be
tagged with RIP Labels (SD-44-1), or other
labels designated for this identification.
This will forewarn the installers that this
equipment should be protected from damage when
it or adjacent equipment is being removed.
The label(s) shall be affixed at the base of
the frame (front) next to the frame identifi-
cation stamping, without covering any existing
stamping. These label(s) can be easily
removed when the equipment is reactivated.

2.3.2 Also, before starting removal
operations each equipped frame must be
inspected to determine if it contains the fol-
lowing:

- 1. Radial 226 Bromide Tubes
- 2. Krypton 85 Tubes

If the equipment contains radium 226 Bromide
tubes they must be removed, packed, and
shipped per handbook 3A, Section 4. The cus-
tomer should be advised of AT&T letter EL
1533, dated 1972, regarding replacements.

If the equipment contains Krypton 85 Tubes,
the tubes must be protected from the possibil-
ity of shipping damage. The equipment, or
package, must be marked "Radioactive
Material." See Paragraph 6.1.3.

* Required on sending job only.

** Used only on reinstalling frames.

2.4 Method of Procedure

2.4.1 A Method of Procedure Conference between the Operating Company Representatives and the Western Electric Supervisors, at both the sending and receiving locations, shall be held to clearly define all responsibilities. Handbook 3, Section 5A outlines the steps in setting up a complete and comprehensive Method of Procedure.

2.5 Connectorization

2.5.1 Job specifications will indicate if frames are to be connectorized with 711 or other type connectors. Refer to Handbook 9 for information relating to the application and installation of 711 connectors, at both the sending and receiving job locations.

3. COORDINATION BETWEEN SENDING AND RECEIVING JOBS

3.1 The following paragraphs outline the job coordination responsibilities of the sending and receiving Job Supervisors on a direct reuse job. Refer to Paragraph 4 for more information and definition of direct reuse.

3.2 The sending and receiving Job Supervisors must communicate with each other to agree on shipment scheduling. The importance of this cannot be overemphasized. It is this scheduling that will increase the success of the reuse program and minimize the cost to the Bell System.

3.3 Since frames are to be shipped directly to the receiving job locations, the sending Job Supervisor must obtain from the receiving Job Supervisor or Operating Company the building street address. This is the location to which the frames are to be sent, not the warehouse address. Warehouse address is normally shown on job papers.

3.4 Frames may be taken down in advance and stored in the building until the receiving job is ready to accept them. The sending job should ship frames in the order the receiving job wants them. It is permissible for the sending job to send frames early, provided this is acceptable to the receiving job.

3.5 Frames shall not be stored uncrated in a commercial warehouse. However, they may be stored within the central offices on R-4754 Dolly Trucks.

3.6 Frames being shipped to the Service Center as "C" stock must be crated.

3.7 Frames that are sent to an Operating Company location for staging or other purposes may be direct shipped and stored on R-4754 Dolly Trucks.

4. DIRECT REUSE

4.1 Traditional methods of reuse of equipment involve crating the equipment in a manner similar to that when frames are shipped from the factory, and shipped via local trucker to a warehouse, then via "common carrier" truck to a warehouse near the receiving job, then delivery to the receiving job via local truckers. This is still the recommended method when job schedules force equipment to be stored for some length of time in a commercial warehouse.

4.2 In direct reuse, frames and equipment are shipped from one job directly to another job either intra or inter-city. Crating materials are not required. Frames must be shipped on an air-ride electronics moving van. It is significantly less costly to relocate frames via the direct reuse method outlined below rather than via the traditional crated frame method; therefore, direct reuse is strongly recommended whenever possible.

4.3 It is the Operating Company's decision as to what method the frames are to be shipped. This information should appear on the TELCO Spec to the WE Line Engineer, so that the proper material may be ordered in the job spec.

4.4 Frames are shipped uncrated. However, a clear plastic sheet must be secured around the frames to reduce dust and weather contaminations.

4.5 The frames are then shipped via an air-ride electronics crane van. An air-ride electronics crane van is a trailer equipped with a crane (inside the van) on a trolley extending the full length of the van and capable of projecting rearward approximately 8' on an extended trolley. The crane is capable of loading and unloading the van at street level. For this application, the use of a crane van can eliminate the need to rent a crane locally unless frames must be hoisted from an upper floor, thus resulting in a savings to the Bell System. In all cases, the use of a crane van can make loading and unloading easier and, therefore, is highly recommended.

4.6 The trucker will roll the frame on the attached R-4754 Dolly Trucks from the trucker's pickup point to the crane van. The crane is attached, the frame is lifted, dolly trucks are removed (by the trucker), and the frame is then conveyed into the van and lowered to the floor or deck. Padding is placed on the corners of the frame, and the frame is secured by straps which lock into slots in the side of the van.

4.7 The R-4754 Dolly Trucks remain on the job and are not shipped with the frames; the receiving job will also require a quantity of dolly trucks to unload the shipment of frames.

30 - 90
42 - 415
67 Vol. VI - 2220
69R - 2
97 -220

- 4 -

4.8 The frame size (width and depth) will determine the number of frames that will fit inside the crane van. Bulb angle frame-work can be loaded 8 across in the crane van, where as sheet metal box frames are loaded 7 across. Approximately 21 sheet metal box frames or 24 bulb angle frames can be placed on the floor of the van. Frames under 47" wide can be double decked in the van, thus doubling the above capacities. A mixture of frames under 47" and frames over 47" wide can be shipped in the same van; however, in order to double deck, all frames in that van must be of the same width under 47".

4.9 Contact your local hauling/hoisting contractor to make arrangements for a crane to be on site (if required). Cranes may be required on both sending and receiving jobs, depending upon building loading configurations (not required if crane van and adequate loading dock and freight elevator are available). A crane is required if frames must be hoisted from or into an upper floor access opening.

4.10 Local hauling/hoisting contractors are expected to provide their own slings for hoisting frames into the building. Western Electric is not to furnish R-coded tools, except for the R-coded spreader bars, as found in Handbook 30, Section 19.

4.11 The WE Job Supervisor is responsible for conveying the necessary precautionary information to the riggers regarding handling of the delicate equipment.

4.12 Contact your Regional Transportation Organization to make arrangements for the electronic crane van(s). This should be done at least two weeks in advance of the required ship date. The transportation organization is responsible for contacting the van lines to arrange for the van(s) and providing whatever expediting, tracing, or claims services required under the circumstances.

4.13 On direct reuse orders, it is necessary for both the sending and receiving WE Job Supervisors and Operating Company Engineers to coordinate job schedules and other planning information to most efficiently utilize the installation facilities and transportation methods available. This is one of the most critical factors in insuring the success and realizing the greatest efficiency of a direct reuse order.

4.14 Prior to shipping frames, the sending WE Job Supervisor shall contact the receiving Operating Company Engineer to obtain the name and phone number of the receiving WE Job Supervisor and street address of the building. The sending Supervisor shall then contact the receiving Supervisor to negotiate a delivery date for the equipment. The address and delivery date must then be communicated to the Transportation Organization when ordering the truck.

4.15 Certain restrictions applying to direct reuse moves entirely within one state may prohibit the use of this method. For these circumstances, frames must be crated and shipped common carrier. Check with your Regional Transportation Organization for applicability of such restrictions.

5. REMOVAL OF FRAMES

5.1 Install temporary mechanical protection around any working equipment as required. Refer to Handbook 0 for specific information requiring protection of working equipment and Handbook 30, Section 70 for the painting of the temporary mechanical protection with R-4425 Fire Retardant Paint.

5.2 Refer to specific systems handbooks for information regarding turning off AC and DC power to the frames.

5.3 Remove sanitary base mouldings (No. 5 Crossbar Frames only), base covers, and disconnect the appliance outlets by removing the wire nuts (do not cut cable). Pull the cable slack through the holes between frames, coil, and store in the removed frames for shipment.

5.4 Cutting Cables - Switchboard cables shall be cut using the R-4013 (2") or R-4815 (1") Pneumatic Cable Cutters. Power cables shall be cut using the R-4013 Pneumatic or R-4504 Hydraulic Cable Cutters.

5.4.1 Switchboard Cables - Handbook 67, Volume VI, Section 2120 (4XB) and Handbook 69R, Section 1 (5XB) list the four methods of removing switchboard cables, cross-connections, and lists frames that are suitable for connectorization. Job specifications will indicate which method should be used.

5.4.2 Power cables on bulb angle frames shall be disconnected or cut (depending on working lineups or dead lineups) so that the parallel connectors (KS-5537) are left attached to the frame power feeder cables.

5.4.3 Power cables on sheet metal box frames shall be disconnected from their parallel connectors and fiber insulator. Place the connectors and insulator into a cotton bag (RM-652473) and secure to the frame base. The ends of the power cables are secured with twine and the cable slack coiled and stored within the frame upright to prevent cable damage. The other end of the twine is secured to a cable bracket for ease of retrieving at the reinstallation site.

5.5 As the frames are removed, it may be necessary to provide support to the auxiliary framing in the removal area.

5.6 If the frames are to be removed from a working office and the auxiliary framing is to be permanently supported, 5/8" threaded

rods should be installed from the ceiling inserts to the auxiliary framing.

5.7 If the office is to be totally removed, temporary supports may be required. Refer to Handbook 42, Section 321 for information on installation of temporary stanchions and jacks.

5.8 Release from floor - The method of releasing the frame from the floor studs varies with the type of frame.

PRECAUTION: ON FRAMES WHICH ARE BEING REMOVED FOR REUSE, EXERT CARE WITH THE TOOLS AND METHODS FOR REMOVING THE NUT AND STUD SO AS NOT TO DAMAGE THE FRAME OR EQUIPMENT THEREIN.

5.8.1 The nut and stud are removed from the floor anchor in one operation, by using the R-5084 Stud Remover. In conjunction with either, the R-2459 5" Extension Wrench, the R-3113 Electric Impact Wrench or the R-2806 Ratchet Handle.

5.9 Release from Auxiliary Framing and Sides - Temporarily fasten the top of the frame with R-2849 Straps. Then remove all the nuts and bolts holding the frame to the overhead ironwork and to the adjacent frames.

5.10 Remove in Upright Position - If the frames are to be removed in an upright position and transported to a hoisting center, use the dedicated dolly trucks which were designed for installing that type of frame. The advantage in using dolly trucks and having a hoisting center is that the chain hoists do not have to be repositioned for each frame. However, there may be obstructions which will not allow the transporting of frames in an upright position.

5.10.1 Use the R-2842 Dolly Truck for sheet metal box type frames. Refer to Handbook 30, Section 19B2 for additional information on the use of this dolly truck.

5.10.2 Use the R-4176 Dolly Truck for bulb angle and channel type frames with sheet metal bases. Refer to Handbook 30, Section 19B1 for additional information on this type of dolly truck.

5.11 Lowering Frames to the Floor from Lineup - Job conditions may require that the frame be moved out of its lineup position into the front aisle and lowered by the hoist onto the R-4754 Horizontal Bulb and Box Dolly Trucks and secured. This method requires additional room for the frame to be conveyed as it is in a horizontal position. Frames may

also be lowered on a skid, crated, and conveyed via the R-2599A Four Wheel Pipe Frame Dolly Truck.

5.12 The R-4754 Dolly Trucks can be used on either bulb angle or sheet metal box frameworks. Changing the dolly truck from one type of framework to another is accomplished by changing the clamping device on the dolly truck from either "Bulb" or "Box" position and relocating the 3/4" cap screw. See Figure 1.

NOTE: Bulb angle frames equipped with mini-switches require a 1/2" bolt and nut for securing the R-4754 Dolly Truck to the frame. These items are to be obtained locally per dolly truck as follows:

- 1 - Bolt, Grade, 5 1/2" - 13 x 3-1/2" LG, Hex H.D.
- 1 - Nut, Hex, 1/2" - 13
- 2 - Flatwashers, 1/2"
- 1 - Lockwasher, 1/2"

5.12.1 Bulb Angle Framework - The clamping device is attached to the dolly truck with the ball lock pin using the "bulb" holes in both the clamp and dolly. The 3/4" cap screw is placed in the angle on the dolly and used to tighten the clamp to the frame.

5.12.2 Bulb Angle Frames Equipped with Mini-Switches - The clamping device is attached to the dolly truck with the ball lock pin using the "box" holes in both the clamp and dolly. The 1/2" bolt with flatwasher is inserted into the hole at the underside of the dolly truck through the tubular member and into the 1/2" hole in the frame upright (located at the base of the frame), then secured with a flatwasher, lockwasher, and nut. The 3/4" cap screw is then tightened against the angle of the frame to prevent any frame shifting. See Figure 1.

5.12.3 Sheet Metal Box Framework (No. 5 Crossbar) - The clamping device is attached to the dolly truck with a ball lock pin using the "box" holes in both the clamp and dolly. The small cap screw is used to tighten the clamp to the frame. The large 3/4" cap screw is placed through the bottom of the dolly truck tubular member and tightened into the threaded insert in the upright of the frame.

5.13 Lower the frame so that the connectors (if any) of the horizontal multiples will be located at the top of the frame when the frame is in its horizontal position. By having the connectors at the top of the frame, damage to the connectors will be prevented when the frame is layed on its upright in the crane van. Designation strip holders are also to be located at the top of the frame, or removed, in order to prevent damage to the strip.

[illegible]

NOTE: Direct ship and crated frames must have this tag attached to their respective frames or crates, if equipped with the above tubes.

7. SHIPPING FRAMES USING THE R-4754 DOLLY TRUCKS

7.1 A general visual inspection shall be made prior to shipping the frames. Inspect for:

7.1.1 Front of Frame

- a. Damaged framework.
- b. Broken or missing apparatus.
- c. Loose mounting plates or switches.
- d. Bent select bars.

7.2 Rear of Frame

- a. Damaged local cable forms.
- b. Smashed terminals.
- c. Broken pigtail apparatus.
- d. Broken leads.
- e. Bent banjo straps.

7.3 If any items identified in Paragraphs 7.11 and 7.12 require replacement of apparatus or major repair effort, the damaged or missing apparatus will be listed on Installers Requisition SD-41-4811-1, and forwarded to the Bell Operating Company (BOC), and Western Electric System Equipment Engineering, so that the appropriate steps are taken to rectify the problem. Copies should be retained for job records.

7.4 Verify that all switchboard cable conductor ends and cross-connections are removed per Handbooks 67VI (4XB) or 69R (5XB).

7.5 Secure a clear plastic sheet around the frame to prevent weather and dust contamination. Cut a piece of plastic sheet 12' wide by twice the width of the frame plus 3'. Secure the plastic sheet with R-4572 2" Polyester Tape. Figure 4 shows a frame wrapped with plastic sheeting and ready for shipment. Convey frame to trucker's pickup point.

7.6 Contact your Regional Transportation Organization for arrangements for obtaining a truck. It is desirable to give the trucker at least two weeks notice to insure the truck is available on the day required.

7.7 Uncrated frames will be shipped via an Industrial Products Moving van, commonly known as an Air-Ride Electronics Crane Van. These are similar to, but separate and distinct from, household goods moving vans.

< There is no minimum or maximum number of frames that can be shipped by this method, and
< cartons of miscellaneous equipment, reels of cable, or other material may be shipped with the frames.

7.8 Approximately 24 frames will fit inside a 40' trailer on one level. Small frames under approximately 47" in width may be double decked to increase the number of frames that can be shipped in one truck; a second deck is constructed inside the trailer by the trucker for this purpose. The trucker is responsible for securing the frames inside the truck to prevent horizontal and vertical movements of the frames during shipment. Figure 5 shows frames as they are packed inside the van.

7.9 The trucker will remove the dolly trucks before securing the frames inside the truck. The dolly trucks will remain in the office and are not shipped with the frame.

8. CRATING FRAMES

8.1 For those cases where frames are to be crated and shipped via common carrier, refer to Handbooks 3 and 42. Handbook 69R contains packing information on No. 5 Crossbar reused frames.

8.2 Outside suppliers of packing materials provide their own instruction sheets with their crates. However, when outside supplier's crates provide plastic strapping for securing the frames, do not use it as it stretches, instead use R-3422 Steel Strapping.

9. REINSTALLING FRAMES

< 9.1 Since the installation effort involving reuse frames will be divided between two locations and possibly two operating companies, advance planning is necessary to determine the responsibilities at each job location.

9.2 It is essential that the job Supervisor(s) familiarize themselves with job specifications, drawings, job conditions, equipment to be reused, and the contents of this handbook section in order that all preparations can be performed properly.

9.3 Modifications required to reused equipment shall in general be done in the receiving office. Local conditions may justify the creation of a modification area away from the working equipment. This arrangement may eliminate potential service interruptions.

9.4 The method of reinstalling reused frames is approximately the same as installing new frames.

9.4.1 The difference is that on direct reuse jobs the frames are shipped from job to job uncrated versus the method of shipping new frames from the factory crated. Therefore, frames will arrive at the reuse job location

30 - 90
42 - 415
67 Vol. VI - 2220
69R - 2
97 -220

- 8 -

In Air-Ride crane vans uncrated. The R-4754 Dolly Trucks are attached to the frames by the trucker and rolled by the trucker out of the van into the office to a staging area as designated by the Job Supervisor.

9.5 Multistroy buildings without a freight elevator or dock facility may require a crane for hoisting the frame into an upper floor of the building. Contact your local rigger for hoisting arrangements, if required.

9.6 A general visual inspection shall be made immediately upon receiving the frames. Remove plastic sheeting or crating materials and inspect for the following:

9.6.1 Front of Frame

- a. Damaged framework.
- b. Broken or missing apparatus.
- c. Loose mounting plates or switches.
- d. Bent select bars.

9.6.2 Rear of Frame

- a. Damaged local cable forms.
- b. Smashed terminals.
- c. Broken pigtail apparatus.
- d. Broken leads.
- e. Bent banjo straps.

9.6.3 Any major shipping damage identified in Paragraphs 9.6.1 and 9.6.2 is to be noted on the Bill of Lading in accordance with transportation CI 61.350. Also, the Operating Company and Regional Engineering shall be notified via a JIM so that appropriate steps may be taken to correct these problems.

9.6.4 Apparatus or parts required for repair or to replace missing components, including Krypton 85 Tubes, shall be ordered on a Telephone Company approved Installer's Requisition (Code 8) supported by an appropriate JIM.

9.7 Handbook 30, Section 1981 covers erecting bulb angle frames and Section 1982 covers erecting sheet metal box frames. The instructions and methods found in these sections are to be followed when reinstalling reused frame-work.

NOTE: Laying out floors, lighting, auxiliary framing, cable racks, ladder tracks, and ladders should all be completed before reinstalling frames.

9.8 Install missing apparatus or repair parts that were ordered per Paragraph 9.64.

9.9 Pressure Cleaning

9.9.1 New crossbar installations and additions shall be pressure cleaned before the equipment is turned over to the Operating Company, unless otherwise specified by the Operating Company.

9.9.2 The Operating Company's pressure cleaning equipment shall be used, and the Operating Company shall be requested to provide this equipment to the installer as required.

9.9.3 Installation Engineering Handbook 15, Section 106 contains information on pressure cleaning No. 1, No. 4 and Tandem Crossbar equipment. Handbook 69R, Section 1.09 contains information on pressure cleaning No. 5 Crossbar equipment. These handbook section should be followed when pressure cleaning the appropriate equipment.

10. EQUIPMENT OR APPARATUS FURNISHED BY THE OPERATING COMPANY

10.1 Equipment whether new, reused, or relocated, and equipment affected by wiring changes shall be verified and tested by Western Electric using regular verification, inspection, and test procedures, unless otherwise specified by the Operating Company.

Engineering Planning Manager
(Installation)

Attachment:
Figures 1 through 5.

Reason for Reissue:

- 1. To update Paragraph 5.8.1, to add the R-5084 Stud Remover.
- 2. Add Paragraph 2.3.2.
- 3. Add note to Paragraph 6.1.2.
- 4. Add Paragraph 6.1.3 and Note.
- 5. Revise Paragraph 7.1.3.

HB 30
42
67 Vol VI
69R
97

- 90
- 415
- 2220
- 2
- 220

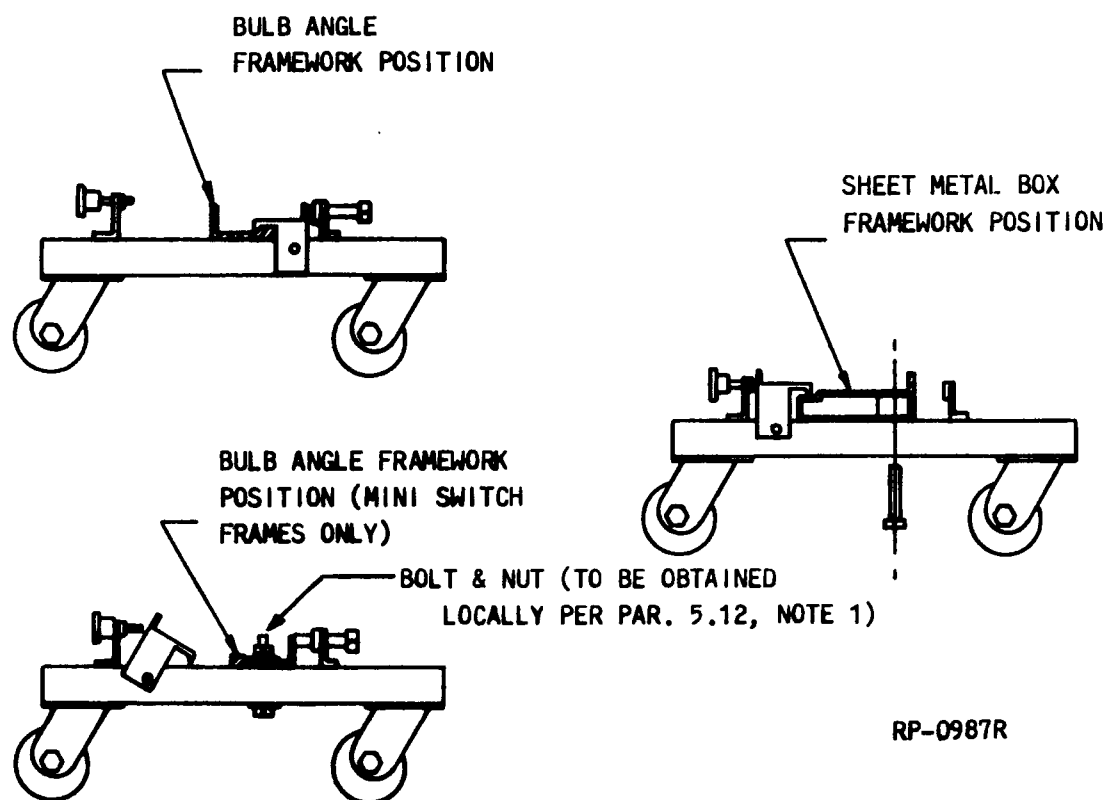


FIG. 1 HORIZONTAL BULB AND BOX DOLLY TRUCK (PAR. 5.1.2)

30 - 90
42 - 415
67 Vol. VI - 2220
69R - 2
97 - 220

2

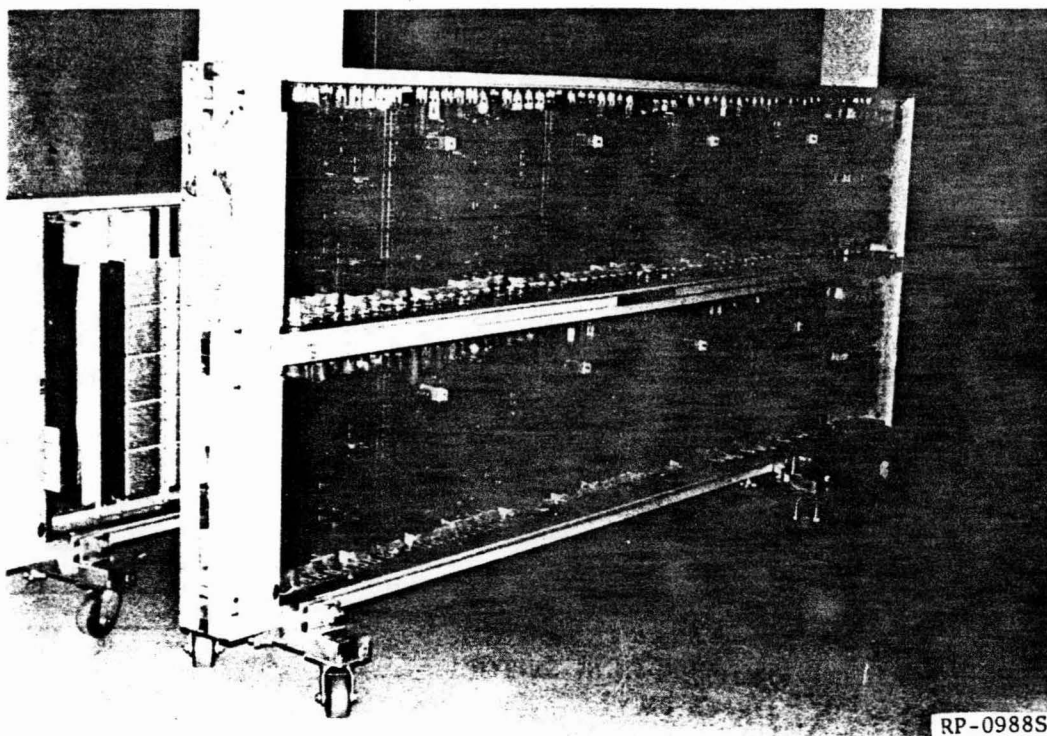


FIG. 2 VIEW OF FRAME ON TWO R-4754 DOLLY TRUCKS (PAR. 5.1.5)

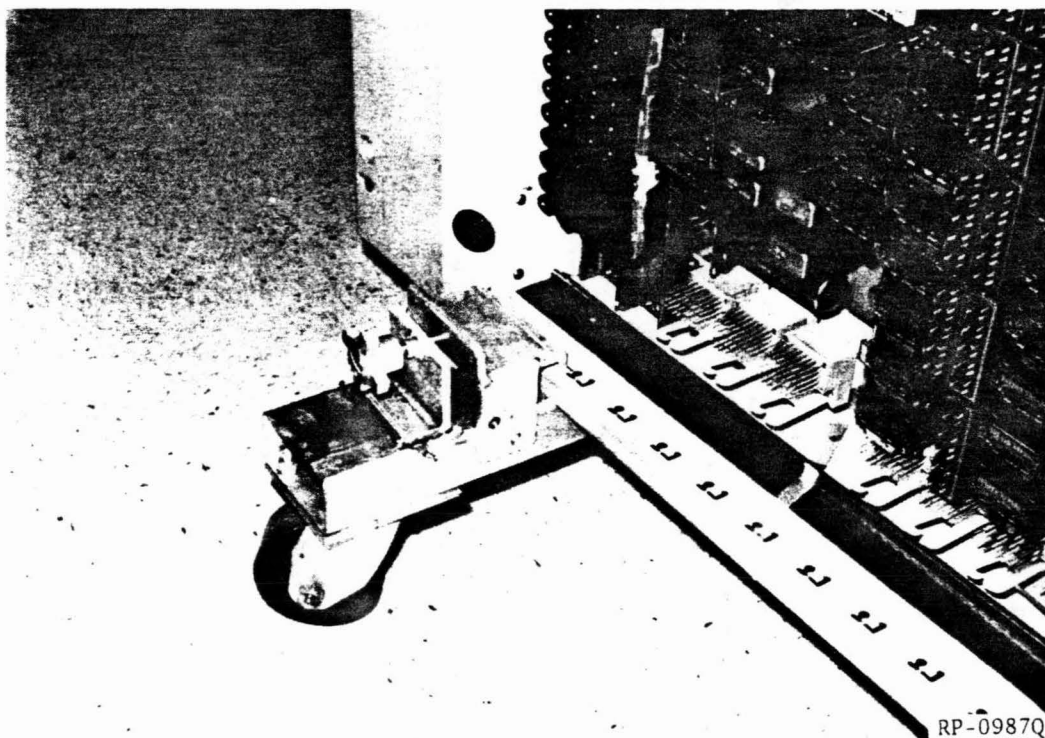
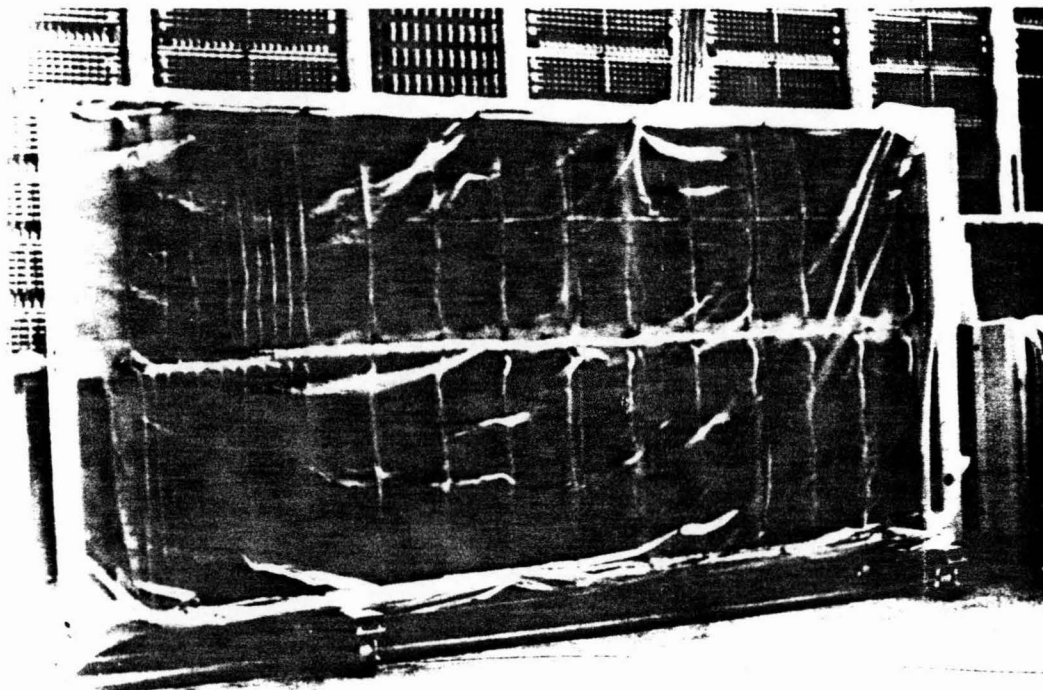
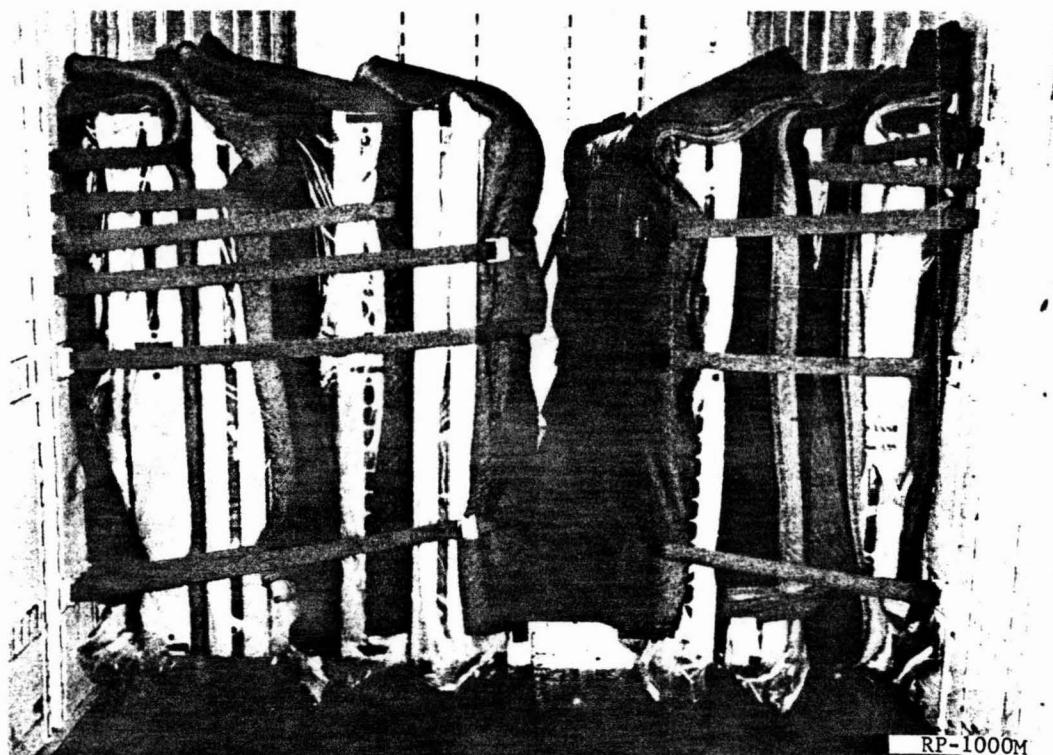


FIG. 3 NO. 5 CROSSBAR FRAME ON R-4754 DOLLY TRUCKS 3/4-10 CAP
SCREW INSERTED FROM UNDERNEATH (NOT SHOWN) (PARS. 5.1.5 and 6.4)



RP-09870

FIG. 4 VIEW OF FRAME WRAPPED WITH CLEAR PLASTIC SHEETING
AS READY FOR SHIPPING (PAR. 7.3)



RP-1000M

FIG. 5 FRAMES PACKED IN TRUCK (WITHOUT DOLLIES) (PAR. 7.6)