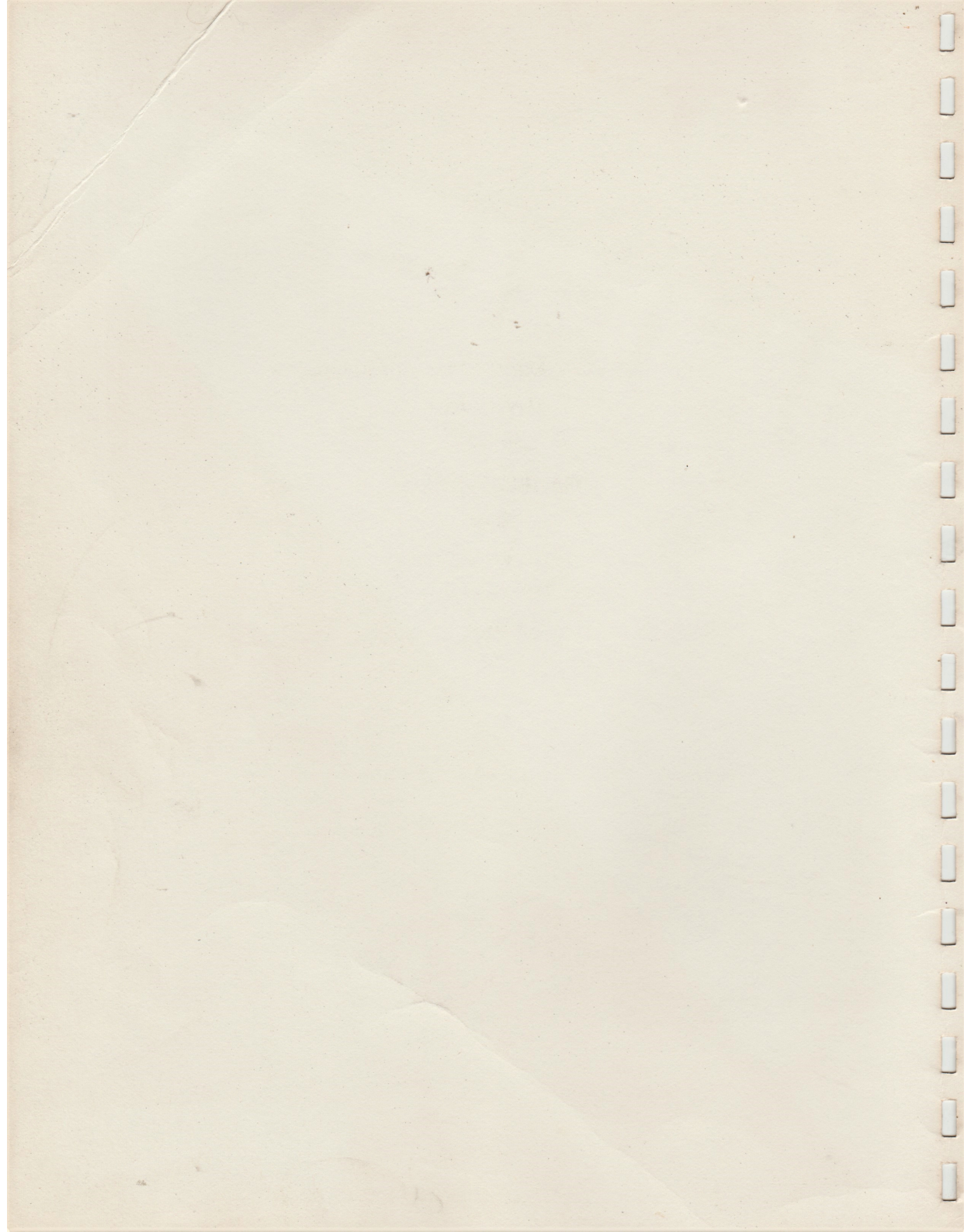


# CHRISTIE

AUTOWIND 3  
FILM HANDLING SYSTEM  
WITH  
MK/MKE MAKE-UP TABLE







OPERATION, INSTALLATION AND MAINTENANCE

INSTRUCTIONS

AUTOWIND<sup>®</sup> 3

FILM HANDLING SYSTEM

WITH

MK/MKE MAKE-UP TABLE

(AFTER SERIAL NUMBER 4720)

AND ALL WITH RETROFIT KIT U193439-1

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## I. AUTOWIND 3 FILM HANDLING SYSTEM, DESCRIPTION

The Autowind 3 Film Handling System is a highly reliable, easy-to-operate film handling system which automatically rewinds film as it is being projected, thus eliminating the need for manual rewinding. The system can accommodate up to approximately 25,000 feet of continuous 35mm film, on each of the two platters, which provides approximately  $4\frac{1}{2}$  hours of uninterrupted operation from each platter. Once it is installed and operating, it can be left completely unattended and will operate automatically until the projector must be rethreaded for another show.

The system consists of 3 individually controlled horizontal platters. Film is fed from one platter through the projector, back onto another platter where it automatically rewinds as the show is in progress. Each platter is driven by its own highly reliable torque motor, which is controlled by a solid-state, plug-in speed control card. These cards are located in the hinged door of the control panel for easy access and adjustment.

Each system is supplied with a "make-up" table from which film is fed from conventional 2000/6000 foot reels onto the Autowind, and spliced together to make up one continuous program. Similarly, the same table is used for "unloading" the film from the Autowind back onto its conventional reels for shipping. The controls for loading or unloading the Autowind are on the "make-up" table.

The Autowind system requires only 115v., single phase, 60 Hz power (also available for 230v., single phase, 50 Hz power). It is recommended that a separate circuit and 15 amp circuit breaker be provided for each Autowind.

## II. UNPACKING

1. The Autowind is normally shipped uncrated by van lines within the U.S.A. This provides expert handling during transit and delivery to the projection booth. For shipment by truck or airline, or for export, the system is crated. First, verify that the correct number of pieces are received by checking the bill of lading or the shipping documents.
2. Thoroughly inspect each item for possible damage that might have occurred during shipment. Any damage discovered should be immediately reported to the transportation company for inspection and filing of claim. Do not accept any shipment until a complete inspection of all the equipment has been made.

## III. AUTOWIND ASSEMBLY

NOTE: Before beginning the assembly or installation of the Autowind system, it is important that this instruction manual be thoroughly read and understood.

1. Location:

The Autowind should be assembled and leveled in the area where it is to be operated, near the projector. (See Figure 1.) If there is limited space in the projection booth, the Autowind can be installed in an adjoining room. In such a case, additional film transport



roller assemblies should be installed in order to transport the film from the Autowind to the projector and back. The distance between such roller assemblies should not exceed ten (10) feet. (Film transport roller assemblies (DML92299-1) must be ordered separately when required.) The Autowind can be installed on either side of the projector.

2. Install the Main Column: (Figure 1)

Assemble the main column (#1, Figure 1) to the base (#2, Figure 1) using four 5/16 x 3/4 Hex head capscrews and washers and tighten securely. Check that the column is in a true vertical position using a carpenter's level and adjust leveling feet (#5, Figure 1) to obtain proper level position if necessary.

3. Install the Control Assembly: (Figure 2)

Connect the three molex connectors between them. Place the control assembly on the main column as shown in Figure 2. Secure control assembly with 4 screws. (#18, Figure 2)

4. Install the 3 Drive Motors: (Figure 2)

Place the spring (#3, Figure 2) in its housing (#4, Figure 2). Push the motor assembly (#2, Figure 2) toward the support arm, depressing the motor tension spring.

Make sure the two flanged bushings (#5, Figure 2) are in place.

Align the holes in the motor mounting bracket with the holes in the platter support arm (use a pair of long-nosed pliers, or any other tapered instrument to align the holes). Insert the motor assembly mounting bolt (#6, Figure 2) upward through the holes until it protrudes through the top of the assembly. Insert the locking pin. (#7, Figure 2)

Repeat the procedure for the other 2 motor assemblies.

5. Install the 3 Platters:

Clean the platter axle (#8, Figure 2) of all dirt and apply a thin film of light machine oil.

Install the thrust bearing and thrust washers (#9, Figure 2) on the axle, lubricate with Lubriplate 130-AA.

Install the platter by placing it over the axle and slightly depress the motor tension spring (#3, Figure 2) until platter seats on thrust washer.

Repeat the procedure for the other 2 platters.

6. Install the 3 Feed Control Plates:

Place the feed control plate on the platter axle with orientation as shown in Figure 4 and secure with 2 screws. (Pan head, #6-32 x 1/2" long).

Install the film position sensor arm (#1, Figure 11) and secure with 1 screw (#10, Figure 11). (Pan head #6-32 x 1/4" long). Make sure the sensor arm is adjusted directly over 0° mark in rest position. (See Figure 11).

Install the film guide assembly on the feed control plate with the dust shield positioned under the rollers. Secure in place with a #10-32 x 3/4 inch long Pan head screw and lockwasher. (See Figure 9)

Repeat the procedure for the other two plates.



## 7. Install the 3 Return Arms:

The return arms (#10, Figure 2) are installed as shown in Figure 2, by securing 2 screws and washers (#12, #13 and #14, Figure 2).

## 8. Install Rollers on the Column: (Figure 1 and 3)

There is a Take-Off roller (#1, Figure 3) for each platter. In addition there is an adjustable roller (#2, Figure 3) at the top of the column for feed, and an adjustable roller (#3, Figure 3) at the bottom for take-up. Note the orientation of these rollers can be adjusted depending on the relative positions of the Auto-wind and the projector. See Figures 1 and 3 for complete roller installation.

## 9. Install Slide Bar and Roller Cluster Assembly. (Figure 1)

Mount the roller cluster assembly (#4, Figure 1) on the slide-bar (#3, Figure 1) and install as shown, using 2 bolts, (Hex. head,  $\frac{1}{4}$ -20 x  $1\frac{1}{2}$ " long) 2 spacers and 2 washers.

IV. MAKE UP TABLE ASSEMBLY (Figure 6)

1. a. Assemble the table legs (#1, Figure 6) to the make-up table top using the eight round screws ( $\frac{3}{8}$  - 16 x  $1\frac{3}{4}$ ), lockwashers, and washers.
- b. Assemble the horizontal bars (#3, Figure 6) between the legs and tighten the ( $\frac{3}{8}$  - 16 x  $1\frac{3}{4}$ ) screws, lockwashers, and washers.
- c. Install the roller post (#4, Figure 6) onto the make-up table horizontal bars using the standoffs, bolts, nuts, and washers. Install the snap-on swivel rollers onto the post oriented as shown in Figure 6. The top roller is adjusted to correspond with the height of the platter selected.
- d. With the table standing in the normal position, cut the temporary restraining strap on the drive motor and let it hang free. Lift the motor and install the flat belt over both pulleys, and let the motor down - supported by the belt. Check that the motor pulleys are correctly aligned, and the belt runs true over the crown of each pulley.
2. Run the cable assembly (#3, Figure 8) from the make-up table to the vertical column of the Autowind and insert the 6-pin plug into the bottom receptacle of the verticle column (#4, Figure 3). The make-up table need only be connected to the AW3 during loading and unloading film and may be disconnected and moved at any other time if desired.

V. PRINCIPLE OF OPERATION

A film position sensor controls the speed of the platter feeding film to the projector and a return arm underneath controls the speed of the platter receiving film from the projector. Each platter is independently driven by a separate D.C. permanent magnet torque motor.

The drive motor is controlled by its individual motor speed control card located in the control assembly (Figure #7). This motor control card



operates in conjunction with a control sensor assembly (#5, Figure 11) located in the end of each platter support arm. The control sensor consists of a light-emitting-diode light source and a photoconductor mounted opposite and separated by a short distance.

The L.E.D. is maintained at a constant preset intensity and a rotating variable density filter operates between the L.E.D. and the photoconductor driven by either the film position sensor or the return arm. Increased or decreased light on the photoconductor causes an increased or decreased current to flow to the motor speed control card. This current is amplified and converted to D.C. for the drive motor. This control system provides precise and smooth control of the platter speeds without the use of mechanical contacts which would be subject to wear or pitting.

#### VI. ALIGNMENT AND CHECK-OUT PROCEDURE WITHOUT FILM.

1. Plug the 115v., 15 amp., a-c plug from the base of the column (#5, Figure 3) into a corresponding grounded wall outlet (can be furnished for other voltages when specified). Insert the "Jones" plug from the make-up table into the receptacle on the column (#4, Figure 3). Note: Do not mate an earlier model AW2 make-up table with the AW3 Autowind.

On the control assembly (#15, Figure 2) will be found the following controls:

- a. A-C power ON-OFF switch and pilot light (#16, Figure 2). This switch and the pilot light must be ON before the Autowind can be operated, but does not have to be ON for operation of the Autowind from the make-up table.
  - b. Make-up mode switches (#17, Figure 2). Push one of the 3 switches to select the corresponding platter to be used for making-up or tearing-down the program.
2. The program control panel instruments of the make-up table (Figure 6) consists of the following:
    - a. Load spindle-off-load platter switch (3 position, center OFF) (#6, Figure 6). This switch is located on the left side of the panel and selects the drive motor of the platter or spindle.
    - b. Run-off-brake switch (#7, Figure 6)  
This switch energizes the make-up table and controls the braking. In order to stop both the platter and reel spindle when unloading film, switch quickly from RUN to BRAKE, and hold in that position until the platter stops. Then, release the switch toggle to OFF. See comments about back tracking a splice later in the text.
    - c. Speed Control Knob (#8, Figure 6)  
This switch controls the platter or spindle speed when making-up or tearing-down. When turned fully counter-clockwise it will detent in the OFF position.  
CAUTION: Always turn the speed control back to OFF after finishing a sequence to avoid a full speed start.



3. With the Load Spindle-Load Platter switch in the OFF (center) position:
  - a. Push the make-up mode switch (#17, Figure 2) to select the desired platter. (Platters are numbered consecutively from top to bottom.)
  - b. On the Program Control panel of the make-up table, set the left switch to LOAD PLATTER (down); and set the right switch to RUN (up).
  - c. Turn the Speed Control Knob (#8, Figure 6) gradually clockwise to MAX, and observe that the correct platter rotates counter-clockwise. The maximum speed of the platter should be about 60 RPM. Turn the Speed Control Knob to OFF.
  - d. Set the left switch (#6, Figure 6) to LOAD SPINDLE (up position). Set the right switch (#7, Figure 6) to RUN (up position). Turn the Speed Control Knob clockwise. Observe that the spindle of the make-up table turns in a counter-clockwise direction.
  - e. Push the right switch (RUN) downward to the BRAKE position and hold it there. Observe that the spindle will turn and its torque will be proportional to the setting of the Speed Control Knob. Release the BRAKE switch and let it return to the OFF position.
  - f. Repeat the above procedure (paragraphs a, b, c) for all platters.
  - g. The make-up table may be disconnected from the Autowind column if desired.

NOTE: If any of the above procedures do not check out properly, refer to the Trouble Shooting Section pages 11 through 13 and Schematics (Figure 15).

## VII. OPERATION WITH FILM

1. To load film onto the Autowind.

NOTE: For the initial check-out of the Autowind system, it is strongly recommended that a short film of 5-10 minutes be used to test the operation of all platters before a full show is loaded onto the system.

- a. Locate the make-up table about 4-5 feet away from the Autowind, with the post end towards the platters. Connect the make-up table cable (#3, Figure 8) to the Autowind (#4, Figure 3).
- b. Place the take-up ring (#2, Figure 4) onto the selected platter. Push the corresponding make-up mode switch (#17, Figure 2). Place the first reel of film on the spindle of the make-up table (Figure 6). Be sure that the film comes off the reel with a clockwise rotation of the table spindle.
- c. Pull the film leader from the reel. Thread the film under the lower roller and over the top roller. Be sure that these rollers caster



toward the reel and platter respectively. Draw the film toward the take-up ring and place the end of the film in the take-up ring slot. (There must be sufficient leader to run from the Autowind to the projector and back to the Autowind.) Adjust the height of the top swivel roller (#10, Figure 6) so that the film clears the edge of the platter. If the film is too low it might be scratched. If the film is set too high, it might climb the take-up ring.

- d. Set the left switch (#6, Figure 6) on the make-up table to LOAD PLATTER (down). Set the right switch (#7, Figure 6) to RUN (up).
- e. Gradually rotate the speed control knob (#8, Figure 6) to increase speed and wind the film from the reel to the platter. When the reel becomes empty, turn the speed control to OFF and push the brake switch to stop the platter.

Cut the tail off the end of the first reel and remove from the reel spindle. Place the tail and the empty reel into the film container.

- f. Place the #2 reel on the reel spindle. Cut off the leader and splice the film to the tail end of the preceeding film. (Always splice film with tape on both sides of the film.)

NOTE: After the splice is made, use a white or yellow marking crayon or tape, to mark the splice for future reference.

- g. Again set the right switch to RUN, turn the speed control to start loading the platter and let it run until the second reel is empty.
- h. Repeat the above steps until the entire length of the film is loaded onto the platter. The Autowind system with 52 inch platters can accommodate approximately 25,000 feet of film.
- i. Place the antiskid clips around the periphery of the wound film after complete make-up. Moisten the rubber cups with water so that they will adhere to the platter more securely.

RECOMMENDATION: The recommended procedure for loading a new show (or shows) onto the Autowind system is as follows:

1. Transfer the film from the standard 2000 foot shipping reels onto a 6000 foot reel on the rewind bench (booth equipment). During this sequence, the film can be inspected for bad splices, cue marks, and other defects. Splices can easily be performed on the rewind bench in the regular manner.
2. Place the 6000 foot reel onto the make-up table reel spindle and transfer the Autowind platter.
3. During the transfer period, another 6000 foot reel can be prepared on the rewind bench.

It is also recommended that if two films are to be loaded onto the Autowind at the same time, they should be loaded onto the same platter. This saves time because the greater diameter of film on the platter, the faster the film is wound from the make-up table onto the Autowind.



After one feature has been shown, during the intermission, the splice may be broken and the second feature rewound on a different platter. Film may be transferred from any platter to another by proper threading and driving the take-up platter by use of the make-up table to control take-up speed. Be sure that the appropriate make-up mode switch is selected on the control assembly.

#### VIII. UNLOADING THE FILM FROM THE AUTOWIND.

1. The film can be removed from any platter. Push the appropriate make-up mode switch for the platter selected (#17, Figure 2).
2. Place an empty reel (either 2000 or 6000 foot) on the reel spindle of the make-up table.
3. Take the outside end of the film, on the platter to be unloaded, draw it toward the make-up table and thread it over the top roller (adjusted to the correct height), under the bottom roller and attach it to the empty reel on the reel spindle.
4. Set the left switch to LOAD SPINDLE (up) and the right switch to RUN (up). Turn the speed control knob slowly clockwise from OFF. This will cause the spindle to rotate and pull the film from the platter. As the reel fills up, watch for the splice. When the splice appears to be 6-8 turns from coming off the platter, quickly switch from RUN to BRAKE and hold it there until the platter stops. Turn the speed control knob back to OFF. If the splice has gone past and is already on the shipping reel, set the left switch to LOAD PLATTER, set the right switch to RUN and turn the speed control knob slowly clockwise. This will reverse the rotation of the platter and pull the film back onto the platter until the splice appears. Turn the speed control knob back to OFF.
5. Open the splice in the film and splice a leader to the film on the reel and a tail to the end of the film coming from the Autowind. Remove the full reel from the reel spindle, place it in its film can and place another empty reel onto the reel spindle.
6. Fasten the film tail to the empty shipping reel and proceed as in Steps 2 through 5 until all the film has been transferred from the Autowind to the original reels.

#### IX. PREVENTIVE MAINTENANCE

The Autowind System is basically a simple and therefore, highly reliable system when properly installed and aligned. In addition, the reliability is increased by the redundancy of a third platter, whereby if one platter malfunctions, the operation can continue on the other two platters. Furthermore, the motor control cards are fully interchangeable and can be plugged into any of the three connectors (See Figure 7). Also, the drive motors are interchangeable, and are mounted for easy removal and replacement. However, as with any electro-mechanical system, some basic preventive maintenance should be done routinely to maintain peak performance of the system.



1. Check the drive motor brushes every 6 months or 1500 hours operating time. They should be replaced when the length is  $\frac{1}{4}$ " or less to prevent damage to the commutator.
2. Periodically check the rubber on the drive motor wheels. If any of them become excessively worn they should be replaced. If they are allowed to continue in operation when worn too thin the motor will not apply proper pressure to the drive hub of the platter causing the drive wheel to slip.
3. Clean the platter surfaces with "Fantastic", "Like Magic", or detergents and water for normal dust and dirt buildup. Do not use abrasive type cleaners. Solvents may be used to remove wax or grease buildup, but avoid contact with rollers or bearings. Regular cleaning of feed control plate and rollers using soft bristle brush will remove dust accumulations.
4. It is recommended that spare parts described on spare parts list be kept in the projection booth.
5. The sleeve bearings in the rollers are made of a teflon composition which normally require no lubrication. A coating of light machine oil is applied to the roller shaft at the factory to prevent corrosion and ensure smooth operation. Roller bearings are used on the make-up table swivel rollers because of the heavy loads and high speeds. These roller bearings are lubricated at the factory with LUBRIPLATE 130-AA grease.
6. Static Electricity. In a sound-proof and carpeted projection booth with air conditioning, particularly in a wooden building, enough static electricity may buildup on the film to cause oscillation and erratic operation of the feed arm. To prevent the static electricity as much as possible, spray the carpet and the area around the Autowind with a "Static Remover" spray (available in aerosol cans). Also wipe the edge of the film on the platter with a moist (not wet) cloth. This will remove most of the static electricity and insure smoother operation.
7. PLEASE NOTE: If for any reason during the installation, operating or maintenance of the Autowind System any problems occur that are not covered in the manual, write or call Christie Electric Corp. for information, 3410 W. 67th St., Los Angeles, CA. 90043, (213) 750-1151.

When ordering parts or requesting information, please include the Autowind model and serial number. Also list parts by part number, or, as described in this manual, by page and figure number. THE MORE INFORMATION WE GET, THE BETTER WE CAN SERVE YOU.

When ordering replacement parts, write or call your dealer directly. Please include a Purchase Order Number. This includes replacement parts requested under warranty. Credit will be issued when defective parts are received by Christie Electric Corp.



X. ADJUSTMENT OF MOTOR SPEED CONTROL (FROM S/N 3318 ON)

1. The platter axle must be assembled correctly with the cam filter positioned on the shaft flats and the filter assembly located .625 from the base of the axle (see Figure 11).
2. Turn the power OFF. The film position sensor should be located directly over the 0° mark on the feedplate in the rest position. Refer to Figure 11 for the correct alignment and adjustment of all speed control mechanism-components.
3. Be sure that the film sensor and return arm mechanism work freely and there are no parts dragging or contacting improperly.
4. Remove the appropriate motor speed control card and turn the power ON. Set the film position sensor over the 20° mark on the feed control plate and hold in place. Allow at least two minutes for the control sensor to reach equilibrium from the time the card has been removed and the power turned ON.
5. Read the resistance across pins 12 and 14 of the motor speed control card connector. If necessary, adjust the L.E.D. intensity to obtain 500KOHM by turning the appropriate L.E.D. potentiometer (clockwise to decrease resistance). Allow sufficient time for the control sensor photocell to stabilize. The L.E.D., when set in this manner, calibrates the complete control system to the correct values. It should never be used to increase or decrease the motor speeds as with previous AW2 systems.
6. Check the resistance value at 100° or full speed setting. It should be less than 50KOHM.
7. Turn the motor speed control HI pot 50% clockwise and the LO pot 50% clockwise. Turn power OFF and install the card. Turn power ON again. (NOTE: Touching card with power ON may expose fingers to potential shock.)
8. Set the film position sensor to 70° and adjust the platter speed to  $20 \pm 1$  RPM using the HI pot (clockwise to increase speed).
9. Set the film position sensor to 20° and adjust the platter speed to 1 to 2 RPM using the LO pot (clockwise to increase).
10. Reset the film position sensor to 70° and allow 1 minute to stabilize. Recheck and reset RPM to  $20 \pm 1$  RPM using HI pot if necessary.
11. Reset the film position sensor to 20° and allow 1 minute to stabilize. Recheck and reset RPM to 1 to 2 RPM using the LO pot if necessary.
12. Place the film position sensor in full (100°) speed position and check that platter speed is greater than 25 RPM.



13. Allow the film position sensor to return to zero and check the operation of the return arm. Place the return arm in the maximum speed position once more. The platter speed in this position should be 25 RPM or greater and should reach this speed in 1 second or less.

NOTE: The Autowind is a demand system. The platter operates at varying speeds so that the film to the projector will come off at a constant speed. Sticking film due to static or wax, etc., may cause the film position sensor to move to different positions during operation. Also film condition and diameter of film on platter will cause film to enter feed plate at varying angles.

DO NOT change speeds to accomodate these conditions. Once the motor speeds have been set, they will meet all the conditions of operation in either feed or take-up.

#### XI. ADJUSTMENT PROCEDURE FOR MAKE-UP TABLE

1. Adjust the starting speed of the speed control by setting the control knob about 1/8 of an inch from the OFF detent. Insert a small trimming screwdriver through the hole in the panel face near MAX. Turn the screw until the motor just stops (clockwise to increase speed).



## XII. TROUBLE SHOOTING SECTION

MALFUNCTION	PROBABLE CAUSE	CORRECTIVE ACTION
1. Platter runs too slow (less than 25 RPM for max feed and max re-turn)	<p>A. Motor speed control not adjusted properly</p> <p>B. Drive wheel slipping</p> <p>C. Motor brushes worn or making poor contact</p> <p>D. AC line voltage too low (less than 105 volts)</p> <p>E. Platter binding</p>	<p>A. Check motor speed control as described on pp. 6. If necessary, adjust per pp. 11.</p> <p>B. Check spring tension on drive assembly. Check wheel condition for being worn or dirty. Clean or replace as required.</p> <p>C. Check drive motor brushes. Replace if worn below ¼" or worn unevenly.</p> <p>D. Check AC voltage. If too low, install variac or step-up transformer to provide 110-120 volt AC.</p> <p>E. Check platter bearings for condition and lubrication. Relubricate or replace as required.</p>
2. Platter runs too fast (more than 25 RPM ) for max feed or return and 2.0 RPM for min. feed at 20°	<p>A. Motor speed control not adjusted properly</p> <p>B. AC line voltage too high (more than 120v AC)</p> <p>C. Light leaking into control sensor</p>	<p>A. Check motor speed control as described on pp. 5. If necessary, adjust per pp. 11.</p> <p>B. Check AC voltage. If too high, install variac or step-down transformer to provide 110-120v AC.</p> <p>C. Check end cap is on securely. Check that ambient sunlight or work light is not responsible.</p>
3. Platter runs all the time.	<p>A. Defective wiring or connections</p> <p>B. Light leaking into control sensor</p> <p>C. Motor speed control not adjusted properly.</p>	<p>A. Check wiring and connections (see wiring diagram Figure 15) and repair or replace as required.</p> <p>B. Check that end cap in on securely. Check that ambient sunlight or work light is not responsible.</p> <p>C. Check the motor speed control as described on pp. 5. If necessary, adjust per pp. 11.</p>



TROUBLE SHOOTING SECTION (cont'd.)

MALFUNCTION	PROBABLE CAUSE	CORRECTIVE ACTION
4. Platter will not run at all	D. Film position sensor is sticking in ON position.	D. Determine cause of sticking and CORRECT situation.
	A. No AC voltage	A. Provide necessary 110-120VAC to unit. Check unit is plugged in and switch in ON.
	B. Platter mode switch in inappropriate mode	B. Set mode switch in correct mode.
	C. Defective wiring or connections	C. Check wiring and connections (See wiring diagram Figure 15)
	D. Defective control sensor	D. Check L.E.D. is working and replace if necessary. Check control sensor in another connector to see if L.E.D. Power card is o.k.
	E. Defective motor control card	E. Check motor control card in another connector and replace if necessary.
	F. Drive motor not plugged in	F. Plug in drive motor assembly in column.
5. Return Arm will not take up film slack	G. Drive wheel loose	G. Check condition of drive wheel and retighten or replace as required.
	A. Platter speed too low	A. Check platter speed too low #1 above.
	B. Film position sensor sticking	B. Determine cause of sticking and correct situation.
	C. Motor drive wheel slipping	C. Determine cause of slipping and correct situation.



## TROUBLE SHOOTING SECTION (cont'd.)

MALFUNCTION	PROBABLE CAUSE	CORRECTIVE ACTION
6. Film breakage in make-up or tear- down mode.	A. Excessive film tension.  B. High Speed start	A. Turn the speed down to reduce tension as required.  B. Reset speed control after braking.
7. Make-up table will not operate	A. Table not plugged in to column.  B. Motor speed control not adjusted properly.  C. Motor drive slipping.  D. Broken belt.  E. Worn motor brushes.	A. Plug in make-up table to column (be sure that column has power, it is not necessary to push column AC power ON).  B. Adjust motor speed control.  C. Check all drive components are securely tightened.  D. Replace drive belt, check alignment.  E. Replace motor brushes.



# AW3 RIGHT SIDE VIEW

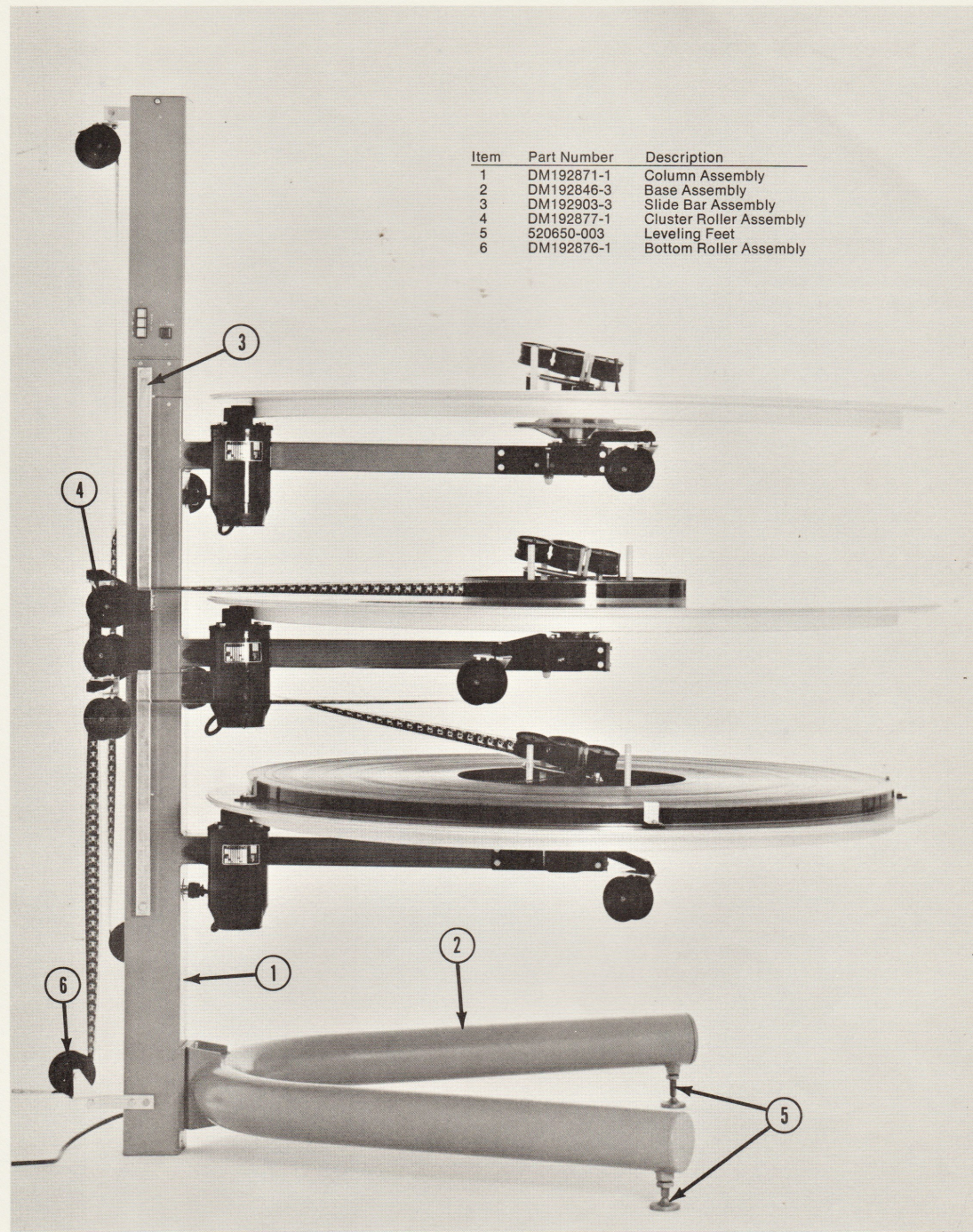
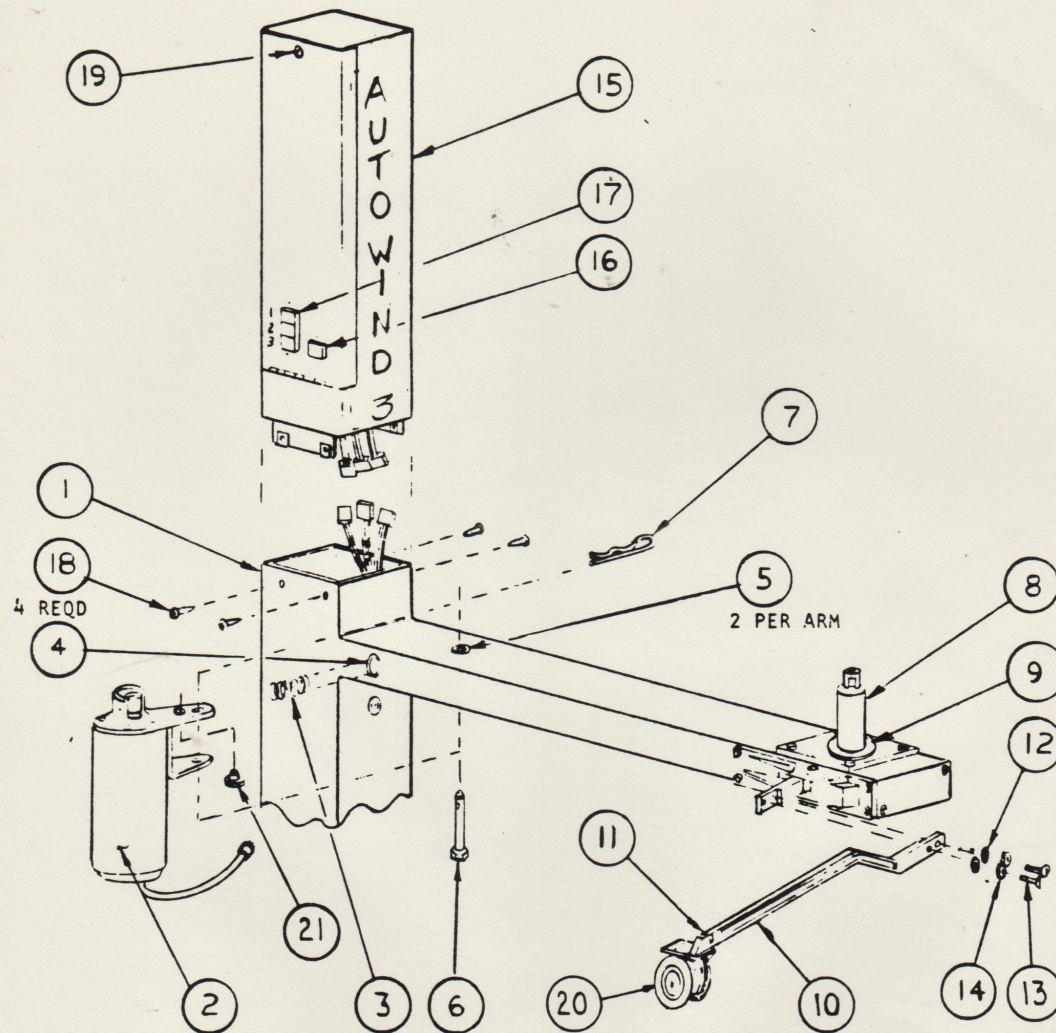


FIGURE 1



# INSTALLATION OF CONTROL MODULE, DRIVE MOTOR, RETURN ARM



ITEM	PART NUMBER
1.	DM192871-1
2.	DM192862-1
3.	515610-025
4.	DR192477-1
5.	515000-174
6.	DM115419-1
7.	515000-117
8.	DM192858-1
9.	515000-157,8,9
10.	DM192835-1
11.	515700-061

DESCRIPTION
COLUMN ASSY.
PLATTER DRIVE ASSY.
SPRING
HOUSING SPRING
FLANGE BEARING
BOLT
CLIP
PLATTER AXLE
THRUS BRG. ASSY.
RETURN ARM ASSY.
E-RING

ITEM	PART NUMBER	DESCRIPTION
12.		WASHER FLAT #10
13.		SCREW PAN HD., #10-32 X 1/2 LG.
14.		WASHER LOCK #10
15.	DM192860-1	CONTROL MODULE ASSY.
16.		ON-OFF SWITCH
17.		PLATTER SELECT SWITCH
18.		SCREW PAN HD. PHILLIPS #8B X 1/2 LG.
19.	515700-055	1/4 TURN SCREW
20.	DM192879-1	SWIVEL ROLLER
21.	518800-008	RUBBER BUMPER

FIGURE 2



# AW3 LEFT SIDE VIEW

Item	Part Number	Description
1	DM192819-1	Take-off Roller Assembly
2	DM192897-1	Top Roller Assembly
3	DM192876-1	Bottom Roller Assembly
4	524606-003	Make-up Table Connector
5	526030-022	A-C Power Cable
6	DM192881-1	Idler Roller Assembly

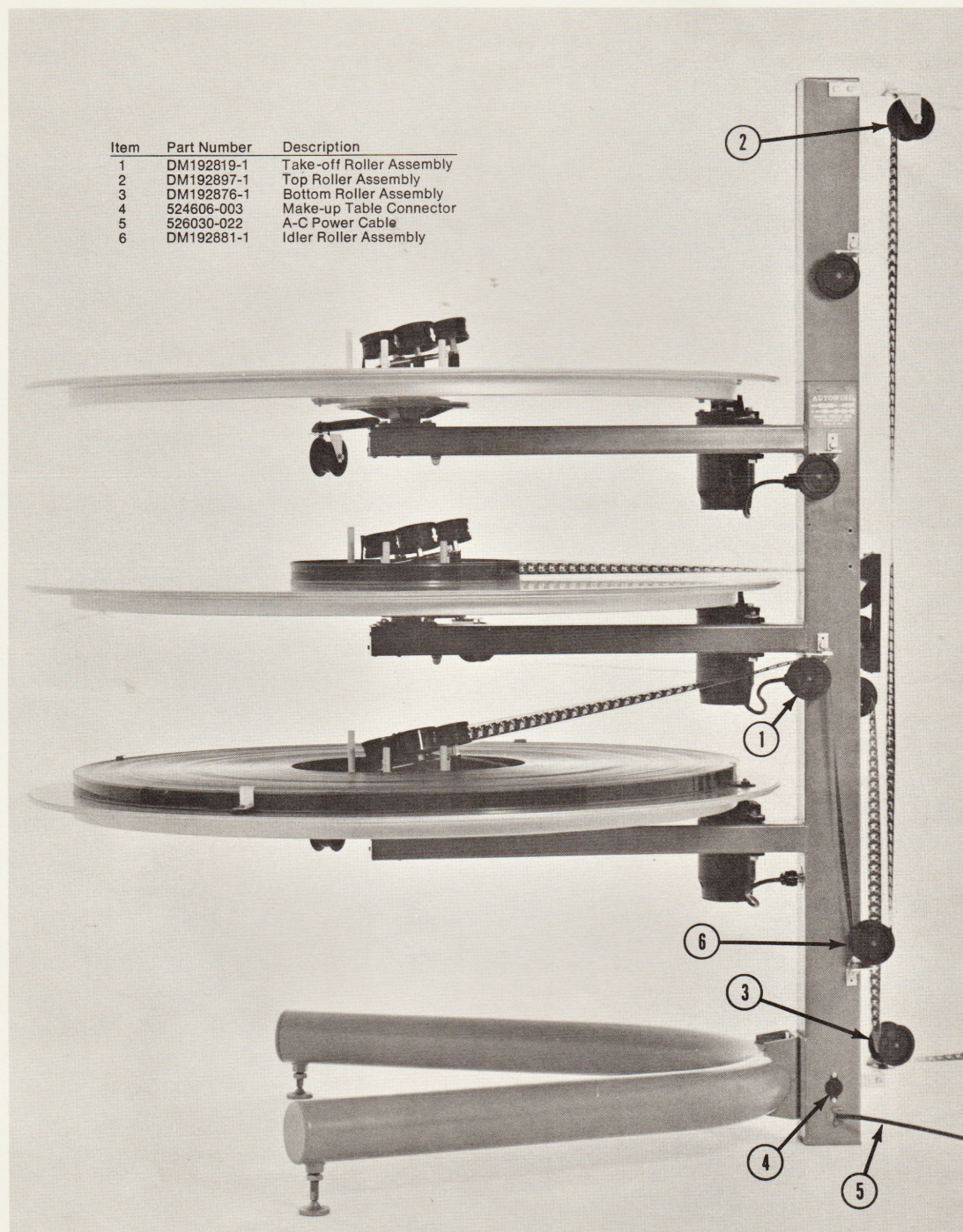
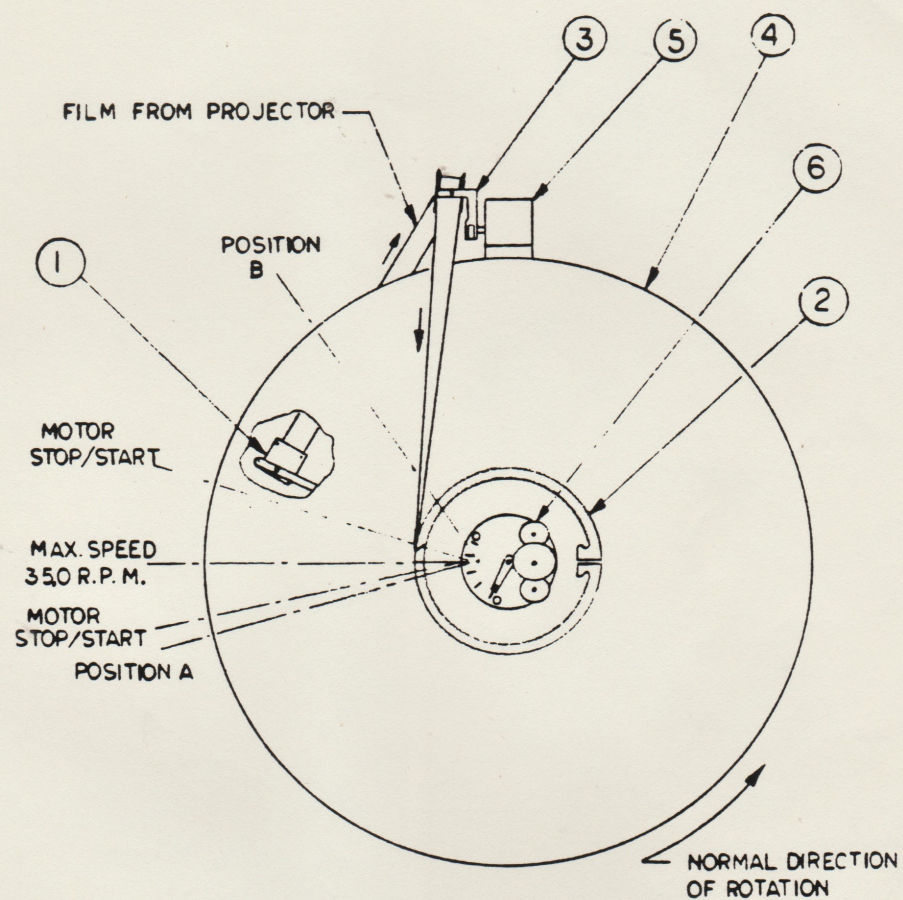


FIGURE 3



# RETURN ARM CONTROL AND THREADING



1. RETURN ARM
2. TAKE-UP RING
3. RETURN ROLLER CLUSTER
4. PLATTER ASS'Y. 52" DIA.
5. VERTICAL (MAIN) COLUMN
6. FEED CONTROL PLATE

FIGURE 4



## FEED CONTROL PLATE THREADING

Item	Part Number	Description
1	DM193043-1	Film Position Sensor Assembly
2	DM192861-1	Feed Control Plate Assembly

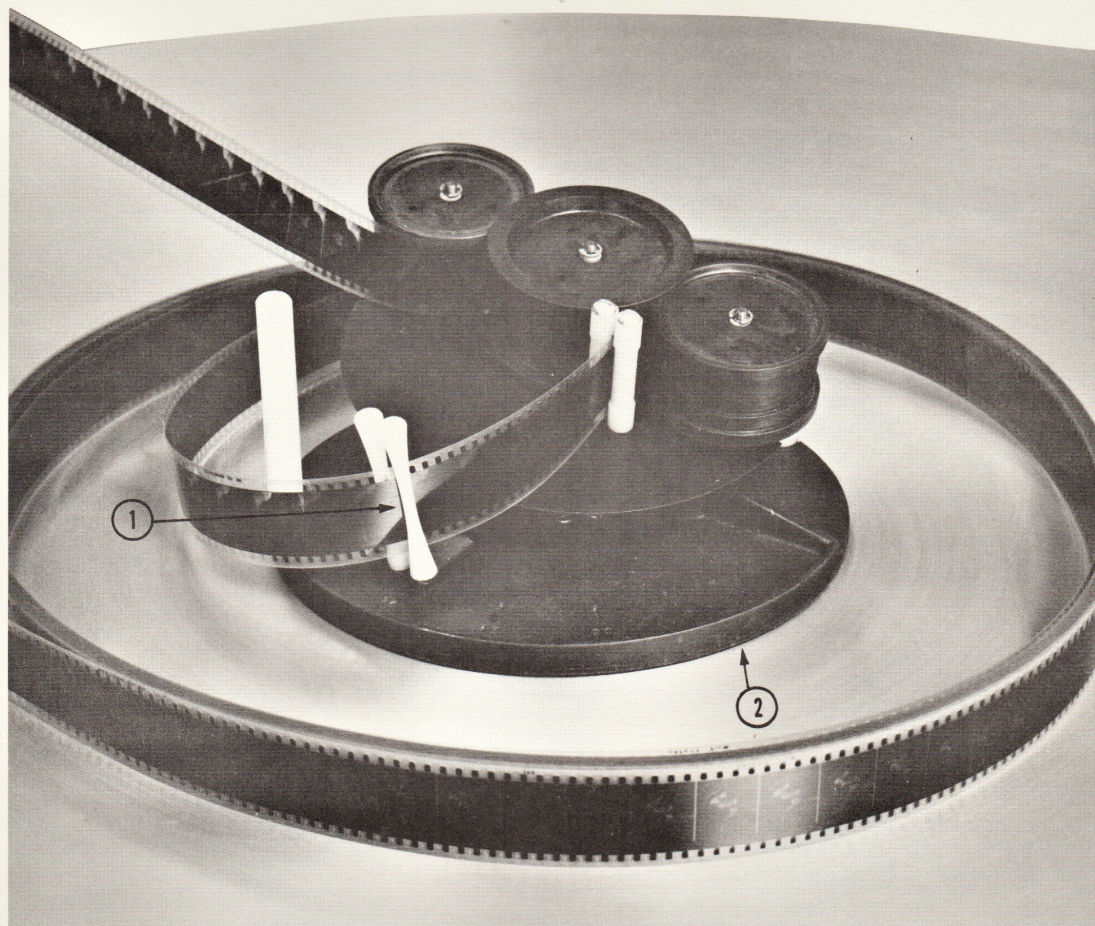


FIGURE 5



# MAKE-UP TABLE

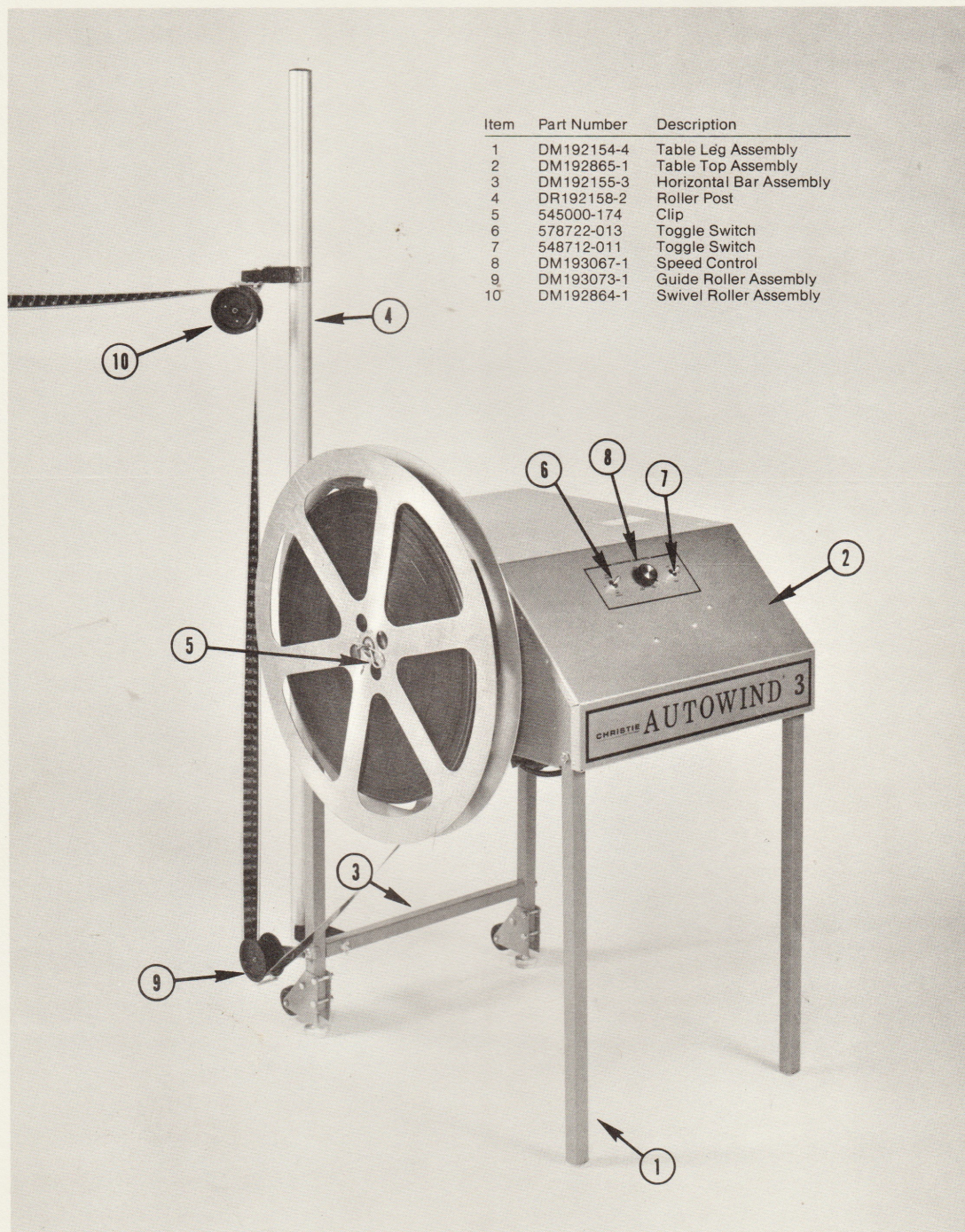


FIGURE 6



**CONTROL ASSEMBLY**  
(Door Opened)

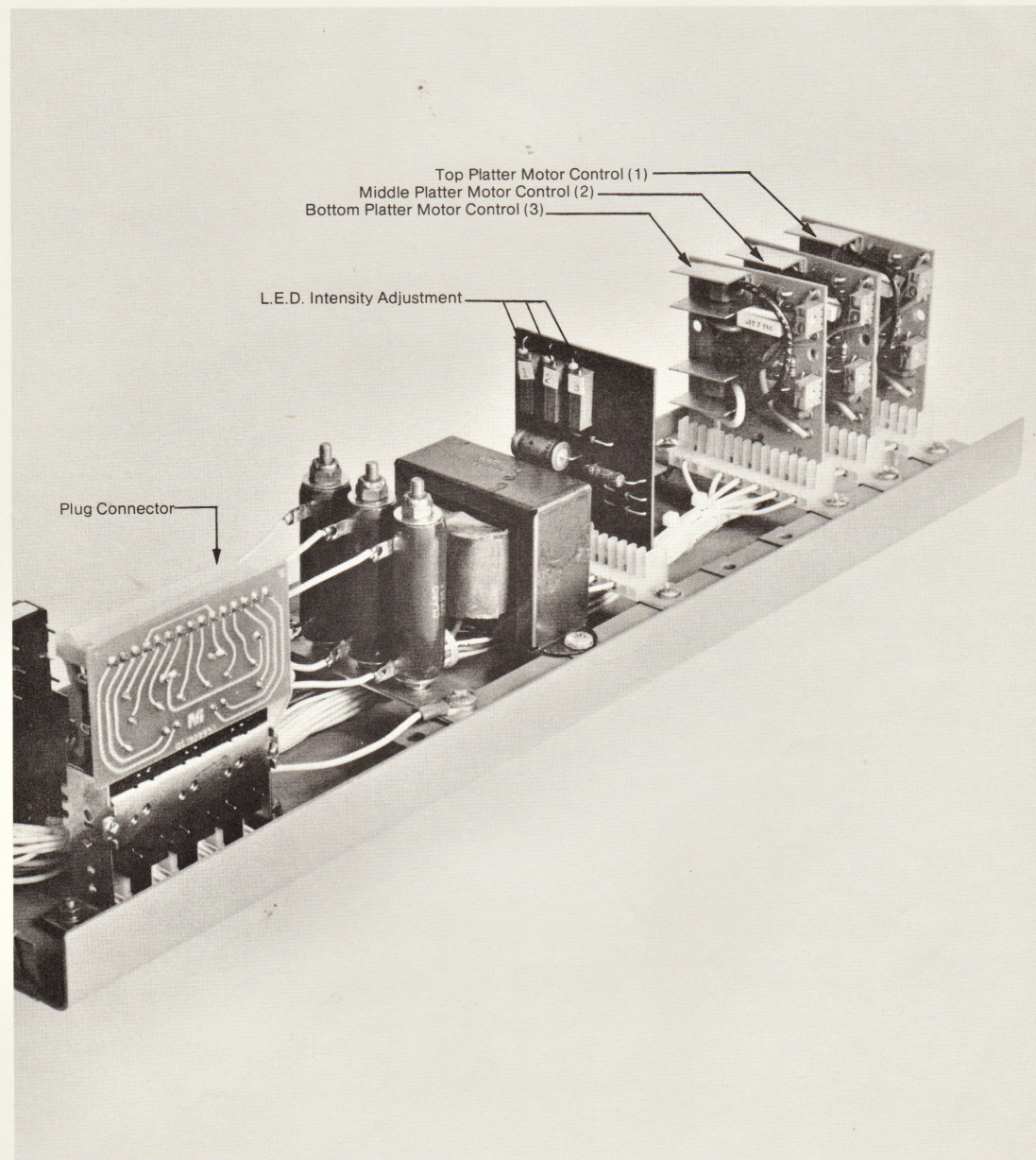


FIGURE 7



# MAKE-UP TABLE BOTTOM VIEW

Item	Part Number	Description
1	DM193060-1	Motor Assembly
2	5466650-002	Work Light
3	DM192945-2	Cable Assembly
4	515000-190	Drive Belt
5	DR192274-1	Pulley 10 1/4" Dia.
6	DR193055-1	Pulley 5/8" Dia.

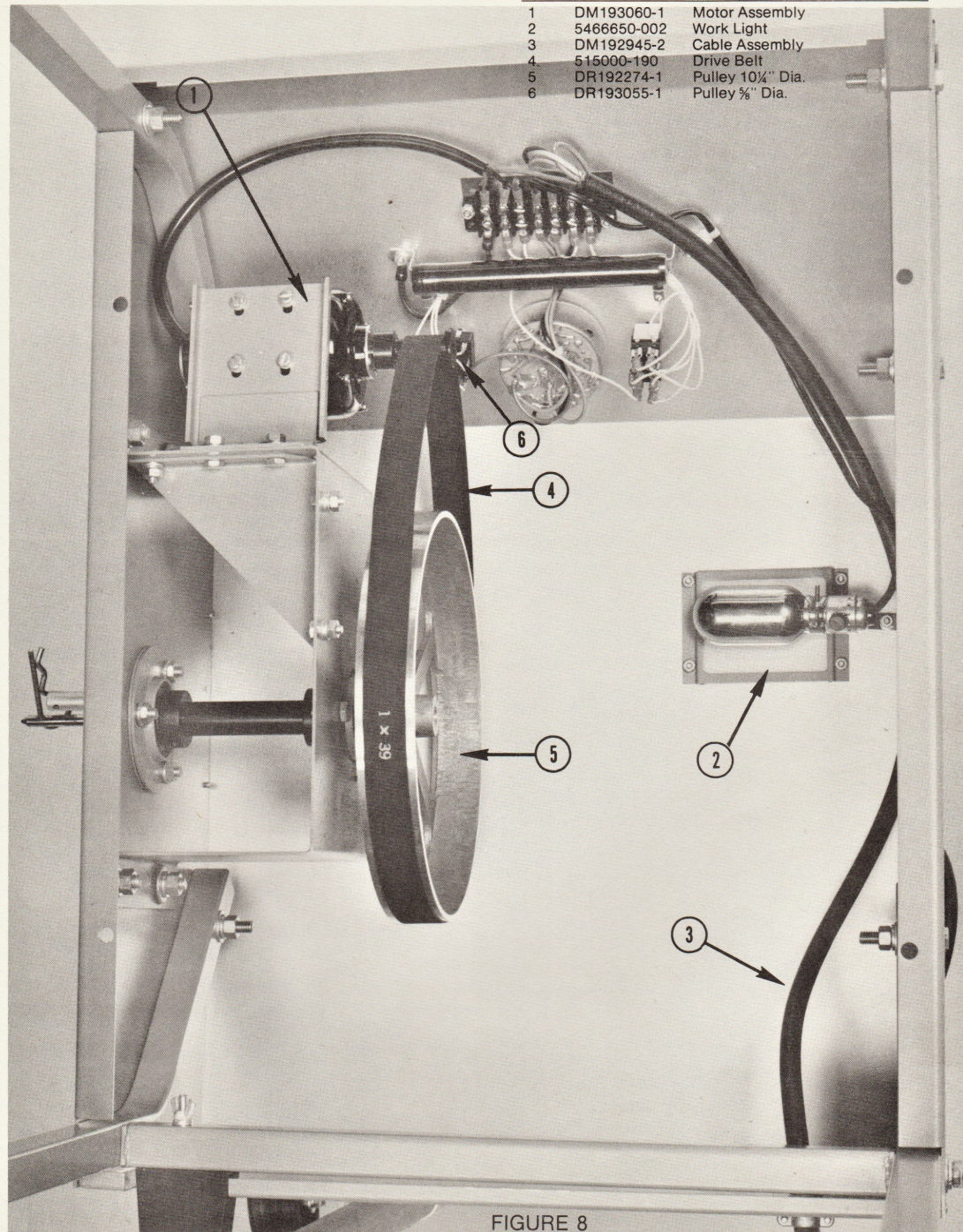
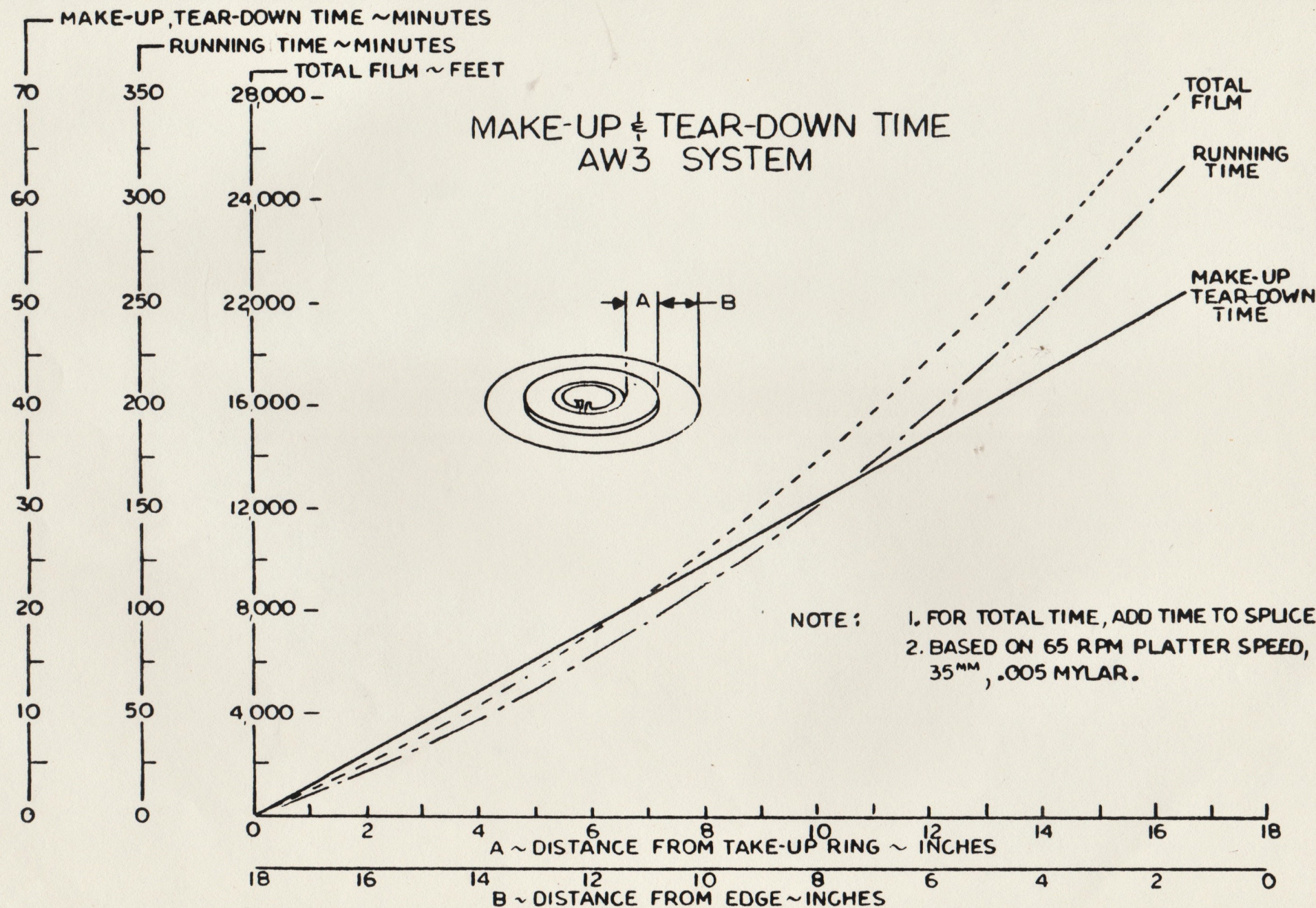


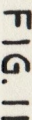
FIGURE 8



FIGURE 13

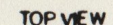






- DMI92942 F

1



IN LINE

QTY.	ITEM	PART NUMBER	DESCRIPTION	REMARKS
		MATERIAL	CHRISTIE ELECTRIC CORP. LOS ANGELES, CALIFORNIA 90043	DRAGON <i>pc</i> DATE <i>12-14-76</i> CHECKED <i>B. B.</i> APPROVED <i>R. Day</i> SHEET 1 OF 1
		FINISH	SPEED CONTROL MECHANISM	DM192942 F
		AW3		
		USEL OR		



CONTROL PANEL ASSEMBLY MAKE-UP TABLE

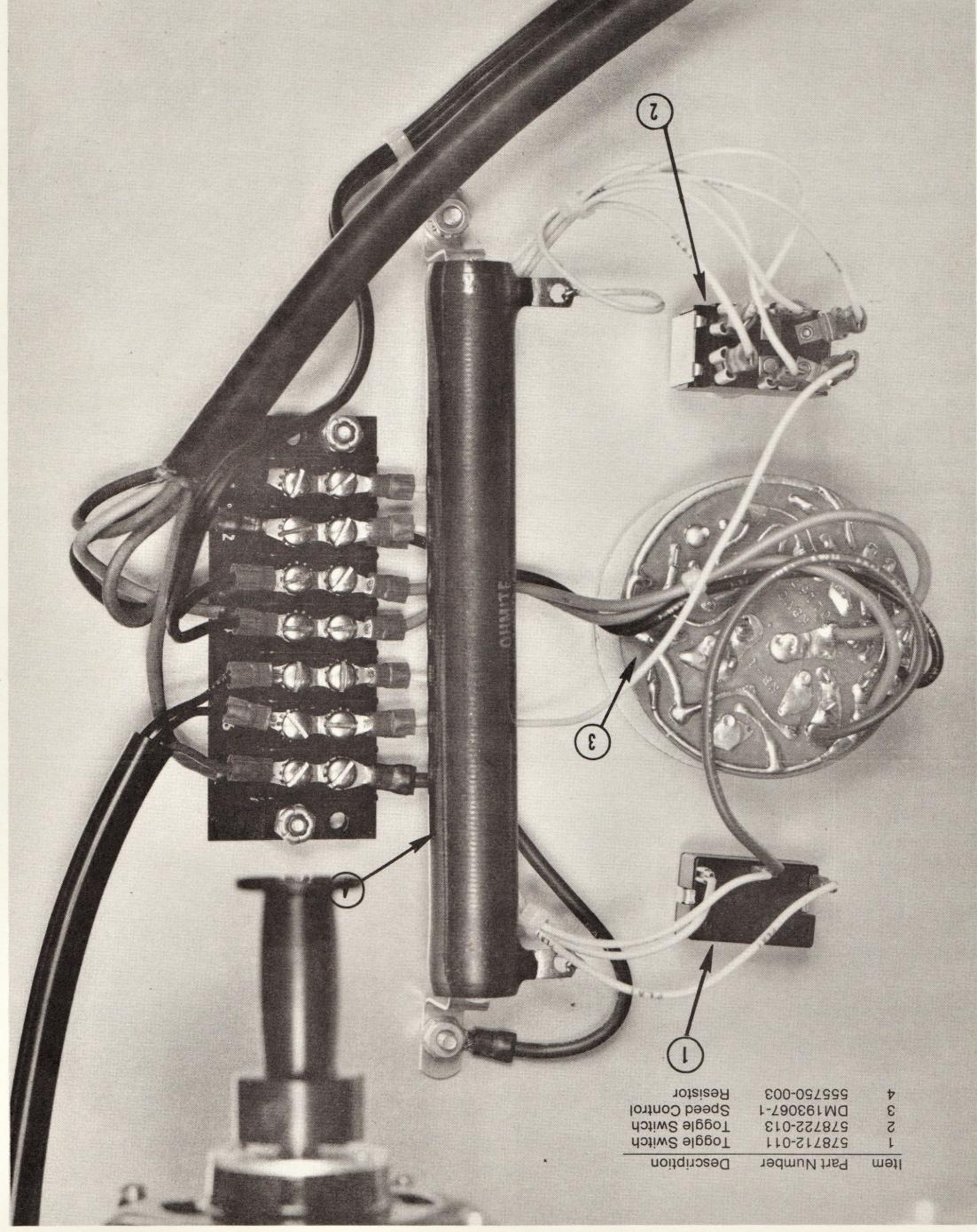




FIGURE 13

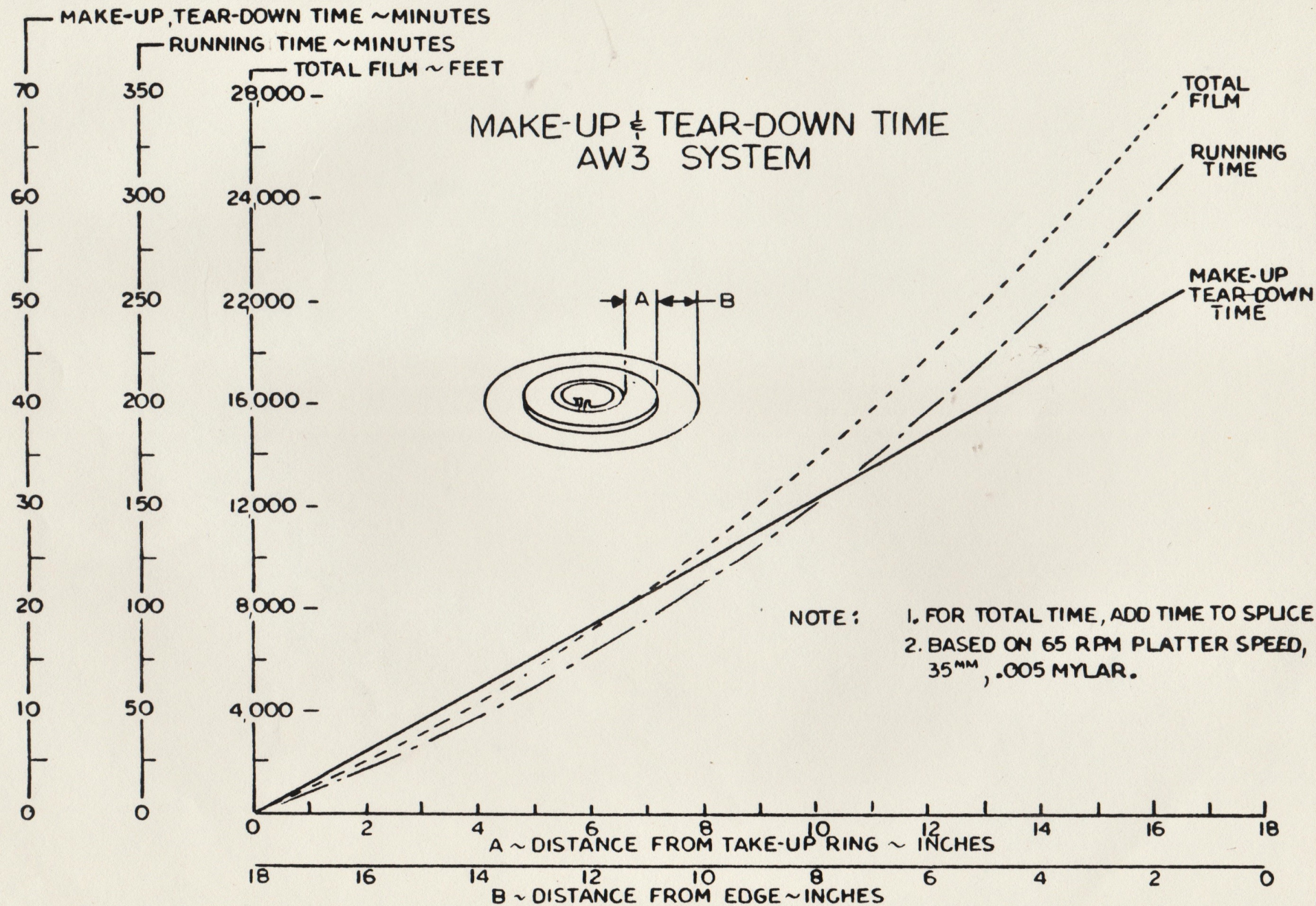
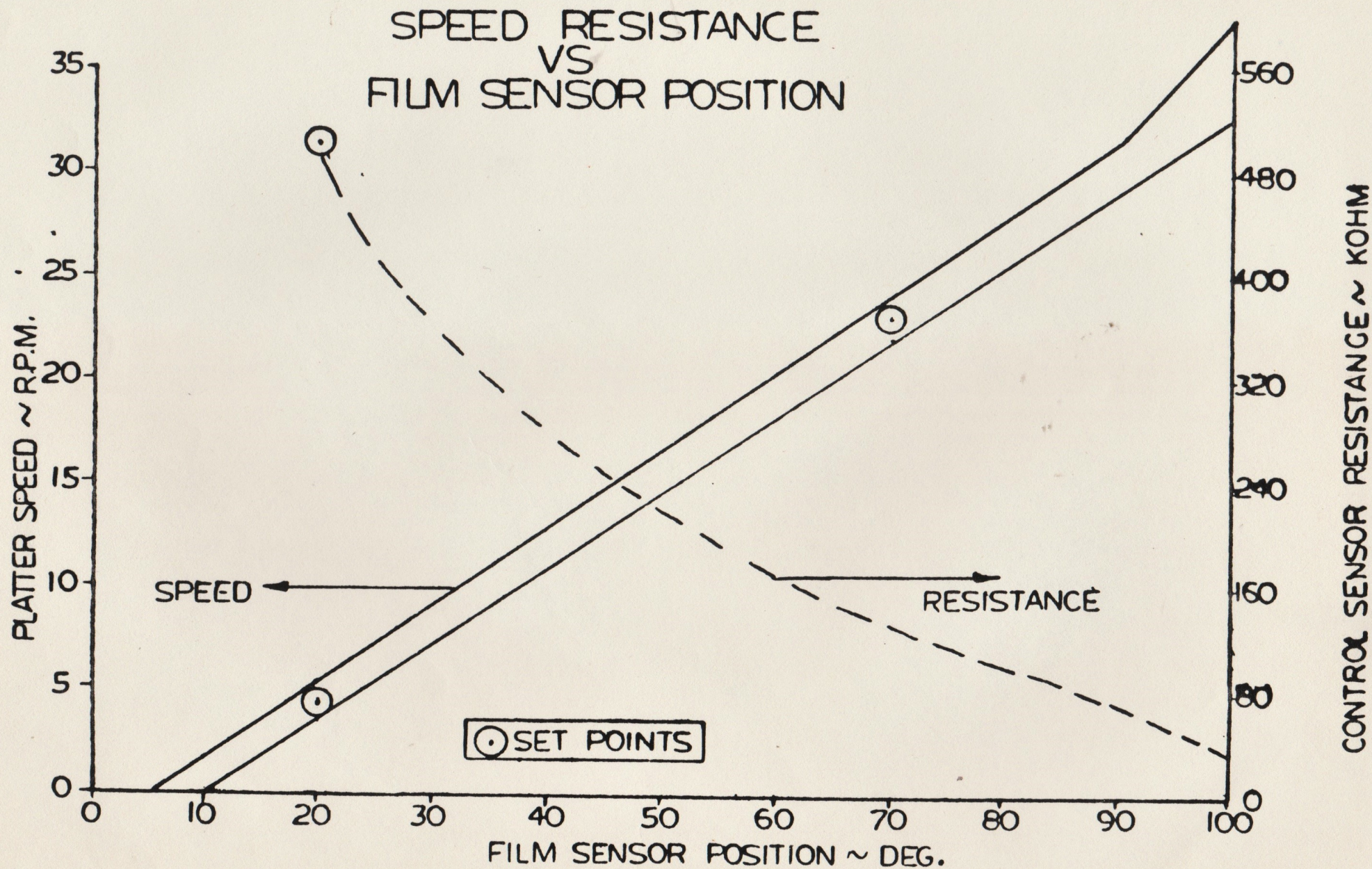
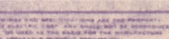




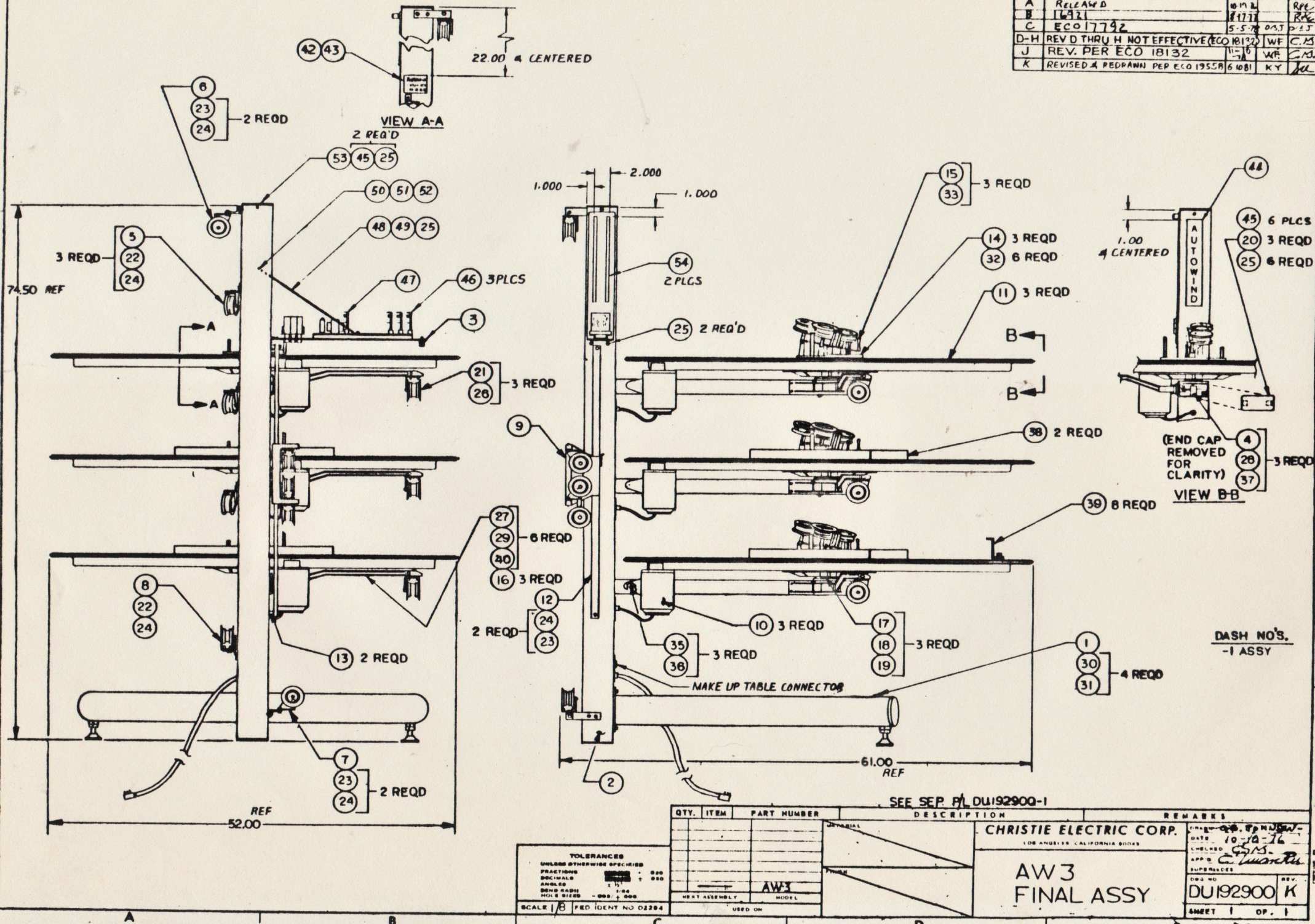
FIGURE 14





[illegible]





DASH NO'S.  
-1 ASSY

SEE SEP. P/L DU192900-1

**CHRISTIE ELECTRIC CORP.**  
LOS ANGELES, CALIFORNIA 90045

AW3  
FINAL ASSY

DATE 10-10-76	
CHURNED C.M.S.	
APP'D C. Turner	
SUPERVISOR	
DWG NO DU 192900	REV. K

**TOLERANCES**  
UNLESS OTHERWISE SPECIFIED

FRACTIONS		+	0.01
DECIMALS	0.001	+	0.01
ANGLES	1/2		
ROUND RADIUS			1/64
HOLE SIZES	-002 + 000		

SCALE 1/8

REQ. DENT NO. 0432

QTY.	ITEM	PART NUMBER	DESCRIPTION	REMARKS
			<p>SEE SEP. PL. DU192900-1</p> <p>CHRISTIE ELECTRIC CORP.</p> <p>LOS ANGELES, CALIFORNIA 90048</p> <p>AW3</p> <p>FINAL ASSY</p>	<p>DATE 10-10-76</p> <p>CHECKED GMS</p> <p>APP'D C. Turner</p> <p>SUPERSEDES</p> <p>DWG NO. DU192900</p> <p>REV. K</p>

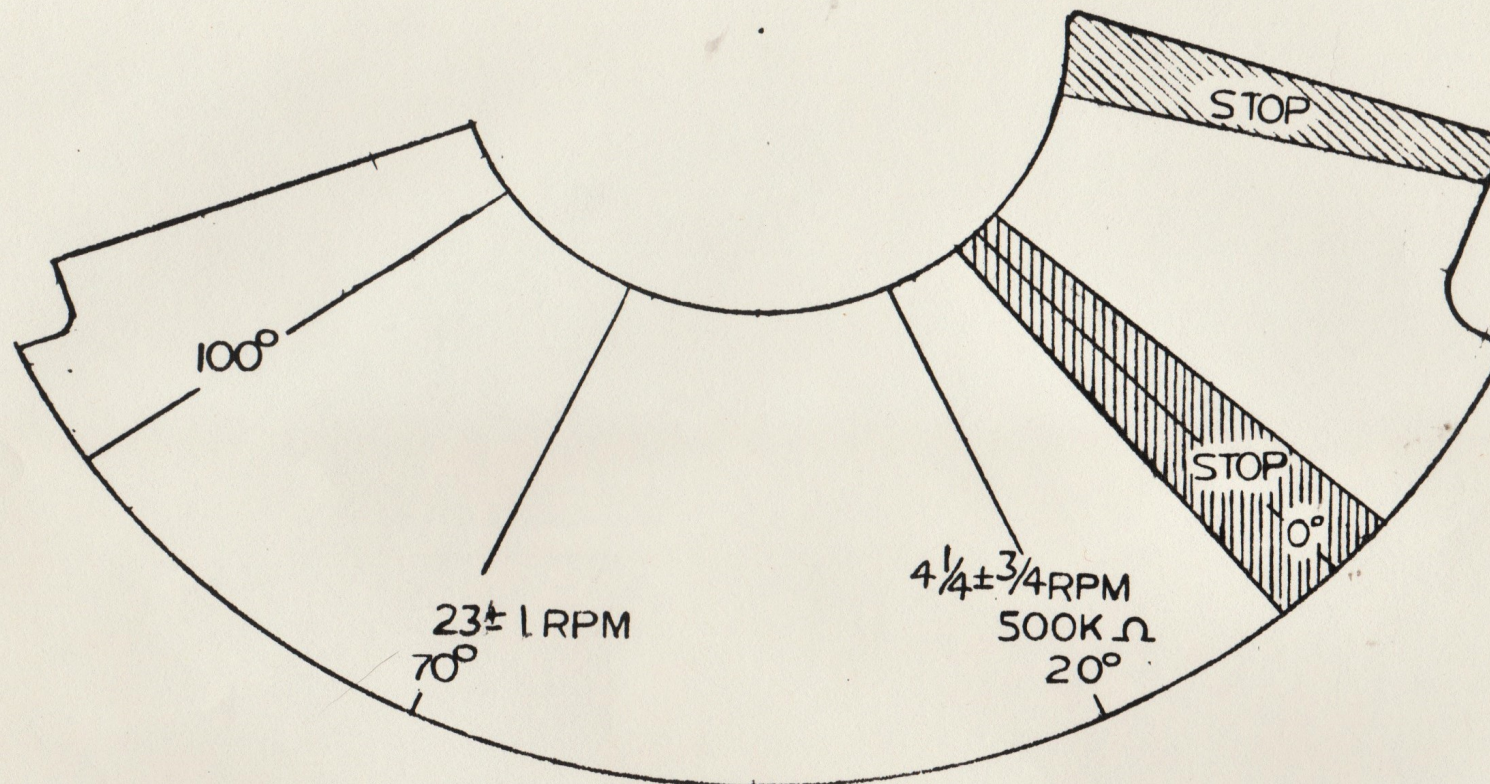


JTM	REVISION	DATE	DR.	APPD
A	RELEASED	4-19-77	RKA	RPE
B	ECO 16886	6-30-77	O.B.S.	RPE
C	ECO 16909	8-8-77	O.B.J.	RPE
D	ECO 16939	9-12-77	RPE	RPE
E	ECO 17444	11-19-77	RPE	RPE

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DMI93021

REV.  
E



TOLERANCES  
DECIMALS & ANGLES - AS SPECIFIED

FRACTIONS  $\pm$  030  
DECIMALS  $\pm$  030  
HOLE SIZES .003 + .005

MAT'L SPEC.

CHRISTIE ELECTRIC CORP.

LOS ANGELES, CALIFORNIA 90043

ADDITIVE FINISH

SPEED SETTING  
TEMPLATE

DRAWN

DATE 4-19-77

CHECKED RPE

APP'D. RKA

SUPERSEDES

DWG. NO.

DMI93021

REV.

E

SHEET 1 OF 1

NEXT ASSEMBLY

MODEL

USED ON

SCALE 1/1

FED IDENT NO 02294

AW335370

FIG 17



SYM

A

REVISION

DATE

5-2-78

DR.

APPD

O.B.

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OR COPIED OR USED AS THE BASIS FOR THE MANUFACTURE  
OR SALE OF APPARATUS WITHOUT PERMISSION

DMI93122

REV.

A

SHAFT FLAT

90°

45

20

FIG 18

## TOLERANCES

DECIMALS &amp; ANGLES - AS SPECIFIED

FRACTIONS

± .030

DECIMALS

± .030

HOLE SIZES

.003 ± .005

MAT'L SPEC.

CHRISTIE ELECTRIC CORP.

LOS ANGELES, CALIFORNIA 90043

ADDITIVE FINISH

FILM POSITION  
SENSOR SETTING

DRAWN R.P. EDDY

DATE 8-9-77

CHECKED O.B. &amp;

APP'D. R. Eddy

SUPERSEDES SK 8977 &amp; 193080

DWG. NO.

DMI93122

REV.

A

SHEET

1

OF

1

NEXT ASSEMBLY

MODEL

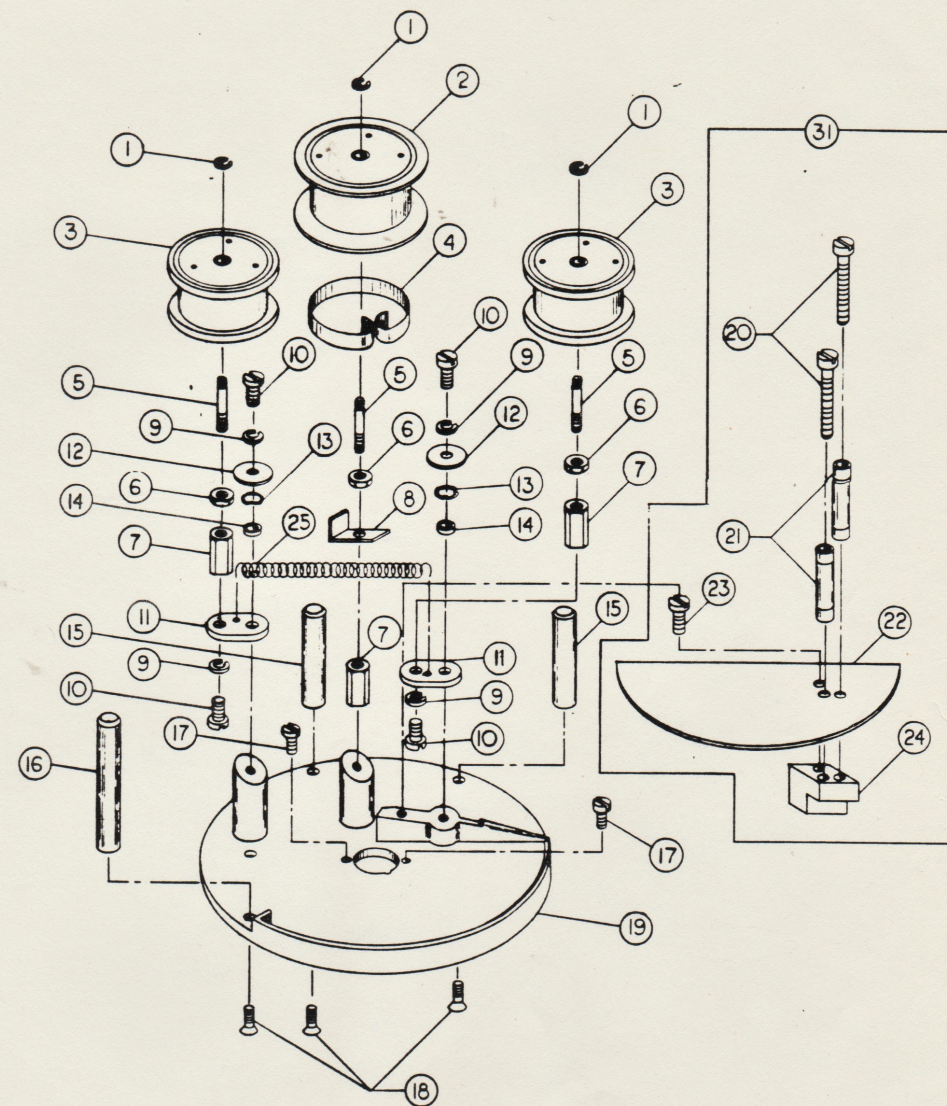
USED ON

SCALE

1/1

FED IDENT NO 02294





30 ASSEMBLY COMPLETE

FEED CONTROL ASSEMBLY



## CHRISTIE ELECTRIC CORP

SHEET 1 OF 2

## PARTS LIST

AW3, 35, 370

FEED CONTROL ASSEMBLY

DATE: 8/1/80REV.: A

ITEM #	DESCRIPTION	AW-3	QTY	AW-35	QTY	AW-370	QTY
1	"E" RING	515700-107	9	515700-107	15	515700-107	9
2	ROLLER 2-1/2 (Roller Assy)	192702-1	3	192702-1	5	192725-001	3
3	TENSION ROLLER (Assy)	192753-002	6	192753-002	10	192731-2	6
4	TENSION SPRING CENTER-FEED PLATE	193033-001	3	193033-001	5		
5	ROLLER SHAFT CENTER - FEED PLATE	192687-001	9	192687-001	15	192687-001	9
6	10-32 LOCKING NUT for Roller Shaft Center Feed Plate		9		15		9
7	POST	192688-016	9	192688-016	15	192688-016	9
8	STOP-SPRING TENSION	193034-002	3	193034-002	5	193034-002	3
9	LOCK WASHER #10		6		10		6
10	SCREW 10-32 X 1/2 Pan Head		6		10		6
11	LINK PIVOT	192526-002	6	192526-002	10	192526-002	6
12	LARGE PATTERN FLAT WASHER #10		6		10		6
13	WASHER WAVE SPRING	515819-601	6	515819-601	10	515819-601	6
14	BUSHING FOR LINK PIVOT	192923-1	6	192923-1	10	192923-1	6
15	GUIDE POST	115221-1	6	115221-1	10	115221-1	6
16	GUIDE POST	192530-1	3	192530-1	5	192530-1	3
17	PLATE TO AXLE MOUNTING SCREW 6-32 X 1/2		6		10		6



## CHRISTIE ELECTRIC CORP

SHEET 2 OF 3

## PARTS LIST

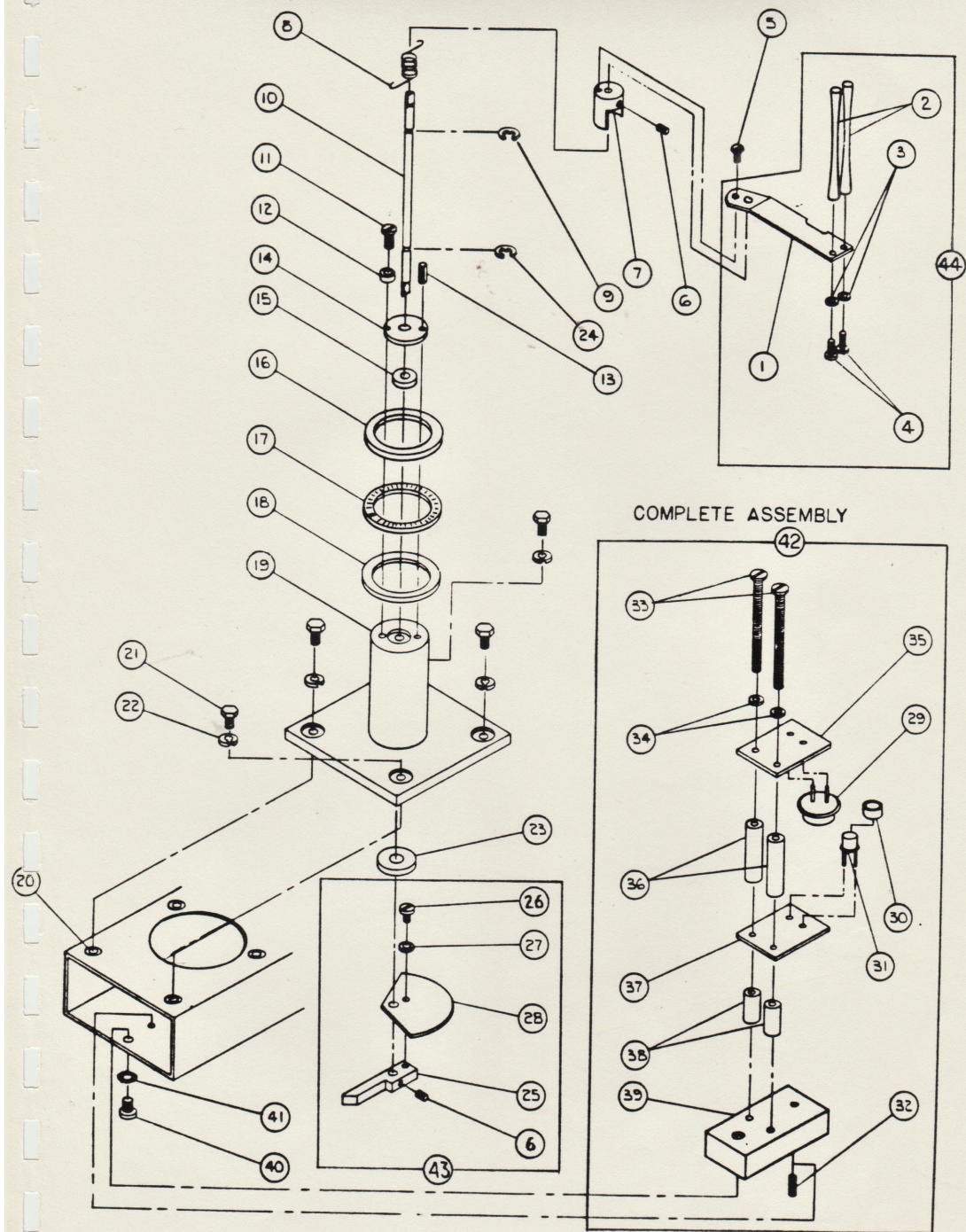
AW3, 35, 370

PLATTER AXLE ASSEMBLY

DATE: 8/1/80REV.: A

ITEM #	DESCRIPTION	AW-3	QTY	AW-35	QTY	AW-370	QTY
18	THRUST RACE	515000-157	3	515000-157	5	515000-157	3
19	AXLE PLATTER MOUNTING	192904-001	3	192904-001	5	192904-001	3
20	1/4 - 20 NUT SERT	515200-047	12	515200-047	20	515200-047	12
21	1/4 - 20 x 5/8 HEX BOLT		12		20		12
22	1/4 LOCK WASHER		12		20		12
23	BUSHING (NYLON)	192615-003	3	192615-003	5	192615-003	3
24	"E" RING	515700-061	3	515700-061	5	515700-061	3
25	LEVER, MOUNTING	192795-002	3	192795-002	5	192795-002	3
26	4 - 40 x 3/8 PAN HEAD						
27	#4 LOCK WASHER						
28	FILTER, VARIABLE DENSITY	192801-002	3	192801-002	5	192801-002	3
29	PHOTOCELL BOARD ASSY.	192849-001	3	192849-001	5	192849-001	3
30	3/16 HEAT SHRINK TUBING	507717-181	3	507717-181	5	507717-181	3
31	LED	541140-014	3	541140-014	5	541140-014	3
32	ROLL PIN 1/8 DIA. x 3/16 Long	515380-034	3	515380-034	5	515380-034	3
33	SCREW 4 - 40 x 1 1/2						
34	WASHER LOCK #4						





PLATTER AXLE ASSEMBLY



## CHRISTIE ELECTRIC CORP.

SHEET 1 OF 3

## PARTS LIST

DATE: 8/1/80

REV.: A

AW3, 35, 370  
PLATTER AXLE ASSEMBLY

ITEM #	DESCRIPTION	AW-3	QTY	AW-35	QTY	AW-370	QTY
1	ARM	193508-1	3	193508-1	5	193508-1	3
2	GUIDE FINGER	192800-001	6	192800-001	10	193044-001	3
3	LOCK WASHER #4						
4	SCREW 4-40 x 3/8" Pan Head						
5	SCREW 6-32 x 1/4" Pan Head						
6	SCREW SOCKET SET #10-32 x 1/4" Half Dog Point	515500-077	3	515500-007	5	515500-077	3
7	CAM	192793-001	3	192793-001	5	192793-001	3
8	SPRING - Feed Finger	192445-001	3	192445-001	5	192445-001	3
9	"E" RING	515700-110	3	515700-110	5	515700-110	3
10	SHAFT - Feed Control	192822-001	3	192822-001	5	192822-001	3
11	SCREW 6-32 x 3/8" Long						
12	SPACER	515000-095	3	515000-095	5	515000-095	3
13	ROLL PIN 3/32 x 1/4 Long	515380-031	3	515380-031	5	515380-031	3
14	GUIDE - SPRING	192761-002	3	192761-002	5	192761-002	3
15	BEARING	515000-193	3	515000-193	5	515000-193	3
16	"THRUST" RACE 0.125 Thick	515000-159	3	515000-159	5	515000-159	3
17	THRUST BEARING 0.075 Thick	515000-158	3	515000-158	5	515000-158	3



## CHRISTIE ELECTRIC CORP

SHEET 2 OF 3

## PARTS LIST

AW3, 35, 370

PLATTER AXLE ASSEMBLY

DATE: 8/1/80REV.: A

ITEM #	DESCRIPTION	AW-3	QTY	AW-35	QTY	AW-370	QTY
18	THRUST RACE	515000-157	3	515000-157	5	515000-157	3
19	AXLE PLATTER MOUNTING	192904-001	3	192904-001	5	192904-001	3
20	1/4 - 20 NUT SERT	515200-047	12	515200-047	20	515200-047	12
21	1/4 - 20 x 5/8 HEX BOLT		12		20		12
22	1/4 LOCK WASHER		12		20		12
23	BUSHING (NYLON)	192615-003	3	192615-003	5	192615-003	3
24	"E" RING	515700-061	3	515700-061	5	515700-061	3
25	LEVER, MOUNTING	192795-002	3	192795-002	5	192795-002	3
26	4 - 40 x 3/8 PAN HEAD						
27	#4 LOCK WASHER						
28	FILTER, VARIABLE DENSITY	192801-002	3	192801-002	5	192801-002	3
29	PHOTOCELL BOARD ASSY.	192849-001	3	192849-001	5	192849-001	3
30	3/16 HEAT SHRINK TUBING	507717-181	3	507717-181	5	507717-181	3
31	LED	541140-014	3	541140-014	5	541140-014	3
32	ROLL PIN 1/8 DIA. x 3/16 Long	515380-034	3	515380-034	5	515380-034	3
33	SCREW 4 - 40 x 1 1/2						
34	WASHER LOCK #4						



CHRISTIE ELECTRIC CORP

SHEET 3 OF 3

## PARTS LIST

AW3, 35, 370

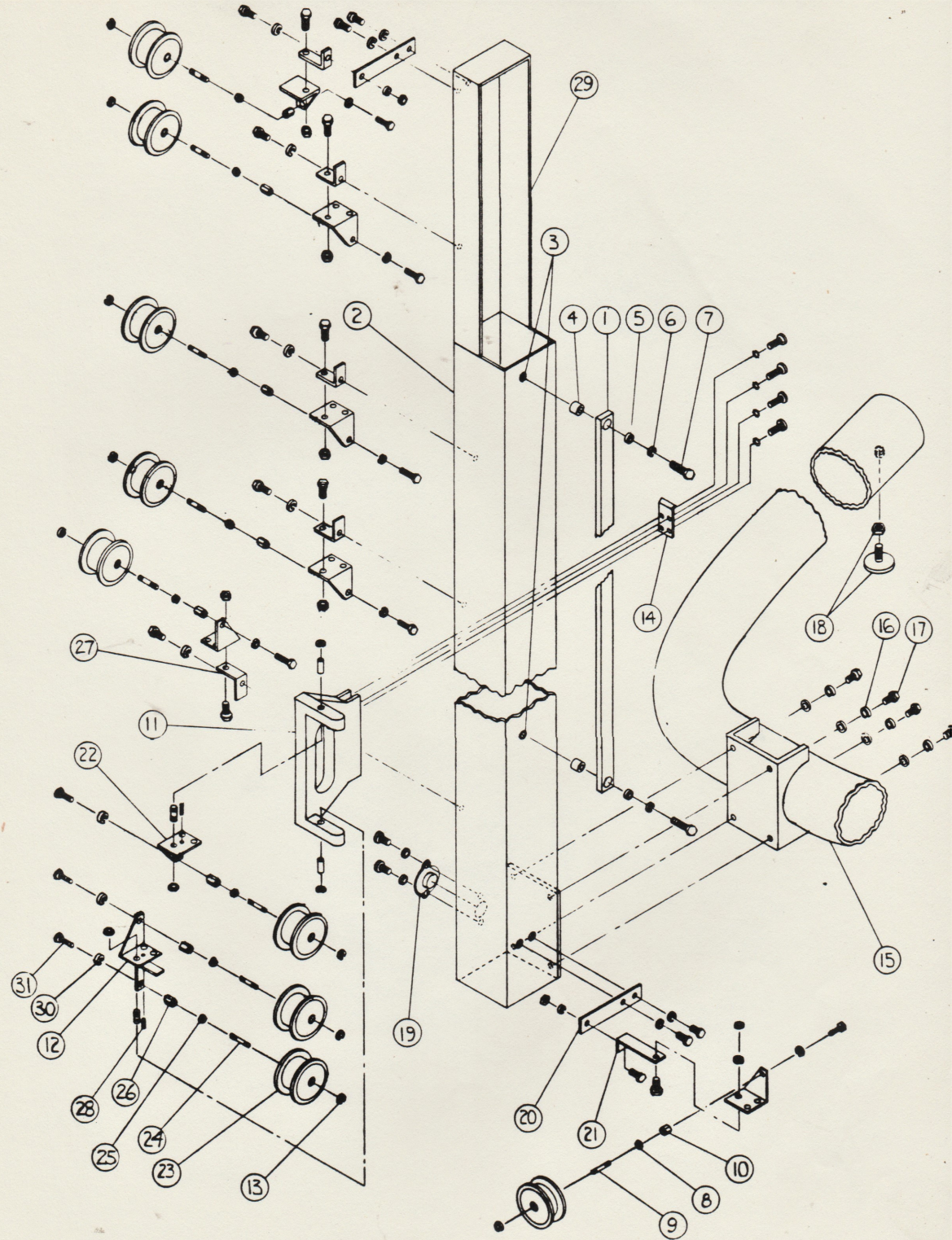
## PLATTER AXLE ASSEMBLY

DATE: 8/1/80

REV.: A

[illegible]





COLUMN AND ROLLER ASSY.



## CHRISTIE ELECTRIC CORP

SHEET <u>1</u> OF <u>2</u>		PARTS LIST					DATE: <u>8/1/80</u>
		AW3, 35, 370					REV.: <u>A</u>
		COLUMN AND ROLLER ASSEMBLY					
ITEM #	DESCRIPTION	AW-3	QTY	AW-35	QTY	AW-370	QTY
1	SLIDE BAR ASSEMBLY	192903-001	1	192982-3	2	193032-003	1
2	COLUMN ASSEMBLY	192871-001	1	192975-001	1	192871-001	1
3	NUTSERT 1/4-20	515000-177	6	515000-177	6	515000-177	6
4	SPACER	191414-002	2	192948-002	4	191414-002	2
5	FLAT WASHER 1/4						
6	LOCK WASHER 1/4						
7	HEX HEAD BOLT 1/4 X20						
8	HEX NUT 10-32						
9	SHAFT	192687-001	10	192687-001	13	192687-001	10
10	POST	192688-020	9	192688-020	12	192688-020	9
11	BRACKET - CLUSTER	192886-001	1	192886-001	2	193011-001	1
12	BRACKET - ROLLER SWIVEL	192815-001	1	182815-001	2	192998-002	1
13	"E" RING	515700-107	2	515700-107	4	515700-107	2
14	PLATE REST	192887-002	1	192887-002	2	192887-002	1
15	BASE	192846-003	1	192846-003	1	192846-003	1
16	LOCK WASHER 3/8		4		4		4
17	HEX HEAD BOLT 3/8-16 X 3/4" LG		4		4		4



## CHRISTIE ELECTRIC CORP

SHEET 2 OF 2

## PARTS LIST

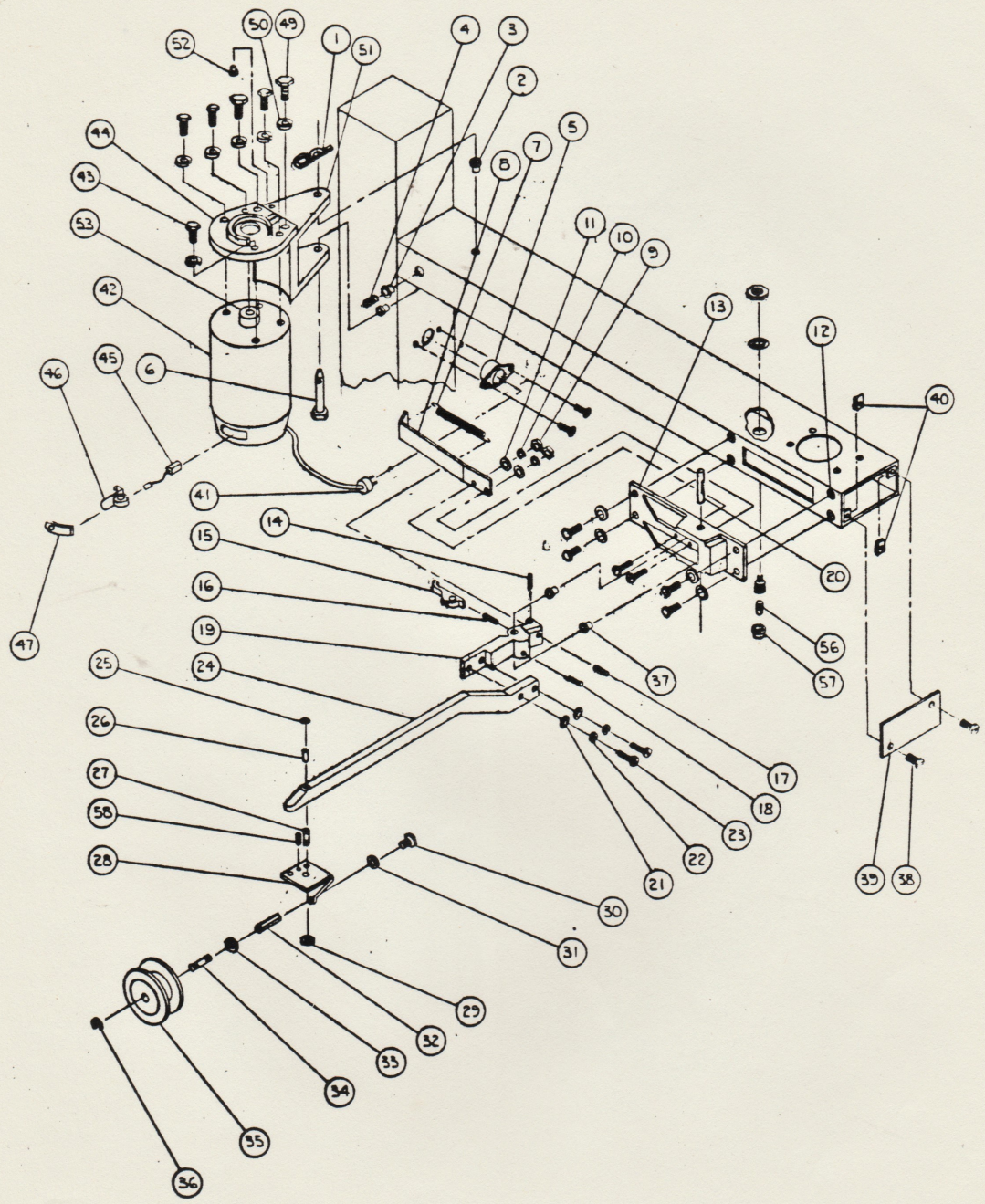
AW3, 35, 370

## COLUMN AND ROLLER ASSEMBLY

DATE: 8/1/80REV.: A

ITEM #	DESCRIPTION	AW-3	QTY	AW-35	QTY	AW-370	QTY
18	FOOT & LOCK NUT ASSEMBLY	520650-003	2	520650-003	2	520650-003	2
19	PLUG	524306-003	1	524306-003	1	524306-003	1
20	BRACKET	192875-002	2	192875-002	2	192875-002	2
21	BRACKET - TOP & BOTTOM ROLLER	192816-002	2	192816-002	2	192816-002	2
22	SWIVEL BRACKET	192814-001	3	192814-001	4	193001-002	3
23	ROLLER	192172-001		192172-001		192725-001	
24	SHAFT	192687-001	5	192687-001		192687-001	
25	LOCK NUT #10						
26	POST	192688-020		192688-020		192688-020	
27	BRACKET - MTG. ROLLER	192791-001		192791-001		192791-001	
28	ROLL PIN	515380-036	5	515380-036		515380-036	
29	BOX ASSEMBLY, HOUSING	192518-001	1	192973-002	1	192518-001	1
30	LOCK WASHER 1/4						
31	HEX HEAD BOLT 1/4-20 X 5/8"						





PLATTER ARM AND MOTOR ASSEMBLY



## CHRISTIE ELECTRIC CORP

SHEET 1 OF 4

## PARTS LIST

AW3, 35, 370

PLATTER ARM AND MOTOR ASSEMBLY

DATE: 8/1/80

REV.: A

ITEM #	DESCRIPTION	AW-3	QTY	AW-35	QTY	AW-370	QTY
1	COTTER PIN 2 11/16	515000-117	3	515000-117	5	515000-117	3
2	FLANGE BEARING	515000-174	6	515000-174	10	515000-174	6
3	HOUSING SPRING	192477-1	3	192477-1	5	192477-1	3
4	SPRING	515610-025	3	515610-025	5	515610-025	3
5	RECEPTACLE - FEMALE	524303-011	3	524303-011	5	524303-011	3
6	BOLT	115419-1	3	115419-1	5	115419-1	3
7	SPRING - EXTENSION	515610-027	3	515610-027	5	515610-027	3
8	MOUNTING - SPRING	192967-001	3	192967-001	5	192967-001	3
9	HARDWARE - 10-32 HEX NUT		6		10		6
10	LOCK WASHER - #10		6		10		6
11	FLAT WASHER - #10		6		10		6
12	NUTSERT 1/4 - 20	515000-177	12	515000-177	20	515000-177	12
13	MECHANISM HOUSING - Arm	192831-002	3	192831-002	5	192831-002	3
14	ROLL PIN	515380-033	3	515380-033	5	515380-033	3
15	CLAMP - LEVER	193081-001	3	193081-001	5	193081-001	3
16	SPRING - COMPRESSION	515610-028	3	515610-028	5	515610-028	3
17	SET SCREW - 6-32 X 3/8"		3		5		3



## CHRISTIE ELECTRIC CORP

SHEET 2 OF 4

## PARTS LIST

AW3, 35, 370

PLATTER ARM AND MOTOR ASSEMBLY

DATE: 8/1/80REV.: A

ITEM #	DESCRIPTION	AW-3	QTY	AW-35	QTY	AW-370	QTY
18	SET SCREW - 10-32 X 1/2		3		5		3
19	CAM	192820-001	3	192820-001	5	192820-001	3
20	SHAFT - RETURN ARM	192873-002	3	192873-002	5	192873-002	3
21	WASHER FLAT #10		6		10		6
22	WASHER LOCK #10		6		10		6
23	SCREW - PAN HEAD #10-32 x 1/2 1g.		6		10		6
24	RETURN ARM ASSEMBLY	192835-1	3	192835-1	5	192835-1	3
25	"E" RING	515700-061	3	515700-061	5	515700-061	3
26	BUSHING	515000-173	3	515000-173	5	515000-173	3
27	AXLE SHAFT ASSY.	192691-010	3	192691-010	5	192691-010	3
28	BRACKET - SWIVEL	192814-001	3	192814-001	5	193001-002	3
29	HEX NUT 8-32		3		5		3
30	HEX SCREW #10-32		3		5		3
31	FLAT WASHER #10		3		5		3
32	POST	192688-020	3	192688-020	5	192688-020	3
33	HEX NUT #10-32		3		5		3
34	SHAFT	192687-1	3	192687-1	5	192687-1	3



## CHRISTIE ELECTRIC CORP

SHEET 3 OF 4

## PARTS LIST

AW3, 35, 370

PLATTER ARM AND MOTOR ASSEMBLY

DATE: 8/1/80REV.: A

ITEM #	DESCRIPTION	AW-3	QTY	AW-35	QTY	AW-370	QTY
35	ROLLER	192172-001	3	192172-001	5	192725-001	3
36	"E" RING	515700-107	3	515700-107	5	515700-107	3
37							
38	SCREW #8 Sheet metal screw		12		20		12
39	END CAP	192807-002	3	192807-002	5	192807-002	3
40	CLIPS SPEED NUT	515700-112	6	515700-112	10	515700-112	6
41	PLUG 3 PRONG	524203-022	3	524203-022	5	524203-022	3
42	MOTOR- 90 V 1.1 Amp HP 1/10	528100-006	3	528100-006	5	528100-006	3
43	BOLTS 1/4-20 x 1/2 & LOCK WASHERS		12		20		12
44	SUPPORT - MOTOR	192839-002	3	192839-002	5	192839-002	3
45	MOTOR BRUSH	599000-089	6	599000-089	10	599000-089	6
46	MOTOR BRUSH SPRING	599000-091	6	599000-091	10	599000-091	6
47	CAP	598700-059	6	598700-059	10	598700-059	6
48							
49	BOLT 1/4 -20 x 1/2"		6		10		6
50	WASHER 1/4		6		10		6
51	BRACKET - PIVOT	192844-002	3	192844-002	5	192844-002	3



## CHRISTIE ELECTRIC CORP

SHEET 4 OF 4

## PARTS LIST

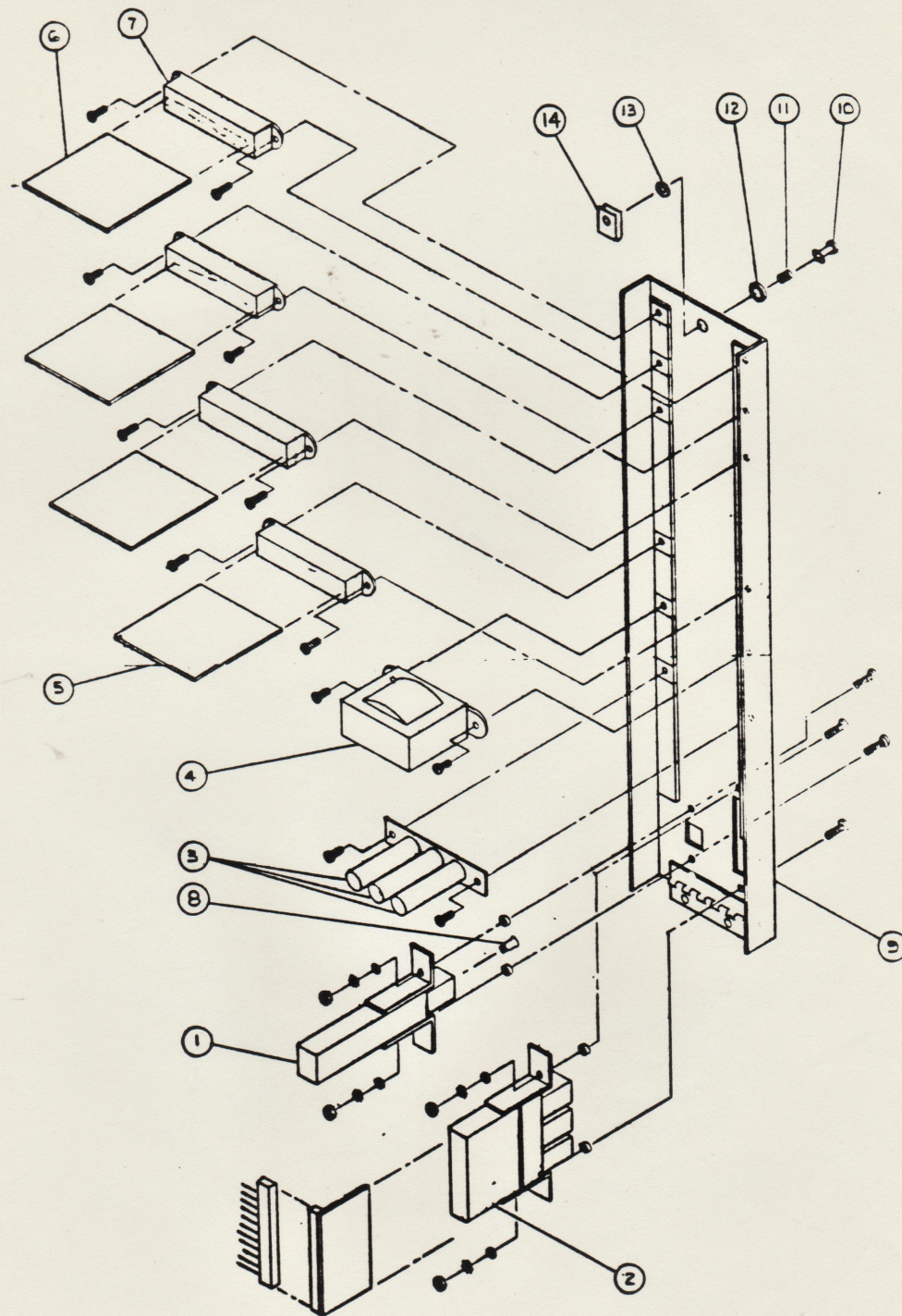
AW3, 35, 370

PLATTER ARM AND MOTOR ASSEMBLY

DATE: 8/1/80REV.: A

ITEM #	DESCRIPTION	AW-3	QTY	AW-35	QTY	AW-370	QTY
52	RUBBER BUMPER	515800-008	3	515800-008	5	515800-008	3
53	DRIVE WHEEL	192826-1	3	192826-1	5	192826-1	3
54							
55							
56	BULB 36 V	546536-001	2	546536-001	4	546536-001	2
57	INDICATOR - White	546700-037	2	546700-037	4	546700-037	2
58	ROLL PIN	515380-025	3	515380-025	5	515380-025	3
59							
60							
61							
62							
63							
64							
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68							





DOOR PANEL AND CONTROL MODULES



## CHRISTIE ELECTRIC CORP

SHEET 1 OF 1

## PARTS LIST

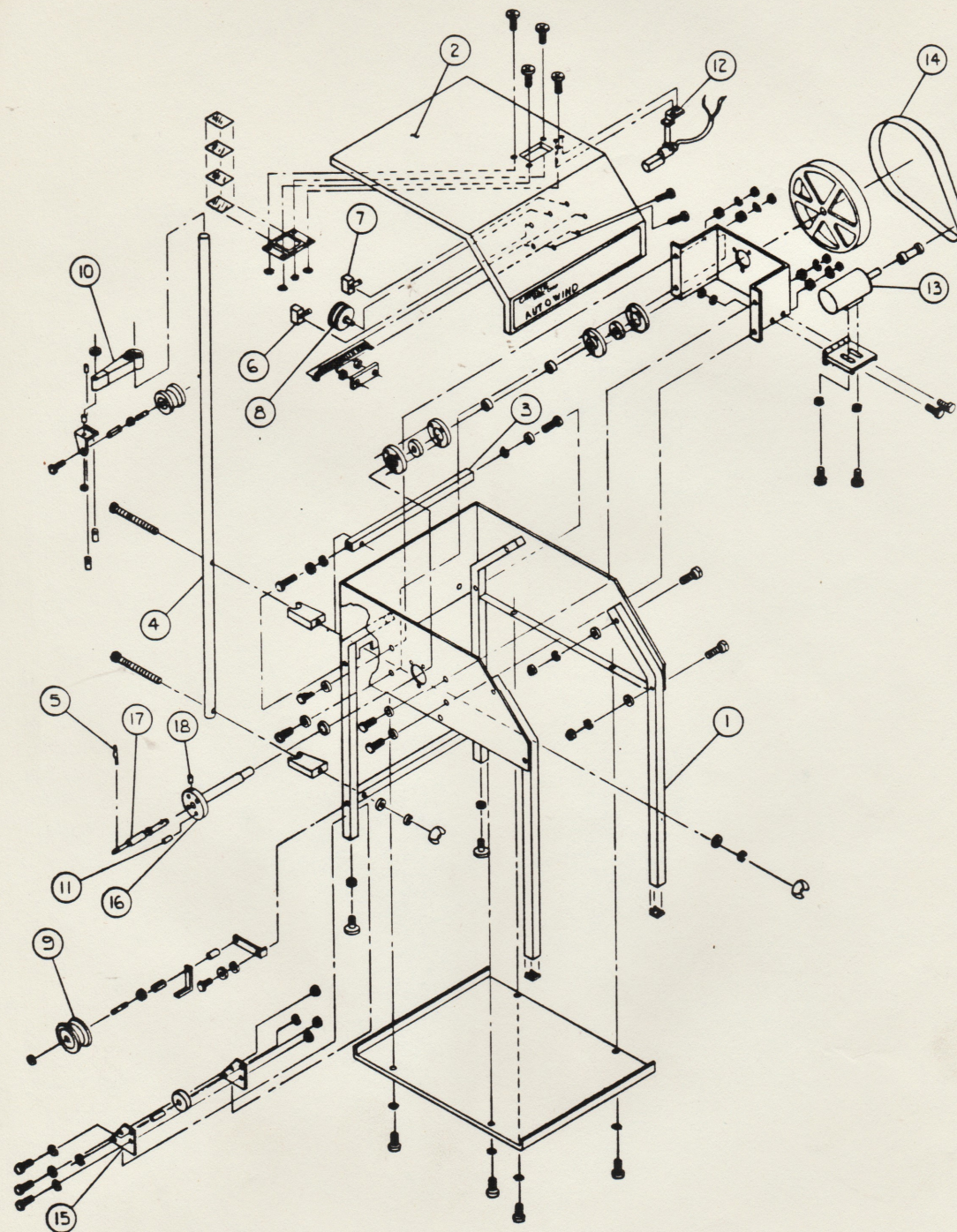
AW3, 35, 370

DATE: 8/1/80REV.: A

## DOOR PANEL AND CONTROL MODULES

ITEM #	DESCRIPTION	AW-3	QTY	AW-35	QTY	AW-370	QTY
1	OFF/ON SWITCH	578000-042	1	578000-042	1	578000-042	1
2	SWITCH ASSEMBLY SELECTOR FOR MAKE-UP BRAKE DOWN MODE	192993-001	1	192994-1	1	192993-001	1
3	RESISTOR 25K 3 OHM	555030-903	3	555030-903	5	555030-903	3
4	STEP DOWN TRANSFORMER	587700-007	1	587700-007	2	587700-007	1
5	LED POWER CONTROL CARD	117509-001	1	117509-003	1	117509-001	1
6	MOTOR CONTROL CARD	192883-001	3	192883-001	5	192883-001	3
7	SOCKET 15 PIN 90°	524715-005	4	524715-005	6	524715-005	4
8	OFF/ON INDICATOR LIGHT BULB	546530-001	1	546530-001	1	546530-001	1
9	PANEL DOOR MODULE	193091-001	1	193091-002	1	193091-002	1
10	QUARTER TURN	515700-055	1	515700-055	1	515700-055	1
11	SPRING	515610-004	1	515610-004	1	515610-004	1
12	NYLON WASHER	515813-502	1	515813-502	1	515813-502	1
13	RETAINER - SPLIT RING	515700-052	1	515700-052	1	515700-052	1
14	CLIP - 1/4 TURN	515700-114	1	515700-114	1	515700-114	1





MK MAKE-UP TABLE



## CHRISTIE ELECTRIC CORP

SHEET 1 OF 2

## PARTS LIST

AW3, 35, 370  
MK MAKE-UP TABLEDATE: 8/1/80REV.: A

ITEM #	DESCRIPTION	AW-3	QTY	AW-35	QTY	AW-370	QTY
1	TABLE LEG ASSEMBLY	192154-4	1	192154-4	1	192154-4	1
2	TABLE TOP ASSEMBLY	192865-1	1	192865-1	1	192865-1	1
3	HORIZONTAL BAR ASSEMBLY	192155-3	1	192155-3	1	192155-3	1
4	ROLLER POST	192158-1	1	192158-2	1	192158-1	1
5	CLIP	515000-117	1	515000-117	1	515000-117	1
6	TOGGLE SWITCH - SPINDLE/PLATTER	578712-014	1	578712-014	1	578712-014	1
7	TOGGLE SWITCH - BRAKE SWITCH	578722-013	1	578722-013	1	578722-013	1
8	SPEED CONTROL	193067-1	1	193067-1	1	193067-1	1
9	GUIDE ROLLER ASSEMBLY	193073-1	1	193073-1	1	193127-1	1
10	SWIVEL ROLLER ASSEMBLY	192864-1	1	192864-1	1	193010-1	1
11	DRIVE PIN	192160-1	1	192160-1	1	192160-1	1
12	LIGHT	546650-002	1	546650-002	1	546650-002	1
13	MOTOR ASSEMBLY	193060-1	1	193060-1	1	193060-1	1
14	BELT - DRIVE	515000-190	1	515000-190	1	515000-190	1
15	WHEEL ASSEMBLY	192674-1	2	192674-1	2	192674-1	2
16	REEL SHAFT HOUSING	192254-2	1	192254-2	1	192254-2	1
17	REV. SHAFT	192159-1	1	192159-1	1	192371-2	1



CHRISTIE ELECTRIC CORP

SHEET 2 OF 2

## PARTS LIST

AW3, AW35, AW370  
MK MAKE-UP TABLE

DATE: 8/1/80

REV: A

[illegible]



# CHRISTIE

ELECTRIC CORP.

3410 WEST 67TH ST. • BOX 60020, LOS ANGELES, CALIF. 90060 • PHONE (213) 750-1151

## WARRANTY

## COVERING

## XENOLITE THEATRE PRODUCTS

Manufactured by: CHRISTIE ELECTRIC CORP.  
(herein referred to as "Christie")

Christie warrants the apparatus sold to the extent of the parts necessary to correct any defect in workmanship or materials which may develop under proper or normal use for a period of one (1) full year (90 days on electric motors) from date of installation (except as noted below) but not to exceed eighteen (18) months from date of shipment from Christie Electric Corp. Christie reserves the right to have the apparatus returned, freight prepaid, to the Christie factory to effect the warranty repairs.

Replacement parts for warranty repairs will be shipped promptly by Christie f.o.b. factory, and invoiced to the customer. Credit will be issued upon return of the defective part or parts, prepaid, to the Christie factory.

The above shall constitute a fulfillment of all Christie liabilities in respect to said apparatus.

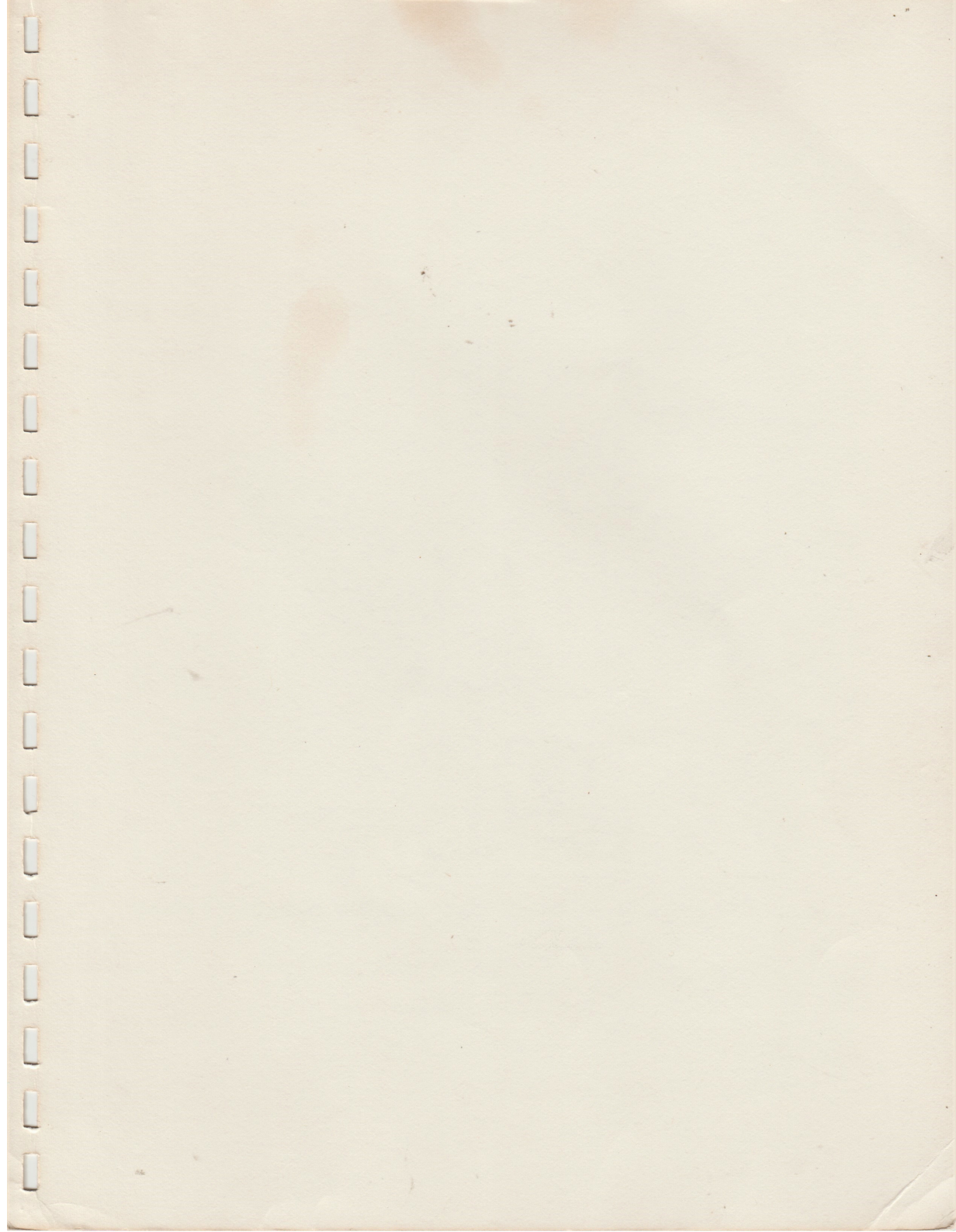
This warranty does not cover the following items:

Special customer specified purchased parts or materials; also, xenon, mercury and other types of lamps (bulbs).

Christie shall not be liable for any consequential damages except:

Christie will replace standard Christie glass reflectors under warranty in XENOLITE lamphouse damaged by failure of a Christie xenon bulb during its warranted life and if properly operated, under the following terms and conditions: If the original reflector installed is less than one year old, full credit will be issued. If the original reflector is more than one year, but less than two years old, one half credit will be issued. If the original reflector is more than two years, but less than three years old, one quarter credit will be issued. After three years from date of original installation, no credit will be issued. (Mirror castings must be returned to Christie to receive credit.)









20665 Manhattan Place, Torrance, California 90501 Tel: (213) 320-0808 TWX 910-349-6260