MLT1540-1 31 October 1970

OPERATING MANUAL

FOR

MLT1540 SPLIT FORMAT IMAGE INTERPRETATION LIGHT TABLE

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1. GENERAL INFORMATION

1.1 Scope

1.1.1 This manual contains operating instructions for the Split Format Image Interpretation Light Table Model MLT1540 (figure I). The light table is manufactured by

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1.2 Purpose of Equipment

- 1.2.1 The light table is a four transport film handling and viewing system which can accommodate multiple reels of photographic reconnaissance film as well as film chips or cut film. The viewing surface consists of two separate illuminated areas adjacent to each other with a combined size of approximately 15 by 40 inches.
- 1. 2. 2 The table includes a simple film looping mechanism which allows forming a loop of film below the table in order that separated frames, on the same roll of film, may be arranged adjacent to each other for convenient stereo viewing. This mechanism is capable of forming a continuous film loop from 0 to 76 inches.
- 1.2.3 A mount capable of being translated in both the X and Y directions is incorporated to support a microstereoscope at the correct height above the light table surface. This mount interfaces directly with the microstereoscope and incorporates both coarse and fine focus controls.
- 1.2.4 Condensed technical data concerning the light table is listed in table 1.

1.3 Physical Description

- 1.3.1 The light table consists of a split format viewing surface, an elevating table, film spool transports, a microstereoscope carriage and mount, and a protective cover as described in the following paragraphs.
- 1.3.2 Viewing Surface. Two separate glass formats 15 x 20 inches in size and constructed of 3/8 in. thick polished plate glass are uniformly illuminated by easily replaceable fluorescent-type lamps and a suitable diffuser. A 1-1/4 in. space between the two formats accommodate two film rollers. These rollers are used for forming a takeup loop on a single film or for threading two films set up for split field comparison.

The illumination intensity is continuously variable and a switch is provided permitting unused lamps to be turned out reducing overall glare and resulting in a cooler viewing surface.

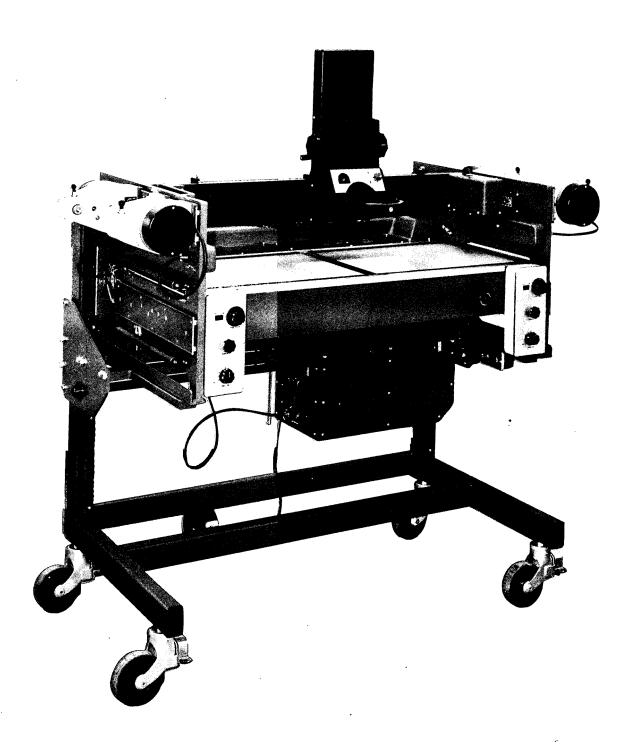


Figure I. Split Format Image Interpretation Light Table MLT1540

Table 1. Condensed Technical Data

Overall dimensions (LxDxH) (including film supports)	$62 \times 31 \times 43$ inches
Viewing surface dimensions	Two 15 x 20 in. segments separated by a $1-1/4$ in. center space
Film sizes accepted	
Viewing Single Rolls	70 mm, 5 in., 6.6 in., and 9.5 in.
Parallel viewing of two of the same width or any combination of two different widths	70 mm, 5 in., 6.6 in.
In-line viewing of two of the same width	70 mm, 5 in., 6.6 in., and 9.5 in.
No. of film support stations	4
Motorized film transport speeds	Bidirectional with center zero
High speed range	0.1 to 100 inch per second
Low speed range	0.1 to 1 inch per second
Microstereoscope systems accepted	
1. Zoom 70 Stereos	scope with or without 2X wide-span
Zoom 240 Stered relays (i. e. 0.43X, 1.0X, and 2	oscope System (Model 28) with all . 0X)
Zoom 240 Stered Rhomboid, Model II	oscope with the Advanced Stereo
4. Versatile Stereo	scope with all relays (i.e. 0.43X,
5. Dual Power Mea	suring Microscope.
Electrical power	<pre>117 ± 15 vac, 60 Hz, single phase 25 amperes</pre>

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The capability of synchronous tilting of the illuminated areas and the microscope mount and carriage by means of a motorized drive is provided as an optional feature. Tilting can be continuously controlled throughout the range of 0 to 15 degrees.

A hinged cover is provided to enclose the underside of the film loop takeup area and translation of the film is accomplished with this cover closed. The inside surface of the cover is painted to prevent the scratching of the film while being translated with the cover closed.

1.3.3 Elevating Table. The light table and microstereoscope mount are mounted on an elevating table. This table is conveniently adjustable by means of a manual drive throughout a range of height, measured from the floor to the bottom of the light table proper, of 22 to 40 inches. The table is stable with no danger of tipping at all heights. The elevating mechanism provides firm positioning and locking of the light table proper throughout the elevation range. Manual operation of the elevating mechanism requires no more than 12 pounds force on the actuating handle of a crank.

In addition, the capability of elevating the table by means of a motor driven mechanism is provided as an optional feature. This motor driven system incorporates an emergency auxiliary hand crank that will smoothly and easily raise and lower the table, and provide firm positioning and locking of the light table proper throughout the elevation range. The purpose of this hand crank is to provide elevation and lowering of the table in the event of a power failure.

For both the manual and motorized elevation systems positive stops are provided to prohibit travel above or below the specified range of height for the elevating table of 22 inches to 40 inches. The table is equipped with resilient-tired wheels, with nominal dimensions of 5 in. diameter by 1-5/8 in. width, each of which has its own easily applied foot actuated, locking-type brake to prevent both the caster from swivelling and the wheel from rotating.

The light table and the translating microstereoscope mount are designed to offer the microstereoscopes in a comfortable viewing position with the operator standing or seated.

1.3.4 Film Transport. Four film support stations are provided to accommodate the various film widths and combinations listed in table 1. Each transport consists of a film drive bracket and an idler bracket mounted on ways at the ends of the light table frame. Two transports can be mounted on the top way on each side for viewing two reels of film in the normal manner or one transport can be placed on the top way and the other on the bottom way on each side for viewing two rolls of film in the split mode.

The top ways are fitted with detent holes for proper support positioning plus color coded markers for alignment of the supports. The supports are fastened to the ways by means of a thumb screw locking mechanism. A spring loaded lever is provided on the film drive

brackets for retracting the spindle mechanism which engages and secures the spool. The middle idler bracket of the upper film support on each side is equipped with two spindles so that it can be used as the common idler between two parallel webs of film spaced 1/2 inch apart.

The film transport is designed for motorized operation with a manual drive provided as an option. The film can be moved in both directions at each film support station. The film drive motors are controlled by a high and low speed control knob. The low speed range (knob pushed in) provides positive and smooth film positioning throughout a range of speeds of 0 to 1 inch per second. The high speed range (knob pulled out) provides positive and smooth film positioning through a range of speeds of 0 to 500 feet per minute. The maximum speed on the high speed range permits 1000 feet of 4 mil base, 9-1/2 inch wide film to be transported in three minutes or less. The film drive, in the maximum speed range, is capable of a film speed of no less than 20 inches per second. With the two rolls of film mounted in parallel, it is possible to drive one of the rolls in one direction and the other roll in the opposite direction, individually or simultaneously. Also, with two rolls of film mounted in parallel, it is possible to drive both rolls of film in the same direction individually or simultaneously. An attachable manual film transport drive capable of film movement is included for emergency power off operation. In addition, a manual film transport drive which provides positive and smooth film positioning and the same directional film movement as the motorized drive system is provided as an optional feature.

Two rollers on each end of the light table plus four rollers in the center are positioned so that film can be transported either emulsion up or emulsion down. The rollers have a surface that does not scratch the film.

1.3.5 Microstereoscope Carriage and Mount. A precision mount is provided to place any of the microstereoscope systems listed in table 1 in correct position for focus and for comfortable viewing of film materials located on the two 15 by 20 inch glass viewing surfaces. Fine and coarse focusing adjustments are furnished as an integral part of the mount. In addition, the microstereoscope can be rotated in the mount ±45 degrees from the center position. A locking knob fastens the scope in the angular position selected.

The mount can be translated manually in both the X (lengthwise) and Y (depth) directions to cover the full dimensions of the viewing surface. The horizontal plane of the microstereoscope mount and the viewing surfaces are parallel within 0.015 inches over the entire translation field of the microstereoscope mount. Adjustment devices necessary to achieve this parallelism are readily accessible as a maintenance procedure (not intended for operator level maintenance).

A motorized drive capable of driving the mount at traverse speeds within the range of 0 to 0.5 inches per second is provided as an optional feature and incorporates the same capability, with respect to the distances of translation and parallelism of microstereoscope mount and viewing surfaces, as the manual system.

The focusing mechanism is self-locking. Easily engaged locks are provided to hold the mount of the microstereoscope carriage firmly at any position of its travel in the X and Y directions. With the carriage locks engaged, a force of 10 pounds or greater is required to move the carriage in any combination of X and Y directions. Additional locking devices are included to preclude carriage motion during transportation of the table.

1.3.6 Protective Cover. A plastic protective cover is provided to protect the viewing surfaces of the table and associated optics when the equipment is not in use.

1.4 Electrical Power

1. 4. 1 The light table will operate in all modes on 117 volts, plus or minus 15 volts, 60 Hertz, single phase, alternating current. Fuses and circuit breakers of suitable capacity are supplied to prevent circuit overloads. A retractable, lockable, heavy duty, Underwriters Laboratory approved, 3-conductor electrical extension cord with a NEMA 5-20P 3-prong plug attached to the extension cord by screws and incorporating a cord clamp, is furnished with the table for connection to the operating power source. This cord when extended is 20 feet long. In addition, a non-retractable power cord 20 feet long is provided as an optional feature. Means are provided for stowing this optional power cord when not in use. Also, a standard (Universal 52-62) 3-prong plug attached to the extension cord by screws and incorporating a cord clamp, is available as an optional feature.

1.5 Optional Configurations

- 1.5.1 The basic light table provides the following capabilities: 1000 foot rolls of film, 0 to 76 inch film takeup loop, manual table elevation, motorized film transport, and manual microstereoscope carriage and mount. In addition, options are available that may be incorporated on the basic table to provide any one or all of the following capabilities: motorized table elevation, manual film transport, motorized microstereoscope carriage and mount, and motorized continuous tilt of the illuminated surfaces and carriage. It is the intent that these options be replacements for, and not additions to, their alternative configurations.
- 1.5.2 Manual Carriage with Manual Elevation and Non-Tilting Stand (Model MLT1540-1). This is the basic light table described above and is provided with X-axis and Y-axis friction locks for the scope carriage.
- 1.5.3 Manual Carriage with Manual Elevation and Manual Tilting Stand (Model MLT1540-3). A manual carriage furnished with a tilting stand is provided with an optional fail safe override to prevent uncontrolled motion in the Y direction when the table is tilted. To move the carriage in the Y direction with the table horizontal, it is necessary only to release the Y friction lock. In a tilted position, a fail safe interlock is activated preventing Y translation unless the interlock is purposely defeated. To accomplish carriage motion in the Y direction with the table tilted, it is necessary for the operator to actuate the override switch located on the side of the bridge carriage and to depress the

carriage release button located near the optics mount. The release button is protected from accidental activation. The manual override feature actuates a fail safe brake coupled to the carriage. The brake is released by the override switches, both of which must be set to enable movement of the carriage. A lighted pushbutton indicator is provided showing the status condition of the fail safe override switch.

- 1.5.4 Motorized Carriage (Normally Free) with Power Elevating and Tilting Stand (Model MLT 1540-2). A motorized carriage furnished with a tilting stand incorporates a fail safe feature to prevent uncontrolled motion in the Y direction when the table is tilted. Tilting the table automatically activates the fail safe feature which utilizes the Y drive mechanism to lock the bridge motion. To accomplish carriage motion in the Y direction with the table tilted, it is necessary for the operator to actuate either the motorized bridge motion control or the two manual override switches. The manual override feature consists of a fail safe override switch which must be set to enable a carriage release button located near the optics mount. The release button is protected against accidental activation and, in addition, is illuminated when enabled by the fail safe override switch.
- 1.5.5 Motorized Carriage (Normally Locked) with Power Elevating and Tilting Stand (Model MLT 1540-4). A light table with a motorized carriage, which is normally locked in place, is mounted on a stand which has power elevation and tilt capabilities. It also incorporates the fail safe feature which prevents uncontrolled motion in the Y direction when the table is tilted. In a non-tilted position, carriage motion in the X or Y direction is accomplished by either actuating the motorized bridge motion control or the manual release push button or toggle switch located on the control bridge.

When the table is tilted carriage motion in the X or Y direction is accomplished by actuating the motorized bridge motion control. Manual motion in the X direction may be accomplished by actuating the release push button or the toggle switch located on the control bridge.

Setting the fail safe override switch illuminates and activates the release push button so that when it is depressed the table may be manually moved in both X and Y directions.

2. OPERATING INSTRUCTIONS

2. l Scope

2.1.1 This section describes the function of all operating controls and indicators, describes setup of film transports for the various mode of operation, and gives step by step procedures for normal operation. Controls applicable to all options are described. Disregard descriptions or procedures not applicable when operating less complex models.

2.2 Controls and Indicators

2.2.1 All operating controls and indicators are illustrated in figure II and described in table 2.

2.3 Carriage Motion Summary

- 2.3.1 The stereomicroscope carriage has a number of motion capabilities depending upon the model configuration and whether or not the viewing surface is tilted. These capabilities are summarized in the following paragraphs.
- 2.3.2 Manual Carriage with Manual Elevation and Non-Tilting Stand (Model MLT1540-1). The carriage may be moved manually in X and Y directions with a friction drag of 2 to 4 pounds. Friction locks are provided in the X-axis and the Y-axis.
- 2.3.3 Motorized Carriage (Normally Free) with Power Elevating and Power Tilting Stand (Model MLT1540-2).

Stand Not Tilted

- a. May be moved manually in X and Y directions with a friction drag of 2 to 4 pounds.
- b. May be motor driven in X and Y directions using Carriage Speed and DIRECTION controls.

Stand Tilted

- a. May be motor driven in X and Y directions using Carriage Speed and DIRECTION controls.
- b. May be manually moved in X direction with a friction drag of 2 to 4 pounds.
- c. May be manually moved in Y direction if:
 - (1) FAILSAFE OVERRIDE SWITCH is ON, and
 - (2) Y REL WHEN LIT pushbutton is pressed.

CAUTION: Allow carriage to come to a complete stop before releasing Y REL WHEN LIT switch.

MLT1540-1

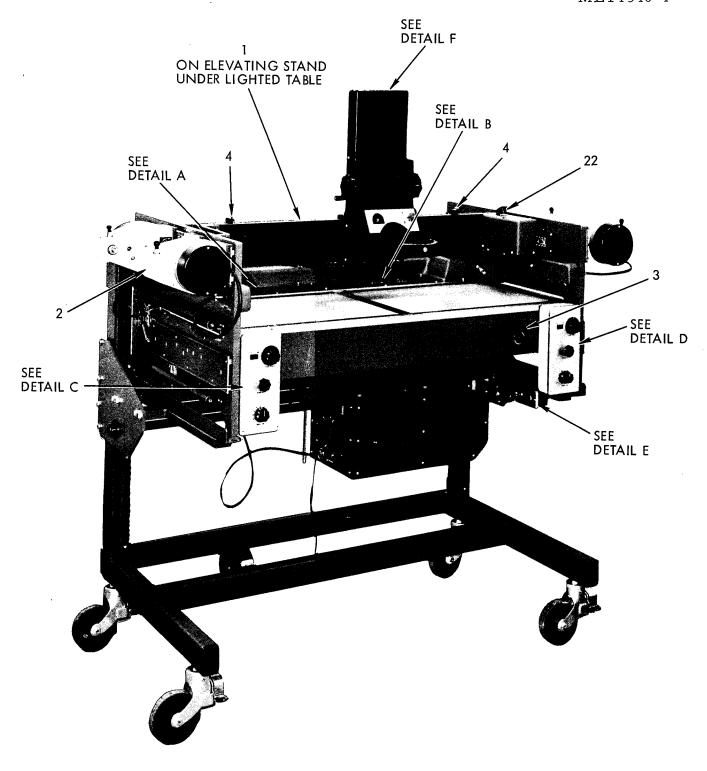
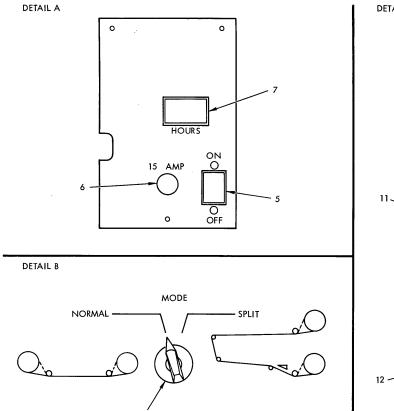
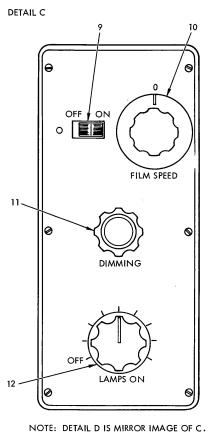
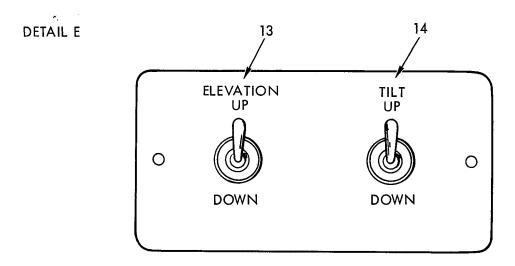


Figure II. Operating Controls and Indicators (Sheet 1 of 3)





MLT1540-1



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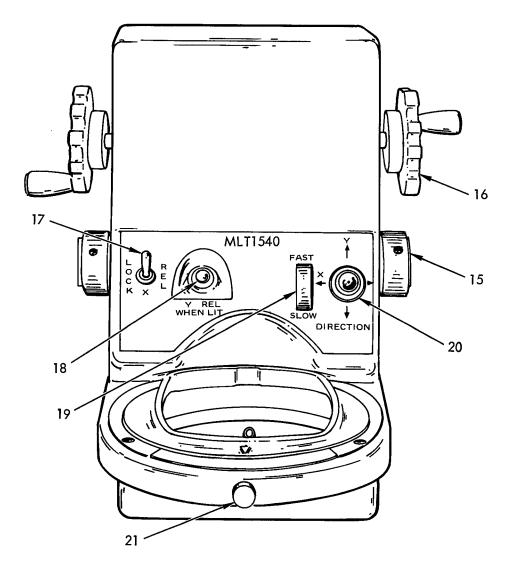


Figure II. Operating Controls and Indicators (Sheet 3 of 3)

Table 2. Controls and Indicators

Figure II Index No.	Name	Function
1	Main circuit breaker	Controls all 117 vac power to elevating stand and light table.
2	Drive bracket direction switch	Controls direction of rotation of drive mechanism on film transport drive bracket. CAUTION
	○ - ⊙	Do not change position when film transport is operating or film may be damaged.
3	TAKEUP-RELEASE knob	Adjusts length of film loop in looping mechanism from 0 to 76 inches.
		NOTE
		This is a dual control knob. The front knob is for locking the looping mechanism in the set position and must be locked in place prior to turning on film control motors.
		NOTE
		In split mode, this knob is turned to the maximum roller extension position (fully cw).
4	X-axis limit stops	Manually adjustable C-clamp type limit stops for limiting X-axis travel of carriage.
}		NOTE
		Not supplied with model MLT 1540-4.
5	Master power switch (ON-OFF)	Controls power to viewing surface, film transports, and carriage transport. Does not control power to table elevating and tilting mechanism.
6	Fuse (15 AMP)	Protects viewing surface, film trans- port, and carriage drive circuits.
7	HOURS indicator	Elapsed time indicator recording total no. of hours light table is in use.
8	MODE switch	Permits selection of operating mode: NORMAL or SPLIT. In NORMAL mode, one or two rolls of film are viewed across full width of viewing surface or one roll can be viewed using 0 to 76 inch loop mechanism. In SPLIT mode, one roll of film is

Table 2. Controls and Indicators (Cont)

Figure II Index No.	Name	Function
8 (cont)	MODE switch (cont)	loaded on each side of light table and threaded through rollers in center to permit side by side comparison.
		CAUTION
		Do not change position when film transport is operating or film may be damaged.
		NOTE
		Solid lines on threading dia- agrams indicate normal threading with emulsion side of film up; dotted lines indicate normal threading with emulsion down.
9	Film transport control switch (OFF-ON)	Controls drive motor in film transport.
10	FILM SPEED control	Controls film speed of film transport in forward or reverse direction (0 center). Two range switch; when pressed in, selects low speed range (0 to 1 ips); when pulled out, selects high speed range (0 to 100 ips).
		NOTE
		In NORMAL mode, controls on left panel apply to front film transport; controls on right panel apply to rear film transport.
11	DIMMING control	Controls intensity of illumination on corresponding side of viewing surface.
12	LAMPS ON switch	Permits unused lamps to be switched off from back to front on corresponding side of viewing surface.
		NOTE
		Any time the LAMPS ON switch is changed, the DIMMING control must be momentarily turned to full ccw position to allow lamps to start properly.
13	ELEVATION switch	Controls motor driven height of table. Spring loaded UP-DOWN-center off switch.

Table 2. Controls and Indicators (Cont)

Figure II		
Index No.	Name	Function
14	TILT switch	Controls motor driven tilt of table. Spring loaded UP-DOWN-center off switch.
15	Fine scope focus knob	Permits fine adjustment of focus on microstereoscope.
16	Coarse scope focus knob	Permits coarse adjustment of focus on microstereoscope.
		NOTE
		Scope mount may be raised by lifting mounting mechanism and overriding focus knobs. Clutches will lock scope mount in position when released.
		NOTE
		Identical focus controls are provided on both right and left sides of scope mount.
17	X-LOCK REL switch	When table not tilted permits carriage to be moved manually in X and Y directions when set to REL, when table tilted it allows motion only in X direction.
18	Y REL WHEN LIT pushbutton	Permits carriage to be moved manually in X and Y directions when lit (table not tilted or Fail Safe Override switch ON) and pressed.
19	Carriage speed control	Permits adjustment of speed of motorized carriage transport mechanism.
20	DIRECTION control	Spring loaded center off switch controls translation of carriage transport in X and Y directions.
21	Scope rotation lock	Permits scope to be locked in any angular position from normal to ±45 degrees as indicated on agularity decal.
22	FAILSAFE OVERRIDE SWITCH	Permits Y-axis translation fail-safe feature of carriage transport to be overridden.

2.3.4 Manual Carriage with Manual Elevating and Tilting Stand (Model MLT1540-3).

Stand Not Tilted. The carriage may be moved manually in the X and Y directions with a friction drag of 2 to 4 pounds.

Stand Tilted

- a. May be moved manually in the X direction with a friction drag of 2 to 4 pounds.
- b. May be moved manually in Y direction if:
 - (1) FAILSAFE OVERRIDE SWITCH is ON and
 - (2) Y REL WHEN LIT pushbutton is pressed.

CAUTION: Allow carriage to come to a complete stop before releasing Y REL WHEN LIT switch.

2.3.5 Motorized Carriage (Normally Locked) with Power Elevating and Tilting Stand (Model MLT1540-4).

Stand Not Tilted

- a. The carriage may be motor driven in X and Y directions using Carriage Speed and DIRECTION controls.
- b. Y REL WHEN LIT indicator is on and carriage can be moved manually in X and Y directions if:
 - (1) Y REL WHEN LIT pushbutton is pressed, or
 - (2) X LOCK-REL switch is set to REL.

NOTE: It is not necessary to operate FAILSAFE OVERRIDE SWITCH to move carriage manually in X direction.

Stand Tilted

- a. The carriage may be motor driven in X and Y directions using Carriage Speed and DIRECTION controls.
- b. The carriage may be manually moved in the X direction if:
 - (1) The X LOCK-REL switch is set to REL, or
 - (2) The Y REL WHEN LIT pushbutton is pressed.

NOTE: It is not necessary to operate FAILSAFE OVERRIDE SWITCH to move carriage manually in X direction.

- c. The carriage may be manually moved in the Y direction if:
 - (1) The FAILSAFE OVERRIDE SWITCH jis set to OFF, and
 - (2) The Y REL WHEN LIT pushbutton is pressed.

CAUTION: Allow carriage to come to a complete stop before releasing Y REL WHEN LIT switch.

2.4 Manual Elevation of Stand.

Both power and non-powered stands may be elevated by means of a crank which is stored on a clip at the end of the gear box housing below the light table. To manually adjust the height of the stand:

- a. Remove the hand crank from the storage clip and engage in the drive shaft at the right side of the box housing.
- b. Press in on the crank to engage the drive clutch.
- c. Rotate the crank to adjust the height of the stand.

2.5 Operating Instructions.

CAUTION: Before operation or film loading, verify that film transport drive switches are OFF and that fail safe override switch is OFF and guard is closed.

2.5.1 Normal Mode, Without Loop. Proceed as follows:

- a. Load film on light table as described in paragraph 2.6.1.
- b. Check that main circuit breaker (1, fig. II) is on.
- c. Place X-axis limit stops on scope carriage as required.
- d. Set master power switch to ON.
- e. Set MODE switch to NORMAL.
- f. Set FILM SPEED control to center off positions and to low-speed range (knob pushed in).

NOTE: Control panel on right side of stand controls rear film path.

Control panel on left side of stand controls front film path.

- g. With DIMMING controls set at minimum (ccw), set LAMPS ON switches to number of lamps required and then set intensity as desired with DIMMING controls.
- h. Set ELEVATION and TILT switches for desired position of table.
- i. Set film transport control switch(es) to ON.
- j. Use FILM SPEED control to adjust direction and speed of film transport.
- k. Move scope carriage manually or with motorized drive as described in paragraph 2.3.

2.5.2 Normal Mode, With Loop. Proceed as follows:

- a. Load film on light table as described in paragraph 2.6.2.
- b. Check that main circuit breaker is on.

- c. Place X-axis limit stops on scope carriage as required.
- d. Set master power switch to ON.
- e. Set MODE switch to NORMAL.
- f. Set FILM SPEED control to center off positions and to low speed range (knob pushed in).
- g. With DIMMING controls set at minimum (ccw), set LAMPS ON switches for number of lamps required and adjust DIMMING controls for intensity desired.
- h. Set ELEVATION and TILT switches for desired position of table.
- i. Adjust size of loop from 0 to 76 inches with TAKEUP-RELEASE knob.
 - NOTE: Film loop control must be locked in place prior to turning on film transport. Otherwise, normal film tension is sufficient to cause a change in loop setting.
- j. Set film transport control switch to ON.
- k. Use FILM SPEED control to adjust direction and speed of film transport.
- 1. Move scope carriage manually or with motorized drive as described in paragraph 2.3.

2.5.3 Split Mode. Proceed as follows:

- a. Load film on light table as described in paragraph 2.6.3.
- b. Check that main circuit breaker is on.
- c. Place X-axis limit stops on scope carriage as required.
- d. Set master power switch to ON.
- e. Set MODE switch to SPLIT.
- NOTE: Control panel on right side of stand controls film loop on right side of stand. Left control panel controls left film loop.
- f. Set FILM SPEED control(s) to center off positions and to low speed range (knob pushed in).
- g. With DIMMING controls set at minimum (ccw), set LAMPS ON switches for number of lamps required and adjust DIMMING controls for intensity desired.
- h. Set ELEVATION and TILT switches for desired position of table.
- i. Set film transport control switches to ON.
- j. Use FILM SPEED control to adjust direction and speed of film transport.

k. Move scope carriage manually or with motorized drive as described in paragraph 2.3.

2.6 Mounting Film

NOTE: When mounting 70 mm film, install anti-wander guides at ends of stand and engage in guides (2 each end, if required).

2.6.1 Normal Mode, Without Loop. Proceed as follows:

- a. Place one or two film drive brackets on top rail at each end of light table with one idler bracket between drive brackets. (See figure III.)
- b. Position brackets as close to front of table as possible aligning detents for required film size. (See figure III.)

NOTE: Line up drive brackets so that red dots on bracket and light table match; line up idler bracket so that green dots match.

- c. Lock brackets in position with locking levers.
- d. Set drive bracket direction switches (2, fig. II) to correct positions for film spools used so that switch position pictogram matches loaded film spool.
- e. Mount film spool(s) on one side of table using retractor lever to retract film spool drive spindle. Align spindle with film spool and release lever. Mount takeup reel(s) on other side.

CAUTION: Be sure that film transport control switches are OFF.

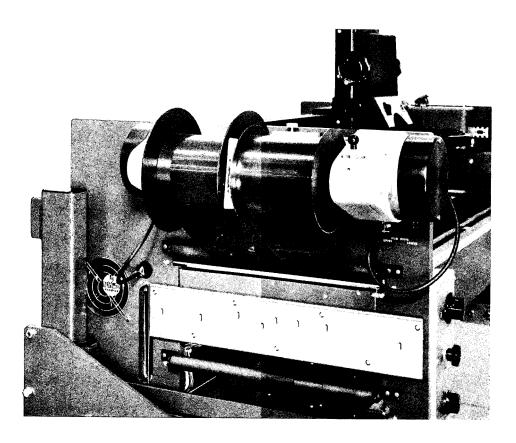
- f. Plug front drive bracket power cable into FILM DRIVE UPPER receptacles and plug back drive brackets into rear FILM DRIVE receptacles.
- g. Thread film(s) under top roller, across viewing surface, under top roller on other side of table and into takeup reel as shown on MODE switch threading diagram for NORMAL mode.

2.6.2 Normal Mode, With Loop. Proceed as follows:

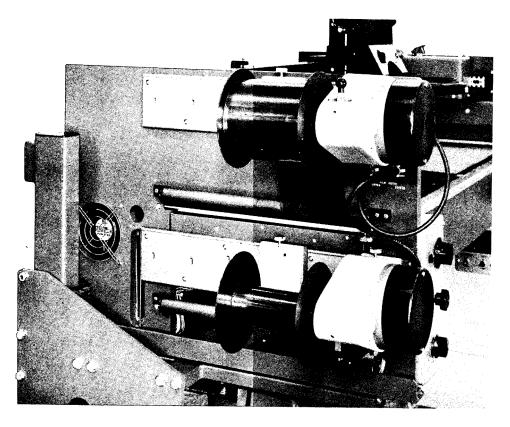
CAUTION: Only one reel of film can be viewed at a time using looping mechanism. Threading two reels of film into looping mechanism may result in damage to one or both films.

- a. Place one film drive brackets and one idler bracket on top rail at each end of light table.
- b. Position brackets as close to front of table as possible aligning detents for required film size.

NOTE: Line up drive brackets so that red dots on bracket and light table match; line up idler brackets so that green dots match.



NORMAL MODE



SPLIT MODE

Figure III. Arrangement of Film Drive Brackets

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- c. Lock brackets in position with locking levers.
- d. Set drive bracket direction switches to correct positions for film spool used.

CAUTION: Be sure that film transport control switches are OFF.

- e. Mount film spool on one side of table using retractor lever to retract film spool drive spindle. Align spindle with film spool and release levers. Mount takeup reel on other side.
- f. Plug drive bracket power cables into FILM DRIVE UPPER receptacles.
- g. Thread film under top roller, across viewing surface, under top roller on other side of table and into takeup reel as shown on MODE switch threading diagram for NORMAL mode.
- h. Raise right hand roller in center of table by pressing on right side of hinge mechanism (figure IV). Raise left hand roller by lifting it straight up.
- i. Rotate TAKEUP-RELEASE knob fully counterclockwise until lower rollers on loop mechanism are above viewing surface.
- j. Snap out lower rollers (spring loaded snaps on front ends), place them over film, and snap back into place.
- k. Rotate TAKEUP-RELEASE knob clockwise to lower center rollers and then close top rollers.
- 1. Film is now threaded as shown in figure III.

2.6.3 Split Mode. Proceed as follows:

- a. Place one film drive bracket and one idler bracket on top rail on each side at the front.
- b. Place one film drive bracket and one idler bracket on bottom rail on each side directly under top brackets. (See figure III.)
- c. Align detents for required film size and lock brackets in position with locking levers.
- d. Set drive bracket direction switches to correct positions for film spools used.

CAUTION: Be sure that film transport control switches are OFF.

- e. Plug drive bracket power cords into FILM DRIVE UPPER and LOWER receptacles on front of table.
- f. Mount film spools on top brackets using retractor lever to retract film spool drive spindle. Align spindle with film spool and release lever. Mount takeup reels on bottom brackets.

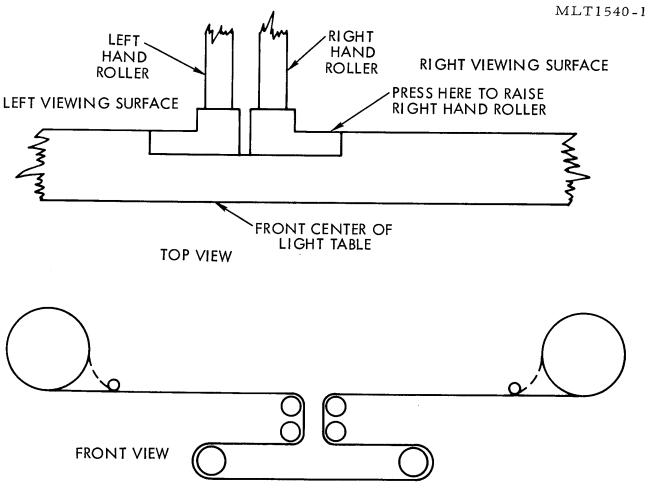


Figure IV. Normal Mode with Loop, Film Loading Diagram

- g. Open door on bottom of light table by releasing knob on each end of door at front.
- h. Raise right-hand roller in center of table by pressing on right side of hinge mechanism. Raise left hand roller by raising it straight up.
- i. Rotate loop control knob to extreme clockwise position to prevent film from dragging on inside of cover.
- j. Thread film under top roller on end of table, across to center of viewing surface, down through center rollers, above takeup roller under bottom roller on end of table, and onto takeup reel as shown on MODE switch threading diagram for SPLIT mode.
- k. Repeat step j for film on other side of table.
- 1. Close center rollers.
- m. Check each film path to verify that film is not rubbing.
- n. Close and latch bottom cover making certain film clears edge of cover.

3. OPERATORS MAINTENANCE

WARNING: HIGH VOLTAGES ARE PRESENT INSIDE THE ELECTRONICS ENCLOSURE AT THE REAR OF THE STAND. OPERATORS SHOULD NOT OPEN THIS ENCLOSURE.

- 3.1 <u>Cabinet.</u> The light table cabinet should be dusted off and the external surfaces cleaned daily. Vacuum the inside of the cabinet weekly.
- 3.2 <u>Illumination Surfaces</u>. The glass illumination surfaces on the light table should be cleaned as often as needed. Fingerprints, emulsion accumulation, and dirt, if allowed to accumulate, will not only impair film resolution, but could damage viewing and film surfaces. Material needed for cleaning the viewing surfaces consists of:

Soft nonabrasive lens tissue

Distilled water

Sponge

Liquid detergent (Dreft, Lux, or equivalent)

Camel-hair brush (1-1/2 inches)

- 3.2.1 Cleaning Instructions. Proceed as follows:
 - a. Brush off any dust or dirt accumulation with the camel-hair brush.
 - b. Moisten a soft lens tissue in a soap and water cleaning solution of one teaspoon liquid detergent in one pint of distilled water. Squeeze out excess liquid to avoid water running into transport bearings and lamps.
 - c. Rub the lens tissue gently with minimum pressure on the glass surfaces until clean.
 - d. Rinse the glass surfaces by sponging with distilled water. (Be careful that excess liquids do not seep beneath the glass surfaces.)
 - e. Dry the glass surfaces with dry lens tissue.
- 3.3 Roller Cleaning. Wipe the rollers with a clean damp cloth each time the illumination surfaces are cleaned. The same solution used for the illumination surface cleaning should be used to dampen the cloth.

Rinse using a second cloth dampened with distilled water.

CAUTION: Use only damp-dry cloths, not dripping cloths. Do not thread film on the table until all rollers and surfaces are completely dry or damage to the film may result.

3.4 Film Tracking. Improper film tracking will cause film to rub against the side of the film reels with such severity that the film will curl at the edges. If this is observed, notify maintenance personnel before film damage occurs.

3.5 Ball Slides

- 3.5.1 The ball slides should be inspected daily and any foreign material should be removed to insure continued free slide motion.
- 3.5.2 The ball type slides used in the carriage X and Y motion and the vertical microscope mount motion mechanisms must periodically be manually reset to allow full travel in all directions. Should travel become limited in any direction:
 - a. Check to insure that foreign obstruction is not creating problem.
 - b. For X and Y motion limitation manually force (if more than 15 pounds force required contact maintenance personnel) the slide to its limit.
 - c. For microscope elevation reset, the upper limit may be reset by forcing the mount to its upper extreme. The lower limit must be reset by applying approximately 10 pounds force in the downward direction and cranking the mount to its lower limit.

3.6 Operator Maintenance Chart

		As Required	Daily	Weekly
Illumination Surfaces		X		
Cabinet	External		X	X
Cabinet	Internal		Х	X
Film Track	ing	X		
Roller Clea	ning	X		
Ball Slides	Inspection		X	
Dan Sindes	Resetting	Х		

4. EMERGENCY PROCEDURES

4.1 General. In the event of any emergency which appears to present potential damage to the light table or the film, immediately shut off all electrical power to the affected circuits. If in doubt, switch the main circuit breaker to OFF. The main circuit breaker is mounted on the elevating table under the back center of the viewing surface. Notify maintenance personnel before attempting to use the light table further.

1030067-7 50038 Total of 311 tables Approved For Release 2005/06/23 : CIA-RDP78B05171A000400030067-7

SPARE PARTS - 1540 LIGHT TABLE

ITEM	PART NAME	PART No.	QUANTITY	PRICE
1	Viewing Glass Assy.	600265	5 ea side	
2	Film Drive	600304-1 & -2	6 each	
3	Transformer	600187	4	,
3 4	Control Box Assy.	600250-1		
5	Control Box Assy.	600250-2	5 5	
5 6	Lamp Socket Center	000270 2		
	Board P.C.	: 600176	- 14	
7	Lamp Socket End		•	
·	Right Board P.C.	600163-2	4	
8	Lamp Socket End	3	·	
	Left Board P.C.	600163-1	4	
9	Bias P.C. Board		·	
	Assy.	600171	2	
10	Isolation Transformer	600386-1	2	
11	Control Transformer	600190	14	
12	Bias Transformer			
13	Film Drive P.C. Brd.	600142	5	
14	Intensity Control	•		~
* * * * * * * *	P.C. Board	600143	5	
15	Compensator P.C.		á	
_	Board	600144	5	
16	Illumination Heat			
	Sink P.C. Board	600146	5	
17	Film Drive Heat	• •		
_	Sink P.C. Board	600149	5	
- 18	Lifter Roller Assy.	600260-1	6	
19	Lifter Roller Assy.	600260-2	6	
20	Center Roller Assy.	600270-1	6	,
21	Center Roller Assy.	600270-2	6	
22	Loop Roller Assy.	600272-1	6	•
23	Loop Roller Assy.	600272-2	6	
24	Center Divider-Film	600375	20	
25	Elevation Motor	316P566B	1	,
26	Ball Screw Unit	08-022347	2	•
27	Circuit Breaker	UPG11-1-6-203	2	
28	Speed Reducer	600130	2	
29	Flourescent Lamp	600004	40 cases	
30	X-Y Power Transformer	600194	4	
<u>31</u>	Cos. Pwr. Transformer	600192	4	
32 33	Gear Motor Y Drive Motor	317A143-4	4	10 1ma/
-34		VW59A1570:1		12 VDC)
35	Clutch Assy. Power Switch	600429	4	•
32	Lower Particu	LTlGK-50-1L-WH-	6	

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<u>ITEM</u>	PART NAME	PART No.	QUANTITY	PRICE
	•	,		
36 37 38	Mode SW Assy. Illum. Reg. Bd. Brkt. Bridge Assy.	600185 600170	10	
39	Switch & Speed Controls Extender Card Assy.	60022i 600411	10 2	
40 41 42	Covers L. H. YY Drive Covers R. H. YY Drive Timer	600388 600361 T4B	6 6 4	
43 44 45	X-Y Control P.C. Clutch (X) Electroid X Bridge Stops Assy.	600422-1 SBEC-17CC-4-5-12 600290	5 4 10	
46	Screw Captive (item 34 drw. #600304)	6156u-ss-2520	24	
47	Ball knob (item 30 drw. #600304)	4901W/8-32 stud	24	
48	Tachometer (item 28 drw. #600304)	SA-740A-2	6	
49	Slide (item 33 drw. #600304)	600377	6	
50 51	Chain (item 16 drw. #600202)	.1475 pitch	10 ft	
52	Connecting links (item 19 drw: #600202) Knob coarse	.1475 pitch	12	
53	(item 21 drw. #600202) Knob fine	600210	10	7
54	(item 23 drw. #600202) Thumb screw	S-907-1	10	
55	(item 52 drw. #600202) Cable retract	600225-1	24	
56	(item 35 drw. #600101) Toggle switch	600G-I.A	4	
5 7	(item 22 drw. #600101) Toggle switch	7673к4	10	ν.
58	(item 23 drw. #606101) Knurled screw	7569K74A27	10	
59	(item 5 drw. #600200) Cover motor	600432	2 1 4	
60	(item 9 drw. 600200) Track-slide	600287	4	•
	(item 13 drw. #600200)	600248	6	

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ITEM	PART NAME	PART No.	QUANTITY	PRICE
•	•			
61	Chain 320 pitch (item 17 drw. #600200)	.25X80001g	. 2	
62	Knurled head screw	• 5)VOOOTE	2	
	(item 21 drw. #600200)	ADB25315	10	
63	Swivel nut			
	(item 22 drw. #600200)	ADB25315	20	
64	Motor	Cook ok	١.	
65	(item 24 drw. #600200)` FAE clutch	600404	14	
0)	(item 26 drw. #600200)	600429-2	4	
66	Coilcord assy.	000429-2	T	
	(item 57 drw. #600200)	600296-4	14	
67	Coilcord assy.			
	(item 59 drw. #600200)	600296-5	4	
68	Coilcord assy.			
60	(item 60 drw. #600200)	600296-3	4	
69	Illumination assy.	600200	14	
70	(item 2 drw. #600300) Support tube soc. board	600302-2	4	
10.	(item 5 drw. #600300)	600307	6	
71	Band sprocket pair			
•	(item 62 drw. #600300)	600278	4 pr.	
7 2	Track YY-LH	• •		
	(item 55 drw. #600300)	600247	6	
73	Knob assy. take-up	(000/0		?
77).	(item 31 drw. #600300)	600363	10	
74	Lock, take-up (item 7 drw. #600300)	600310	30	
75	Plunger	0002T0	10	· V
,12	(item 140 drw. #600300)	H323-3-1-1	20	
76	Grommet			
	(item 141 drw. #600300)	H559-3-1	20	
77	Clutch, slip		_	•
=0	(item 146 drw. #600300)	OSD-131	14	4
78	Installation gear, take-1	ap (20) og 0	•	,
79	(item 10 drw. #600300)	600427-2	20	
19	Gear assy., cross drive (item 11 drw. #600300)	600391-1	20	/
80	Guide	000391-1	20	
	(item 40 drw. #600300)	600378-1	.8	
81	Guide wheel assy.	<u>-</u> -	-	
	(item 17 drw. #600200)	600116	8	

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TTEM	PART NAME	PART No.	QUANTITY	PRICE
82	Carriage Failsafe push button and switch		10	
83	Control box switches and knobs	•		

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16	0001	Viewing Glass A.sv.		14210	600265	2	h	100		(70	1
16	0002	Ballast Pracket As,	1	14210	600347	2 2	Ind Ind	188	20	470	1
- 4	6003	Film Dri.e		13210	600304#4	4.3	ind jed	376	20	470	Í
20	000⊿	Transformer, #3: /.	İ	14210	600187	2		188	20	470	1
* 5	0005	Control Eux Assy's	1	14210	600250-1	$\rightarrow \stackrel{?}{\rightleftharpoons}$	ind ind	94	20	470	1
. 20	0003	Lamp Socket Center	1		600250-2		I mo	74	10	470	1
	1	Board P. C.		1.5210	600173	2	1 '	1 04	1 ,,	1 470	1
12	0007	Lamp Socket End	1	1	1	1 4	ia.i	94	10	470	
	1 . '	Right Soard P. C.		1/210	600163-2	1 1	1 10.7	1 47	1 ,, 1	1 470	i
, 5	8000	Lamp Socket E. 3	1	,	1	1 ' . '	Ind	47	10	470	1
18	0009	Left Board P. C. Bias P. C. Boara		14210	600163-1	1	Ind	47	10	470	1
1	1 '	Assy.	1	14210	600171	2	his	94	10	470	1 .
~0	0010	Isolation Transfermer,	PSSV.	1:210	600386-1	1 1	led led	94	20		1
10	0011 .	Control Transform r. A	deru	1.210	600190	1 : '	Ind	188		470	1
20	0012	lias iracisformer , isser	<i>A</i> '	1.210	(0018)	1 1	In:	94	20	470	1
-4	0013	Film Drive P. C Brd.	.í	14210	600142	2	In:	94	20	470	1 .
24 .	0014	Intensity Control	1	1 ,	1	1 ' 1	f " '	J 94 1	10	470	F
1 '	1 1 2	P. C. doard	1	1/210	600143	1 4	lind	1 ,20	1 1		f
.24	0015	Compensator P. C.	1 '	1	1	1 " 1	i ma i	198	10	470	f .
<i>i</i> '	1 1	Socr2	1 ' '	14210	600144	1 , 1	1	1 49	1 . 1	, ,_, ,	1
DELETE	-0016	X-Y Control P C-	1 '	'*"	1	1 ' 1	Ind ·	47	lu l	470	1
<i>i</i>	1	-Doard	<u> </u>	14210	600145	[r:!	1 40	1		1
20	0017	Illuminationeat	1	1	1	1	Ind	40	10-10-	400 -	1 .
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18		Center Roller Acry.	1	14210	500250-2	$f = \frac{1}{2} - \frac{1}{2}$	ind	47	10	470	1
13		Center koller Assy	1	14210	500270-1 600270-2	$1 + \frac{1}{2} + \frac{1}{2}$	Ind	47	10	470	f , '
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0003	Film Drive -	com infgr.	15/10	600304		low	188	20	470
0004	Transformer -		14210	600304	4	5-1	376	20	470
0005	Control flox Assv.		14210		2	Ind	188	20	470
0006	Lamp Socket Cent		14210	600230-1	2	17.6	94	. 10	470
1	Board P. C.	, ,	1.010	10017	1 . '	1 .	1	1	1
2 0007	Lamp Socket End	1	1.510	600173	2	ie I	94	10	470
,	Right Board P. C.	<u></u>	1/210	(001.0.0	. '	1	1	1 '	1
k 0008	Lamp Socket End	<u></u>	1 '210	600163-2	1 1	final	47	10	470
, ~~	Left Board P C.		1	1	1	1	,	1 '	1
0009	Bias P. C Regra	,	14210	500163-1	1 1	Ind	47	10	470
1 500,	Assy.	1	14010	1	,	1	,	1 1	1
0010	liolation Transformer	.— ,	14210	300171	2	lind	94	10	470
1	Control Transformer	. '	1/210	500385-1	1 1	Ind	94	20	470
0012	Bias Transformer	. '	1 '210	600190	: '	Ind	188	20	470
	Film Drive P. C. 8rd.	'	1 '210	500181	1 1 ,	In 1	94	20	470
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	Conter Roller Acry.	1	14210	600270-1	1 1	In:	47	10	470
	Center Roller Assy		14210	500270->	1 1 1	ind	47	10	470
	Loop Roller Area.	1	14210	500272-1	1 1	Pid	47	10	470
	Loop Roller Assy		1 510	600272-3	1 1 1	hid	47	iä	470
	Center Divicur∔ ili	1	. 1/0010	600276	1 4 1	5.2	198	10	470
	Elevation Morer	1	16210	097102-05	1 1	i d	77	20	384
	Tilting Motor	1	14210	007101-01	1 1	ind	77	20	334
	Circui: Preaker	1	1/210	0:7031-01	1 1	and	77	20	384
	Spaud Reducer -	1	14210	000130	1 1	frei	38	10	384
	Flucrescent Lamp	1	i4210 .	4G000-	24	Ind Ind	1,128	10	470
	X- Power Trans-	I 1	r J	1	1 " 1	i	1,:20	' 'Y.	, 470
	former		14210	600194	1 1	final	ao	20	400
CONTRACT	NUMBER			NCLATURE	-		TYPE NO.		- 100
36: (70 4 67				Light Table		ML	1540		
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LINE ITEM NUMBER	ITEM NAME	FEDERAL STOCK NUMBER	FEDERAL MANU- FACTURERS CODE	MANUFACTURERS PART NUMBER	QTY PER END ITEM	SHELF LIFE	TOTAL RECO/QTY	MA'N AC OR	NO, O FND EMS
0032	Cor. Pvr. marfares		14210	:00192		last	3.7	20	400
1 0033	X Dri : Mut r) conne		1 (210	. דיסיד.		in an	33	2	400 400
0034	Driv Motor	<u> </u>	13349	GUN1 GU-01	1	10	90 94	2	470
003	Clutch As	┦ :	14210	0: 0037-01	,	le i le a	94	20	470
00001	Limit Series - mfgr		14210	0.7079-01 0.707-1000	1 '	lor.	94	5	47.
00.7	Power Swinin - mfgr		1 10 10	(1.7), -10(1. 		in terrimon	on and a shape were		
90.46	-		1440	7A.S.	I	ind			
00.9		and the state of t	44/10	and the same of th		- drawing and a		L 21	4#Q
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0041				Same and the same and the same	was ret and				
0044	11110			الناد المحدر تكيير المتحدد المتداد المتد	dan - San Care			9 4	
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""	Swit Space		(1			
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00⊹€	Extender Carc Issv -		ĺ	-00-				1	
00+9	Covers			100				ł	
	lus'i.		1	0-70:0:	2			1	
0050	2 - mfgr		1	0. 0.0 0		i		1	1 .
0051	Fon, Scrien-Mfgr,		\	0:50 0				ļ	1
005	Ken Control 1.C.	WALC UNITS	1	500	1			1	1
x 005° x 005°	X Control P.C.	Dem y vack		600		i			1
0055	Cluse (SS . (X) -	WPIC units		0.00				1	
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CONTRA	CT NUMBER		NOME	NCLATURE Lig Tople		MODEI	TYPE NO.		
CONTRA	ic								
CONTRA	CTOR	ľ	DATE	OF ORDER		PAGE (OF 2 of 2		
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FEDERAL STOCK NUMBER	FEDERAL MANU- FACTURERS CODE	MANUFACTURERS PART NUMBER	QTY PER END ITEM	SHELF LIFE	TOTAL RECO/QTY	MA:N°	NO C END
	14210 1-210 1-210 1-210 1-210 1-210 1-210 1-210 1-210 1-210 1-210 1-210	*00192 \$710 (-0)1 \$77103-01 \$0.5033-01 \$0.5039-01 \$0.7039-01 \$0.7039-01 \$7.4.5 \$7.4.5 \$1.4.5 \$1.2.4.5 \$1.2.4.5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	India for the control of the contro	30 30 94 94 94 94 141 141 232 141 141	90 21 21 20 20 25 25 25 25 25 25 25	400 400 400 470 470 470 470 470 470 470
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	NOWENC	LATURĘ		MODELAT	YPE NO.		
		FACTURERS CODE 1-210	1-210	1-210	STOCK NUMBER FACTURERS CODE PART NUMBER CITY PER END ITEM LIFE 16210	STOCK NUMBER FACTURERS CODE PART NUMBER CITY PER LIFE RECO/QTY	STOCK NUMBER FACTURERS CODE PART NUMBER CITY PER CITY PER TOTAL RECO/GITY AC OP

LINE ITEM NUMBER	ITEM NAME	FEDERAL STOCK NUMBER	FEDERAL MANU- FACTURERS CODE	MANUFACTURERS PART NUMBER	QTY PER END ITEM	SHELF LIFE	TOTAL RECO/QTY (£COMMENDIN)	MAIN .	NO. OF END "EM". (TABLE)
							AS C+ 10770	l	1
0001	Viewina Glass Assv.	ľ	14210	600265	2	to-	188	20	470
		1	14210	-003+-	1 2	10.7	188	20	47ú
0002	Ballast Pracket Assy.		14/10	00304	1 3		276	20	479
0003	Film Drize 🗸		14210	300187	7	in.	188	20	470
0004	Transformer	170.4 1/40.	14210	1002:00-1			94	10	470
0005	Control Fox Ass	PEGLIMINARY		1	1 ' '		{		Ì
0006	Lamp Socket Century	Sugaresti-D TIMILTIABLE.	1:210	500125	9	3.5	94	10	470
	Board P. C.	Time Table.	1.210	1	1	1		1	
0007	Lamp Socket End	7,000.517.7	1.510	400163-0	1 1	5-13	47	10	470
	Right Board P C	26 OCT	1 219	10316.5					1
8000	Lamp Socket End		14210	600163-1	1	le à	47	10	470
	Left Board P. C.	DISCUSS IN LA	14210	500163-1	1 '	10.00			
0009	Bias P. C. Board	WITH JEPT.	1.510	00171	2	lo. i	94	10	470
	Assy.	TO MUDITY LIST	1.1210	000385-1	i	Ind	94	20	470
0010	Isolation Transformer	LO WODING PLA	1:210	00190	-	la :	188	20	470
0011	Control Transformer		1 : 210	400181	1	1	94	20	470
0012	Rias Transformer	GNA APPLOX	1 1210	600142	1	1	94	10	470
0013	Film Drive P. C. Brd	S. S.	14210	500142	1 '	""		1	
0014	Intensity Control	DISCUSS IN DE		6001 🕆	4	Del	198	10	470
	P. C. Roord	し ハーマル てんけんかん	0 1:210	6001 77		1.33	100	1 ''	1
0015	Companiator P. C.	PARTIES TO:-		(001.17	1 ,	11.6	A7	10	470
l	Boari .	1	1/210	600144	'	11.0	-"	1	1
001.5	X- / Conred P. C./	a) lesoneur			١,	Ind	40	10	400
1	(.oar)	Prowemmi	14210	600145	1 '	ina	40	1 .0	750
0017	Illumination Leaf /	PITILOSOPHA					139	10	470
	Sink P. C. Hoore	· ·	1 42 10	600146	4	Sed	750	10	7,0
0018	Film Drive Hoat	A) DESCENIVE	ĺ		1 .	1	94	10	470
	Sink P. C. Poor	b) Dracenive Final Ory's of ITEMs	14210	6001 19	2	ind	47	10	470
0019	Lifter Roller Assy.	TTEMS!	14210	600250-1	1 !	ir ž	47	10	470
0020	Lifter Roller Assy	67 11121	1#210	600260-2	1 !	'r d		5	470
00:23	Center Roller Assy.	14 Dix APPRIX	14210	500270-1	1 !	In.	47	10	470
00.2	Center Roller Assy.			600270-7	!	14.3	47		470
002:	Loop Koller Asse.	PCICED PROPER	τ 1 %210	∴0027%-1	1	11,01	47	10	470
0074	Loop Roifer Assy	(S	1*210	600272-2		d	47	10	470 470
0025	Center Dividor-ilm	TCICIED PROPER	14310	50037 °	4	and	193	1	384
0025	Elevation Motor V	To Pirmenn	F 1/210	037102-05	1	`. d	77	20	
0027	Tilting Moter V	FOL Romend ACTION	14210	007101-01	1 !	.i.d	77	20	394 384
0028	Circuit Branker	1107		0.7031-01	!	rd	77	20	
0029	Speed Reducer		14210	500130	1	frid	38	10	384
0030	Flyerescent Lamp		14210	60000€	34	8:3	1,128	10	470
0031	X- C Power Trace-	1 601/	-	!		Ì	1		/05
1 5551	former		14210	600194	1	is at	30	20	400
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			INTERIM	PROVISIONING LIST			188-	Rest 6	cet 70
NE ITEM NUMBER	ITEM NAME	FEDERAL STOCK NUMBER	FEDERAL MANU- FACTURERS CODE	MANUFACTURERS PART NUMBER	QTY PER END ITEM	SHELF	TOTAL RECO/OTY	MAIN . AC CT	NO, OF FND FM.
					1 / 1		470 table)	1,	
د 100	Howfor Blass Ass		110	002			135	20	4/0
002	allow racket A. v.		1-210	1 00:	2		198	20	479
	ille Dri	1	1 10	00:0	1		1776	20	470
			14210	100187	2		167	20	470
00.	intest reser		10	00. 0-			94	10	470
	Committee A		10	1 012				ļ	i
00:	Lamp Socket d		——, , , <u>, , , , , , , , , , , , , , , ,</u>	001			94	13.5	470
1	Poar : P C.		1 110	I i wi	1 1		1	1	i I
007 🕝	Lamp Sacret E		1 (010	001.3-	1 , 1		47	10	470
	Ri ht form P.C.	1	1/210	001.2-	'		*		1 " 1
ا، 300	Lamp Shoket E			1	,		20	13	170
1	Left Cor P. C	1	1 (2) 0	.001.3-1	'	1.	-	''	1 77
009 ⊁1	řías P. C. Scars			1	1		9:	10	27.7
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010	Loloi, marcer	1	1.210	.00081	1 1	1. *	9.1		1 23
011	Control Crassform or		U210	100190	1 1	ž	180	53	
012	lies im stomer	Į.	1 210	00181	1 1	* *	94	1.3	427
	ilm Dri P.C. r	1	1/2/10	700142	1 2	š ·	94	10	47-:
	Interests Control			1	1		}	I	1
,U1.4	P. C. Sorri		1.510	- corr	: 1	t	199	13	475
001.5	Companiator P. C			1			1		1 1
MIL. 6		•	13210	600146	1 1	स उं	87	1.0	470
	ocr!		1 2.0	1			1		1
001 ÷ ⊌	X=+ Control P C		147:0	50014	1 1	45.70	40	7.3	400
	cur	i	,					1	!!!
2013	Hilamiconico e lar		14210	3001-1	4	12.4	130	10	473
	Sint P. C. "cond		***************************************		1 '				1
0018 🕖	Film Drive leat			600149	, ,	21 - 2	94	10	470
	Sink 2 C. donn		14,10				1 52	1 13	470
2019	Lister Toller As . "		1 #210	500230-1	;		47	1.5	473
	Lister Builler Art		14210	300250-1	; ;	10.5	47	0	470
20 ¹	Culter faller A .:	sj l	14210	300170-	1 !	lr	47	1 3	7/5
20 /	Conter Solier As- /		1/2/10	∆000/7 0 ÷	;	1. **		10	470
0025	Loco Roller Asset.	\	19210	C027	1 ! !		4.7		470
30.	Luop Pothir Ast -	L · .	170,10	₹00277	1		4/		
2020	Car Divisor-ilm		110	30007:	£	."	33	I .	476
	Lityetien Meter	[142±0	0-710:-06		'. d	77	25	394
	Tilri. : Mercr	i i	14210	00.7101-01	,	ાં ઇ	27	27	294
002F	Circuis Tracker		1:210	0-7031-01	,	: d	77	2.)	384
0029	Sprod Reducti		1/210	500130	1 1	11.73	38	13	384
	Flirar scare Lamp		14210	60000	1:4	:15	1,128	10	470
	X+ Power Imp			1				1	1
0031	for the		14210	600194	;	13	80	20	400
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	LINE ITEM NUMBER	ITEM NAME	FEDERAL STOCK NUMBER	FEDERAL MANU- FACTURERS CODE	MANUFACTURERS PART NUMBER	QTY PER END ITEM	SHELF LIFE	TOTAL RECO/QTY	MAINT, FACTOR	NO. OF END TEMS
	0034 / 0035 / 0036 / 0037 0038 / 0039 / 0040 / 0041 / 0042 / 0042 / 0042	Cos., Pwr., Transformer X Driv. Motor Y Driv. Motor Clutch Assy. Limit Switch Power Switch Fuse Fuse Fuse Fuse Fuse Fuse Fuse Fuse		14210 14210 14210 14210 14210 14210 14210 14210 14210 14210 14210 14210	00192 3710;-01 037103-01 060037-01 057029-01 057029-003 18A 5 . 8. 7A 5 . 8. 4A 5 . 8. 3A 5 . 8. 2A 5 . 8.	; ; ; ; ; ; ; ; ; ; ;	ind Ind Ind Ind Ind Ind Ind Ind Ind Ind I	80 30 90 94 94 94 141 141 282 141 141	20 20 20 20 20 20 25 25 25 25 25 25 25	400 400 400 470 470 470 470 470 470 470
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