Instructions

FOR
EQUIPMENT
Type

SUPER TROUPER

19601-4
49006-5
51001-2
10-71

THE STRONG ELECTRIC CORP.
87 CITY PARK AVE., TOLEDO, OHIO

PREFACE

THE STRONG SUPER TROUPER is a high intensity reflector type direct current follow spot and flood complete with automatic carbon arc lamp, variable focus projection optical system, a six-color boomerang, a flood masking device, a dimming control, and a built-in rectifier.

THE CARBONS REQUIRED are a National 7mm x 12" Suprex Positive carbon, (Catalog No. L ~~0503~~ 0521) with a 6mm x 9" Orotip Negative carbon, (Catalog No. L 0563), or a Lorraine 7mm x 12" Grade 544C Positive with a 6mm x 9" Grade 545C Negative.

THE CORRECT LINE VOLTAGE AND FREQUENCY required for the power supply is engraved on the small nameplate located just above the power cord entrance to the spotlight base. The 110 volt model should be plugged directly into any current convenience outlet which is fused for 30 amperes. The 220 volt model should be fused for 15 amperes. The 3rd wire (ground wire) in the power cord is merely a means of grounding the frame of the spotlight; therefore the ground wire from the receptacle should be connected to the receptacle mounting box or to suitable ground.

THE ELECTRICAL CAPACITY of this arc is automatically limited to burn between 41 and 44 amperes at 37 D.C. volts.

POWER TO THE ARC is turned "ON" and "OFF" by the toggle switch located on the support pan (operator's side), just beneath the lamphouse.

THE EIGHT POSITION ROTARY TAP SWITCH on the pedestal provides the means for manual compensation for commercial variations in the alternating current incoming line voltage. Set the switch at a position to supply 37 ~~31~~ volts across the burning arc as indicated when the pointer is in the green zone on the meter.

TURN THE ROTARY TAP SWITCH clockwise if the meter hand is to the left of the green zone; turn it counterclockwise if the meter hand is to the right of the green zone.

THREE SEPARATE UNITS, the arc lamp, the spot optical system, and the pedestal, make up the spotlamp assembly. Instructions covering each of these units is detailed under its separate heading.

IF AT ANY TIME you have a suggestion, or desire aid in securing anticipated results, please feel free to write directly to THE STRONG ELECTRIC CORPORATION, 87 City Park Ave., Toledo, Ohio.

SETTING UP SPOTLIGHT

TO UNPACK THE SUPER TROUPER, open the boxes according to instructions by removing all screws only.

THE SPOTLIGHT PEDESTAL is sitting on five casters for portability. If it is desired to have a more rigid mounting, the jack screws in the cloth bag can be threaded into the five projecting feet, and adjusted until the weight has been shifted from the casters to the screw.

PLACE THE LAMP AND OPTICAL ASSEMBLY on the base cradle assembly. First however, make sure the horizontal swing lock lever, the vertical tilt lock lever, and the height adjustment clamp on the base is tightened.

MOUNT THE LAMP AND OPTICAL SYSTEM on the cradle with the braided connecting cord from the lamphouse directly above the electrical connector in the base yoke terminal box. Location marks (painted red) on underside of lamp and optical system mounting table should be lined up with the front and rear edge of the base cradle. Then secure lamp and optical system to the base, using the four 5/16" x 18 thumb screws furnished in the small cloth bag affixed to the yoke.

CONNECT THE BRAIDED CONNECTING CORD from the lamphouse into the connector on the yoke terminal box.

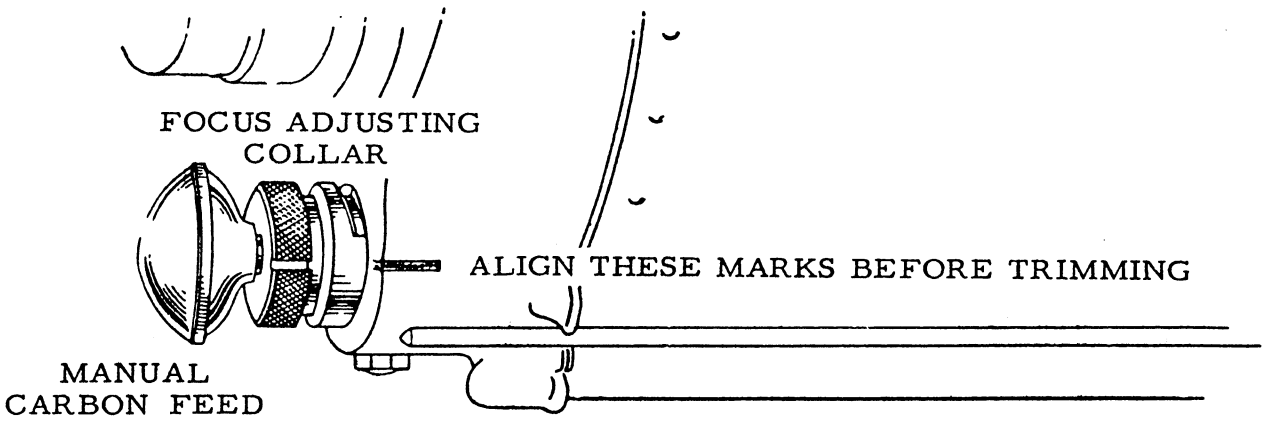
MAKE SURE THAT THE NEGATIVE CONNECTOR on the D. C. line (from the rectifier unit) is plugged into its receptacle located on the underside of the support pan. IMPORTANT: Make sure that the twist lock plug of the blower fan is connected properly. The lamp must never be operated without the blower fan running.

TO ADJUST THE HEIGHT OF SPOTLIGHT, carefully check to make sure both horizontal swing and vertical tilt lock levers are tightened securely. Then insert the lever pin (with chain) into the height adjustment clamp and loosen. CAUTION: Make sure that there is a man at each end of the lamp to keep it from dropping. Adjust lamp to desired height and tighten clamp securely. CAUTION: Do not adjust height over 13" from minimum position.

IF THE SUPER TROUPER is to be hoisted to an overhead platform or booth, care should be taken so that the hoisting gear does not touch the blower assembly. The blower can be bent or damaged very easily.

OPERATION OF ARC LAMP AND POWER SUPPLY

TO TRIM THE LAMP, that is to insert the carbons and make all preliminary adjustments, first rotate the knurled focusing collar to its mid-position as indicated when the white guide line on the collar faces directly towards you, as shown below.



TURNING THE FOCUS ADJUSTING COLLAR is the manual means of moving the complete burner mechanism forward or backward as may later be necessary to bring the position of the positive arc crater to the exact focal point of the reflector. This operation is referred to as focusing the arc.

MAKE SURE THE POWER SWITCH, located on the support pan just beneath the lamphouse, is turned to the "OFF" position.

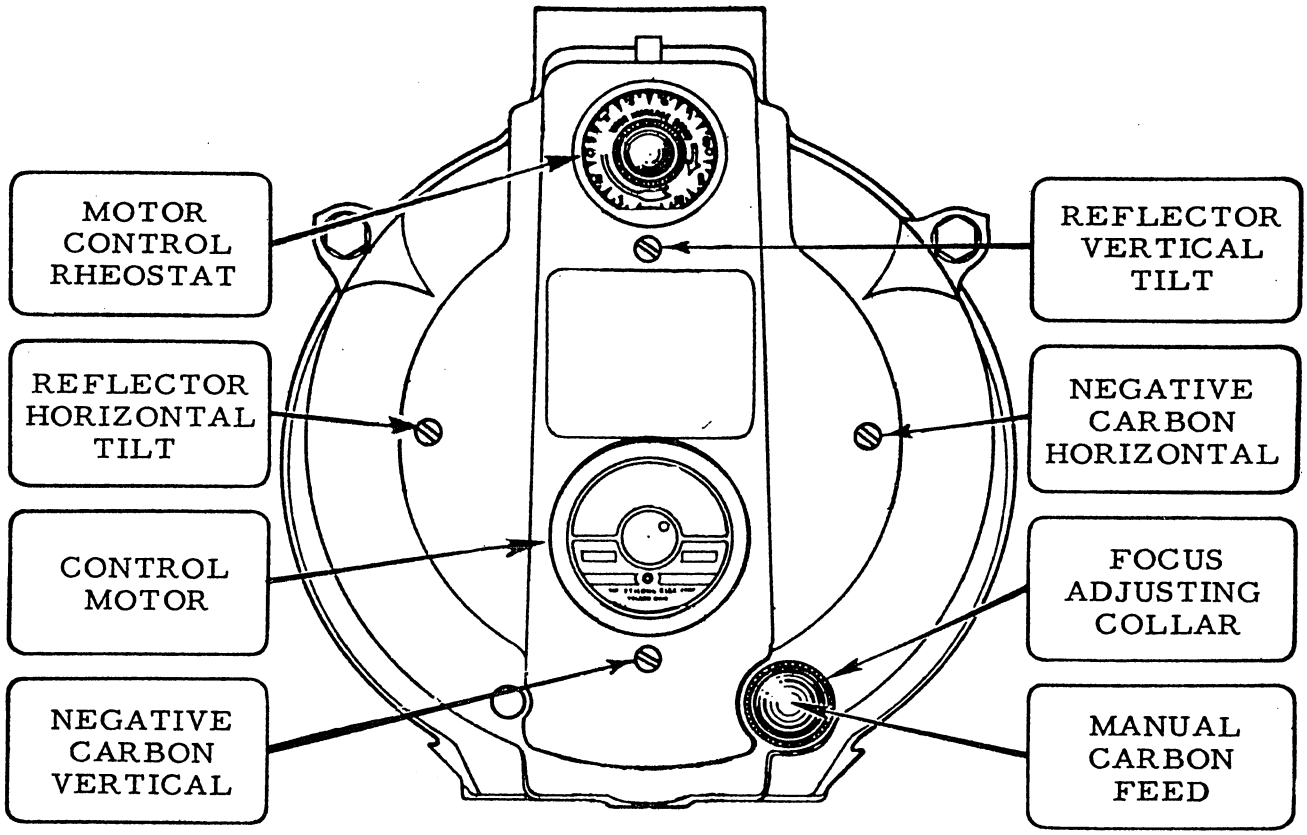
SEPARATE THE CARBON CARRIAGES to the full limit of their travel by gripping the carbon carriage handles and pressing down on the drive wires. When these drive wires are depressed, the carbon carriages are disengaged from the lead screw so that the carriages are free to slide forward or backward. Be sure that each drive wire is properly seated in a thread of the feed screw before inserting the carbons.

INSERT A POSITIVE 7mm x 12" LONG CARBON in the positive (front) carbon holder, setting the carbon back against the stop pin in the carbon clamp and with the pointed end of the carbon resting in the positive carbon guide.

THE NEGATIVE (SMALL) CARBON, 6mm x 9", goes in the negative (rear) carbon jaw and back as far as the stop pin in the carbon clamp. Raise the negative carbon release lever when inserting the carbon and then depress the lever firmly to secure the carbon in place.

INSERTING BOTH FULL LENGTH CARBONS to their respective stops, will automatically position the carbons 1/4" apart.

TWO PAIR OF CARBONS, for preliminary testing, are included with each lamp. Additional carbons should be purchased from any local Theatre Equipment Supply dealer. These carbons are identified as National Suprex 7mm x 12" positive, (Catalog No. L ~~0503~~ 0521) and 6mm x 9" Orotip "C" negative, (Catalog No. L 0563) or Lorraine 7mm x 12" Grade 544C positive and 6mm x 9" Grade 545C negative.



ALIGN THE NEGATIVE (back carbon) vertically and horizontally to bring both carbons in line, by means of the vertical and horizontal adjusting knobs shown on the illustration above.

UNTIL THE PROJECTIONIST IS FAMILIAR with the lamp so that he may visually judge the 1/4" arc gap length, it is convenient to measure the 1/4" arc gap accurately by using the diameter of a negative carbon as a gauge since the diameter of a 6mm negative carbon is just 1/4".

SET THE MOTOR CONTROL RHEOSTAT to position Number 6.

TURN THE POWER CONTROL SWITCH to the "ON" position. This switch is located on the support pan just beneath the lamphouse.

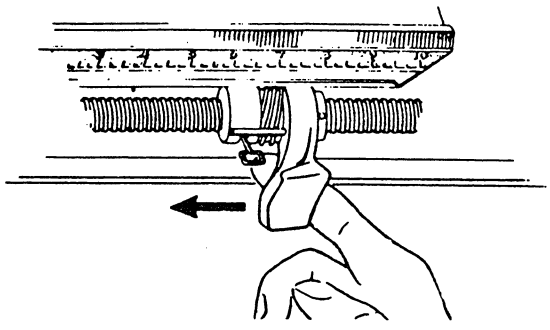
CAUTION: MAKE SURE BLOWER IS OPERATING BEFORE STRIKING ARC.

ADJUST THE D. C. OUTPUT VOLTAGE of the rectifier by turning the eight point rotary switch on the pedestal, right or left to bring the pointer on the meter directly over the green zone. This adjustment provides a manual means of correcting for any commercial variations in A. C. line voltage.

TO "STRIKE THE ARC" is a projectionist's term which refers to lighting the lamp according to the following instructions.

PLACE THE INDEX FINGER of the right hand on the positive carriage handle as shown in the next illustration.

THE TIPS OF THE CARBONS must then be brought into momentary contact to complete the D. C. electric circuit. Then the carbon tips are slowly separated 1/4" to establish the burning of the arc. This operation is performed by pressing the positive carriage handle forward and letting the handle slide back to its original position.



SOME EXPERIENCE IS NECESSARY to acquire the knack of striking the arc correctly. When the carbon tips are brought together they must not be held in actual contact for more than a fraction of a second before they are separated, otherwise the rush of current during the short circuit interval will blow the core material out of the positive carbon.

THIS CORE MATERIAL may then deposit on the front surface of the reflector and may cause th. glass reflector to crack.

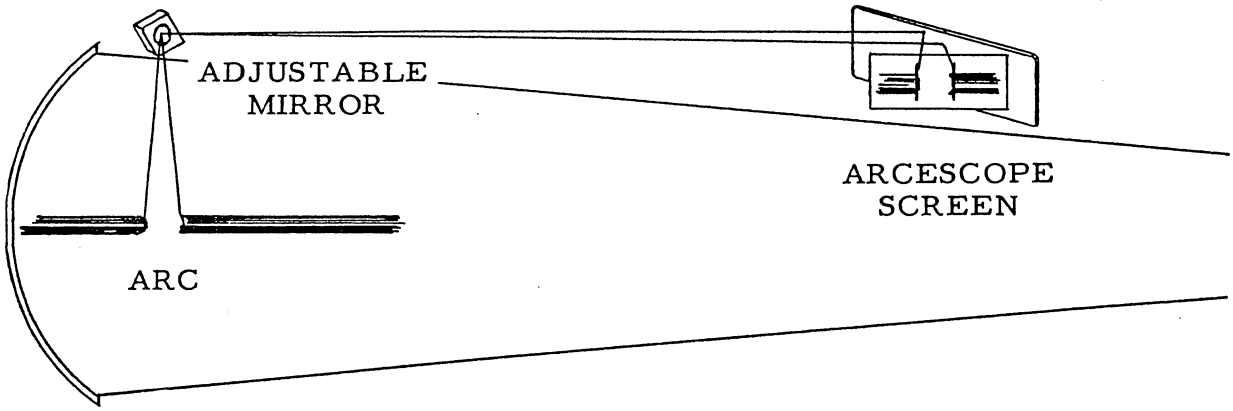
IN SEPARATING THE CARBON TIPS the first 1/16" should be done very quickly, then the remainder of the 1/4" distance more slowly. It should take about as long as it takes to say "sixteen millimeter" to complete the entire operation, otherwise the arc may go out before it has time to heat the carbons.

AFTER THE ARC HAS BURNED ABOUT ONE MINUTE and its burning has settled down, the meter on the yoke should be observed to see that the pointer is still in the green zone. If the pointer has dropped below the green zone as a result of a drop in A. C. line voltage, the rotary switch may have to be turned up a point or two to correct for this A. C. line voltage drop.

FOCUS THE ARC by means of the focus adjusting collar to bring the image of the incandescent carbon tips to the witness lines on the arc imager card at the front of the lamp.

THE INTENSITY AND COLOR of the projected light depends to a large extent on the positioning of the arc in relation to the lamphouse reflector.

PROJECT THE LIGHT TO THE STAGE and turn the focus adjusting control to attain the brightest, clear white light. Align the reflector by means of the vertical and horizontal reflector adjustment knobs on the back of the lamp. The correct adjustment will be indicated when there are no dark sides at the projected spot.



ADJUSTMENTS OF THE ARCESCOPE should be made only after the arc and reflector adjustments have resulted in a clear brilliant projected spot. Then the adjustable mirror should be tilted to bring the image of the burning carbon tips to the black witness lines on the glass arcescope screen.

EXACT ARC FOCUS and proper arc gap length are assured after the arcescope has once been set by simply maintaining the images of the burning carbon tips at these arcescope lines.

A SLOW BUT PERSISTENT DRIFT in one direction of both the positive and negative carbon from the witness lines on the arc image screen after a twenty to forty minute burn, indicates that a slight readjustment of the motor control rheostat is necessary.

IF BOTH THE POSITIVE AND NEGATIVE CARBONS are slowly drifting away from the reflector, retard the motor control rheostat slightly in a counter-clockwise direction and reset the carbons on the imager screen witness lines.

IF BOTH THE POSITIVE AND NEGATIVE CARBONS are slowly drifting toward the reflector, advance the motor control rheostat slightly in a clockwise direction and reset the carbons on the imager screen witness lines.

IF THE ARC GAP BECOMES EITHER WIDER OR NARROWER than the distance between the witness lines on the arc imager screen, it indicates that the meter on the pedestal should be checked to see if the rotary switch needs to be changed to compensate for a change in line voltage.

IF A SHORT GAP PERSISTS over a period of time, it may be necessary to advance the dial switch a step or two and operate with the hand of the meter slightly above the green zone.

IF A LONG GAP PERSISTS over a period of time, it may be necessary to retard the dial switch a step or two and operate with the hand of the meter slightly below the green zone.

OPERATION OF OPTICAL SYSTEM

THE IRIS CONTROL is the front lever which projects through the top of the optical system housing. When this lever is to the left, looking at the spotlamp from the rear, the largest aperture is obtained. Smaller apertures are obtained as the lever is moved to the right.

THE SPOT SIZE CONTROL handle is located on the right side of the optical system just above the base pan. A variation of spot sizes can be obtained by moving the spot size control from one extreme to the other.

THE MAXIMUM FLOOD SPOT is obtained with the iris control lever to the left for the large aperture and with the spot size control handle moved as far as possible toward the rear.

SMALLER SIZED SPOTS are projected as the spot size control handle is moved forward. Most of the spot sizes needed will be produced with the iris in its maximum open position.

FOR A "HEAD SPOT" or any spot size smaller than can be obtained with the spot size control handle in its extreme forward position, shift the iris control lever to the right for a smaller aperture. The iris control lever should always be returned to its extreme left position before the spot size control handle is again moved to obtain larger spots.

THE MASKING SHUTTER LEVER is the middle lever projecting through the top of the optical system housing. The masking shutter blades are operated by this lever to shape the projected spot to a rectangle or strip spot.

THE DISENGAGED POSITION of the masking shutter lever is to the extreme right and varying degrees of masking to complete cutoff are obtained by moving the lever to the left.

THE DIMMING CONTROL & DOWSER is the rear lever projecting through the top of the optical system housing. This lever controls the intensity of light from complete fadeout when the lever is to the left, to normal intensity when the lever is to the right.

THE SPOT FOCUSING CONTROL is located on the operator's side of the optical system base pan (forward end) and is used to adjust the optical system for the length of throw. When making an adjustment the iris control handle should be to the left and the spot size control handle moved about 5" from the extreme front position, then rotate the spot focusing control until the sharpest edge is obtained on the projected spot.

HANDLING THE SPOTLIGHT

GENERALLY THE BEST POSITION FOR OPERATION is to stand at the center of the spotlamp on the right hand side, although angle of tilt and size of porthole may alter the position for most convenient and effortless operation.

ONE HAND SHOULD BE KEPT ON THE SPOT SIZE CONTROL handle as the spot can thus be both directed and changed in size instantly.

THE EASE WITH WHICH THE SPOT SIZE CONTROL HANDLE CAN BE OPERATED is controlled by the Lens Carriage Friction Brake. The Friction Brake Spring Adjustment is readily accessible by removing the color filters from the boomerang and moving the large lens carriage back to where the Friction Brake Spring adjustment is just below the Boomerang Housing. Then loosen the locknut and turn the adjustment screw clockwise to increase friction and counter-clockwise to decrease friction. Be sure to tighten the locknut after adjustment is made.

OPERATION OF COLOR BOOMERANG

THE COLOR BOOMERANG is equipped with 6 color filters and an ultra-violet filter. The ultra-violet filter can be used as an extra color slide.

ADDITIONAL FILTER HOLDERS are available from the factory at a nominal cost. Order by part numbers 51376 and 51928. One of each is required to make up one assembly.

TO OPERATE INDIVIDUAL COLOR FILTERS, raise the desired lever pull to the uppermost position. A rocker catch located in the color disc housing holds the filter in position.

TO RELEASE A COLOR, simply depress the filter release button or engage another color filter, thus releasing the previous color automatically.

FOR IDENTIFICATION of filter pull, fasten a small strip of gelatine behind the color identification holes in the top cover casting (Boomerang Housing).

TO REMOVE A FILTER HOLDER for inserting a new filter, open the hinged top of the color disc housing and lift out the desired filter holder.

GELATINE FILTERS cut to 9" diameter are required and are secured in the Filter Holders by means of the round head paper fasteners.

CAUTION: WHEN REPLACING COLOR FILTERS in the boomerang, the less dense colors should be placed in the holders towards the rear (towards arc) of the spotlight, and those of greater density should be placed in holders nearer the front (away from arc) of the spotlight.

MAINTENANCE

KEEP THE REFLECTOR CLEAN. Wipe the reflector with a dry cloth each time carbons are changed.

ANY ACCUMULATION OF WHITE SCUM on the reflector which cannot be removed with the cloth, should be cleaned from the surface by using a small pad of steel wool. The reflector can be polished vigorously with the steel wool without harming the surface.

CARBON AND COPPER PARTICLES which may occasionally adhere to the reflector surface may be scraped off with a flexible razor blade so that these specks will not hinder polishing.

TO CLEAN THE SMALL LENS, remove the aperture cover plate, then use a good grade of alcohol and a piece of lens tissue (facial tissue can be used as a substitute) and gently wipe both sides of the lens until a clean surface is obtained.

THE BACK SURFACE OF THE LARGE LENS can readily be cleaned by opening the hinged top cover of the color disc housing, removing a few color disc holders and sliding the large lens carriage to the rear position.

TO CLEAN THE FRONT SURFACE OF THE LARGE LENS, slide the lens carriage to the full forward position. The front surface is now readily accessible through the front of the housing.

THE BLOWER MOTOR SHOULD BE LUBRICATED with two drops of oil in each oiler tube every month.

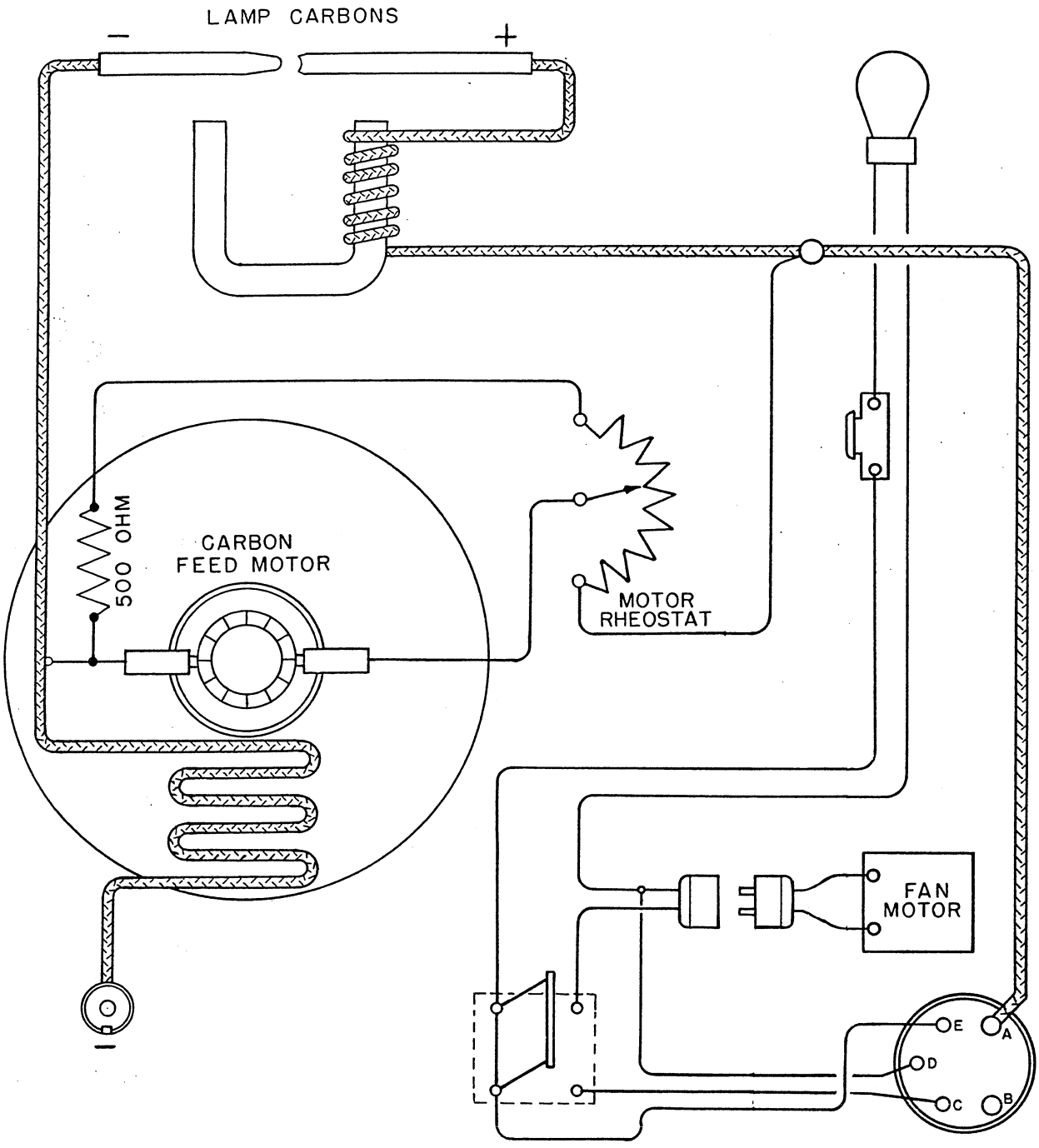
IF THE RECTIFIER should ever have to be replaced, it should be removed from the spotlight in the following manner.

1. Make sure that the vertical tilt lock lever is tightened securely and the rectifier is supported so that it will not drop when the attaching screws are removed.

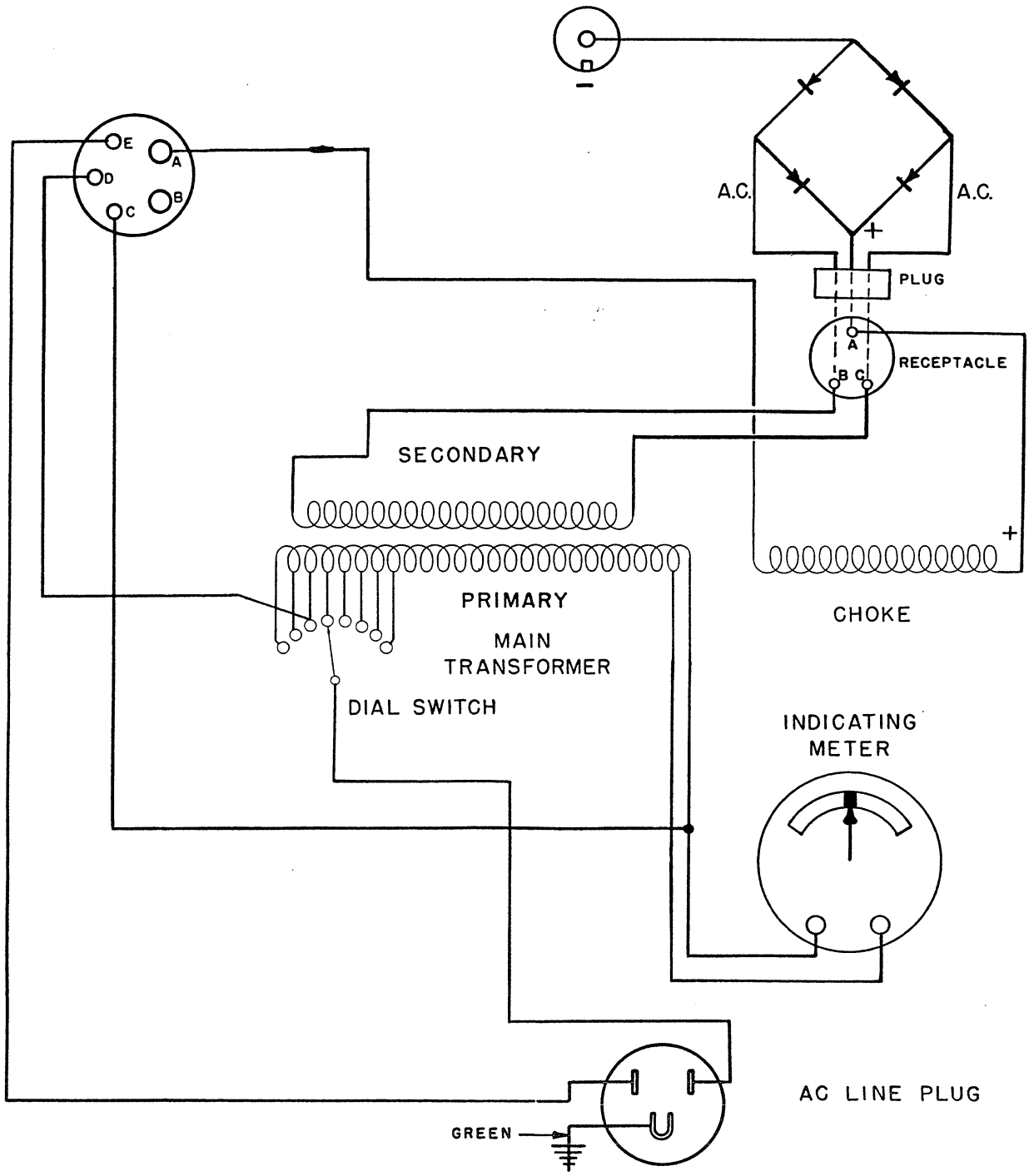
2. Disconnect the connectors in the two leads of the rectifier unit.

3. Remove the 7 attaching screws #1307 and slide rectifier forward, away from the blower assembly to lift off.

WIRING DIAGRAM
NUMBER 1478



WIRING DIAGRAM
NUMBER 2132



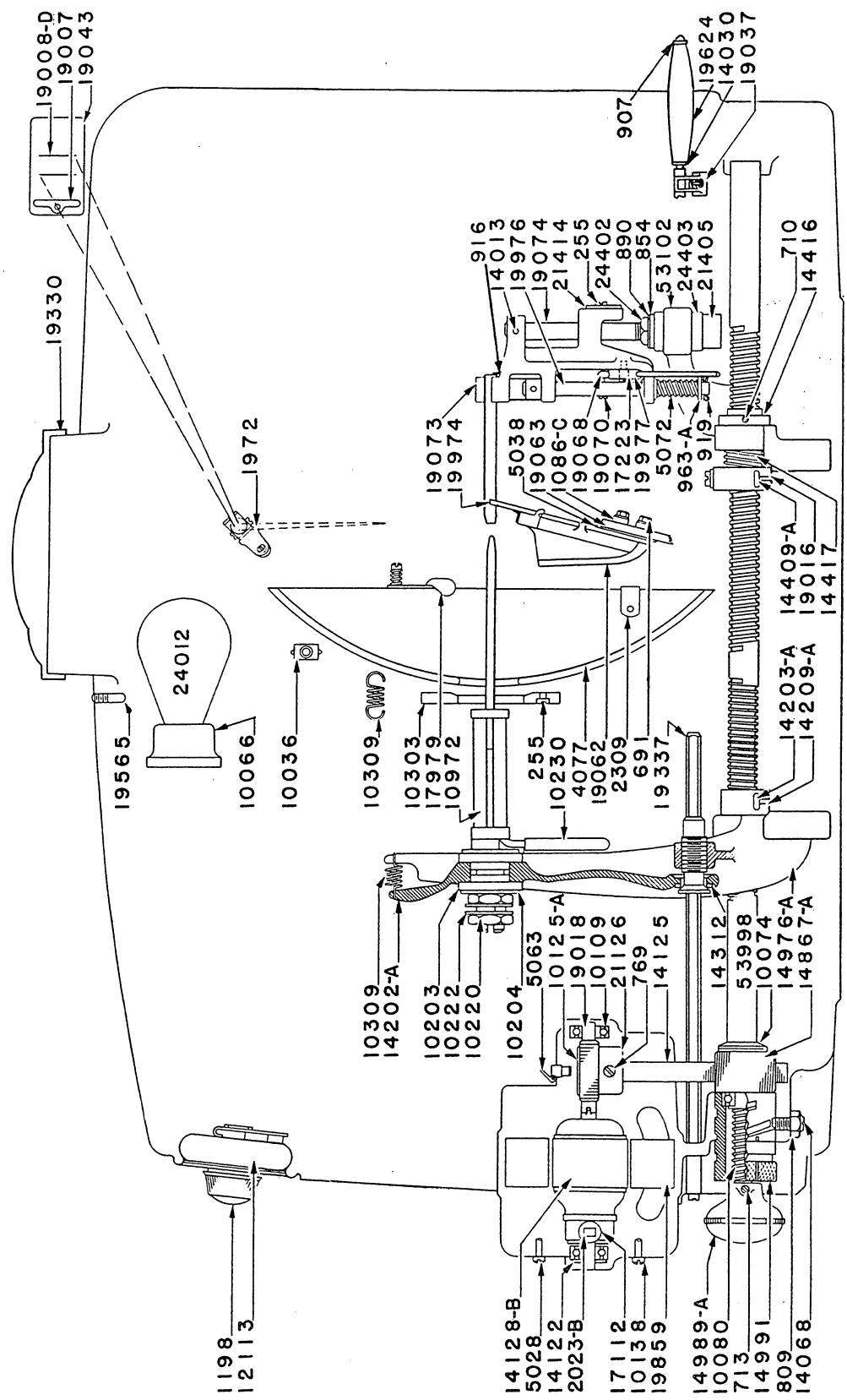

19008-D
19007
19043
19330
1972
907
19624
14030
19037
916
14013
19976
19074
21414
255
24402
890
854
53102
24403
21405
710
14416
19073
19974
5038
19063
1086-C
19068
19070
17223
19977
5072
963-A
919
14409-A
19016
14417
14203-A
14209-A
24012
19565
10066
10036
10309
10303
17979
10972
255
10230
4077
19062
2309
691
19337
10309
14202-A
10203
10222
10220
10204
5063
10125-A
19018
10109
21126
769
14125
14312
53998
10074
14976-A
14867-A
14128-B
5028
14122
2023-B
17112
10138
19859
14989-A
10080
713
14991
809
14068
1198
12113

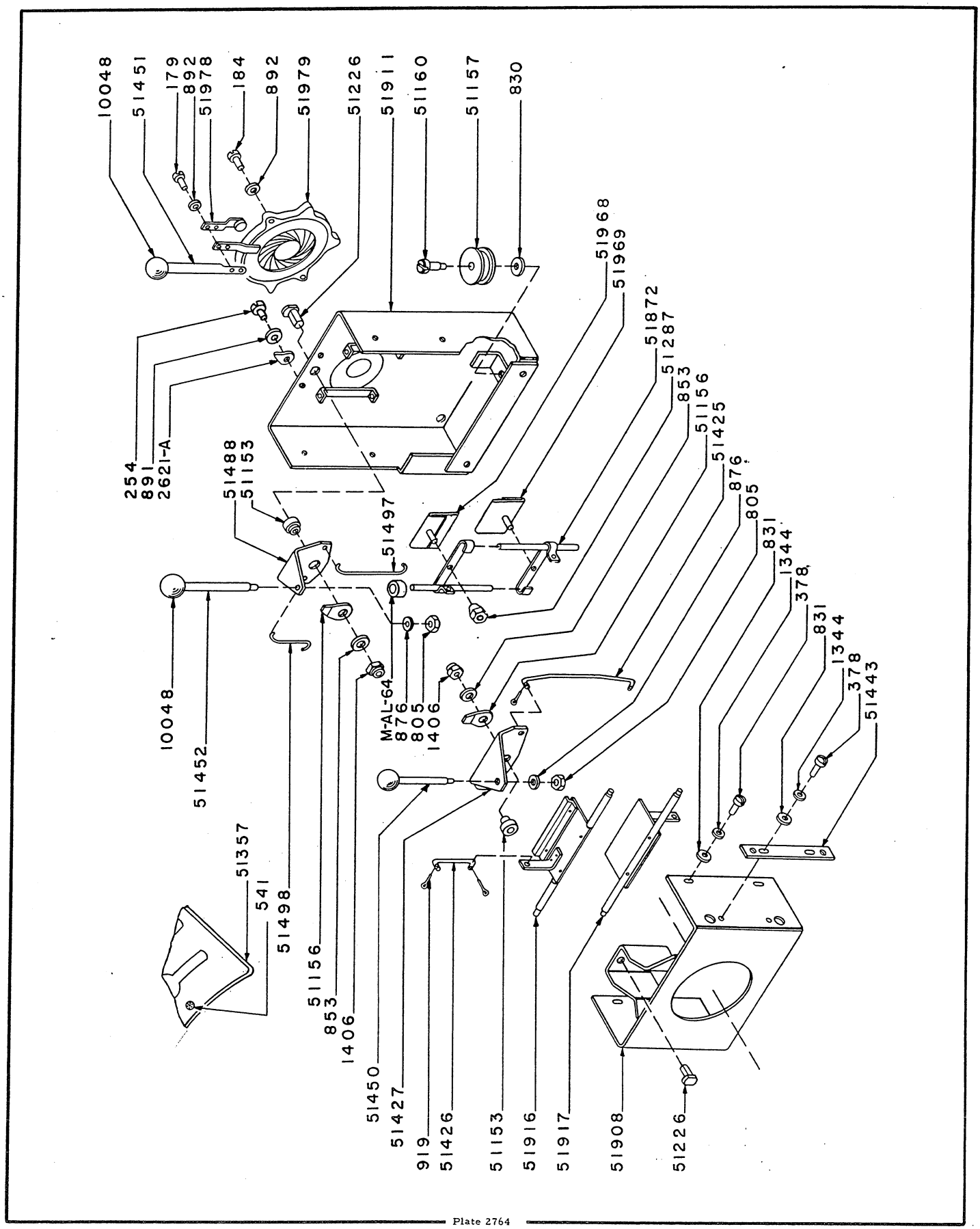
Plate 2760

255	Screw, Fil. Hd. 8-32 x 5/16"
691	Screw, Hex Hd. 1/4-20 x 3/4"
710	Screw - Set, Hdless Cup Pt. 8-32 x 1/8"
713	Screw - Set, Hdless Cup Pt. 8-32 x 5/16"
769	Set Screw 1/4-28 x 3/8 Cup Pt. Hdless
809	Nut, 3/8-16 Hex
854	Washer, SAE Std. 3/8"
890	Washer, Spring Steel
907	Nut, Acorn 10-24
916	Taper Pin, #00 x 3/4" Long
919	Cotter Pin, 1/16 x 1/2"
963-A	Washer, 17/32 O.D. x .310
1086-C	Bushing (Lava)
1198	Knob - Rheostat
1972	Arc Imager Assy.
2023-B	Motor Brush and Spring Assy.
2309	Clip, Reflector
4077	Reflector, 4-24-11-3/8
5038	Mica Insulation
5063	Oil Cup
5072	Spring, Tension (Pos. Jaw)
10036	Switch Assy. (Work Light)
10066	Work Light Receptacle
10074	"D" Washer
10080	Spring (Lead Screw)
10109	Ball Bearing (Motor)
10125-A	Oiler Felt
10138	Screw, Field Mounting
10203	Insulation (Neg. Car.)(Lava)
10204	Washer (Neg. Jaw)
10220	Nut, Clamping (Neg.)
10222	Washer (Neg. Jaw Clamp)
10230	Handle, Neg. Carbon Eccen.
10303	Insulator, Reflector Carriage
10309	Spring, Reflector Tension
10972	Neg. Carbon Jaw Assy.
12113	Rheostat (120 Ohm)
14013	Screw - Set
14030	Roller, Door Latch
14068	Screw - Set (Focus Adj.)
14114	Nameplate, Rheostat
14122	Shim, Fibre (Arm Shaft)
14125	Shaft, Drive (36P.)
14128-B	Armature
14202-A	Negative Spider
14203-A	Wire, Negative Carriage Drive
14209-A	Bushing, Negative Carriage
14312	Washer (Fibre)

14409-A	Wire - Driving
14416	Nut (Arc Striker)
14417	Spring, Arc Striker
14867-A	Gear Assembly, Lead Screw
14976-A	Neg. Carriage Unit Assy.
14989-A	Control Knob Assy. (Red)
14991	Focus Adjusting Screw Assy.
17111	Brush Holder Body
17112	Brush Holder Cap
17223	Pin, Stop (Pos. Jaw)
17979	Ref. Release Trigger Assy.
19007	Arcescope Screen Clip
19008-D	Arcescope Screen (paper)
19016	Bushing, Arc Striker
19018	Armature Worm (42 P.)
19037	Catch, Latch Rod (R.H.)
19043	Arcescope Screen Glass
19062	Steadyrest Ash Receiver
19063	Positive Steadyrest Bracket
19068	Positive Jaw Cam Roller
19070	Screw, Pos. Jaw Roller
19073	Jaw, Positive
19074	Positive Jaw Post
19330	Vent Cap
19337	Rod - Adjusting
19517	Casting, Back
19565	Pin, Reflector Steadying
19601	Casting, Top
19603	Rod - Slide
19624	Handle, Door
19852	Door Assembly, Right Hand
19859	Motor Field Unit Assy.
19959	Field Resistor Assy.
19976	Positive Jaw Clamp Assy.
19977	Positive Jaw Cam Assy.
19983	Door Hinge Bolt Assy.
20002-A	End Bell, Motor
21126	Motor Gear, Fibre
21405	Insulator, Pos. Upright
21414	Wire Clamp, Pos. Jaw
24012	Work Light
24402	Nut, Pos. Upright
24403	Insulating Bushing
24405	Nut, Positive, Upright
24410	Spring
53102	Positive Carriage
53998	Lead Screw and Stud Assy.
90234	Truarc Ring
499341A	WIRE HARNESS ASS'Y

Parts Not Shown On Illustration

1029	Bracket, Arc Imager
1195	Clamp, Wire
1954	Imager Mirror Block Assy.
5028	Field Screw (long)
10125-B	Oiler Felt
10127	Welsh Plug (Motor Housing)
10206	Reflector Adj. Screw
10208	Screw, Negative Adj.
10306	Spring, Reflector Steadying
10317	Sleeving, Ref. Spring
11041	Window Glass
12031	Clamp, Glass Retaining
14569	Locknut (Pilot Switch)
19009	Arcescope Reflector
19010	Arcescope Frame
19026	Knob Door Stop
19040	Insulator, Ref. Adj. Rod
19042	Window Frame
19327	Casting, Front
19531	Reflector Carriage
19604	Rod - Guide
19605	Hinge Rod, Door
19611	Support Rod, Ash Pan
19612	Ash Pan
19613	Light Baffle, Ash Pan
19614	Top Side Sheet Metal (R.H.)
19622	Arcescope Bracket
19915	Reflector Frame Assy.
19972	Wire Assembly, Rheostat to Motor Brush
19974	Positive Steadyrest Assy.
19978	Positive Jaw Unit Assy.
19979	Negative Carriage & Bushing Assy.
19988	Arc Striker Bushing Assy.
19993-B	Arcescope Screen Assy.
22122	Resistor (Motor Field)
53994	Positive Carriage Unit Assy.
53999	Lead Screw Unit Assy.


10048
51451
179
892
51978
184
892
51979
51226
51911
51160
51157
830
254
891
2621-A
51488
51153
51497
51968
51969
51872
51287
853
51156
51425
876
805
831
1344
378
831
1344
378
51443
10048
51452
M-AL-64
876
805
1406
51357
541
51498
51156
853
1406
51450
51427
919
51426
51153
51916
51917
51908
51226

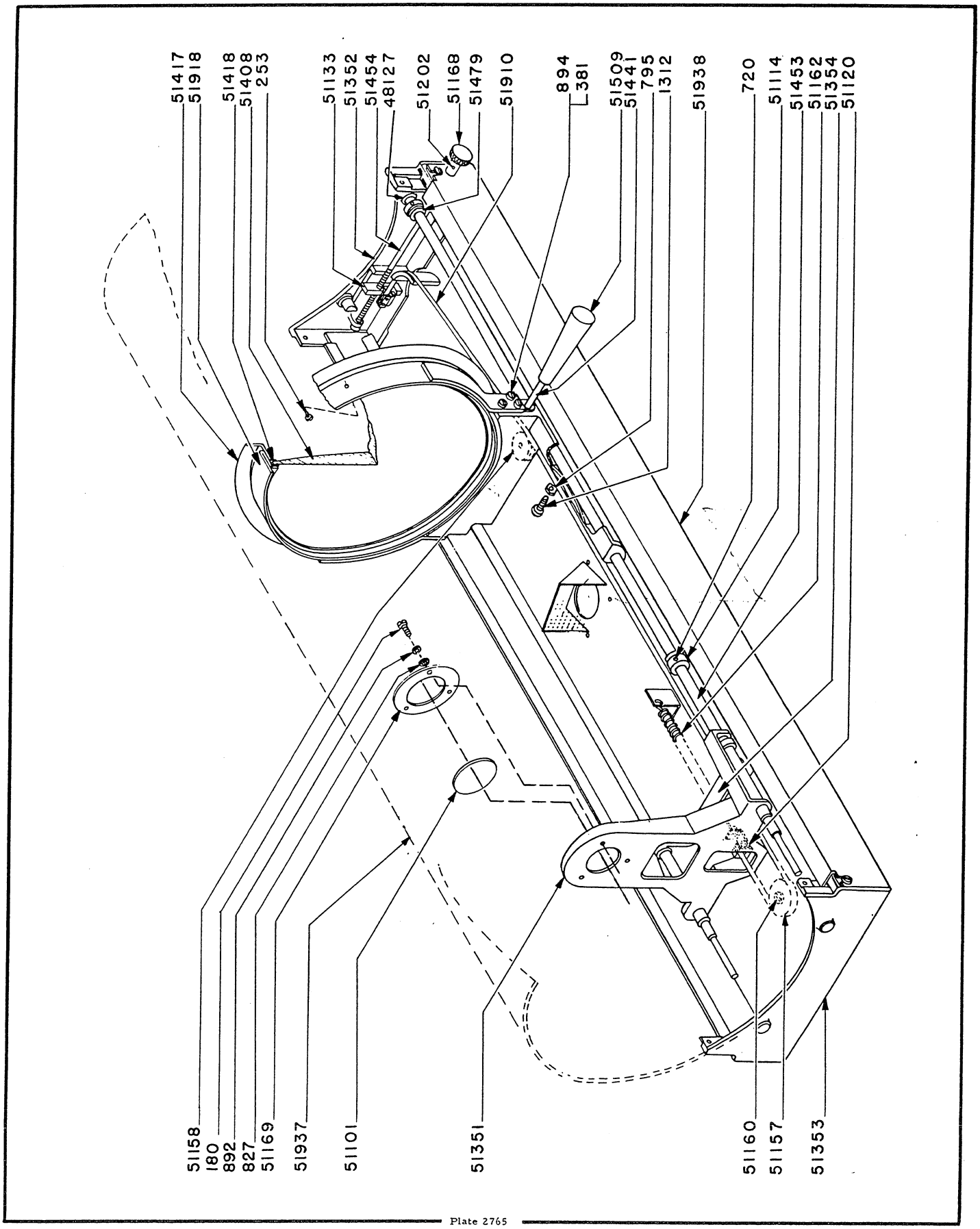

51417
51918
51418
51408
253
51133
51352
51454
48127
51202
51168
51479
51910
894
L381
51509
51441
795
1312
51938
720
51114
51453
51162
51354
51120
51158
180
892
827
51169
51937
51101
51351
51160
51157
51353

Plate 2765

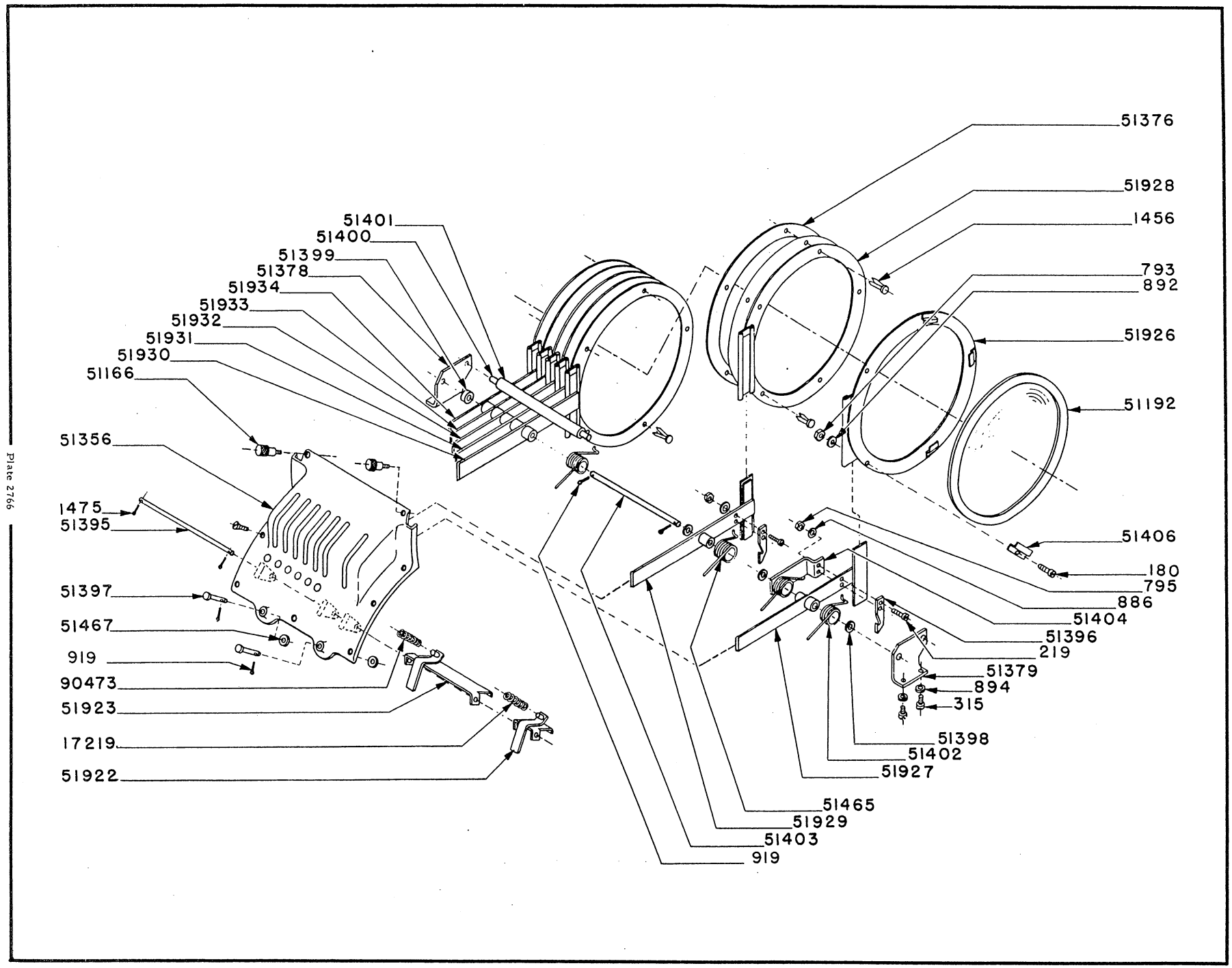

51376
51928
1456
793
892
51926
51192
51406
180
795
886
51404
51396
219
51379
894
315
51398
51402
51927
51465
51929
51403
919
51401
51400
51399
51378
51934
51933
51932
51931
51930
51166
51356
1475
51395
51397
51467
919
90473
51923
17219
51922

Plate 2766

179	Screw-Machine, Fill. Hd. 6-32 x 1/4"
180	Screw 6-32 x 5/16 Fill. Hd.
181	Screw Machine, Fill. Hd. 6-32 x 3/8"
184	Screw-Machine, Fill. Hd. 6-32 x 5/8"
219	Screw-Machine, Rd. Hd., 8-32 x 7/16"
221	Screw-Machine, Rd. Hd., Stn. Steel 8-32 x 5/8"
253	Screw-Machine, Fill. Hd., 8-32 x 3/16"
254	Screw-Machine, Fill. Hd., 8-32 x 1/4"
315	Screw-Machine, Rd. Hd., 10-24 x 1/2"
378	Screw-Machine, Fill. Hd., 10-32 x 1/4"
381	Screw-Machine, Fill. Hd., 10-24 x 3/8"
541	Screw-Machine, Oval Bd. Hd., 1/4-20 x 1/2"
720	Set Screw - Cup Pt., Headless, 10-32 x 3/16"
793	Nut - Steel, 6-32
795	Nut - Steel, 8-32
805	Nut - Steel, 1/4-20
827	Washer - Brass, #6, 5/16" O.D. x .147 I.D. x .028
830	Washer - Brass, #8, 7/16" O.D. x .172 I.D. x .036
831	Washer - Thick Brass #10, 7/16" O.D. x .200 I.D. x .036
853	Washer - Steel, 1/4" SAE Std.
876	Lockwasher - Split Ring, 1/4"
886	Lockwasher - Split Ring, #8
891	Lockwasher #8 - Shakeproof, #1208 (Steel)
892	Lockwasher #6 - Shakeproof, #1206 Internal
919	Cotter Pin - 1/16" x 1/2"
1312	Screw - Bind. Hd., 8-32 x 1/2"
1344	Lockwasher #10 - Internal, -#1210 Shakeproof
1406	Nut - Flexlock, 5/16-18 x 1/4"
1456	Fastener, Paper #2 Rd. Hd. x 1/2" (Brass)
1475	Cotter Pin - Stainless, 1/16 x 3/8"
M-AL-64	Insulating Bushing
2621A	Clip
10048	Knob
17219	Spring
48127	Ring - Retaining
51101	Lens 2" Dia., 2-1/2" Focal Length
51114	Collar - Stop, Slide Rods
51120	Clip-Retaining, Spring and Ribbon
51133	Block Adjusting, Lens Focal
51153	Bushing-Spacer, Chopper Blades
51156	Plate-Friction, Chopper Blades
51157	Pulley-Large
51158	Pulley-Small
51160	Stud-Pulley
51162	Spring-Friction, Adjusting
51166	Screw-Retaining, Boomerang Cover Plate
51168	Knob-Adjusting, Focus
51169	Ring-Retaining, Small Lens

51192	Lens-Ultra Violet
51202	Screw-Set, Focus Adjusting Knob
51226	Stud, Chopper Blades
51287	Nut Retaining, Chopper Blade
51351	Casting-Support, Small Lens Carriage
51352	Casting-End, Base Pan Front
51353	Casting-End, Base Pan Rear
51354	Bracket-Support, Slide Rods
51356	Casting-Cover, Boomerang Housing
51357	Plate-Cover, Aperture & Lens Mechanism
51376	Plate-Cover, Color Disc
51378	Bracket-Left Hand, Color Boomerang
51379	Bracket-Right Hand, Color Boomerang
51395	Shaft-Rocker Catch
51396	Catch
51397	Button - Color Release
51398	Washer-Nylon
51399	Spacer
51400	Shaft-Stop
51401	Stop-Rubber
51402	Spring-Ultra Violet Filter
51403	Shaft-Color Disc Holder
51404	Support-Arm
51406	Clip-Ultra Violet Filter
51408	Lens-Large 11" Dia.
51417	Retainer - Large Lens
51418	Mounting Rubber, Large Lens
51425	Rod - Pull, Long (Fadeout)
51426	Rod - Pull, Short (Fadeout)
51427	Bracket - Handle, Fadeout
51441	Shaft-Large Lens Carriage
51443	Strip-Retaining, Fadeout Mechanism
51450	Shaft, Fadeout Mechanism
51451	Shaft-Iris
51452	Shaft-Chopper Blade Handle
51453	Rod-Slide
51454	Screw-Adjusting Focus
51465	Spring-Color Disc
51467	Washer-Color Release Button
51479	Bumper-Rubber, Slide Rods
51488	Masking Blade Handle Brkt.
51497	Masking Blade Pull Rod (lower)
51498	Masking Blade
51509	Handle, Large Lens Carriage
51872	Slide Assem. - Masking Blade
51908	Support Plate Assy. - Fadeout Mech.
51910	Ribbon Assy.
51911	Support Plate, Aperture

51916	Blade Assy. - Upper
51917	Blade Assy. - Lower
51918	Lens Carriage Assy. - Large
51922	Rocker Catch Assy. - Short
51923	Rocker Catch Assy. - Long
51926	Main Plate & Slide Assy. - Ultra Violet
51927	Arm Assy. - Ultra Violet
51928	Main Plate & Slide Assy. - Colors
51929	Arm Assy. - Color Disc (6-11/16)
51930	Arm Assy. - Color Disc (6-3/16)
51931	Arm Assy. - Color Disc (5-11/16)
51932	Arm Assy. - Color Disc (5-3/16)
51933	Arm Assy. - Color Disc (4-11/16)
51934	Arm Assy. - Color Disc (4-3/16)
51937	Housing - Lens Mech.
51938	Pan - Base, Welded
51968	Chopper Blade Assy. - Upper
51969	Chopper Blade Assy. - Lower
51978	Friction Spring & Button, Iris
51979	Iris
90473	Spring - Color Release

Parts Not Shown On Illustration

23059	Insignia (Strong)
51350	Casting - Support, Large Lens Carriage
51459	Insignia (Super Trouper)
51466	Nameplate
51471	Bumper - Boomerang Cover
51909-A	Aperture Assy. (Complete With Iris)
51915	Fadeout Mechanism Assy. (complete)
51919	Ultra-Violet Disc Assy (with filter)
51939	Boomerang Assy.

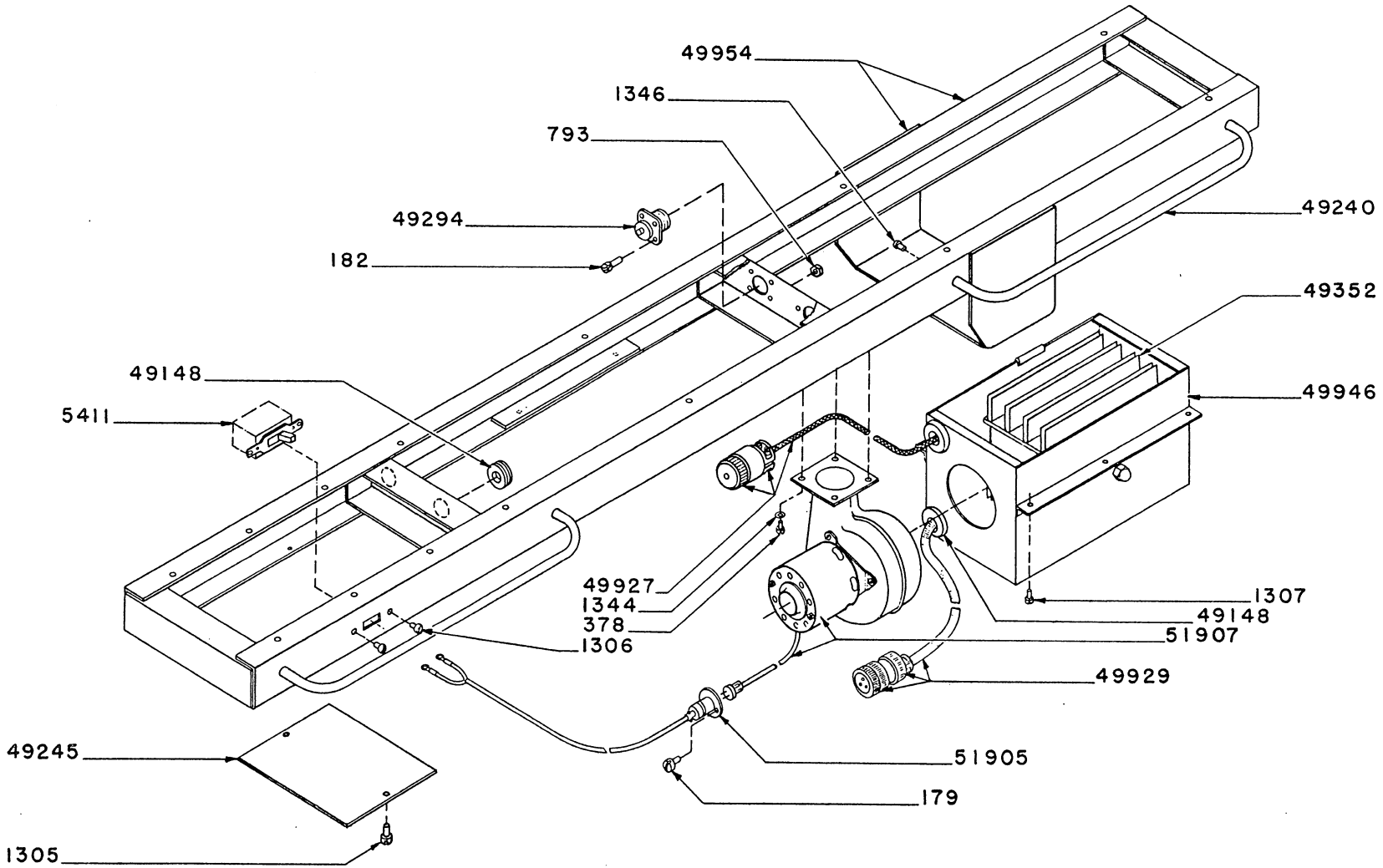
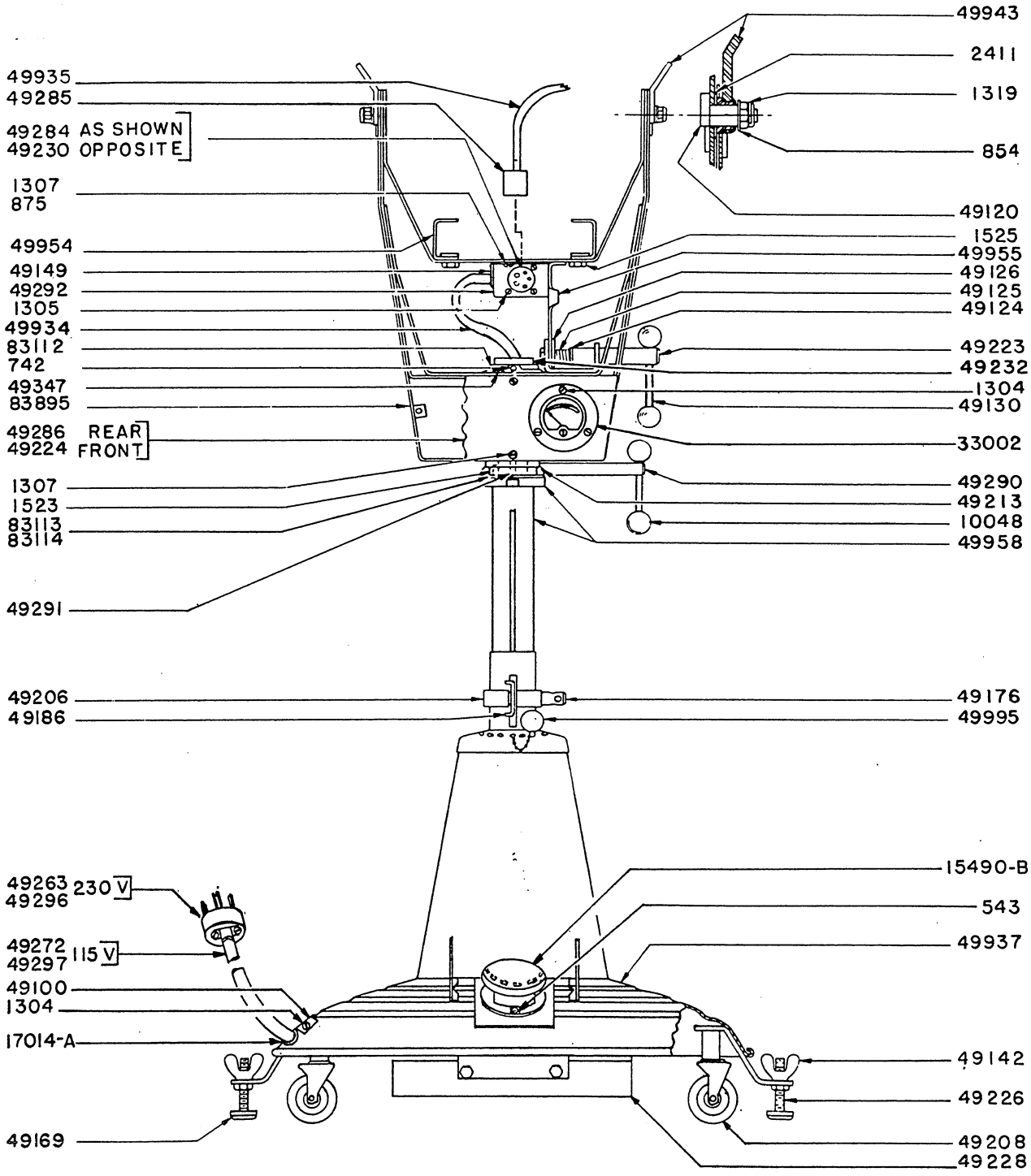

49954
1346
793
49294
182
49240
49352
49148
5411
49946
49927
1344
378
1306
1307
49148
51907
49929
51905
179
49245
1305

Plate 2458


49943
2411
1319
854
49120
1525
49955
49126
49125
49124
49223
49232
1304
49130
33002
49290
49213
10048
49958
49935
49285
49284 AS SHOWN
49230 OPPOSITE
1307
875
49954
49149
49292
1305
49934
83112
742
49347
83895
49286 REAR
49224 FRONT
1307
1523
83113
83114
49291
49206
49186
49176
49995
49263 230 V
49296
49272 115 V
49297
49100
1304
17014-A
49169
15490-B
543
49937
49142
49226
49208
49228

179	Screw-Mach., Fill. Hd., 8-32 x 1/4"
182	Screw-Mach., Fill. Hd., 6-32 x 7/16"
543	Screw-Mach., Oval Bd. Hd., 1/4-20 x 3/8"
742	Screw-Set, Dog Pt. Headless, 1/4-28 x 5/16"
793	Nut-Steel, 6-32
854	Washer, 3/8" Std. Steel (SAE)
875	Lock Washer - Split Ring, 3/16"
1304	Screw, Bd. Hd., 8-32 x 5/16"
1305	Screw, Bd. Hd., 6-32 x 1/4"
1307	Screw, Bd. Hd., 10-32 x 3/8"
1319	Nut - Steel, Dualock, 3/8-16
1346	Screw, Hex Hd., 5/16-18 - 1/2"
1523	Bolt-Steel, 3/8-16 x 2-1/2" Sq. Hd.
1525	Thumb Screw, 5/16-18 x 3/4"
2411	Washer
5411	Switch
10048	Knob
15490-B	Dial Switch Assembly
17014-A	Bushing
33002	Meter
49100	Plate, Line Voltage
49120	Bolt, Tilt Axis
49124	Bushing, Trunion Clamp
49125	Spring, Trunion Clamp
49126	Trunion Clamp Plate
49130	Shaft, Trunion Clamp Handle
49142	Nut-Wing, Adjustable Feet
49148	Grommet
49149	Grommet, Lens & Lamp Base Pan
49169	Cap-Rubber
49176	Bolt, Elevation Clamp
49186	Key - Elevation Clamp
49206	Collar - Clamp, Elevation
49208	Caster
49213	Collar - Clamp, Swivel
49223	Shaft, Trunion Clamp
49224	Cover, Junction Box, Front
49226	Foot-Adjustable
49228	Transformer Guard
49230	Receptacle
49232	Grommet, Inner Tube
49240	Hand Rail
49245	Plate - Switch Cover
49263	Cord Cap (230V line)
49272	Cord Cap (115V line)
49284	Receptacle
49285	Connector
49286	Rear Cover Plate

49290	Swivel Clamp Nut
49291	Lamp Swivel Stop
49292	Receptacle Box
49294	Receptacle
49296	Receptacle - Single Outlet 3 Wire Grounding (230V. only)
49297	Lead Wire Assy. 115V.
49347	Bushing "Snap In"
49352	Silicon Rectifier
49929	Cable Assembly (with Lugs and Connector)
49934	Cable Assy., Center
49935	Cable Assy., Yoke to Lamphouse
49937	Pedestal Base Tube & Cone Assy.
49943	Lifting Strap Assy.
49946	House Assembly - Rectifier
49954	Lamp & Lens Support Pan
49955	Quadrant & Yoke Assy.
49958	Inner Tube & Collar Assy.
49995	Handle Assy., Height Clamp
51905	Lead Assy., Blower
51907	Blower Motor & Cord Cap Assy.
83112	Lifting Collar, Inner Tube
83113	Thrust Bearing, Needle
83114	Thrust Bearing Race
83895	Saddle, Welded Assy.

Parts Not Shown on Illustration

15489	Switch Body & Inserts
49200	Nameplate
49927	Negative Lead Assy.

When ordering parts be sure to give the serial and type number of the original equipment for which the parts are required.

INSTALLATION INSTRUCTIONS
LOBSTERSCOPE KIT NO. 51826-A
(SUPER TROUPER)

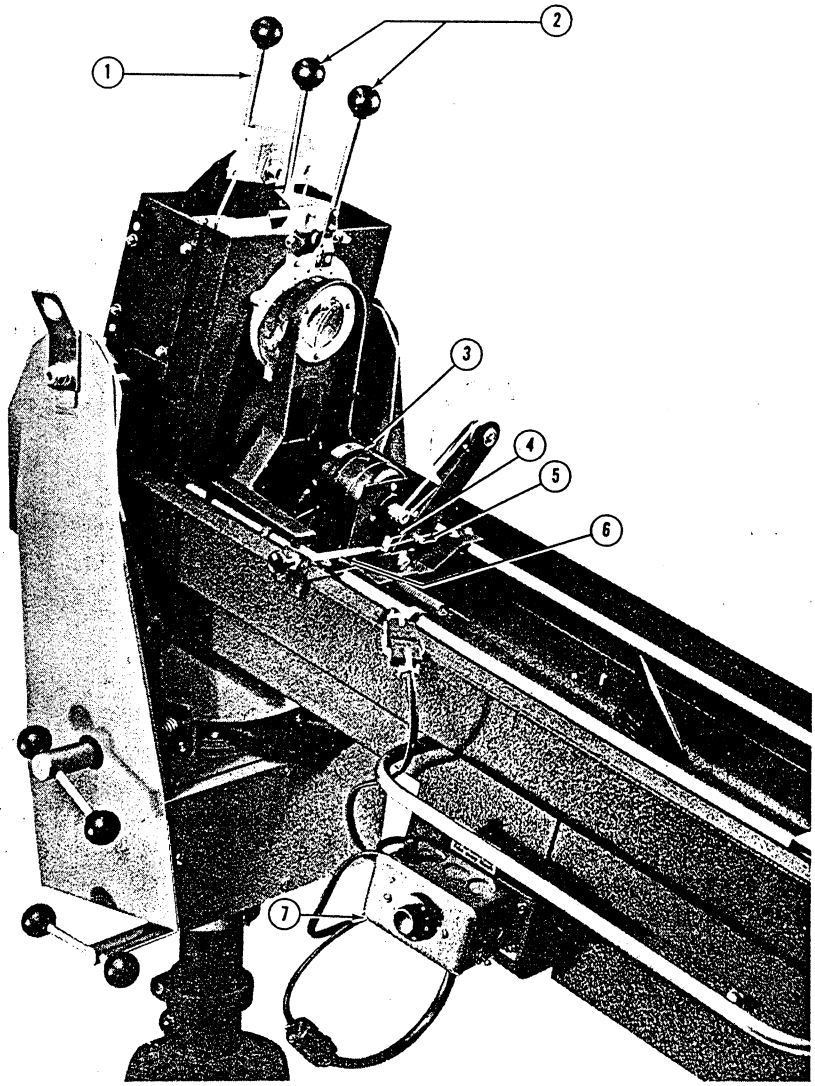
MOVE THE LARGE LENS ASSEMBLY to the extreme forward position. Remove the top casting, fadeout mechanism bracket handle (item 1), and the iris and chopper blade knobs (item 2) from the top of the optical system cover. Remove screws securing the optical system cover to the optical base. Slide the optical system cover back and lift up, clearing the iris handle, chopper blade handle and until the aperture and yoke can be cleared. Turn the optical system cover at a right angle and lift off.

SLIDE THE LARGE LENS CARRIAGE all the way back and turn the optical focus control knob clockwise to the end of its travel. Place the motor and support arm assembly (item 3) on the guide rods. Place the assembly as close as possible without touching the small lens. Secure with the screws furnished.

MOVE THE LOBSTERSCOPE DISC ARM away from the operating side so the disc will clear the light path of the small lens but will not touch the optical system cover when the cover is replaced. With the disc in this position push the cable assembly control knob all the way in and tighten the wire swivel (item 5) securely. While viewing the Lobsterscope disc from the front of the spotlight, pull the control knob out until the outer rim of the disc gives maximum coverage of the small lens. A small edge of the lens will show. With the disc in this position move the wire stop (item 4) against the spiral tubing and tighten the wire stop securely.

ATTACH THE MOTOR CONTROL BOX (item 9) as shown using the aluminum spacer provided with the kit. Connect the wire with the 3-pin connector (item 7) to the motor plug. Disconnect the blower motor plug from its receptacle and connect the plug to the twist-lock receptacle lead (item 8) of the motor control box. Connect the plug from the motor control box into the receptacle from which the blower motor plug was removed.

INSTALL THE OPTICAL SYSTEM COVER by reversing the procedures in the first paragraph. Make sure the cover does not strike or interfere with the operation of the Lobsterscope.



1	51451	Shaft, Iris Handle	4	51577	Wire Stop
	51452	Shaft, Chopper Blade Handle	5	51576	Wire Swivel
2	10048	Knob	6	51827	Control Cable Assembly
3	51828	Motor & Support Arm Assembly	7	51818	Motor Control Box
	23287	Motor		17014	Cable Clamp
	23289	Belt, Drive		51595	Cover, Box
	51562	Pulley, Disc		51596	Adapter Bracket
	51563	Clamp Support, Lower		51597	Switch, Toggle
	51565	Pulley Motor Drive		51598	Motor Speed Control
	51567	Disc, Lobsterscope		51817	Utility Box
	51580	Shaft, Disc		64247	Socket
	51581	Bearing, Nylon		66303	Fuse 1 Amp 250V
	51582	Support Arm		66441	Fuse Extractor Post
	64167	Ring, Retaining		66665	Indicating Switch Plate
	64246	Plug		90605	Cord Cap
	90383	Bearing Countershaft		90624	Connector Body
	90432	Truarc Ring 5100-68			