

FILM-TECH

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RECOMMENDED ANNUAL MAINTENANCE CHECK LIST (EX6000) 4/4/79

1. Inspect and lubricate cam with a small amount of P/N5628 Molybdenum disulfide grease. Add several drops of Molybdenum Disulfide oil P/N5632 to the cam felt and a couple of drops of P/N5631 machine oil to the fulcrum shaft bushing. (See service updates #33 and #43).
2. Check, clean and lubricate cam tank shutter pulley with a thin film of P/N5630 silicone oil on the inner cone surface. Apply a small amount of P/N5631 machine oil to the cam tank shaft and pulley bushing.
3. Check and adjust claw protrusion and stroke. (Protrusion = 1mm to 1.2mm or .040" \pm .005").
4. Add a small amount of silicone grease P/N5625 to the worm gear.
5. Brush debris from the film gate and clean the film gate, side rail and film shoe with Isopropyl alcohol.
6. Clean all nylon film rollers with Isopropyl alcohol and make sure they roll freely. They should not need lubrication, however if lubricated, use a very small amount of silicone oil P/N5630.
7. Lubricate motor belt idler pulley bushing with P/N5671 machine oil.
8. Clean the motor drive belt, and its respective pulleys with Isopropyl alcohol. Replace belt if worn or cracked.
9. Check and inspect the geared drive belt for wear or cracks.
10. Blow all dust from the projector with clean, compressed air.
11. Brush dust from the photo cell, sound focus lens, and wipe clean the exciter lamp.
12. Clean the projection lens with lens cleaner and a soft cloth or tissue.
13. Wipe off lamp reflector with a soft, dry cloth.
14. Check all lamp current supply connections for arcing or corrosion. Clean and tighten if necessary.
15. Check lamp focus alignment and re-adjust if necessary.
16. Check overall performance of the projector. Make any adjustments as may be required.
17. Clean and wipe off the entire projector.

EIKI PORTABLE PROJECTOR BELT CHART

	MOTOR BELTS			REVERSE BELT		SUPPLY ARM BELT		TAKE UP ARM BELT						MAIN DRIVE BELT		FAN BLOWER BELT			REWIND BELT		SYNC MOTOR BELT			
	ST-12181	321-12181 3V	241-12181	ST-13161	ST-12181	ST-13151	320-13151	ST-13151	320-14411	222-14641	222-14651	0031-5309	241-14321	ST-15211	320-15211	222-12181	224-12181	210-12181	ST-19041	241-14051	241-12191	074-05171	241-12821	
ST - SERIES	X			X		X		X						X					X					
RT - SERIES	X				X	X		X						X										
NT - TO S/N 50000	X				X	X		X						X										
NT - FROM S/N 50001		X			X	X		X						X										
SL - TO S/N 5000	X						X		X						X									
SL - FROM S/N 50001		X					X		X						X									
EX-300SL TO S/N 3557	X						X		X						X			X						
EX-300SL FROM S/N 3558		X					X		X						X									
EX-2000 A & N	X				X			X								X								
EX-2000N FROM S/N 2357		X			X			X								X								
EX-3000N		X			X			X								X								
EX-4000P			X				X														X			
EX-4000P W/SYNC MOTOR							X						X							X	X			
NT-OT & NT W/SYNC MOTOR					X			X						X								X		
SL- W/SYNC MOTOR							X		X													X		
RT-NT-2000, 3000 W/6000' ARMS									X	X												X		



SERVICE UPDATE

BULLETIN NO: 15

ISSUE DATE: Feb. 27, 1976

SUBJECT: NEW "R" SERIES SCHEMATICS

The schematics referred to in this service update are on the CR-Rom and may be found on the Eiki Index.

We are attaching a complete set of schematics for the "R" series projectors which includes three amplifier schematics and two wiring diagrams.

While some of these are updates of previously released drawings, some are being issued for the first time. The following is an explanation of each, to help understand and use them:

- A. "R" Series Amplifier Schematic #1 -- this is the first schematic issued and is for the earliest series amplifiers for: RST Models S/N 10000 through 20028,
RT Models S/N 10000 through 25878,
RM Models S/N 10000 through 20178.

Besides the serial number, these series amplifiers can be identified by "EUH-WA206" etched on the printed circuit board.

- B. "R" Series Amplifier Schematic #2 -- is a schematic for a very major revision in the amplifier design in which a major number of the component parts have been changed. This was done to improve the performance and reliability and, as a side benefit, the output power went to 20 watts RMS (from a previous 12 watts RMS). This schematic is for:
RST Models S/N 20029 through 20612,
RT Models S/N 25879 through 35213,
RM Models S/N 20179 through 25728.

These amplifiers may also be recognized by the designation "EUH-WA414" etched on the printed circuit board and the cover over the output transistors.

Please note, it is Eiki's policy to update any older amplifiers that come through the module exchange program with the new style (EUH-WA414) circuit board, so it is important to check for this when selecting the proper schematic for an amplifier.

Also note that the amplifier fuse has been increased to 1 1/2 amp to handle the added current draw.

- C. "R" Series Amplifier Schematic #3 -- is a minor revision only for:

EIKI SERVICE BULLETIN #15

February 27, 1976

Page 2

RST Models S/N 20613 and on,
RT Models S/N 35214 and on,
RM Models S/N 25729 and on.

These are models which are not yet in production, but which will begin to come through by late spring. The change involves fuses only:

- (a) a second fuse holder, an open clip style mounted on top of the chassis, added to replace a fuse which had previously been included in the wiring harness installed in the main projector casting assembly. The rating of this fuse is 2 amp.
- (b) the regular amplifier fuse has been increased in value to 2 amps (from the previous 1 1/2 amp).
- D. "R" Series Electrical Circuit Diagram #1 -- is the previously issued one, updated with the projector serial number cutoff:
 - RST Models S/N 10000 through 20612,
 - RT Models S/N 10000 through 35213,
 - RM Models S/N 10000 through 25728.
- E. "R" Series Electrical Circuit Diagram #2 -- is a new one for:
 - RST Models S/N 20613 and on,
 - RT Models S/N 35214 and on,
 - RM Models S/N 25729 and on.

The only change on this one over the previous one is the elimination of the (2 amp) fuse in the exciter lamp circuit. As noted in paragraph C, this fuse is now on the amplifier chassis for easier service access.

A special note about fuses---

Please use the correct value fuse for the requirement--never larger and never the slow blow type. The wrong fuse will never solve any problems and it will often create additional ones.



SERVICE UPDATE

SUBJECT: EXCESS BASS-CHOPPY SOUND

"R" SERIES

1. We have had a number of reports of "choppy sound" or "clipped words". This was difficult to identify because it seemed to occur only when the gain on the bass control was excessive, only with some voice reproduction (not with music), and only with some films.
2. We now know that this occurs because the amplifier supplied during the past few months (identified by the P.C. board WA-414) has an unusually good bass response...so good that a combination of excess gain on the bass control, a high amount of bass in the film recording, and the explosive force of initial consonants like "P", "B", "T", etc., can combine to over-load the bass circuit in the first two stages of the amplifier and cause the sound to actually "drop out".
3. There is an easy solution--just reduce the gain on the bass control! This would take care of the problem with no sacrifice in sound quality (because we already have adequate base), but unfortunately the customer can't always be trained to do this. It is a way, however, to satisfy an urgent complaint while we are getting the long-range solution to you.
4. The change in circuitry needed is to change the C-1 capacitor from a 1.0 or a .47 mfd to a 0.02 mfd. This will attenuate the bass enough to prevent over-loading (even with the bass control at maximum) and still give good bass response on voice and music.
5. We will exchange WA-414 amplifiers at no charge under our warranty module exchange program, or we will furnish you the C-1 capacitors at no charge and honor a warranty labor charge if you prefer to do the work.
6. All new projectors shipped after this date will already have the new C-1 capacitor installed, so no further problems are anticipated. However, our factory has a continuous program of research and development, so minor improvements will probably be made from time to time as running changes, and you will be notified as these occur.

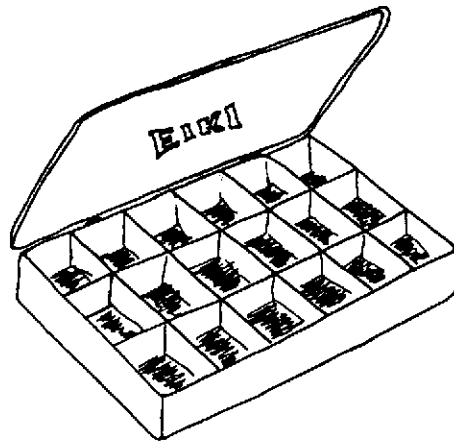


BULLETIN NO: 17R

SERVICE UPDATE

ISSUE DATE: 2/20/86

SUBJECT: NEW HARDWARE KIT #5477



#5477 HARDWARE KIT

USER NET \$40.00

TO MAKE IT MORE CONVENIENT FOR BOTH DEALERS AND END-USERS WE HAVE DISCONTINUED OUR PREVIOUS METRIC HARDWARE KITS, #5475 AND 5476.

A NEW COMPACT HARDWARE KIT #5477 IS NOW AVAILABLE AT A LESS COST AND WITH A BETTER SELECTION OF HARDWARE, INCLUDING FIBER WASHERS FOR THE CURRENT MODEL PROJECTORS.

AN EXAMPLE OF THE CONTENTS IS ATTACHED.

CONTENTS

#5477 HARDWARE KIT

<u>"E" RING:</u>	<u>QTY:</u>	<u>SCREWS:</u>	<u>QTY:</u>
ER-50	10	XF-3010S	10
		XF-350B	10
<u>FIBER WASHERS:</u>		XD-300BSK	10
G1-080120	10	XD-3016SK	10
G1-080140	10	XP-3003S	10
G4-060100	10	XP-3006S	10
G4-070120	10	XP-300BS	10
G4-075120	10	XP-350B	10
		XP-3510	10
<u>NUTS:</u>		XP-3512K	10
NA-30S	10	XP-5016S	10
NA-40S	10	XT-2304	10
NA-50S	10	XT-3005S	10
NB-30	10	XT-3006SK	10
		XT-300BSK	10
<u>WASHERS:</u>		XT-3505	10
WA-30	10	XT-3506	10
WA-40	10	XT-350BK	10
WA-50	10	XT-400BS	10
WC-30	10	XT-4010S	10
WC-40	10	XT-4012S	10
WC-50	10	XT-4015S	10
WE-50	10	XT-5010S	10



SERVICE BULLETIN

Service Bulletin # 22

February 25, 1972

Subject: EX 1510-5 Take-Up Motor

Possible Problem: Take-up motor overheating and eventually burning out.

Reason: Incorrect starting capacitor.

Remedy: If starting capacitor is 5.5 mfd. or 4 mfd. it should be replaced with a 1.7 mfd.

We will send a replacement free of charge if you need one and order it.

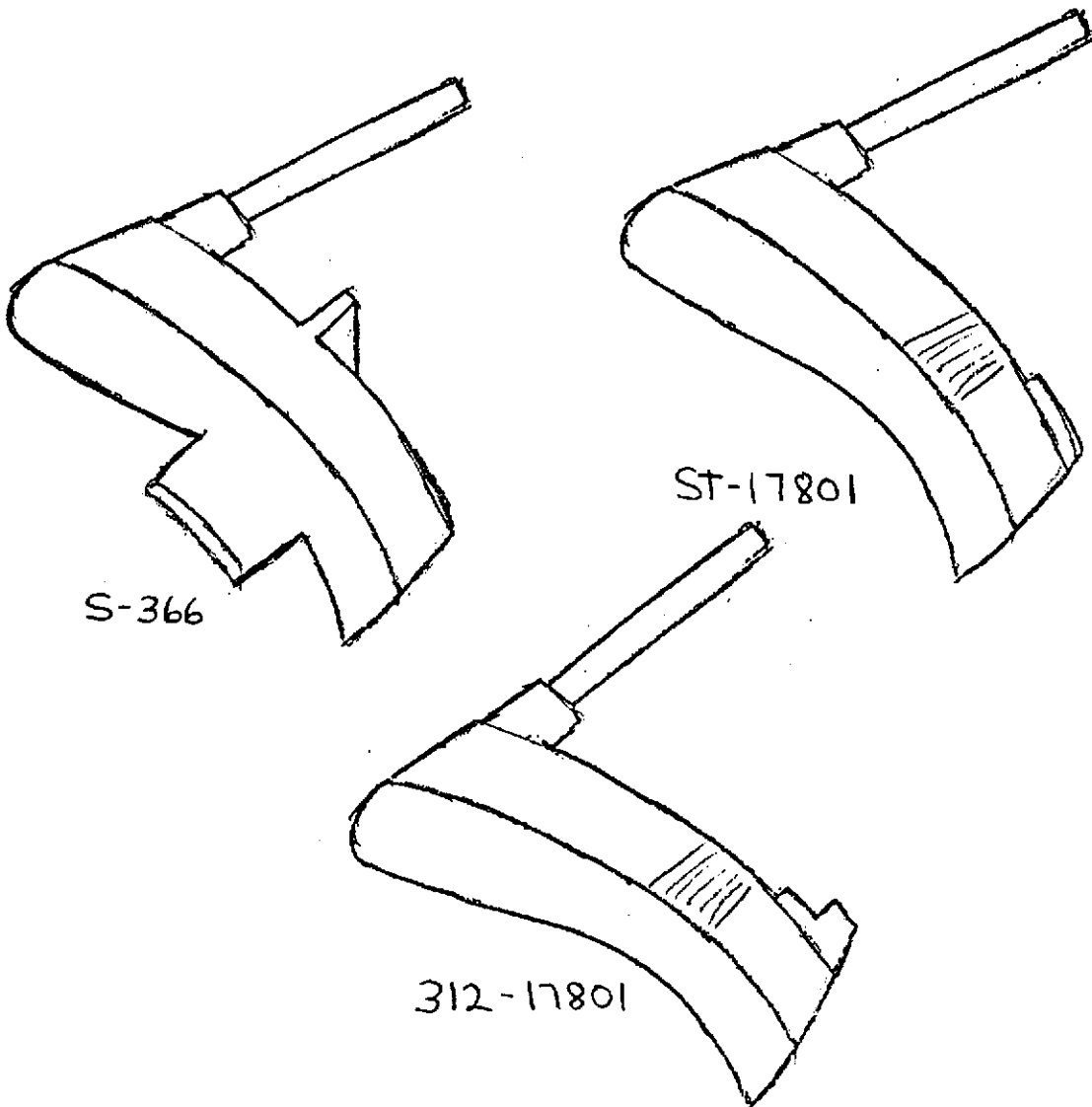
Please insert this bulletin in your service manual for future reference.

SERVICE UPDATE

S, ST-OH, ST/M, R Series
SUBJECT: No. 2 Film Guides

There are currently three types of No. 2 film guides used; P/N S-366, ST-17801 and 312-17801. The guides are not directly interchangeable.

The photo in the ST/M parts manual shows P/N S-366 as ST-17801. This is an error. Please use the illustrations below to determine the correct part number.



EIKIBULLETIN NO: 27 Revised

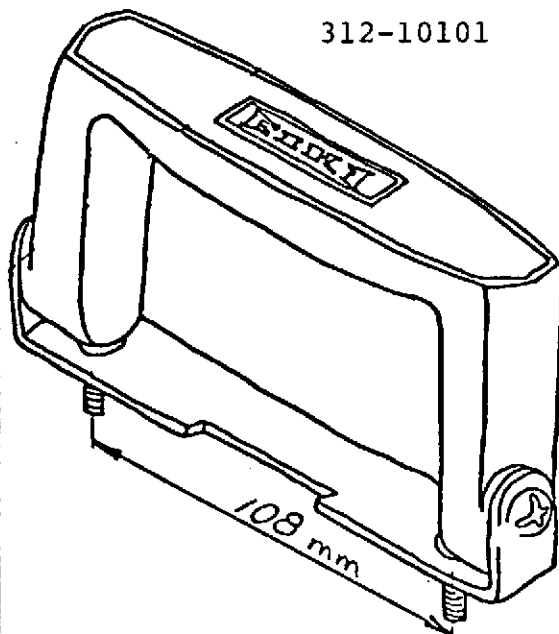
SERVICE UPDATE

ISSUE DATE: 7/20/80

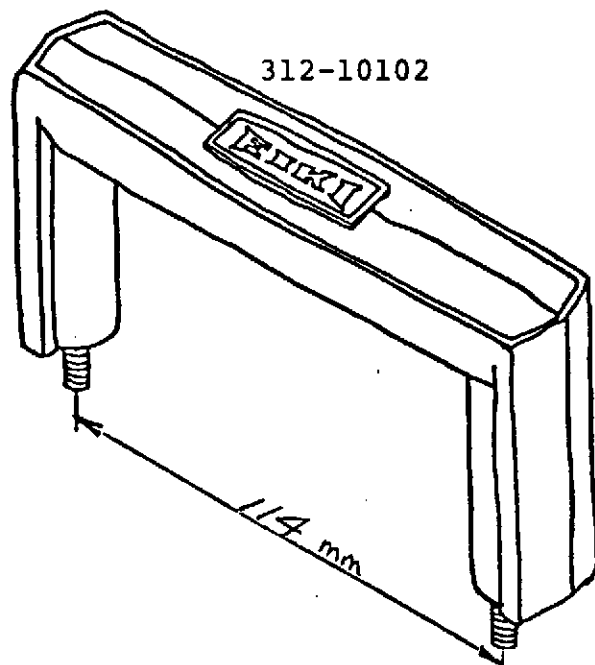
SUBJECT: CARRYING HANDLES

MODELS: RST, RT, RM & EX-2000A

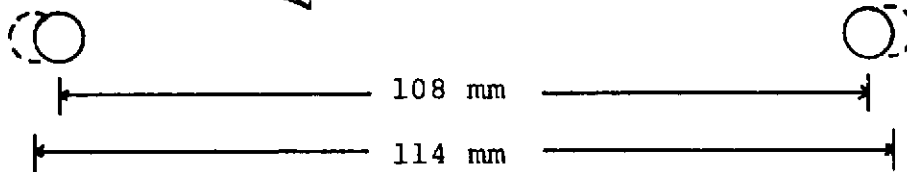
When the existing stock is exhausted, the 312-10101 swing-down handle will be replaced by the newer and sturdier 312-10102. To use the new handle on earlier models it is necessary to elongate the mounting holes as shown. Care should be taken to prevent metal filings from falling into the projector's mechanism.



312-10101



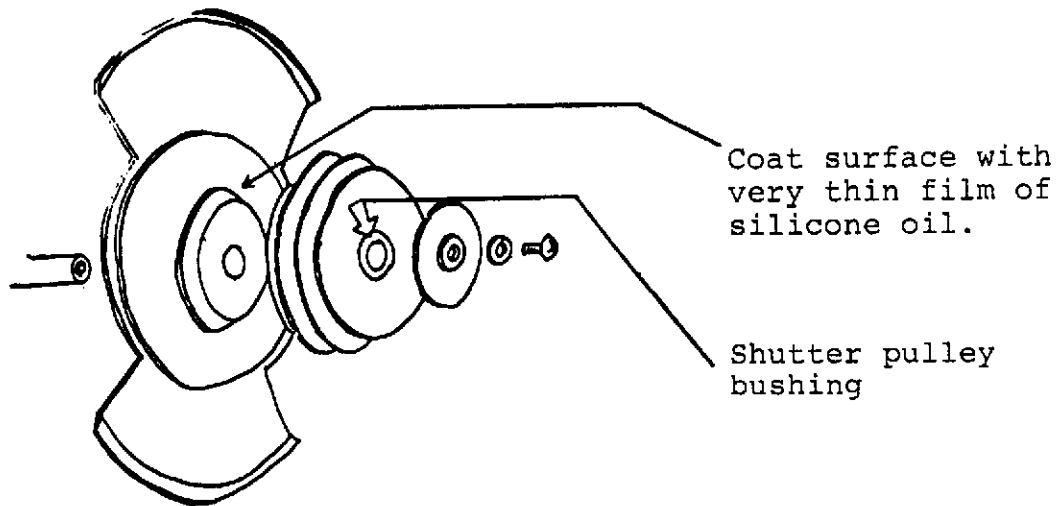
312-10102



SERVICE UPDATE

ISSUE DATE: 12/20/78

SUBJECT: Shutter Pulley Bushing Binding On The Cam Tank Shaft.
R Series and EX-2000 Projectors.



It has become apparent that under some extreme circumstances, where the still clutch is being used frequently and/or for extended periods, the shutter pulley can possibly bind on the cam tank shaft.

Recommendation:

1. For normal usage, clean the pulley bushing and shaft completely and apply a thin coat (P/N5631) petroleum oil.
2. When re-installing the pulley, apply a very thin film of (P/N5630) silicone oil to the clutch surface. (see above).
3. In extreme cases of high usage such as in the Marc 300/350 conversions, EX-2000 and some driver training systems, the 312-11801 shutter pulley should be replaced with the 260-11801 pulley which uses an oil-lite bushing.
4. To lubricate the 260-11801 pulley, use a thin film (P/N5631) petroleum oil. (Do not use silicone or Molybdenum Disulfide grease. The silicone oil does not mix with the oil-lite bushing oil, and the Moly grease tends to close the lubricating pores in the bushing).

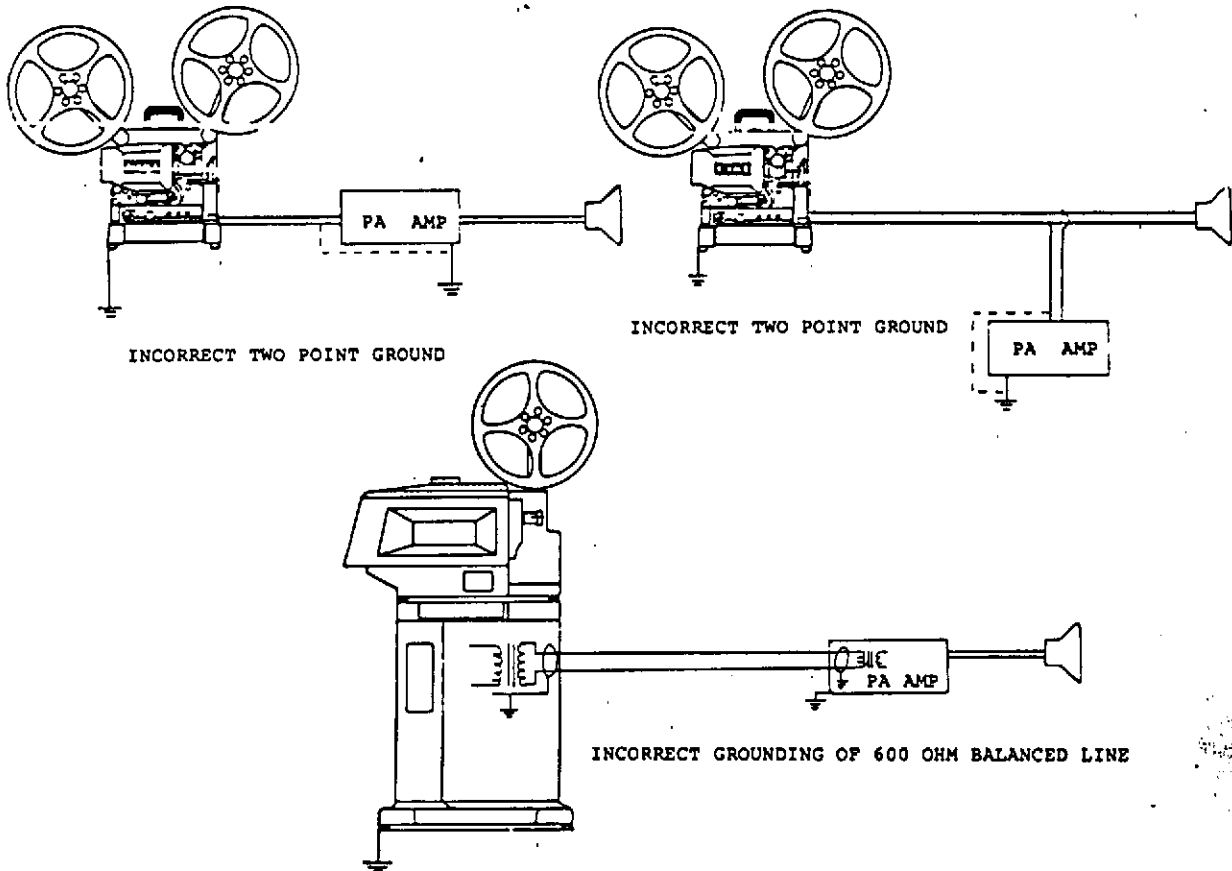
SERVICE UPDATE

SUBJECT: AUDIO HUM OR AMPLIFIER FAILURE AS A RESULT OF A TWO POINT GROUNDING SYSTEM.

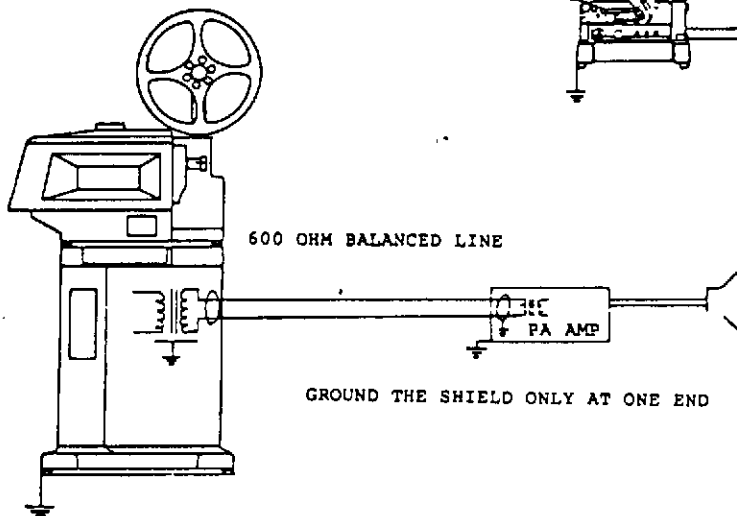
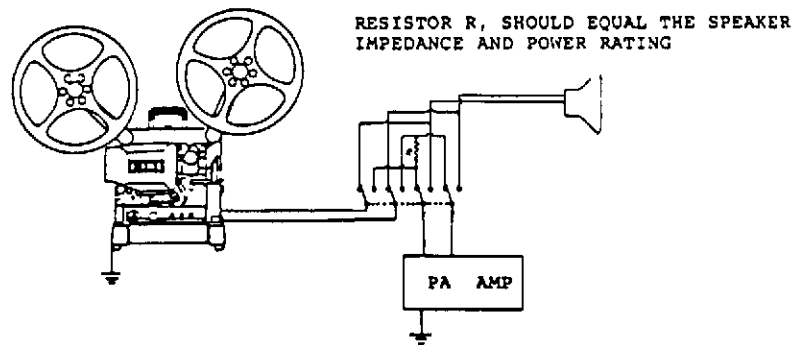
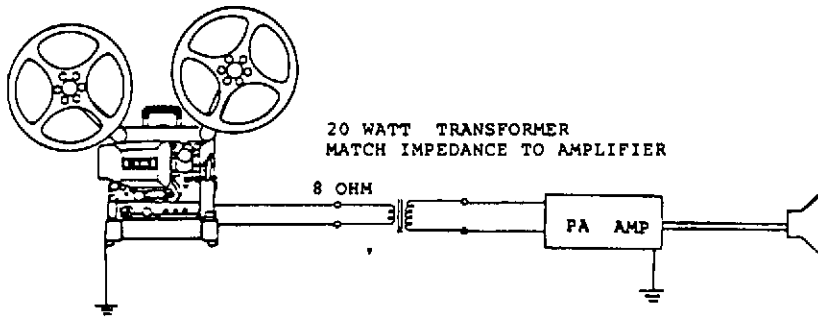
MODELS: R Series, EX-2000, EX-6000, and EX-9000 projectors.

The most common cause of audio hum, or amplifier failure is a result of improper grounding techniques when connecting projectors to other equipment or sound systems.

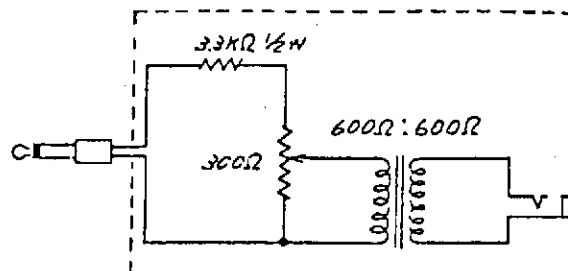
Incorrect grounding does not always cause an audible hum; often a ground-loop will act as an antenna capable of picking up stray RF signals in the vicinity. These RF signals can also excite the amplifier into parasitic oscillations which will eventually damage one or more semi conductor components. Below are several typical grounding conditions to avoid. Notice in each case the projector and amplifier grounds are connected.



EXAMPLES OF CORRECT GROUNDING TECHNIQUES



LINE TRANSFORMER BOX



WHEN SELECTING A TRANSFORMER MAKE
SURE ITS FREQUENCY RESPONSE IS
ADEQUATE.

SERVICE UPDATE

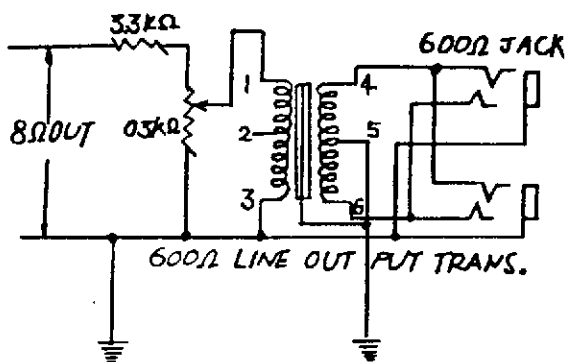
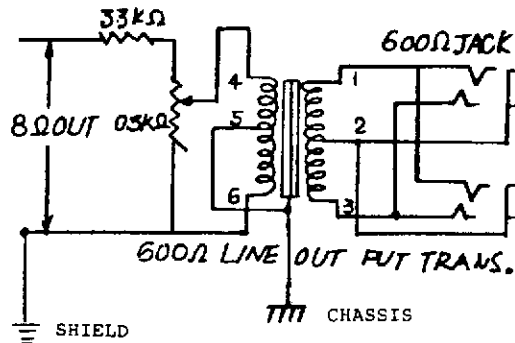
SUBJECT: 600 OHM BALANCED LINE OUTPUT

MODEL: EX4000N, EX4000P, EX6000, and EX9000

Beginning with the following serial numbers, the 600 ohm balanced output wiring has been changed to reduce the possibility of ground loops. (Two point grounding).

	S/N
EX4000N	4016N and up
EX4000P	4027P and up
EX6000	6378 and up
EX9000	9044 and up

We recommend that when servicing current amplifiers, that they be modified by reversing the primary and secondary terminals and connecting the center tap terminal #2 to the ¼ inch phono jack ground sleeve, as shown below.

CURRENTNEW

SERVICE UPDATE

SUBJECT: Rotary Function Switch

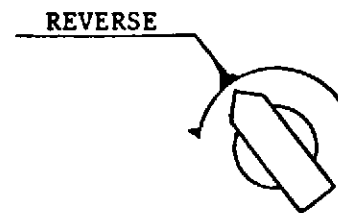
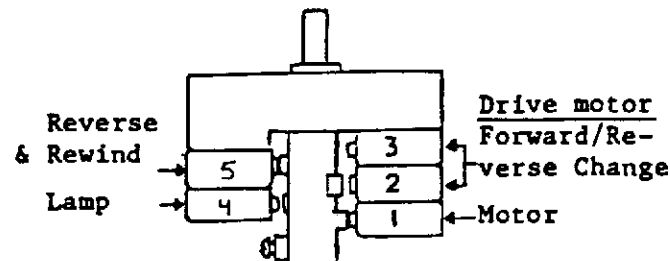
MODELS: EX-6000

Currently there are two different types of Rotary Function Switches used on the EX-6000 projectors:

Switch P/N 260-60501 S/N 6001 to 6143

Switch P/N 260-60502 S/N 6144 and up

These switches are not interchangeable even though they physically appear similar. The difference between the two switches is the switching sequence as determined by the cam set-screws. The position of these screws is factory adjusted and sealed. They should not be tampered with. In the event the screws have been adjusted, it is recommended that the complete assembly be replaced.



ROTARY SWITCH ASSY

To identify the two switches, set the function control knob to the reverse position:

Switch 260-60501 #5 micro switch is activated

Switch 260-60502 #5 micro switch is not activated

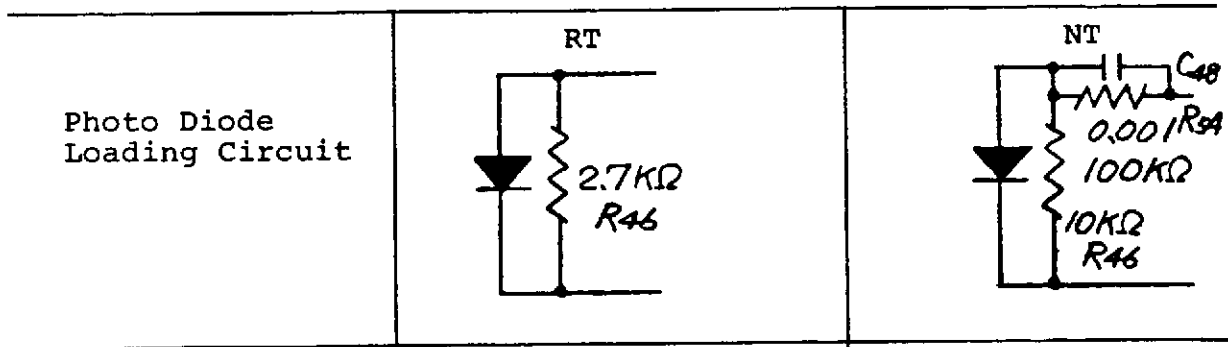
SERVICE UPDATE

ISSUE DATE: 1/20/79

SUBJECT: Amplifiers

MODEL: NT, NST, RST, RT, RM

The NST and NT amplifier module has been improved to provide a "flat response: ± 2 db from about 50HZ to 10KHZ. The previous "R" series amplifier had a 4 to 6 db boost at the low frequencies. The two amplifiers are physically identical but are not directly interchangeable. To help identify the modules all NT amps are stamped NT TYPE. Electrically, the NT amplifier can be identified by the absence of R-47, a 6 ohm, 5 watt series resistor to the rear cover speaker jack. The purpose of this resistor is to limit the power to the rear cover speaker in the "R" series projectors. The new NT projectors use a rear cover speaker, capable of handling the full amplifier output, making the limiting resistor unnecessary. To prevent possible damage to the rear cover speakers in the "R" series projectors, we are recommending that the NT type amplifiers not be installed in the "R" series projectors. We also do not recommend that the "R" series amplifiers be installed in the NT projectors. This would result in poor frequency response due to the differences in the photo diode loading circuit.



NOTE: We cannot honor a warranty claim for damage to the rear cover speaker as a direct result of installing the NT amplifier in the RT projector.



SERVICE UPDATE

BULLETIN NO: 43

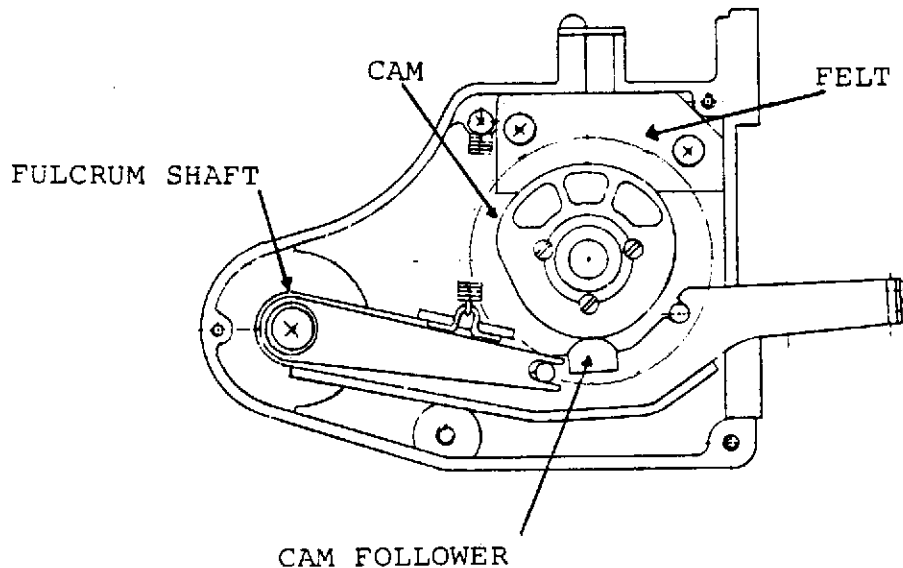
ISSUE DATE: 2/20/79

SUBJECT: Cam Tank Lubrication

MODELS: RST, RT, RM, NST, NT and SL

When servicing the projector annually, or every 500 hours, the cam tank should be inspected and lubricated.

Molybdenum Disulfide cam tank grease P/N 5628, should be packed around the cam and cam follower. Several drops of Molybdenum Disulfide oil P/N 5632, which is compatible with the cam tank grease should be added to the cam tank felt to prevent the grease from drying out. A couple of drops of P/N 5631 oil will lubricate the fulcrum shaft adequately.



		<u>List</u>
#5628	Moly Cam Tank Grease Tube	\$5.00
#5631	4 oz. Pet. Oil	\$3.75
#5632	Moly Oil	\$9.50

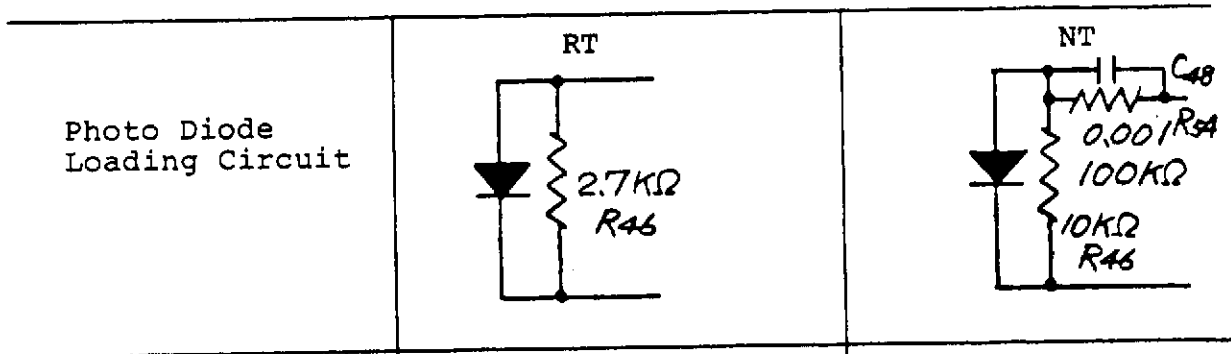
SERVICE UPDATE

ISSUE DATE: 1/20/79

SUBJECT: Amplifiers

MODEL: NT, NST, RST, RT, RM

The NST and NT amplifier module has been improved to provide a "flat response: ± 2 db from about 50HZ to 10KHZ. The previous "R" series amplifier had a 4 to 6 db boost at the low frequencies. The two amplifiers are physically identical but are not directly interchangeable. To help identify the modules all NT amps are stamped NT TYPE. Electrically, the NT amplifier can be identified by the absence of R-47, a 6 ohm, 5 watt series resistor to the rear cover speaker jack. The purpose of this resistor is to limit the power to the rear cover speaker in the "R" series projectors. The new NT projectors use a rear cover speaker, capable of handling the full amplifier output, making the limiting resistor unnecessary. To prevent possible damage to the rear cover speakers in the "R" series projectors, we are recommending that the NT type amplifiers not be installed in the "R" series projectors. We also do not recommend that the "R" series amplifiers be installed in the NT projectors. This would result in poor frequency response due to the differences in the photo diode loading circuit.



NOTE: We cannot honor a warranty claim for damage to the rear cover speaker as a direct result of installing the NT amplifier in the RT projector.

SERVICE UPDATE

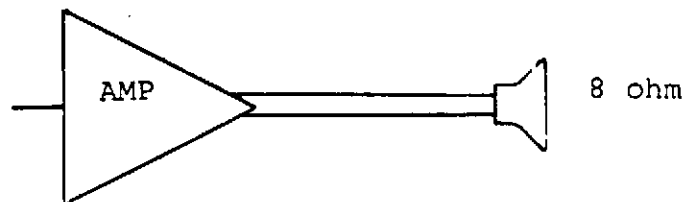
SUBJECT: Speakers

MODEL: NT and SL

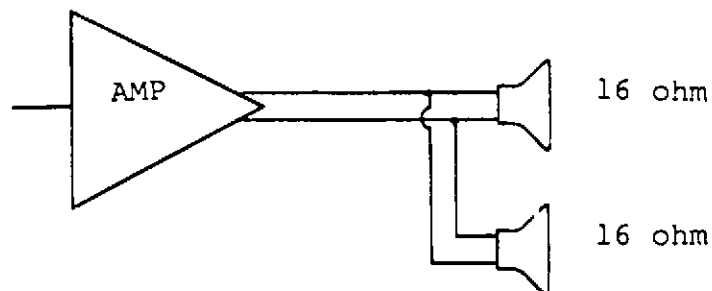
All SL and NT projectors are shipped with a 5", 8 ohm, 20 watt rated rear cover speaker, except the NT-3.

In addition, all except the NT-0 and SL-0, are equipped with twin 5", 16 ohm, 20 watt front cover speakers. These speakers are electrically different and should not be interchanged with the rear cover speaker.

REAR COVER



FRONT COVER



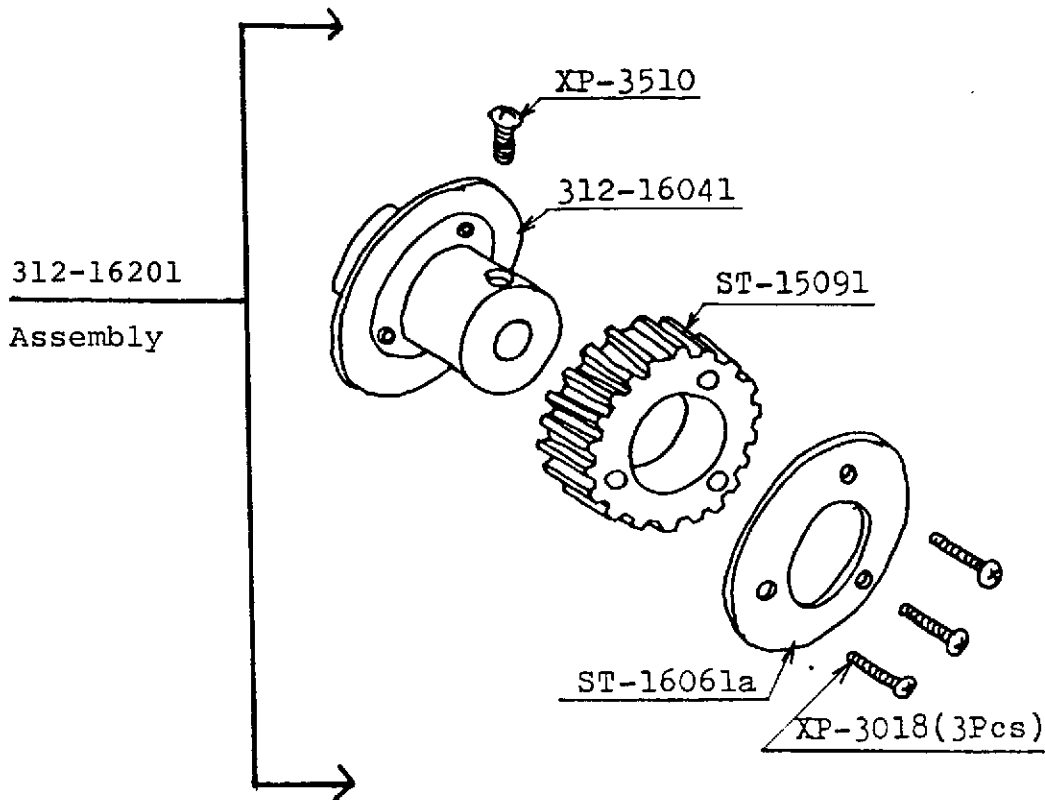
NOTE: The external speaker jack disables the rear cover speaker when connected to the front cover speakers.

SERVICE UPDATE

SUBJECT: No. 2 Sprocket Drive Gear

MODELS: RT, RST, RM, AND EX2000

The 312-16201 drive gear assembly has been changed to a new injection molded drive gear 320-16201 which is directly interchangeable.



The individual parts as shown above are no longer available as separate items. In the future, please order the 320-16201 replacement assembly.



BULLETIN NO: 51

SERVICE UPDATE

ISSUE DATE: 7/20/79

SUBJECT: Amplifiers With WA-206 P.C. Boards

MODELS: RST, RT & RM S/N 10,000 - 25,878

Early projector amplifier modules (312-50101) with P.C. Board WA-206 and power IC AP4Z11D are not economical to repair due to the cost and availability of the power IC.

We are therefore recommending that this amplifier module be exchanged at the nominal price of \$43.00 rather than repaired. The exchange amplifier will be the current 312-50101 module incorporating discrete output transistors.

Amplifiers from projectors which are still under the three year warranty will be exchanged at no charge.



SERVICE UPDATE

SUBJECT: SHUTTER AND MOTOR PULLEY GUIDE

MODELS: RT/RST, NT/NST, SL, EX2000A & N and EX300SL

EIKI MOTOR - SHUTTER PULLEY GUIDE

MODEL	OPERATION	SHUTTER PULLEY	MOTOR PULLEY
RST	All volt 50HZ/S	312-11801	312-12921
	" 60HZ/S	312-11801	312-12911
	" 50/60HZ	312-11901	312-12921
NST	100V 50/60HZ	312-11901	314-12971
	110,120V 60HZ	312-11801	312-12911
	220,240V 50HZ	312-11801	312-12921
	110/220V 50/60HZ	312-11901	314-12991
	120/240V 50/60HZ	312-11901	314-12981
SL	100V 50/60HZ	320-11321	320-12851
	110,120V 60HZ	"	320-12811
	220,240V 50HZ	"	320-12821
	110/220V 50/60HZ	"	320-12831
	120/240V 50/60HZ	"	320-12841
EX-2000 A & N	100V 50/60HZ	312-11901	222-12981
	110V 50/60HZ	312-11901	222-12881
	120V 60HZ	312-11801	222-12971
	220V 50HZ	312-11801	222-12891
	240V 50HZ	312-11801	222-12871
EX-300SL	100V 50/60HZ	320-11321	210-12991
	120V 60HZ	320-11321	210-12981
	220,240V 50HZ	320-11321	210-12971

SYNCHRONOUS MOTOR APPLICATIONS

MODEL	OPERATION	SHUTTER PULLEY	MOTOR PULLEY	IDLER PULLEY
RT/RST	All voltage 50HZ	074-05911	074-05401	074-05701
NT/NST	All voltage 60HZ	074-05801	074-05401	074-05701
	All voltage 50HZ 25FPS	074-05921	074-05401	074-05701
EX2000A&N	All voltage 50HZ	074-05911	074-07101	074-07401
	All voltage 60HZ	074-05801	074-07101	074-07401
	All voltage 50HZ 25FPS	074-05921	075-07101	075-07401



SERVICE UPDATE

SUBJECT: Recommended Annual Maintenance

MODELS: EX-6000 and EX-9000

EIKI recommends that the attached "Annual Maintenance Check-list" be used for preventive maintenance on all EIKI projectors, in warranty and out of warranty. This procedure should be followed every 500 hours or every 12 months--whichever comes first.

Our "Three year/3 million foot" warranty requires that this preventive maintenance be performed on schedule at the end of the first and second years in order to keep the warranty in effect. The necessary maintenance can be performed (at the customer's expense) by an authorized EIKI dealer or service station, or by the customer's service department if it has been approved by the dealer.

Customers who do not have preventive maintenance performed on schedule will still have one year's warranty.

	<u>SUGGESTED LUBRICANTS</u>	<u>LIST</u>
5625	Dow #44 Medium Grease	\$7.00
5628	Molybdenum Disulfide Grease	5.00
5630	Dow #710 Silicone Oil	3.00
5631	Machine Oil	3.75
5632	Molybdenum Disulfide Oil	9.50

See #152

RECOMMENDED ANNUAL MAINTENANCE CHECK LIST (EX6000) 4/4/79

1. Inspect and lubricate cam with a small amount of P/N5628 Molybdenum disulfide grease. Add several drops of Molybdenum Disulfide oil P/N5632 to the cam felt and a couple of drops of P/N5631 machine oil to the fulcrum shaft bushing. (See service updates #33 and #43).
2. Check, clean and lubricate cam tank shutter pulley with a thin film of P/N5630 silicone oil on the inner cone surface. Apply a small amount of P/N5631 machine oil to the cam tank shaft and pulley bushing.
3. Check and adjust claw protrusion and stroke. (Protrusion = 1mm to 1.2mm or .040" \pm .005").
4. Add a small amount of silicone grease P/N5625 to the worm gear.
5. Brush debris from the film gate and clean the film gate, side rail and film shoe with Isopropyl alcohol.
6. Clean all nylon film rollers with Isopropyl alcohol and make sure they roll freely. They should not need lubrication, however if lubricated, use a very small amount of silicone oil P/N5630.
7. Lubricate motor belt idler pulley bushing with P/N5671 machine oil.
8. Clean the motor drive belt, and its respective pulleys with Isopropyl alcohol. Replace belt if worn or cracked.
9. Check and inspect the geared drive belt for wear or cracks.
10. Blow all dust from the projector with clean, compressed air.
11. Brush dust from the photo cell, sound focus lens, and wipe clean the exciter lamp.
12. Clean the projection lens with lens cleaner and a soft cloth or tissue.
13. Wipe off lamp reflector with a soft, dry cloth.
14. Check all lamp current supply connections for arcing or corrosion. Clean and tighten if necessary.
15. Check lamp focus alignment and re-adjust if necessary.
16. Check overall performance of the projector. Make any adjustments as may be required.
17. Clean and wipe off the entire projector.

EIKIBULLETIN NO: 58

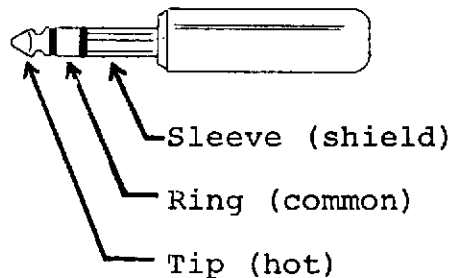
SERVICE UPDATE

ISSUE DATE: 8/20/79

SUBJECT: Connecting The 600 Ohm Line To An Auxiliary Sound System

MODELS: EX-4000P, EX-6000, EX-6000P and EX-9000

The EX-4000P, EX-6000's and EX-9000 projectors are provided with a balanced 600 ohm line output jack for connection to most sound systems, either balanced or unbalanced. The connection to the 600 ohm line jack is a standard $\frac{1}{4}$ " "stereo" type phono jack with tip-ring and sleeve connections.



When connecting to an unbalanced input, use the tip and ring only.

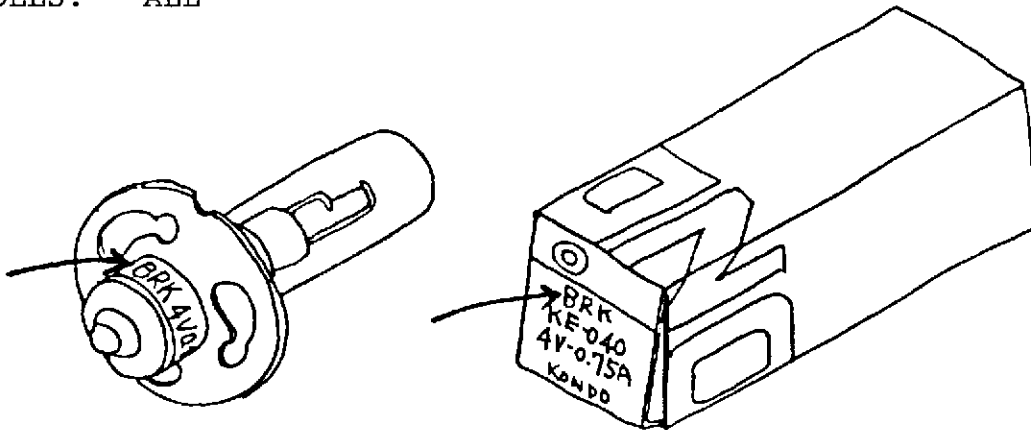
The line level can be varied with the volume control to accommodate the input requirements of the auxiliary amplifier.

For best results, operate the projector amplifier at the lowest level possible and the bass and treble controls near the 12 o'clock position.

SERVICE UPDATE

SUBJECT: EXCITER LAMPS

MODELS: ALL



EIKI projectors have been designed around the Kondo KE-040, 4 volt, .75 amp Exciter Lamp.

Until recently the lamp has not been identified by the ANSI lamp code "BRK". This has resulted in creating a common sound problem caused by the installation of incorrect substitute lamps. In the future, all Kondo lamps will carry the "BRK" identification, which should solve this problem.

For reliability and performance, we highly recommend the Kondo lamp, however, the following lamps are considered acceptable substitutes:

- | | | | |
|-------------|----------|-------------|-------|
| 1. Kondo | KE-040 | 5. Atlas | G/27 |
| 2. JMS | Standard | 6. Osram | 8005 |
| 3. Sylvania | BRK | 7. Phillips | 7090C |
| 4. GE | BRK | | |



SERVICE UPDATE

BULLETIN NO: 62 REVISED

ISSUE DATE: 9/20/78

EIKI MODULE REPLACEMENT GUIDE

MODEL	CAM TANK TWO BLADE	CAM TANK THREE BLADE	AMPLIFIER	VOLTAGE 50/60HZ	TRANSFORMER	MOTOR/FAN
<u>RST/RT/RM</u> -0 -1 -2 -3	*312-11001 " " "	*312-11951 " " "	*312-50601 " 312-50701 312-50801	100/120 (USA) *100/120 (USA) 200/240V 220/240V	312-60131/200W *312-60201/250W 312-60011/200W 312-60401/250W	312-12401 *312-12402 W/ Temp fuse 312-12501 312-12501
<u>EX-2000</u> A-1 A-2 M-1 M-2	222-11001 " " " "	NA NA NA NA	222-50601 222-50701 222-50601 222-50701	120V (USA) 100V 220/240V	NA NA NA NA	*222-12302 222-12102 222-12402
<u>NST/NT</u> -0 -1 -2 -3	*314-11001 " " "	*314-11101 " " "	*314-50601 " 314-50701 314-50801	*120V (USA) 110V 220/240V 220V 110/220 (Dual) 120/240 (Dual)	*314-60201 314-60301 314-60401 314-60801 314-60981 314-60991	*320-12201 W/ Temp Fuse 320-12301 320-12401
<u>EX-2000N</u> -1 -2	*224-11001 " "	NA NA NA	*224-50501 224-50501 224-50701	*120V (USA) 220/240V	NA NA NA	*224-12301 224-12401
<u>SL</u> -0 -1 -2	*320-11001 " "	*320-11201 " "	*320-50201 " 320-50301	*100/120V (USA) 110V 220/240V 110/220 (dual) 120/240 (dual)	*320-60201 320-60301 320-60401 320-60981 320-60991	*320-12201w/ Temp fuse 320-12301 320-12401
<u>SL II</u> -0 -1 -2	*320-11001 " "	*320-11201 " "	*321-50201 " 321-50301	*100/120V (USA) 110V 220/240V 110/220 (dual) 120/240 (dual)	*320-60201 320-60301 320-60401 320-60981 320-60991	*320-12201w/ Temp Fuse 320-12301 320-12401
<u>EX300SL</u> -1 -2	*320-11001	*320-11201	*210-50201 210-50301	110V 120V 220V, 240V	NA NA	*210-12201 210-12301 210-12401, 501



SERVICE UPDATE

ISSUE DATE: _____

SUBJECT: MODULAR EXCHANGE PROGRAM

MODELS: RST/RT & RM

The following "R" series modules may be exchanged with an authorized EIKI dealer provided they are original EIKI components and can be reconditioned. The dealer may, at his option, recondition or return the module to EIKI International. We will return to the dealer, a new or reconditioned module at our option, depending on availability. Both will carry the same EIKI warranty.

<u>1. AMPLIFIER MODULES</u>	<u>PART NUMBER</u>	<u>RECONDITIONED OR NEW PRICE</u>	<u>EXCHANGE PRICE</u>
Model -0 & 1	* 312-50101 sub to 312-50601 sub to 314-50602	\$148.00	\$ 58.00
Model -2	312-50301 sub 312-50701 sub to 314-50702	168.00	68.00
Model -3	312-50401 sub 312-50801 sub to 314-50801	198.00	78.00
<u>2. CAM TANK MODULE</u>			
All "R" Models			
Two Blade	* 312-11001	128.00	68.00
Three Blade	312-11951	128.00	68.00
<u>3. LENS HOLDER GATE MODULE</u>			
All "R" Models	312-80101	125.00	45.00
<u>4. MOTOR/FAN MODULE (w/o Motor Pulley)</u>			
Models w/o Thermal Fuse	312-12401 (120V)	143.00	83.00
Models w/Thermal fuse	* 312-12402 (120V)	153.00	93.00
	312-12501 (220V)	153.00	93.00
<u>5. TRANSFORMER MODULE</u>			
200 Watt lamp models	312-60131(120V)	75.00	55.00
250 Watt lamp models*	312-60201(120V)	84.00	75.00
250 Watt lamp models	312-60401(220V)	95.00	85.00

* Recommended Stock

EIKI

ISSUE DATE: 12/20/83

SERVICE UPDATE

SUBJECT: MODULAR EXCHANGE

MODELS: NST/NT

The following "NT" series modules may be exchanged with an authorized EIKI dealer provided they are original EIKI components and can be reconditioned. The dealer may, at his option, recondition or return the module to EIKI International. We will return to the dealer, a new or reconditioned module at our option, depending on availability. Both will carry the same EIKI warranty.

1.	<u>AMPLIFIER MODULE</u>	<u>PART NUMBER</u>	<u>RECONDITIONED OR NEW PRICE</u>	<u>EXCHANGE PRICE</u>
	Model -0, -1	*314-50601	\$148.00	\$58.00
	Model -0, -1 (>s/n 58952)	314-50602	148.00	58.00
	Model -2 (Mag/Opt)	314-50701	168.00	68.00
	Model -2 (Mag/Opt) (>s/n 58952)	314-50702	168.00	68.00
	Model -3 (Mag/Rec)	314-50801	198.00	78.00
	Model -3 (Mag/Rec) (>s/n 58952)	314-50802	198.00	78.00
2.	<u>CAM TANK MODULE</u>			
	All "NT" Models			
	Two Blade			
	"O" Ring Belt Type	314-11001	128.00	68.00
	3V Belt Type	314-11002	132.00	68.00
	Three Blade			
	"O" Ring Belt Type	*314-11101	128.00	68.00
	3V Belt Type	*314-11102	132.00	68.00
3.	<u>LENS HOLDER GATE MODULE</u>			
	All "NT" Models	314-80101	125.00	45.00
4.	<u>MOTOR/FAN MODULE (w/o Motor Pulley)</u>			
	All "NT" Models	*320-12201 (120V)	153.00	83.00
		320-12401 (220/240V)	168.00	98.00
5.	<u>TRANSFORMER MODULE</u>			
	All Models	*314-60201 (120V)	84.00	75.00
		314-60401 (220/240V)	95.00	85.00
	Selectable Voltage Models only	314-60991 (120/240V)	105.00	95.00
	* Recommended Stock			



SERVICE UPDATE

SUBJECT: MODULAR EXCHANGE PROGRAM

MODELS: SL

The following "SL" series modules may be exchanged with an authorized Eiki dealer provided they are original Eiki components and can be reconditioned. The dealer may, at his option, recondition or return the module to Eiki International. We will return to the dealer, a new or reconditioned module at our option, depending on availability. Both will carry the same Eiki warranty.

<u>1. AMPLIFIER MODULE</u>	<u>PART NUMBER</u>	<u>RECONDITIONED OR NEW PRICE</u>	<u>EXCHANGE PRICE</u>
Models SL-0, -1	*320-50201	\$148.00	\$58.00
SL-2 (Mag/Opt)	320-50301	168.00	68.00
SL-OL	321-50981	180.00	68.00
<u>2. CAM TANK MODULE</u>			
All "SL" Models			
Two Blade			
"O" Ring Belt Type	320-11001	128.00	68.00
3V Belt Type	321-11001	132.00	68.00
Three Blade			
"O" Ring Belt Type	*320-11201	128.00	68.00
3V Belt Type	*321-11301	132.00	68.00
<u>3. MOTOR/FAN MODULE (w/o Motor Pulley)</u>			
SL-0, -1, -2	*320-12201 (120V)	153.00	83.00
	320-12401 (220/240V)	168.00	98.00
SL-OL	320-12761	185.00	109.00
<u>4. TRANSFORMER MODULE</u>			
	*320-60201 (120/100V)	84.00	75.00
	320-60401 (220/240V)	95.00	85.00
Selectable Voltage Models Only	320-60991 (120/240V)	105.00	95.00

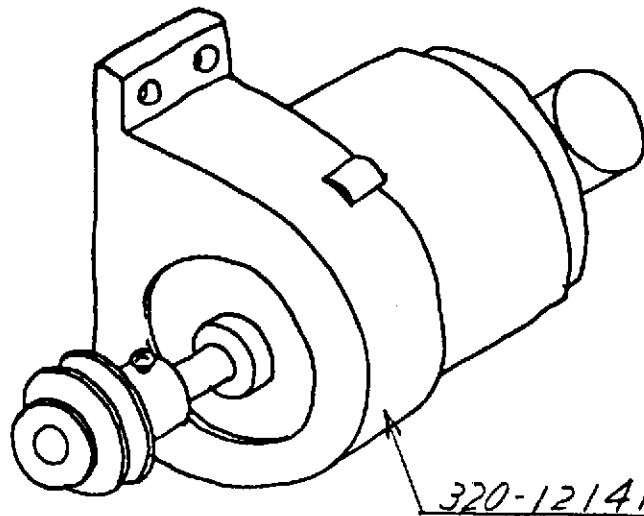
* Recommended Stock

EIKIBULLETIN NO: 742-20-80

ISSUE DATE: _____

SERVICE UPDATE

SUBJECT: Plastic Motor Fan Housings

MODELS: SL S/N 13000 to 15,000
NT S/N 16000 to 17,000

As a result of a plastic sub-contractor's quality control problem, projectors from the above S/N group may possibly have cracked or broken motor fan housings (320-12141). Dealers who were shipped projectors in this group were notified and supplied with replacements. Many of the models concerned were still in our warehouse and we were able to make the replacements here. It is possible that some models earlier than S/N (NT-16000 and SL-13000) may crack or break as a result of transporting or other excessively rough handling. In either case, the plastic motor fan housing is covered by EIKI's 3 year warranty.

To insure that the problem does not re-occur, all replacement fan housings are metal. Metal fan housings have also been installed on all projectors produced since August, 1979.

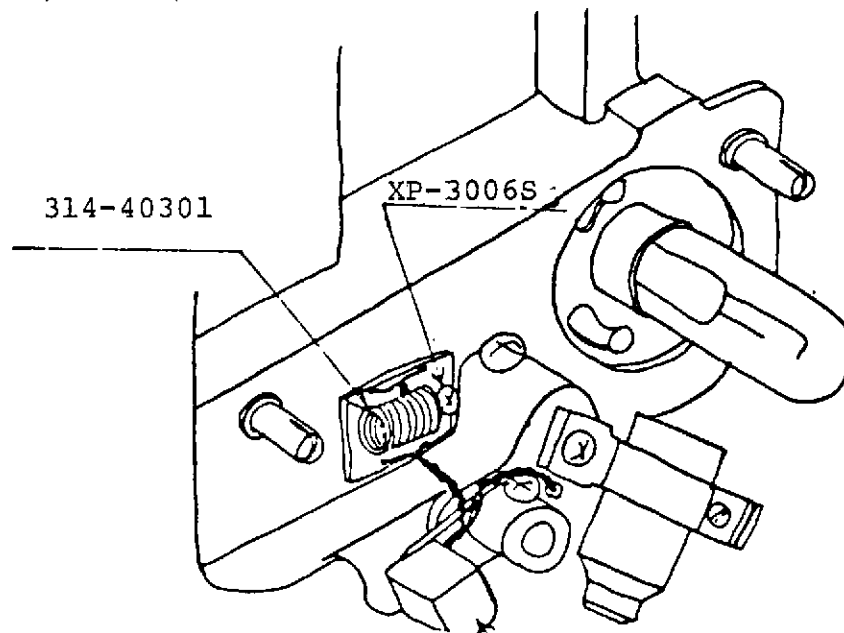
EIKIBULLETIN NO: 75

SERVICE UPDATE

ISSUE DATE: 3/20/80

Subject: HUM BUCKING COIL

MODELS: NT, 2&3 S/N 18475 AND UP



To improve the signal to noise ratio on the NT magnetic play and record models, a HUM BUCKING COIL (314-40301) has been added.

The 314-40301 coil may be added to earlier models by drilling and tapping an M3X.05mm hole using drill 2.3 (5576) and tap 3.0 (5592).

Electrically the coil is wired in series with one of the head leads.

314-40301 HUM BUCKING COIL- \$5.20 list

SERVICE UPDATE

ISSUE DATE: 4/20/80

SUBJECT: Replacement Take-Up Arm Assemblies

MODELS: RST, RT, RM Series

When ordering replacement inner half arm assemblies, it is important to note that there are two different types.

Illustration #1 shows the early type with a chrome take-up spindle cup and an adjustable take-up mechanism. The inner half arm 312-14141 is replaced with the 312-14301 inner half arm assembly w/bearing. The complete arm may also be replaced with Kit # 312-80351 as per Service Update #36.

Illustration #2 shows the later type with a black colored spindle cup, non-adjustable. The inner half arm is replaced with the 312-14302 inner half arm assembly w/bearing.

Illustration #1
Early type 2
312-14301 inner half arm
assembly w/bearing

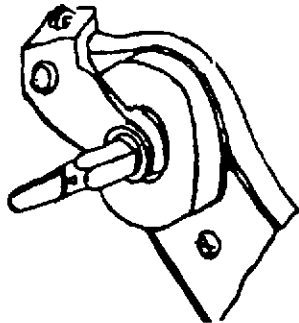


Illustration #2
Later type 3
312-14302 inner half arm
assembly w/bearing





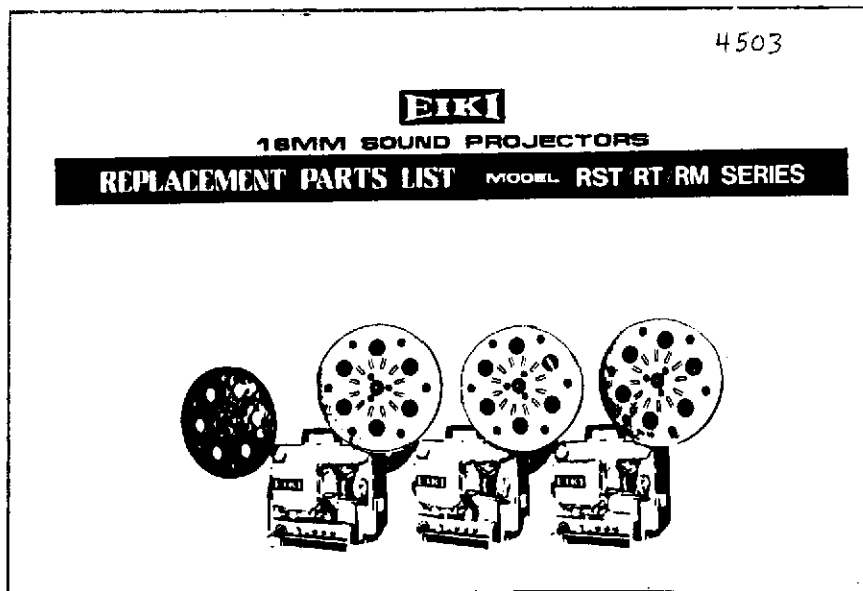
SERVICE UPDATE

SUBJECT: Replacement Parts List

MODELS: RST, RT, RM Series

It has come to our attention that many technicians are using the early "buff" colored replacement parts list for all "R" series projectors.

This often results in the ordering of incorrect parts for the later "R" series models. Several years ago a revised RST/RT/RM parts list was published with a "white gloss" front cover, (see below). This list covers all later model "R" series projectors with the 250 watt lamp and the type 3 take-up arm. Please refer to the appropriate list when ordering replacement parts.



4503 RST/RT/RM PARTS LIST.....only \$1.50

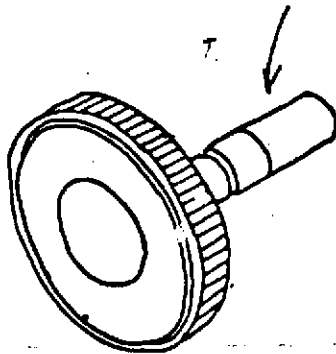
SERVICE UPDATE

ISSUE DATE: 5/20/80

SUBJECT: FOCUS KNOB ASSEMBLY 312-30401A

MODELS: NT, NST, 21230 and up
EX-2000N 1352 and up

Red
Polyurethane



312-30401A

The friction drive material has been improved by changing to a Polyurethane material with improved durability and resistance to temperature and humidity changes. The previous 312-30401 focus knob tube was clear. All current replacement focus knob assemblies, 312-30401A, will be supplied with the new, red colored polyurethane friction drive.

Sorry, the friction drive tube is not available separately since it is molded on the shaft.

EIKIBULLETIN NO: NT82R

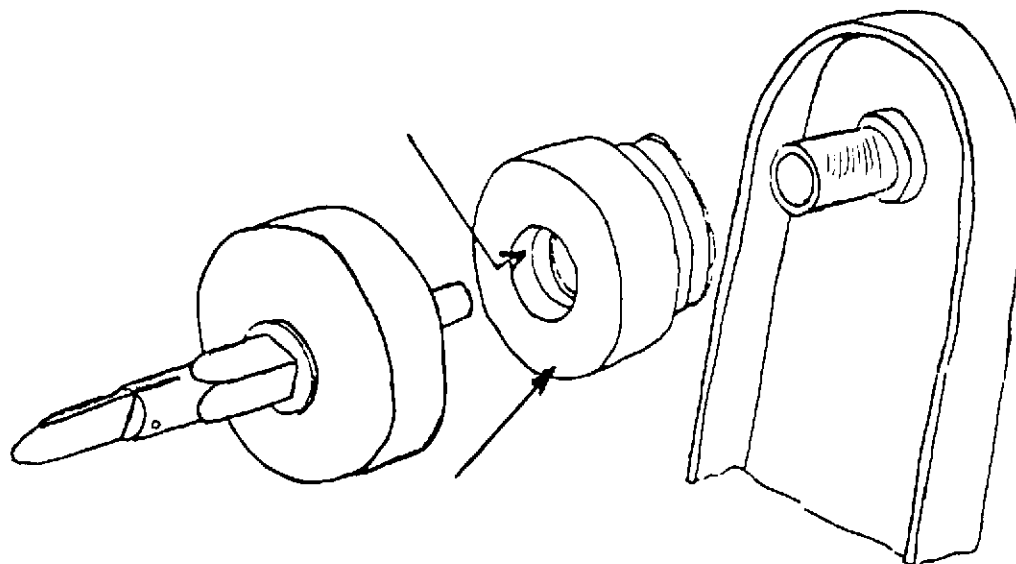
SERVICE UPDATE

ISSUE DATE: 2/20/86

SUBJECT: TAKE-UP PULLEY LUBRICATION

MODELS: ALL R-SERIES AND NT SERIES UP TO S/N 40030 WITH METAL 312-14132 TAKE-UP PULLEYS ONLY.

ROCAL GREASE - P/N 5626



METAL TAKE-UP PULLEY

TO PREVENT THE TAKE-UP PULLEY (312-14132) FROM BINDING ON THE SHAFT, IT IS IMPORTANT THAT THIS PULLEY BE LUBRICATED AT LEAST EVERY 500 HOURS OF OPERATION OR WHENEVER THE PROJECTOR IS ROUTINELY SERVICED.

SYMPTOMS OF IMPROPER LUBRICATION IS INDICATED BY SLOW REWIND, EXCESSIVE MOTOR BELT SLIPPAGE AND POOR TAKE-UP.

WHEN RE-LUBRICATING, MAKE SURE THE SHAFT AND PULLEY ARE CLEAN AND UNSCORED. SEVERELY SCORED PARTS SHOULD BE POLISHED OR REPLACED AND LUBRICATED WITH MOLIBDENUM ROCAL TAKE-UP PULLEY GREASE.

P/N 5626 ROCAL TAKE-UP PULLEY GREASE 1/2 OZ. \$3.99.

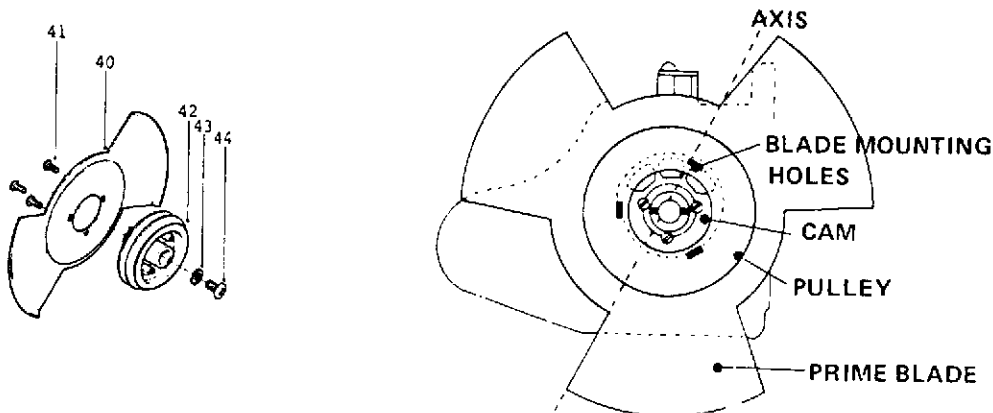
SERVICE UPDATE

ISSUE DATE: 6/20/80

SUBJECT: Loose Shutter Blade or Pulley Screws

MODELS: All SL before S/N 18412, EX300SL before S/N 1688

There is a possibility that the shutter pulley screw (44) XT-4010S may loosen up and damage the shutter blade, or that the three XT-2308 screws (41) may work loose, particularly when the shutter blade has been replaced. It is recommended that when changing shutter blades or servicing the cam tank that the screw XT-4010S (44) be replaced with an XT-4012S and add a lock washer WC-40 between the flat washer ST-20041 (43) and the screw (44).



The shutter blade mounting screws XT-2308 (41) should be replaced with self tapping screws 320-11331. (To assure correct shutter alignment, replace screws (41) one at a time only). For correct orientation of the shutter and pulley assembly, refer to the above illustration or page 26 of the Service Manual. (Two bladed shutters require no special orientation, only three bladed). Damaged or broken shutter blades and pulleys will be handled as a normal warranty item through authorized EIKI dealers. The screws and washers will be supplied as a kit at no charge. Please order quantities only as needed.

1 ea. XT-4012S	Screw	
1 ea. WC-40	Lock Washer	Screw Kit P/N 5533
3 ea. 320-11331	Self Tapping Screws	

EIKI

SERVICE UPDATE

SUBJECT: NEW-SIMPLIFIED ONE-STEP REWIND SWITCH

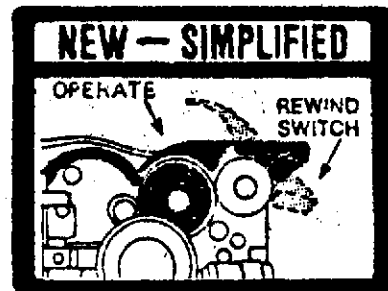
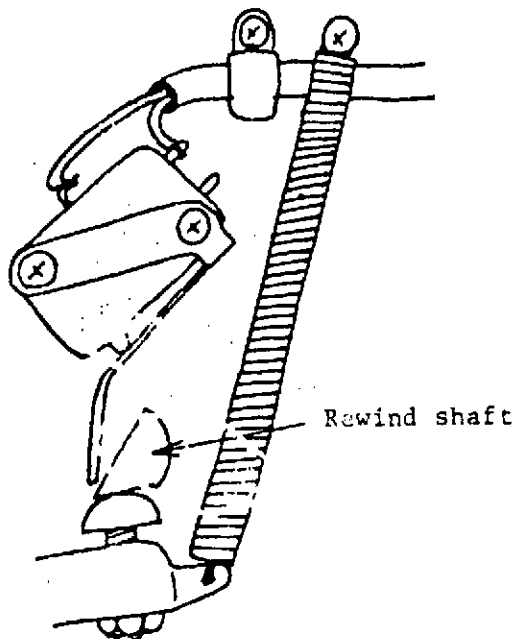
MODELS: ALL NT SERIES AFTER S/N 31307

NT projectors with the one-step rewind feature energize the motor at the same time the rewind lever engages the gears.

(Previous models required the lever to be engaged first, then the projector was switched to forward).

To stop the projector, simply return the rewind lever to it's operate, or up position.

The electrical switch function is accomplished by a micro-switch in connection with the rewind lever.



DECAL

A foil decal is available to call this feature to the attention of the operator.

Unfortunately, earlier S/N projectors cannot be equipped with this feature.



SERVICE UPDATE

SUBJECT: 5804 WIRED REMOTE MODIFICATION

MODELS: NT-0, NT-1, NT-2

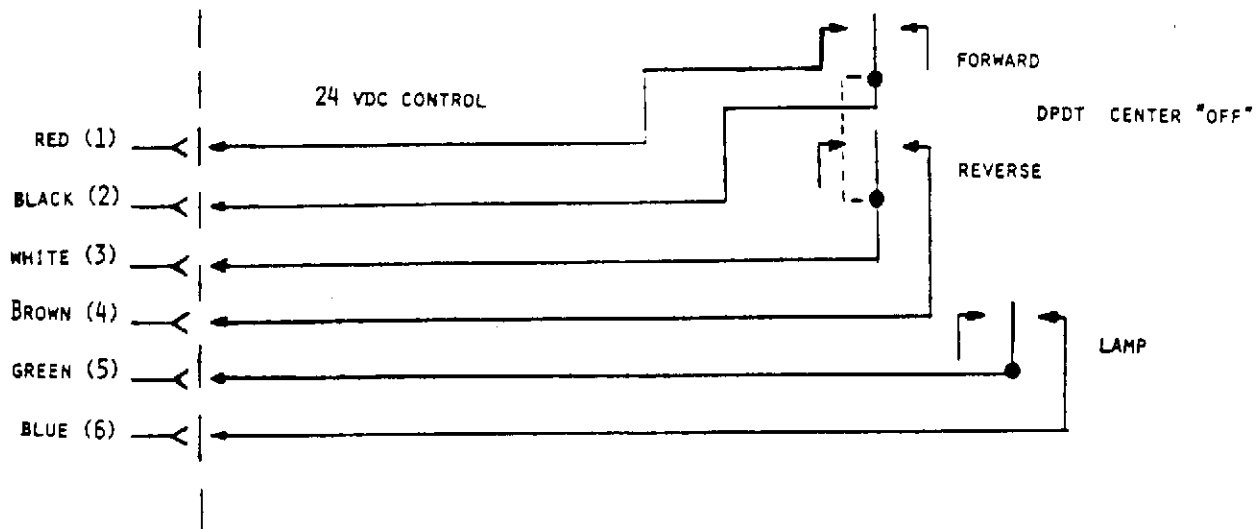
The #5804 wired remote control option allows the NT series projector to be low voltage controlled for special installation.

At the present time this is an EIKI installed modification, terminating in an 8 pin cinch jones type connector. No switch or control panel is available from EIKI as most applications require interface with custom designed control systems.

The suggested switch wiring configuration is shown below.

5804 WIRED REMOTE

RECOMMENDED EXTERNAL SWITCH CONNECTIONS



SUBJECT: CALCULATING PROJECTION LENS REQUIREMENTS

One of the most frequent inquiries we receive from customers and dealers is "what size lens do we use to obtain a given image size?"

The NAVA (National Audio-Visual Association) publishes a series of tables in The Audio-Visual Equipment Directory for standard lenses and screen sizes. The EIKI operators manual also contains a similar table for standard lenses.

What about odd size screens or special lenses not included on most tables?

BASIC FORMULA

$$\text{IMAGE WIDTH} = \frac{\text{APERTURE WIDTH X PROJECTION LENGTH}}{\text{LENS FOCAL LENGTH}}$$

.380" = Aperture Width (typical 16mm projector)

D = Projection Distance

F = Lens Focal Length in Inches

W = Screen Width

To find the screen width for a given lens and projection distance:

$$W = \frac{.380 \times D}{F}$$

To find the required projection distance for a given lens and screen width:

$$D = \frac{W \times F}{.380}$$

To find the required lens (focal length) for a given screen width and projection distance:

$$F = \frac{.380 \times D}{W}$$

When using a cinemascope or anamorphic lens, the screen width should be multiplied by two.

For a more comprehensive analysis image and lens size calculation, may we suggest the PH7.6-1975 American National Standards Institute Document Method For Calculation And Preparation of Projected-Image Size And Projection Distance Tables For Audio-Visual Projectors.

Copies are available at a modest charge from ANSI, 1430 Broadway, New York, NY 10018.

EIKIBULLETIN NO: 98

SERVICE UPDATE

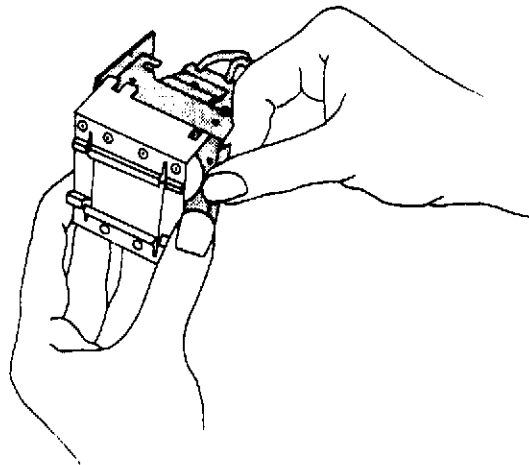
ISSUE DATE: 3/20/81

SUBJECT: 5850 and 5869 TELE-CINE CONVERSION

MODELS: NT & SL

We have had a number of reports that the #5859 light diffuser glass has shattered. In most cases this is caused by improper installation. When inserting the diffuser between the lamp holder and lamp bracket assembly, it is important to leave a 1/8" gap between the diffuser and the front of the lamp.

Diffuser



Lamp Holder

For a cooler tele-cine operation, the projector may be operated with the lamp in the low position or with the 200 watt EJL to reduce the intensity for sensitive, low light T.V. cameras.



SERVICE UPDATE

SUBJECT: EIKI SERVICE AIDS

The following list is compiled for your convenience in obtaining EIKI service aids.

HARDWARE AND TOOLS

<u>PART #</u>	<u>DESCRIPTION</u>	<u>SUGG. LIST</u>
5475	Hardware Kit #1 (user)	\$ 60.00
5476	Hardware Kit #2 (dealer)	150.00
5597	Metric Drill Set	7.50
5598	JIS Tap Set (ST models)	9.90
5599	ISO Tap Set (current models)	7.50
5602	Claw Protrusion Gauge (320-01T)	26.60
5603	Sound Lens Tool (320-02T)	5.44
5615	Metric Screwdriver Set	9.00

LUBRICANTS

5625	Silicone Grease	10.37
5626	Rocal Grease	3.99
5628	Moly Cam Tank Grease	6.65
5629	Silicone Oil #100	10.99
5630	Silicone Oil #1000	10.99
5631	Petroleum Oil	5.10
5632	Moly Oil	5.40
5633	Silicone Oil #10	10.99

TOUCH-UP PAINTS

5650	RST Series	6.00
5651	ST Series	6.00
5660	EX6000 (light gray)	10.00
5661	EX6000 (dark gray)	10.00
5670	SL & NT Series (brown)	10.00
5671	SL & NT Series (black)	10.00

TEST FILM LOOPS

5620	Registration Test Loop	7.85
5622	Buzz Track Test Loop	7.85
5624	Sound Focus Test Loop	7.85

Test films in longer lengths are available from The Society of Motion Pictures and Television Engineers (SMPTE) Test Film Dept., 862 Scarsdale Ave., Scarsdale, NY 10583.

EIKI

SERVICE UPDATE

BULLETIN NO: 101ISSUE DATE: 6-20-81

SUBJECT: PARTS ORDERING POLICY

We pride ourselves in supplying parts promptly and efficiently. In most instances we can ship parts from our stock within 24 to 48 hours, after receipt of order.

To help us continue this policy, we request your cooperation by following a few simple procedures:

1. Parts orders from non-dealers should be placed through local EIKI dealers with established accounts.
2. Although we do not require a minimum order, we do suggest, to minimize your operating cost and ours, that small parts orders to grouped together when possible.
3. Parts orders can easily be filled with the wrong part unless we have both the part number and part description. Please avoid delays by making sure now that you have service manuals and parts lists on hand. Orders received without parts numbers cannot be interpreted by our order processing desk and will have to be returned for clarification. You can insure the fastest possible service by taking a few moments to complete your order properly the first time.



SERVICE UPDATE

SUBJECT: MODULAR EXCHANGE PROGRAMMODELS: EX-2000A&N
EX-3000N

The following modules may be exchanged with an authorized EIKI dealer provided they are original EIKI components and can be reconditioned. The dealer may, at his option, recondition or return the module to EIKI International. We will return to the dealer, a new or reconditioned module at our option, depending on availability. Both will carry the same EIKI Warranty.

		<u>RECONDITIONED</u>	<u>EXCHANGE</u>
	<u>PART NUMBER</u>	<u>OR NEW PRICE</u>	<u>PRICE</u>
1. <u>AMPLIFIER MODULE</u>			
EX-2000A1	222-50601	\$198.00	\$58.00
EX-2000A2	222-50701	231.00	68.00
EX-2000N1	224-50601	198.00	58.00
EX-2000N2	224-50701	231.00	68.00
EX-3000N1	225-50601	198.00	58.00
EX-3000N2	225-50701	231.00	68.00
2. <u>CAM TANK MODULE</u>			
EX-2000A	222-11001	143.00	78.00
EX-2000N			
"O" Ring Belt Type	224-11101	143.00	78.00
3V Belt Type	225-11101	143.00	78.00
EX-3000N 3V			
Belt Type	225-11101	143.00	78.00
3. <u>LENS HOLDER GATE MODULE</u>			
EX-2000A	222-80101	125.00	45.00
EX-2000N	224-80101	125.00	45.00
EX-3000N	224-80101	125.00	45.00
4. <u>MOTOR/FAN MODULE (w/o Motor Pulley)</u>			
EX-2000A	222-12302 (120V)	185.00	95.00
	222-12402 (220/ 240V)	185.00	95.00
EX-3000N	224-12301 (120V)	185.00	95.00
5. <u>TRANSISTOR HEAT SINK ASSY</u>			
EX-2000A & N	222-63201	186.00	68.00
6. <u>H.V. STARTER ASSY (Case must be undamaged)</u>			
EX-2000A & N	222-62111	450.00	185.00

EIKIBULLETIN NO: 106

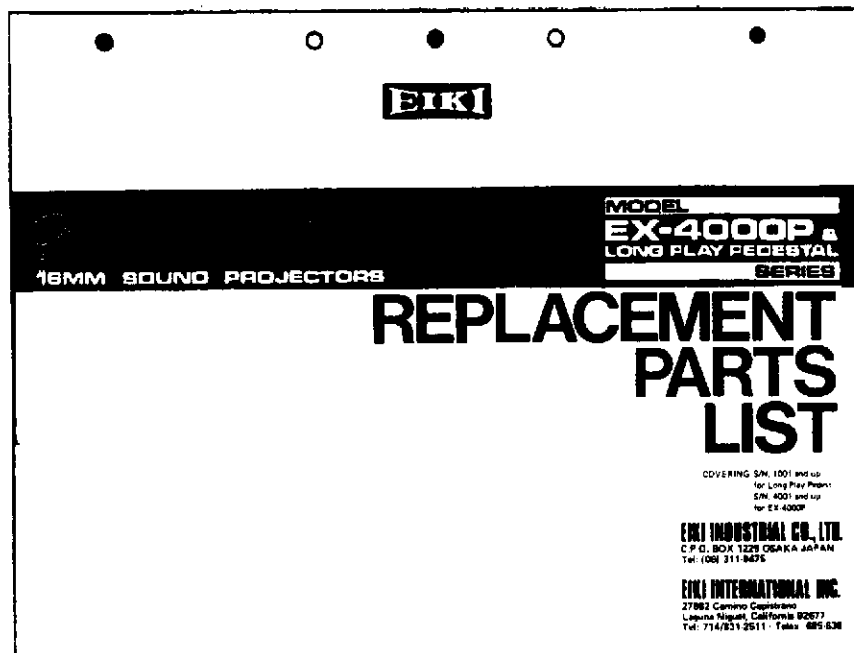
SERVICE UPDATE

ISSUE DATE: 7/20/81

SUBJECT: REPLACEMENT PARTS LIST

MODELS: EX-4000P and 6000' LONG PLAY PEDESTAL

An illustrated Replacement Parts List is now available, covering both the EX-4000P and the P/N 5350 6000' Long Play Pedestal. When ordering replacement parts we suggest using this list to insure prompt handling of your order.



EX-4000P w/6000' Long Play Pedestal Replacement Parts List

P/N 4508 - Suggested List \$6.00

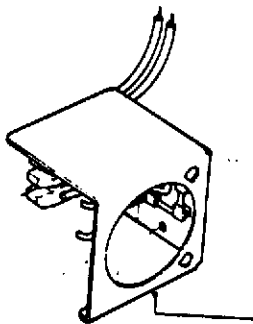
EIKIBULLETIN NO: 107

SERVICE UPDATE

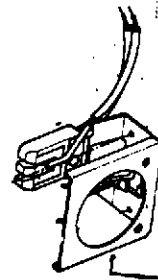
ISSUE DATE: 8/20/81

SUBJECT: LAMP HOLDER AND SOCKET ASSEMBLIES

MODELS: NT SERIES S/N 31307 and UP.



312-32801



320-32801

All RT series and NT series prior to S/N 31307 use lamp holder and socket assembly 312-32801.

When ordering replacement lamp holders and sockets for NT projectors after S/N 31306 the 312-32801 part number as listed in the current NT parts list does not apply.

The correct lamp holder and socket for the later NT series is the same as the SL and SL-II. P/N 320-32801.

SERVICE UPDATE

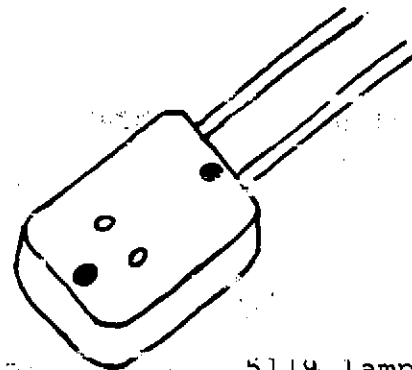
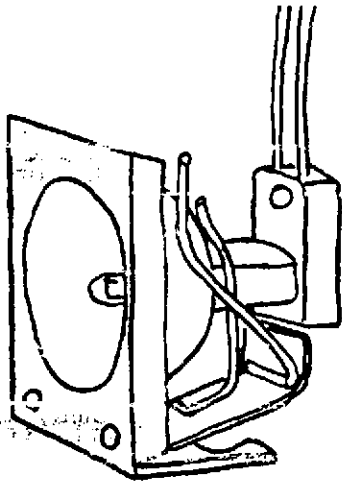
SUBJECT: ECONOMY "ELC" LAMP SOCKET REPLACEMENT

MODELS: ALL RT, NT & SL SERIES.

From time to time we have recieved requests for the porcelain socket portion only, in the hopes of reducing lamp holder and socket replacement cost.

Unfortunately, the labor time involved in removing and replac- ing the riveted socket plus the price of the socket only ex- ceeds the cost of the entire lamp holder and socket assembly.

As an option we have obtained a slightly different porcelain lamp socket which is plugged directly on to the end of the lamp terminals.



5119 lamp
socket only.

INSTALLATION of the 5119 LAMP SOCKET

1. Slide the Insulating Tubing back and un-solder the leads from the original socket.
2. Remove the lamp holder and bracket assembly by removing the knurled thumb nut.
3. File "off" the rivet securing the original socket to the lamp holder.

PAGE 2.

SUBJECT: ECONOMY "ELC" LAMP SOCKET REPLACEMENT

4. Re-install the lamp holder and insert the lamp.
5. Plug the #5119 replacement socket onto the lamp terminals.
6. Solder the lamp socket wires and slide the Insulating Tube over the solder connection.
7. Next time it will only be necessary to re-connect a new #5119 should the socket become damaged.

ELC REPLACEMENT SOCKETS P/N 5119 \$1.95.

EIKIBULLETIN NO: 109

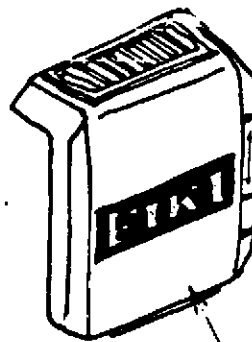
SERVICE UPDATE

ISSUE DATE: 8/20/81

SUBJECT: LAMP HOUSE COVER

MODELS: NT SERIES S/N 31307 and UP.

The NT-series metal lamp house cover has been replaced with a high temperature and impact resistant plastic cover P/N 314-32601.

313-32601314-32601

The current NT parts list does not include this new cover, therefore, when ordering replacement lamp house covers for projectors after S/N 31306 specify P/N 314-32601.

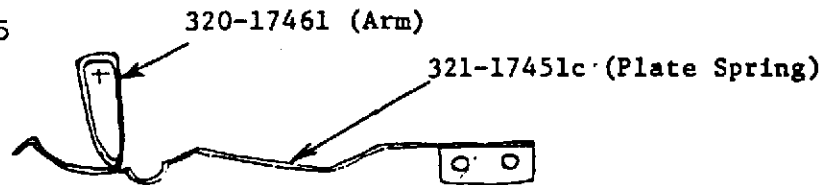
EIKIBULLETIN NO: 117

SERVICE UPDATE

ISSUE DATE: 2-20-82SUBJECT: FILM-GUARD

MODELS: SL Series, S/N 30001 to 46285.

S/N 30001 - 46285



After S/N 46285



The shape of the plate spring, 321-17451 has been changed to provide a more positive "READY" position for the film guard roller.

This will prevent the film guard switch from activating when the function switch is rapidly advanced to the forward position.

Earlier serial number projectors which exhibit a sensitive "FILM-GUARD" switch without loosing the upper loop can be fitted with the newer style spring.

321-17451 (D) PLATE SPRING - Suggested List: \$3.06



BULLETIN NO: 120

SERVICE UPDATE

ISSUE DATE: 2-20-82

SUBJECT: MODULAR EXCHANGE POLICY

MODELS: All models

IMPORTANT NOTICE

Eiki Authorized Dealers are expected to carry a stock of the basic modules. Therefore, we expect all modular exchanges to be handled by local sales or service dealers.

In the past we have made exceptions to this policy and exchanged modules C.O.D. when received from non-Eiki Service Dealers, or directly from the end-user.

We can no longer continue to make these exceptions. As of March 1, 1982 we will return to sender any module not received from an authorized Eiki Sales or Warranty Service Dealer.

Modules returned for warranty must also include a copy of the warranty service report form.

For information as to the nearest Eiki Authorized Dealer please call our office.



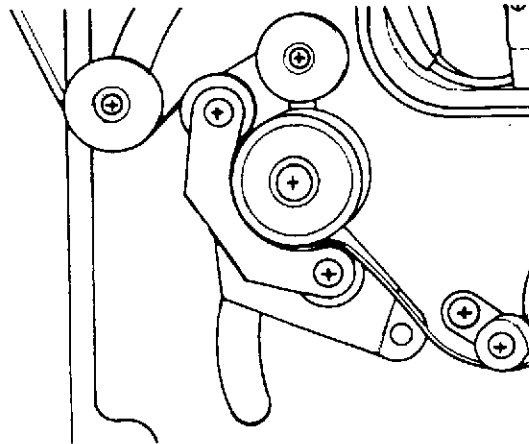
BULLETIN NO: 123

SERVICE UPDATE

ISSUE DATE: 4-20-82

SUBJECT: FILM SKIPPING OVER THE NO. 2 SPROCKET ASSEMBLY

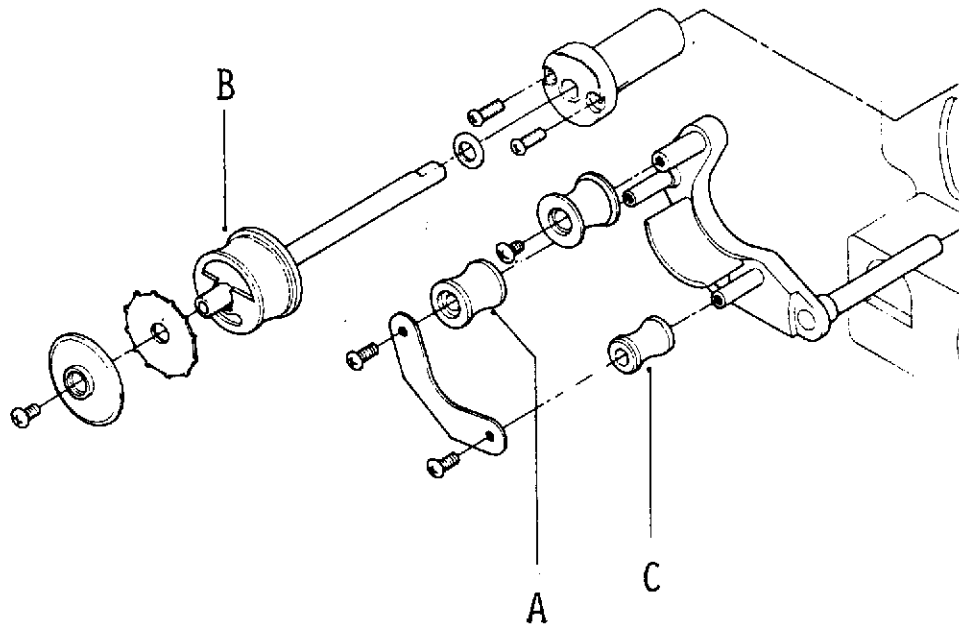
MODEL: SL-II Series, S/N 30,000 to S/N 52305
EX-300SL, S/N 3287 to S/N 3658



Projectors in the above serial number groups have exhibited an unusual sensitive "Film Guard" switch. This condition is often mistaken as a faulty Film Guard sensing mechanism because no visible film damage is detected.

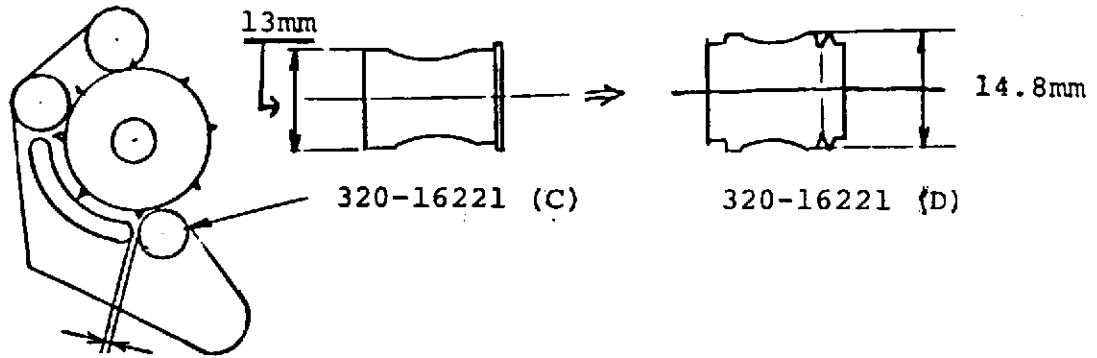
Under certain conditions such as old black and white films with extreme shrinkage or excessive and erratic take-up tension, the film will skip the #2 sprocket. When this occurs, the lower loop will shorten causing the auto-loop setter to reset. The upper loop is reduced until it trips the "Film Guard" sensing roller, turning "Off" the projector.

To insure positive film seating around the #2 sprocket drum, the following modifications should be made.



- A. SL-II Projectors prior to S/N 45,000 and EX-300SL-II models prior to S/N 3287, the 320-17561 Shoe Roller should be replaced with 320-17561 (A) Shoe Roller as per service update #113.
- B. SL-II Projectors from S/N 30,000 to S/N 52305. The #2 Sprocket Drum Assy., 314-1640 (28.74mm Dia) should be replaced with 321-16401, #2 Sprocket Drum Assy. (28.60mm Dia). EX-300SL-II, S/N 1898 to S/N 3658. The #2 Sprocket Drum Assy. should be replaced with the 210-16401 (A) Aluminum Sprocket Drum Assy.
- C. SL-II Projectors from S/N 30,000 to S/N 52305 and the EX-300SL-II, below S/N 3658. The small Sprocket Shoe Guide Roller, 320-16221 should be replaced with the new 320-16221 (D) Guide Roller.

NOTE: The increase in the 320-16221 (D) Roller diameter may require a slight trimming of the Film Shoe.



Trim to allow small clearance.

When making the above modifications during the warranty period, authorized EIKI Dealers must return the defective parts with a warranty service report.

Sugg. List

320-17561 (A) Shoe Roller	-	\$ 4.14
321-16401 #2 Sprocket Drum Assy.	-	33.84
210-16401 (A) Aluminum Sprocket Drum Assy.	-	33.84
320-16221 (D) Guide Roller	-	3.26

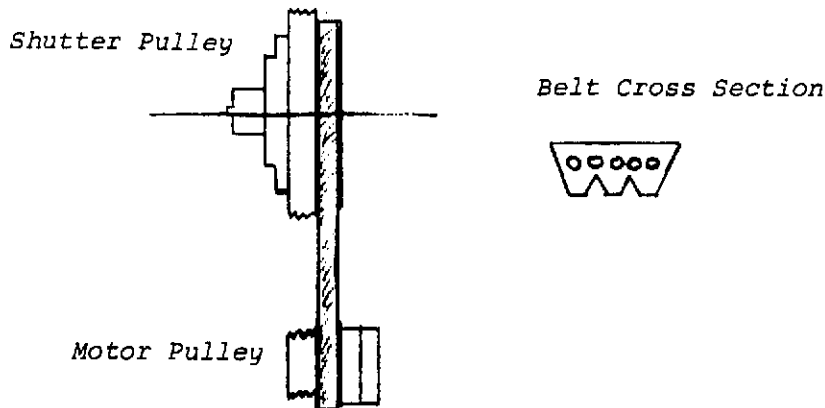


SERVICE UPDATE

SUBJECT: NEW 3V BELT DRIVE SYSTEM

MODELS: NT series from S/N 50001 and up.

In an effort to constantly improve our projectors, a new extremely durable belt drive system has been incorporated in all NT Models beginning with S/N 50001.



For special heavy-duty applications, it is possible to retro-fit earlier NT Models by ordering the appropriate pulleys and belt.

The chart below will serve as a preliminary guide until a revised replacement parts list becomes available.

OPERATION	MOTOR PULLEY	SHUTTER PULLEY	MOTOR BELT
120V 60Hz, Sound Only 24 FPS	314-12501	314-11501	321-12181
120/220 50/60Hz Sound Only, 24 FPS	314-12101	314-11401	321-12181
120V 60Hz, Sound & Silent, 18 FPS	314-12301	314-11501	321-12181

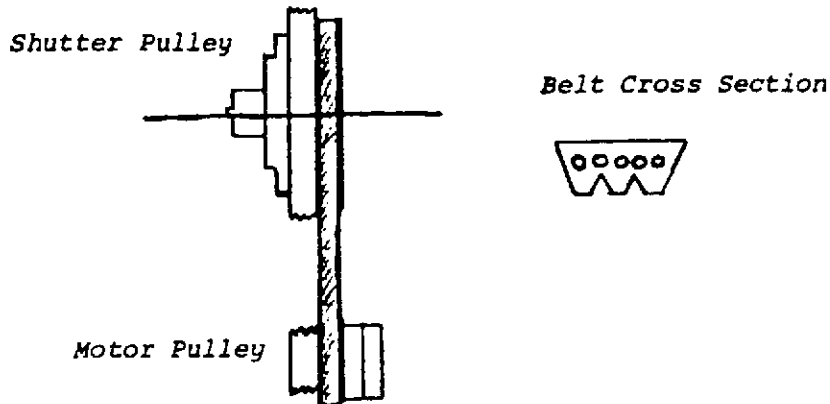


SERVICE UPDATE

SUBJECT: NEW 3V BELT DRIVE SYSTEM

MODELS: SL Series from S/N 50001 and up.
EX-300SL from S/N 3558 and up.

In an effort to constantly improve our projectors, a new extremely durable belt drive system has been incorporated in all SL Models beginning with S/N 50001, and EX-300SL Models beginning with S/N 3258.



For special heavy-duty applications, it is possible to retrofit earlier SL Models by ordering the appropriate pulleys and belt.

The charts below will serve as a preliminary guide until a revised replacement parts list becomes available.

SL MODELS:

OPERATION	MOTOR PULLEY	SHUTTER PULLEY	MOTOR BELT
120V 60Hz, Sound Only, 24 FPS	321-12401	321-11111	321-12181
120/220 50/60Hz Sound Only, 24FPS	321-12101	321-11131	321-12181
120V 60Hz, Sound & Silent, 18 FPS	321-12201	321-11111	321-12181

EX-300SL MODELS:

OPERATION	MOTOR PULLEY	SHUTTER PULLEY	MOTOR BELT
120V 60Hz, Sound Only, 24 FPS	210-12761	321-11111	321-12181
120/220V 50/60Hz, Sound Only, 24 FPS	210-12771	321-11131	321-12181
120V 60Hz, Sound & Silent, 18 FPS	210-12781	321-11111	321-12181

NOTE: EX-300SL Models with a rectifier cooling fan belt cannot be fitted with the new drive belt system.



SERVICE UPDATE

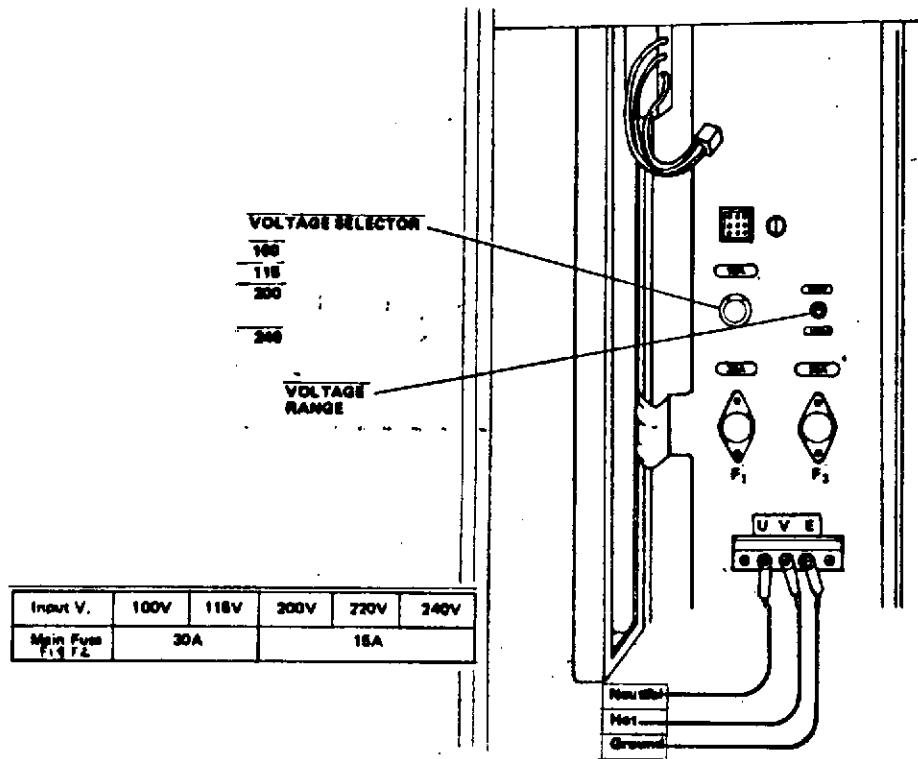
SUBJECT: PROPER FUSE PROTECTION

MODELS: EX6100/6120

Most EX6100/6120 projectors were shipped with 30 amp main fuses installed for 120 volt operation.

When the installation requires 220/240 volt operation the 30 amp fuses must be replaced with 15 amp for adequate short circuit protection.

Where installations have been made for 220/240 volt operation it is recommended that the main fuses be checked for correct rating.



Replacement fuses are available as p/n 0015-6098
15 amp fuse list \$2.20

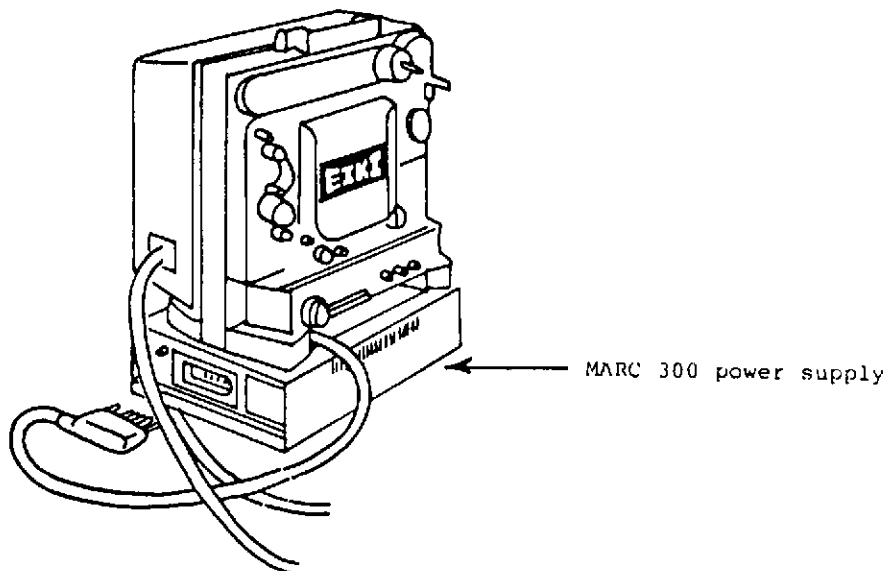
EIKIBULLETIN NO: 129

SERVICE UPDATE

ISSUE DATE: 12/20/82

SUBJECT: MARC 300/350 POWER SUPPLY

MODELS: RT & NT



Several years ago we discontinued the #5708 & #5709 Marc Conversion, as a result the #5704 G.E. Marc Lamp Power Supply is no longer available from Eiki.

According to our records all G.E. Power supplies sold by Eiki are out of warranty, and Eiki can no longer accept returned power supplies for warranty or other repairs.

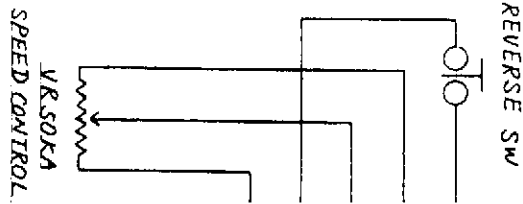
For repairs or parts we suggest you contact the following:

General Electric
Specialty Transformer Division
P.O. Box 1701
Fort Wayne, Indiana 46801

Or the authorized service facility:

KMR Electronics
P.O. Box 6400
Santa Ana, CA 92707
(714) 979-0400

Most parts associated with the projectors double duty Conversion modification are still available from Eiki or authorized Eiki dealers.



SPOR
200V

EIKI

SERVICE UPDATE

BULLETIN NO: 132

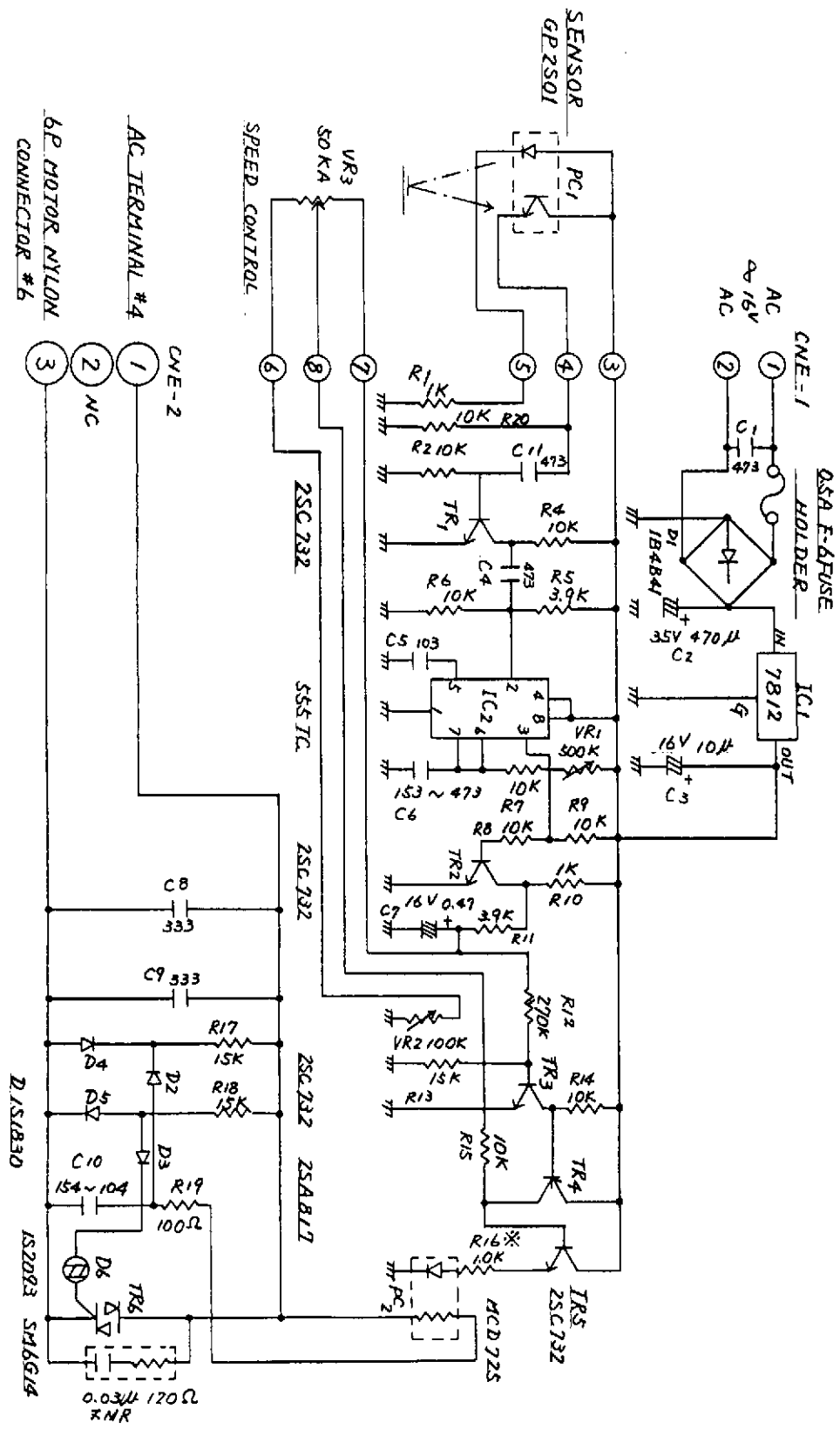
ISSUE DATE: 9-20-83

SUBJECT: PRELIMINARY SCHEMATIC DIAGRAMS

MODELS: NT-SPORT

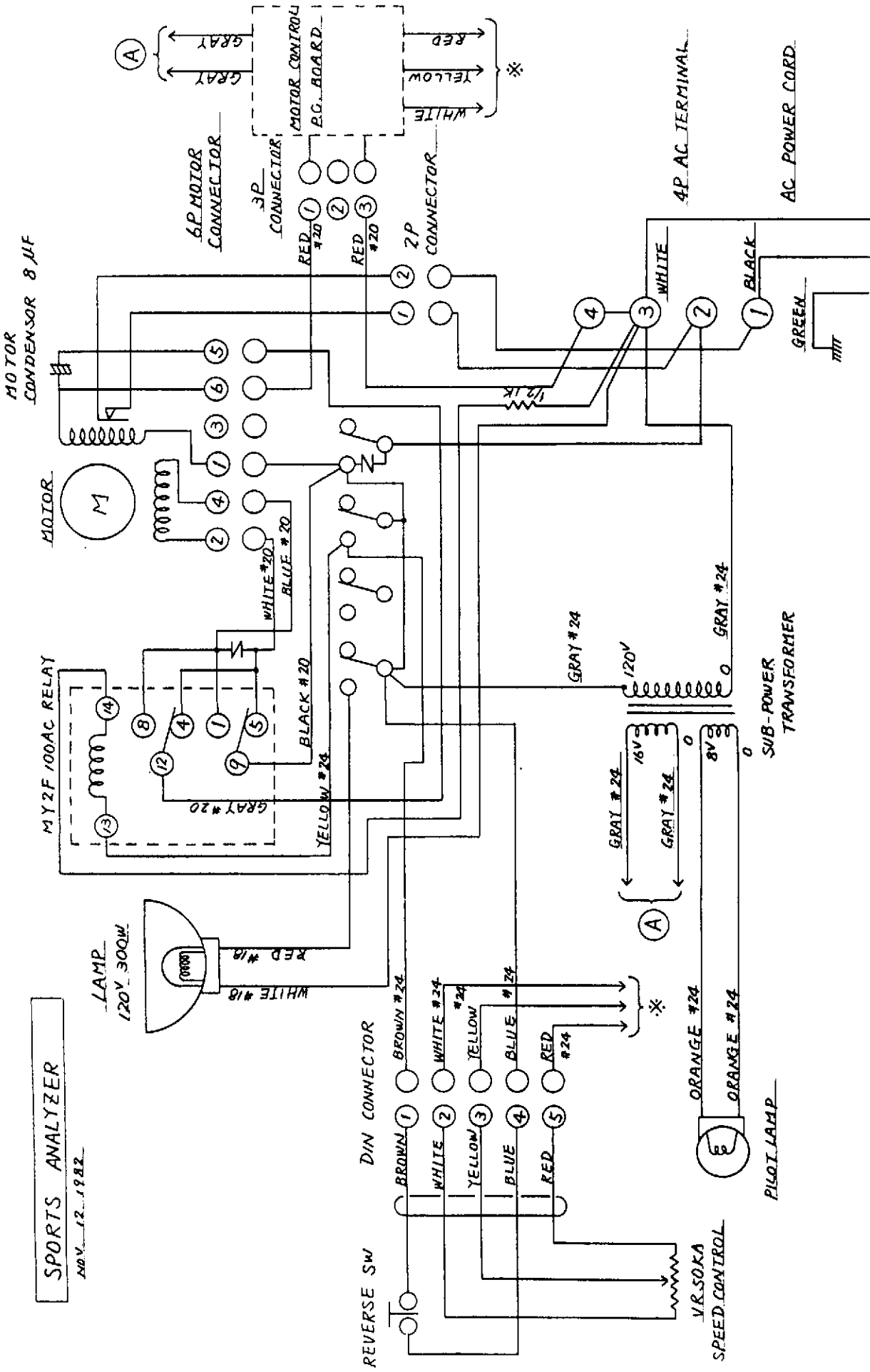
SPORTS ANALYZER MOTOR SPEED CONTROL CIRCUITS

JUNE 21 1982



SPORTS ANALYZER

REV. 12-1982



SERVICE UPDATE

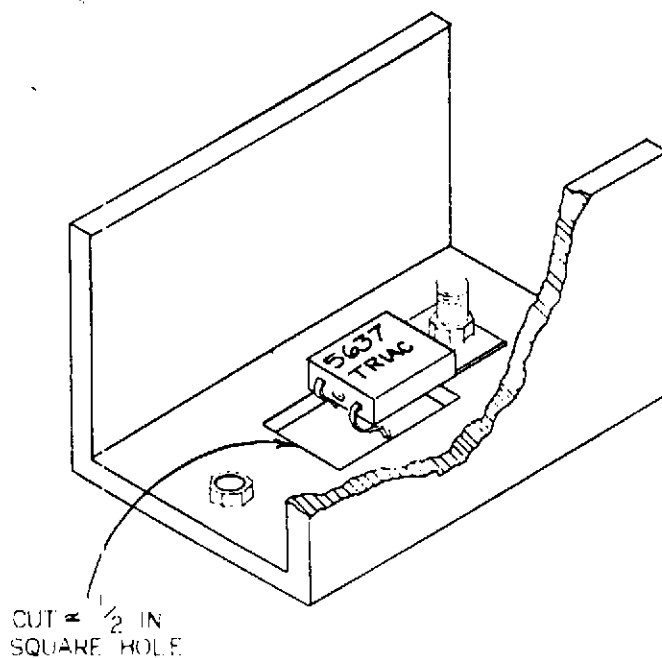
MODEL: NT Sport Analyser

SUBJECT: No Variable Speed Control

Failure of the variable speed control is usually associated with the Triac Circuit TR-6, located on the speed control P.C. Board. Production models using Triac SM6614 most frequently exhibit this problem.

The SM6614 is rated at a maximum of 400 volts peak-to-peak, however under some operating conditions a transient voltage spike can occur near to or in excess of 400 volts causing the component to fail.

We are recommending that a replacement Triac with a VRRM of at least 600 peak volts be installed, such as the ECG-5637, or SK3533. A small modification to the existing heat sink is required to accommodate the replacements to 220 case style.



EIKI

BULLETIN NO: 135

SERVICE UPDATE

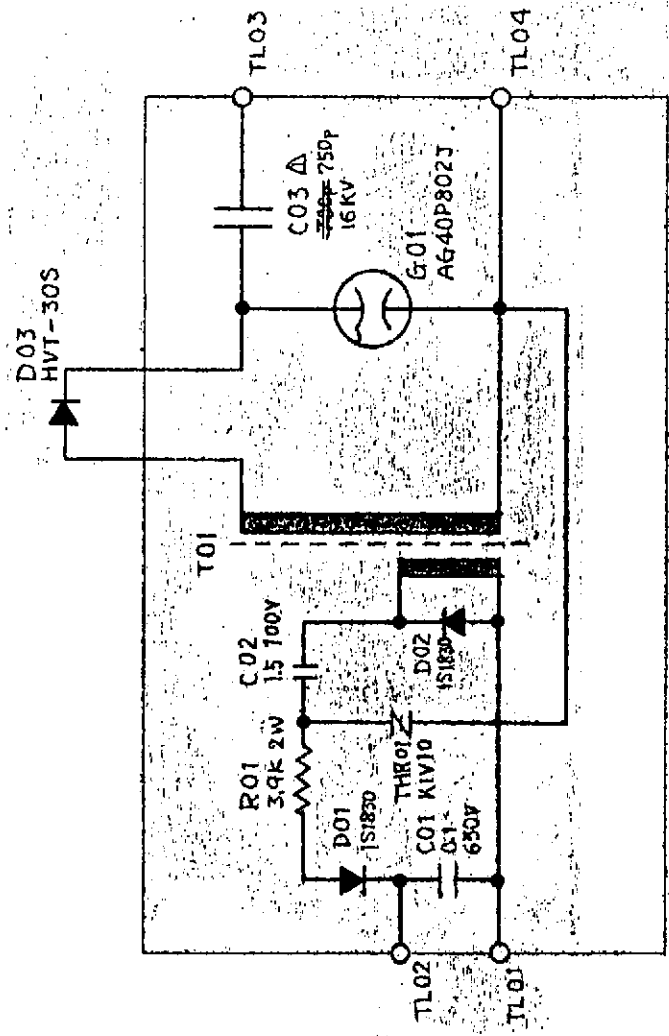
ISSUE DATE: 11-290-83

SUBJECT: EX3000N POWER SUPPLY DIAGRAMS

MODEL: EX3000N ALL

Enclosed:

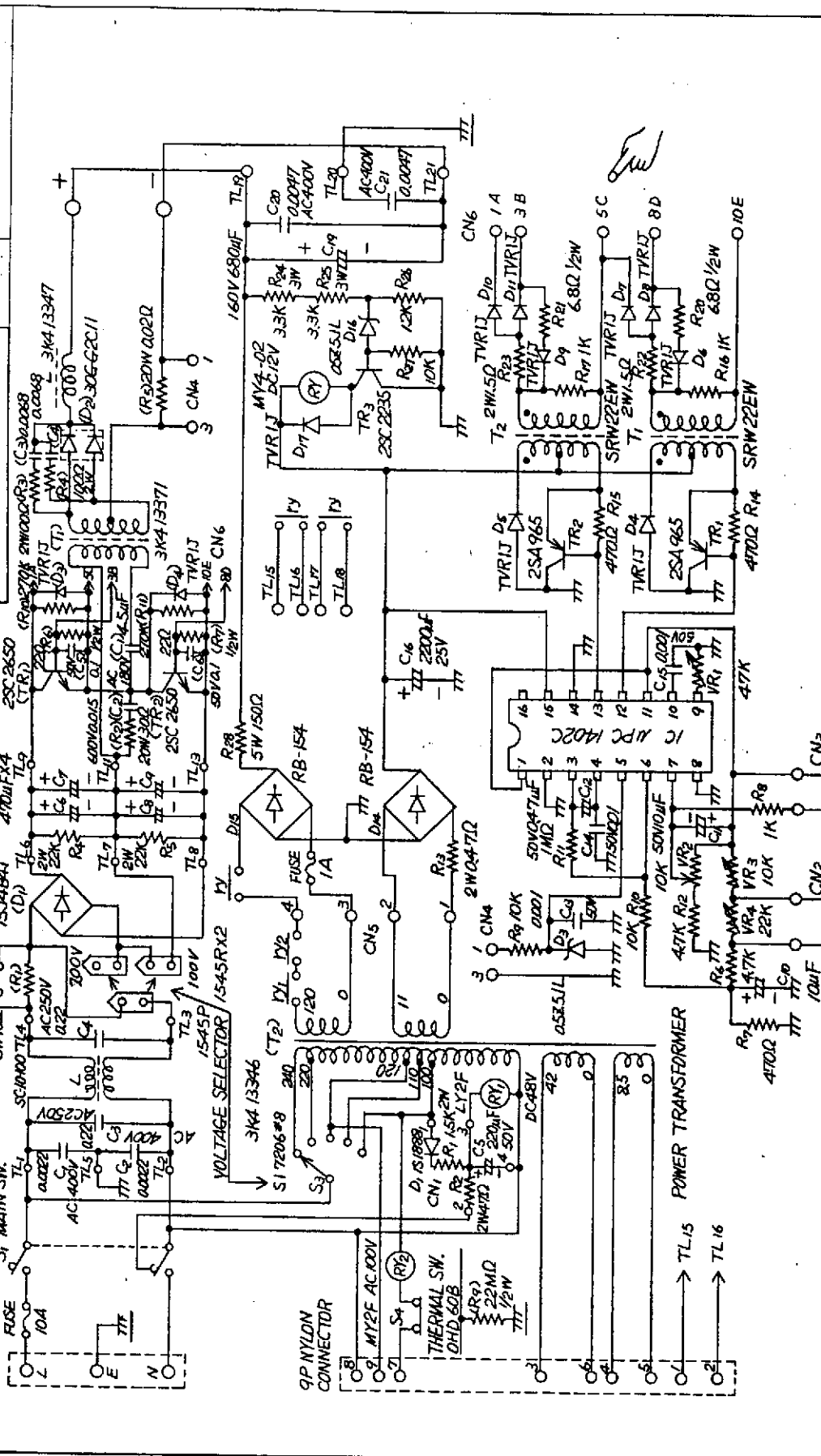
Diagrams: 3KF-10607 Starter
 225-63011 Ballast Circuit
 3KF-10699 P.C. Board Diagram
 3KF-10698 Electrical Diagram



EX-3000N
Starter P.C. Board assy

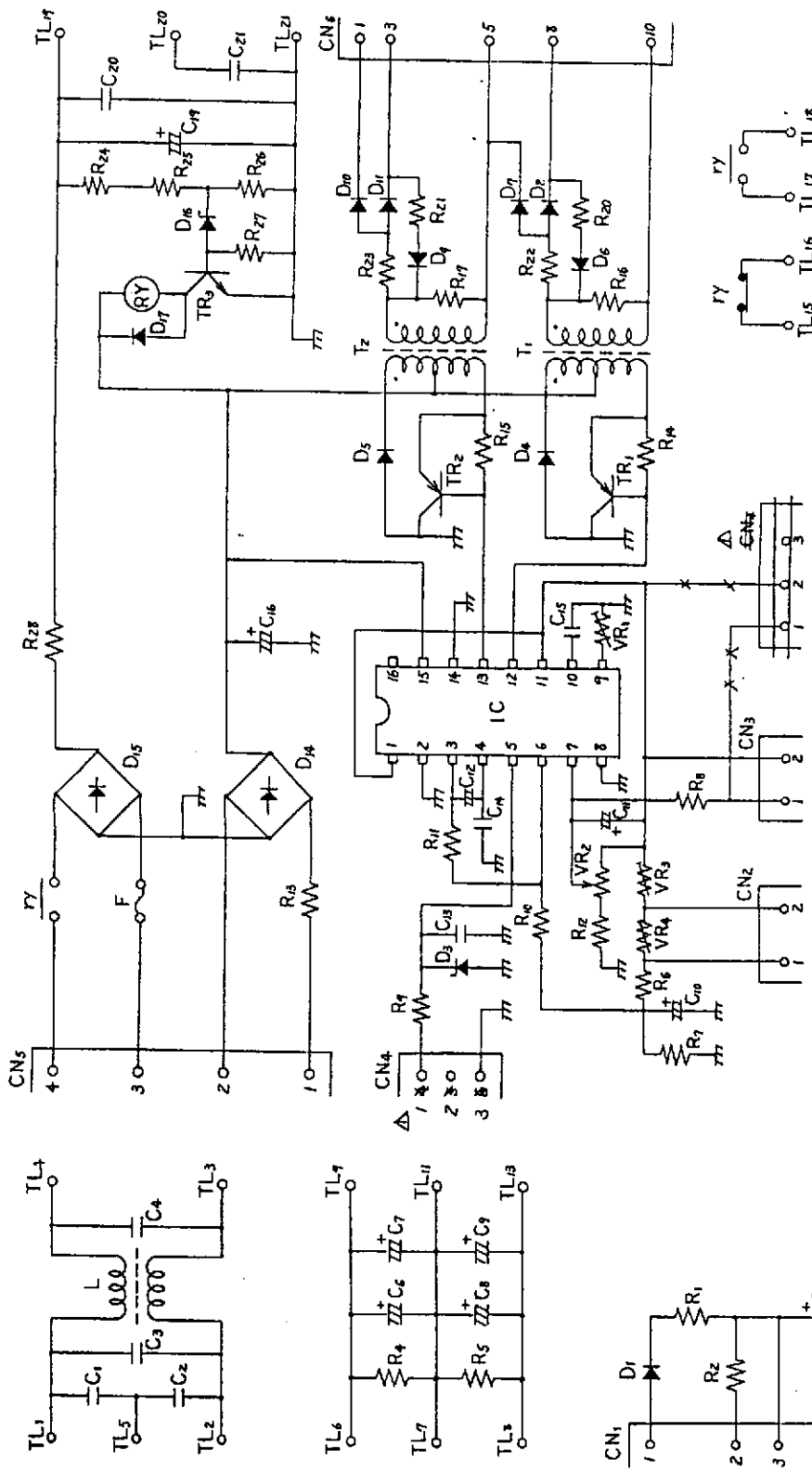
編号		仕様		材料		ウシオ電機株式会社	
		部品表				1980年9月26日	
		表面処理		数量		PB-0110A	
		工程		重量		CIRCUIT BOARD ILLUSTRATION	
△ 1ヶ所		556.42		29A		機器課 3角紙	
訂正 價所		由		訂正 年月日		3KF-10607	
機原番号		A401					

訂正電路圖
 訂正電路圖
 訂正電路圖
 訂正電路圖



球燈工業株式會社		設計者	設計	材料	部品
訂	58年 4月 24日	訂	訂	訂	訂
訂		訂	訂	訂	訂

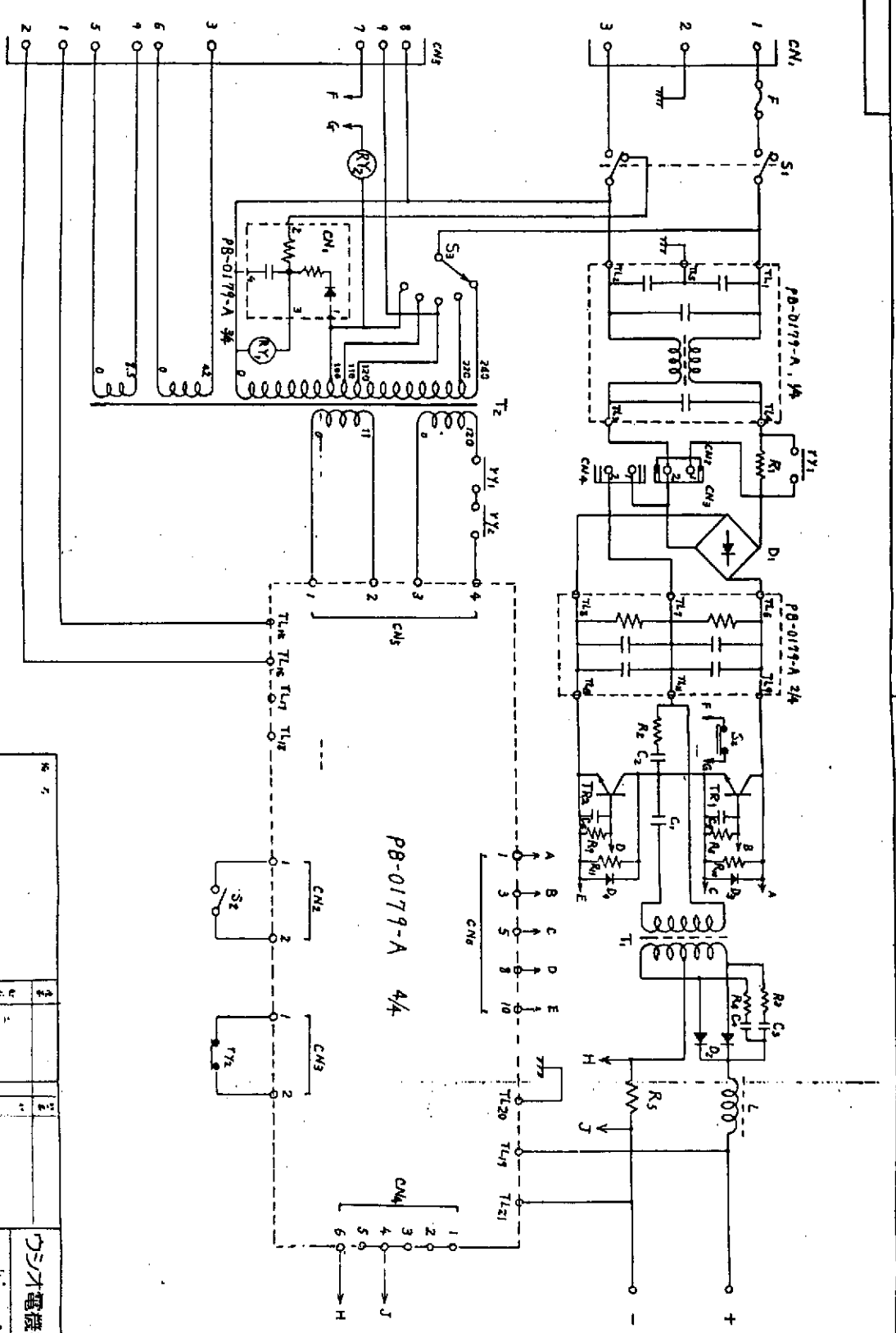
BALLAST
CIRCUIT DIAGRAM
EX-3000N 225-63011



ウシオ電機株式会社	
1981年11月7日	
PB-0179-A	
図	回路図
機番	301
3KF-10699	1/3

EX 3000N

301



PB-0179-A 4/4

品名	XB-35107AB	ワシオ電機株式会社
回路図	回路図	
検閲	3KF-10698 1/2	
設計		
承認		
材料		
部品		
数量		
単位		
備考		

SERVICE UPDATE

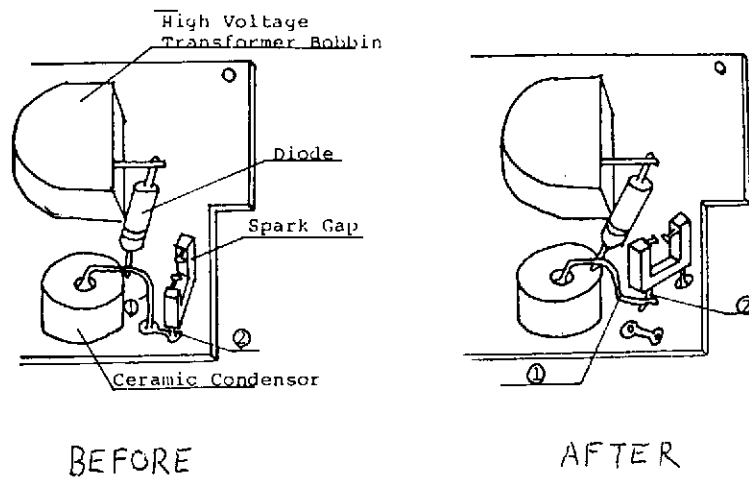
SUBJECT: Difficult lamp striking due to high voltage leakage.

MODELS: EX-3000N S/N 1001 - 1188 and 1501 - 1550
EX-300SL S/N 3001 - 4018

Lamp striking difficulties may be caused by one or more of the following operating conditions:

- a. Above normal room temperatures.
- b. High humidity.
- c. Low AC line voltage.
- d. Poor lamp condition.

Projectors in the serial number group as indicated may be more susceptible to high voltage leakage from the starter P.C. board to ground. The result is a lower ignition voltage which may not always start the xenon lamp. To correct the above condition, unsolder the spark gap and ceramic condenser from the P.C. board and solder the two terminals directly together. (See the illustration below.)

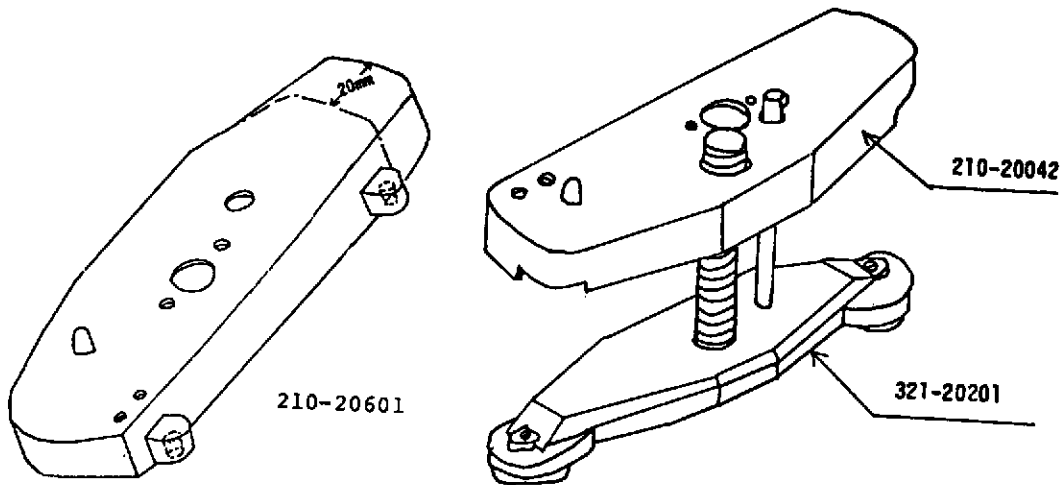




SERVICE UPDATE

SUBJECT: FRONT AND REAR LEG ASSEMBLY

MODEL: EX300SL AFTER S/N 3458



As a continual product improvement the front and rear leg assembly have been widened for greater projector stability.

Since present parts lists for the EX300SL refers to the earlier style, we suggest you note the following part numbers in your manual.

It is important to use the correct part number when ordering replacement parts.

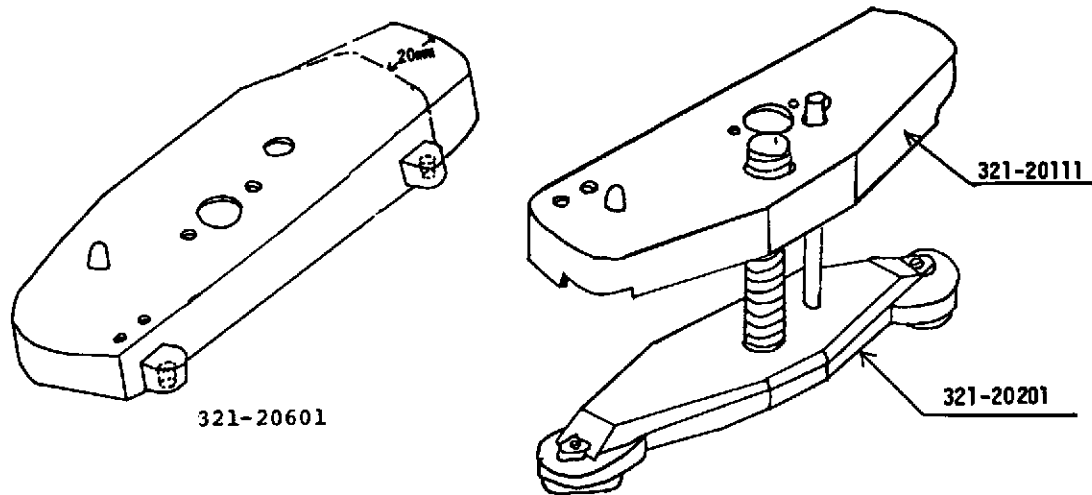
The new wider legs may also be installed on earlier projectors as an update kit, including the elevator foot assembly.

210-20042	Front Leg	\$ 13.52
210-20601	Rear Leg	18.39
321-20201	Elevator Foot Assy.	26.69
210-80011	Front Leg Kit	37.32

SERVICE UPDATE

ISSUE DATE: 12/20/83

SUBJECT: FRONT AND REAR LEG ASSEMBLY

MODELS: SL SERIES AFTER S/N 43735
NT SERIES AFTER S/N 42802

As a continual product improvement the front and rear leg assemblies have been widened for greater projector stability.

Since the present parts lists for the NT and SL projectors refer to the earlier style, we suggest you note the following part numbers in your manual.

It is important to use the correct part number when ordering replacement parts.

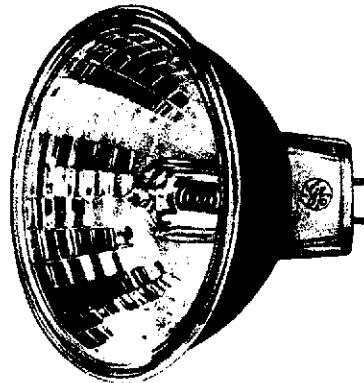
The new and wider legs may also be installed on earlier projectors as an update kit, including the elevator foot assembly.

321-20111	Front Leg	\$13.51
321-20601	Rear Leg	16.54
321-20201	Elevator Foot Assembly	26.69
321-80091	Front Leg Kit	53.32



SERVICE UPDATE

SUBJECT: Replacement Lamps
MODEL: SL-OL (light-weight)



The 300 watt, 120 volt, ANSI coded "EWG" lamp was originally developed by GE for the SL-OL 26 pound projector, and until recently has been the only lamp available for this model.

Recently GE has announced another 300 watt 120 volt lamp designated as "EYK". This new lamp may be substituted for the EWG. The main advantage of the EYK is its longer average life rating.

	<u>Wattage</u>	<u>Voltage</u>	<u>Av. Life Rating</u>	<u>Color Temp.</u>
EWG	300	120	35	3400°K
EYK	300	120	60	3300°K

It should be noted that while the average life is increased with the EYK, there is also a sacrifice of approximately 8% reduction in illumination. At any rate there is a choice, depending upon your requirements.

Both lamps are now available from your GE Lamp Distributor.

uses Socket# 320-32901

SERVICE UPDATE

ISSUE DATE: 3/20/84

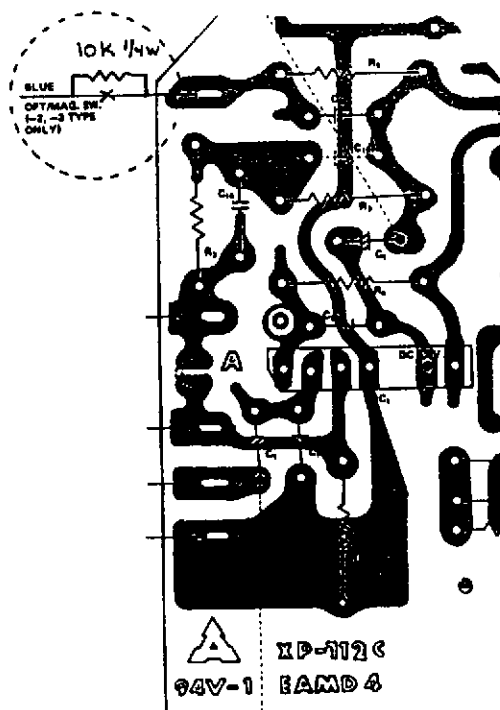
SUBJECT: 314-51102 AMPLIFIER P.C. BOARD
(ISO 1188 AND SMPTE M16-MF 70 MICRO SEC)

MODELS: NT-2 AND 3 SERIES S/N 58952 AND UP
EX3000N S/N 1624 AND UP

In order to improve the magnetic sound reproduction on NT-2 projectors and to conform to the ISO and SMPTE standard, all 314-51102 amplifier boards have been changed.

This does not present any interchangeability problems with using this amplifier board as a replacement in older model projectors, amplifiers - provided the additional 10K, 1/4 watt resistor is installed as illustrated.

When using this P.C. Board assembly as a replacement for Mag/Opt models ST-2,3, RT-2,3 and NT-2,3 before S/N 58952, add a 10 K ohm 1/4 watt resistor from terminal #5 to the Mag/Opt selector switch, replacing the existing blue wire.

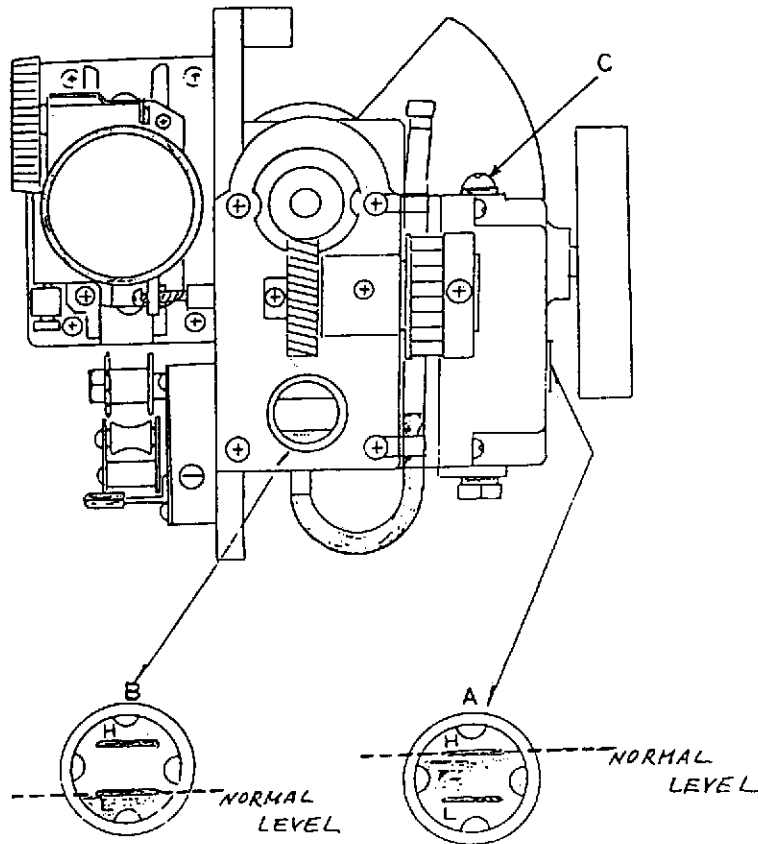


SERVICE UPDATE

SUBJECT: GENEVA TRANSMISSION LUBRICATION

MODELS: EX 6120/9120

Proper oil levels must be maintained to prevent oil leaks and to insure continual operation. (See illustration below)



The oil in chamber "A" will eventually work down to chamber "B", requiring the lower chamber to be drained from the clear plastic tube.

A small amount of Automatic Transmission Fluid "ATF" must be added to the upper chamber (screw "C") as required. Oil levels should be checked approximately every 50 to 100 hours of operation with the projection head in a horizontal position.

To allow the transmission to breathe, screw "C" should be loose. Models with the rubber plugs should have plug removed.

EIKIBULLETIN NO: 145

SERVICE UPDATE

ISSUE DATE: 2/20/85

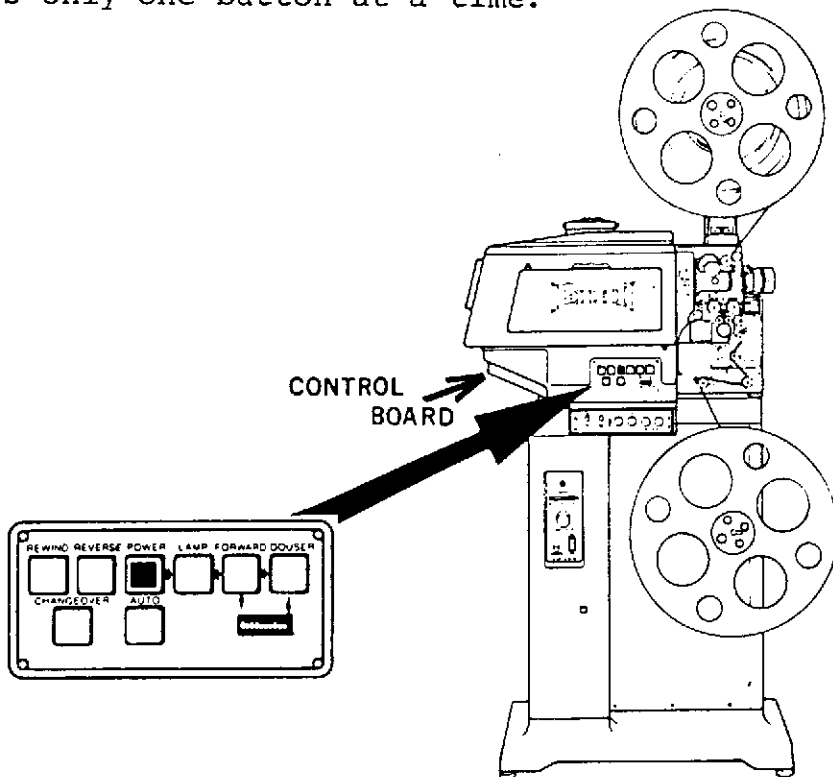
SUBJECT: No Reverse or Rewind

MODELS: EX6100/9100 & EX6120/9120

Problems associated with control functions are usually found to be caused by a control circuit board (261-60101) malfunction. The board is located under the rear of the lamp house and is accessible by removing three small cover screws.

In the event of a board failure we recommend a complete replacement since several update modifications have been made since the initial production of the EX6100/9100 series.

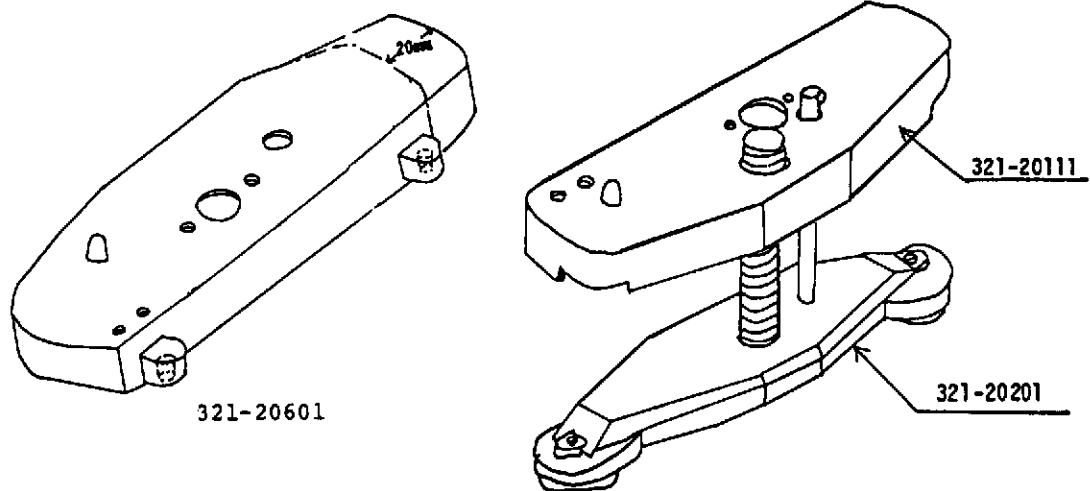
A common cause for the board failures may be attributed to operator error by pushing two or more function control buttons simultaneously. This is a particular problem if forward and reverse or forward and rewind are activated together. Operators should be cautioned to press only one button at a time.



SERVICE UPDATE

SUBJECT: FRONT AND REAR LEG ASSEMBLY

MODELS: SL SERIES AFTER S/N 43735
NT SERIES AFTER S/N 42802



As a continual product improvement the front and rear leg assemblies have been widened for greater projector stability.

Since the present parts lists for the NT and SL projectors refer to the earlier style, we suggest you note the following part numbers in your manual.

It is important to use the correct part number when ordering replacement parts.

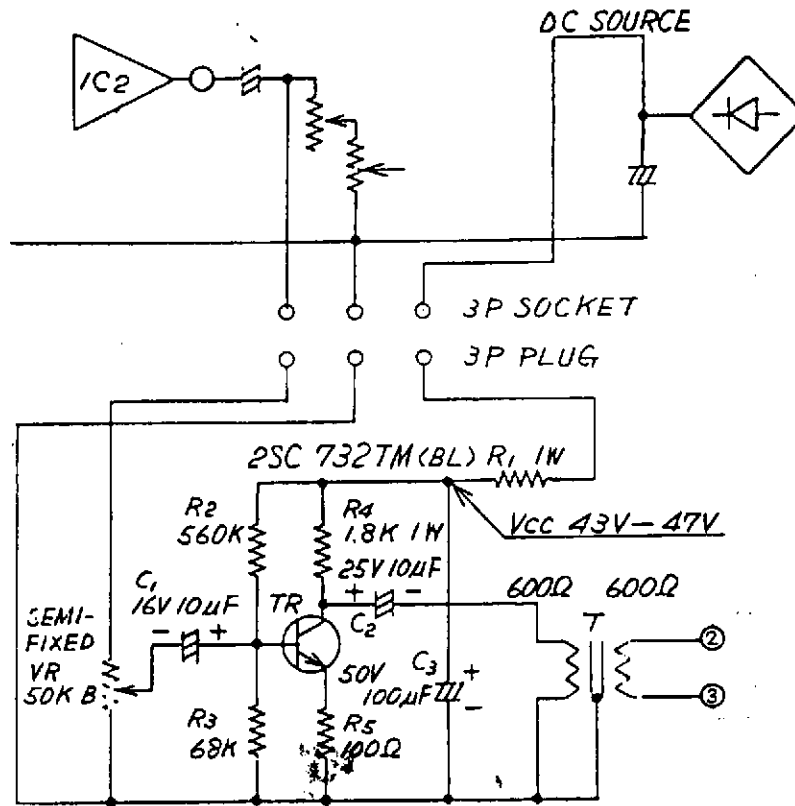
The new and wider legs may also be installed on earlier projectors as an update kit, including the elevator foot assembly.

321-20111	Front Leg	\$13.51
321-20601	Rear Leg	16.54
321-20201	Elevator Foot Assembly	26.69
321-80091	Front Leg Kit	53.32

SERVICE UPDATE

SUBJECT: 600 OHM Output Diagram

MODEL: NT-OT



R ₁ 1W 1.8KΩ - 470Ω	1	LEAD	1m
2SC732TM(BL) TR	1	R ₂ 1/4W 560KΩ	1
600Ω:600Ω TRANS	1	R ₃ 1/4W 68KΩ	1
VR 50KΩ B SEMI-FIXED	1	R ₄ 1W 1.8KΩ	1
PRINTED CIRCUIT BOARD	1	R ₅ 1/4W 100Ω	1
3P PLUG	1	C ₁ 16V 10μF	1
SPACER	2	C ₂ 25V 10μF	1
SHIELD WIRE	1m	C ₃ 50V 100μF	1

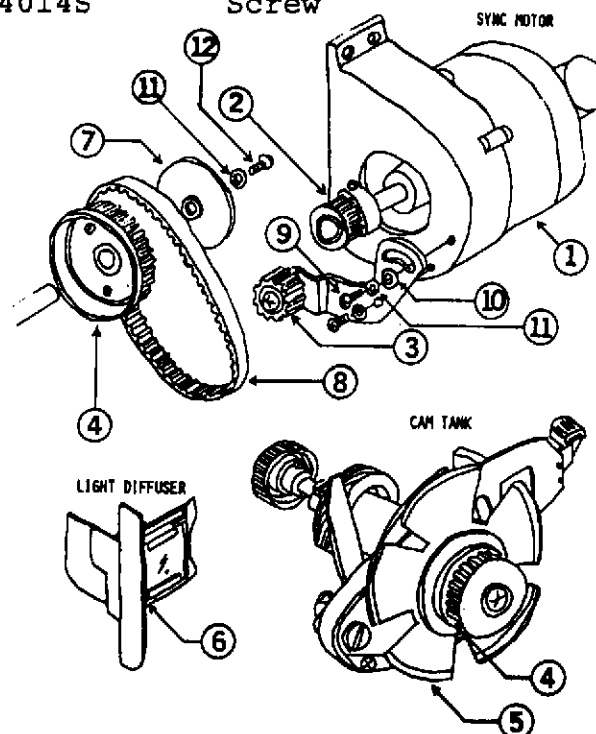
SERVICE UPDATE

ISSUE DATE: REV.11/20/85

SUBJECT: Tele-cine/Sync Motor Parts List

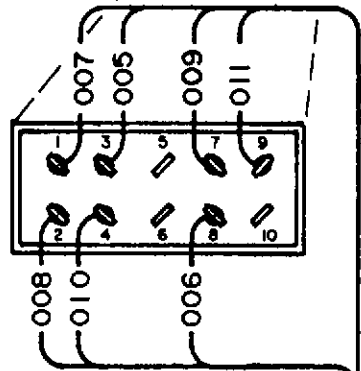
MODEL: NT-OT and All NT/RT Models With #5850 Tele-cine Conversions

REF NO.	PART NO.	DESCRIPTION
1	083-01501	Amplifier Module (NT-OT) 600 ohm
	074-05502	Sync motor assy 120V
	074-05901	Sync motor assy 220/240V
2	074-05401	Sync motor pulley
3	074-05701	Sync idler assy
4	074-05801	Shutter pulley 60HZ, 24FPS
	074-05911	Shutter pulley 50HZ, 24FPS
	074-05921	Shutter pulley 50HZ, 25FPS
5	073-04011	5 blade shutter (NTSC)
	312-11291	2 blade shutter (PAL)
6	082-01201	Light diffuser (Eiki type)
	5859	Light diffuser (Buhl type)
7	074-05141	Sync plate washer (60HZ)
	074-05161	Sync plate washer (50HZ)
8	074-05171	Sync motor belt
9	XT-4006S	Screw
10	ST-20041	Washer
11	WC-40	Washer
12	XT-4014S	Screw



REV.	DESCRIPTION	DWN BY	CHKD BY	APPR BY	DATE

EIKI PROJECTORS
NT2-LTI & NT3-LTI



2553
REMOTE
CONTROL

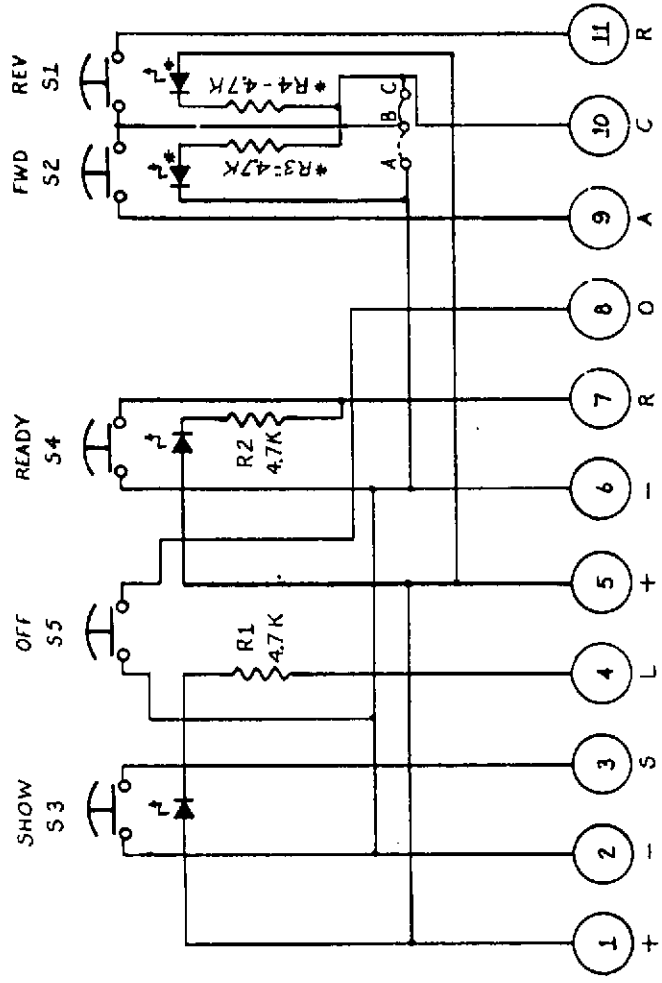
011
010
009
008
007
006
005
004
003
002
001

TO LOCAL
CONTROL

2553	2553
NT2-LTI	NT2-LTI
NT3-LTI	NT3-LTI
NEXT ASSY	FINAL ASSY

DWN BY <i>G.B.B.</i>	DATE <i>9 AUG 83</i>	LAIRD TELEMEDIA INC. SALT LAKE CITY, UTAH
CHKD BY <i>G.H.M.</i>	DATE <i>9 AUG 83</i>	
APPR BY <i>R.L.J.</i>	DATE <i>7 AUG 83</i>	
TOLERANCE EXCEPT AS NOTED		TITLE
		INTERCONNECTION DIAGRAM
		DRAWING NUMBER
		12673-00
		REV.
		FORM SIZE
		A
		SCALE
		SHEET
		OF

REV.	DESCRIPTION	DWNN BY	CHKD BY	APPR BY	DATE



* USED ON 2553 ONLY

JUMPERS: A-B 2553
B-C 2543

2543	2543
2553	2553
NEXT ASSY	FINAL ASSY

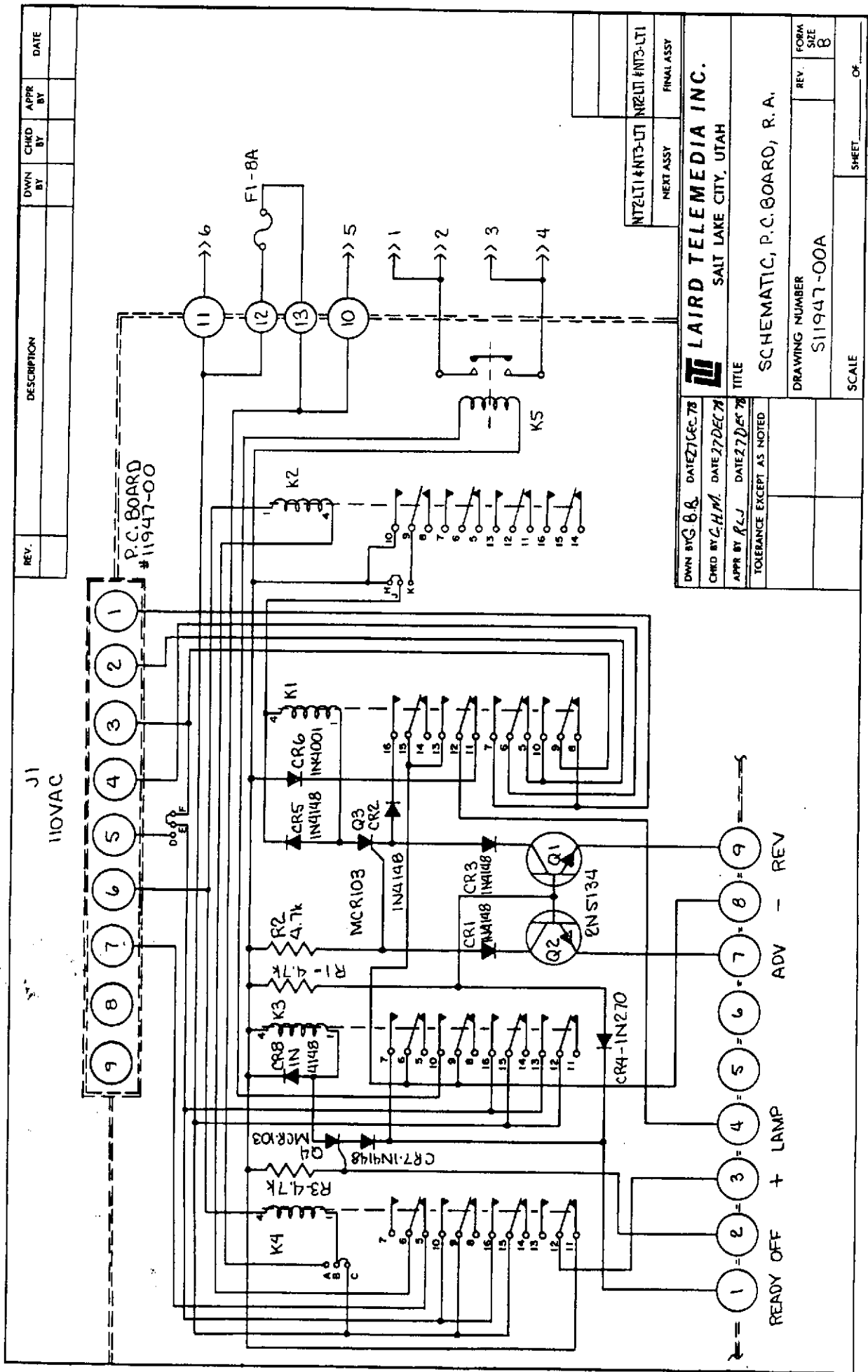
LAIRD TELEMEDIA INC.
SALT LAKE CITY, UTAH

DWN BY L. B. DATE 6-APR-84
CHKD BY C. B. DATE 6-APR-84
APPR BY R. J. DATE 6-APR-84

TITLE: SCHEMATIC, REMOTE CONTROL

DRAWING NUMBER: S12648-00
FORM SIZE: B

SCALE: _____ SHEET: _____ OF: _____



REV.

DESCRIPTION

J1
110VAC

P.C. BOARD
#11947-00

NEXT ASSY
NITZLIT #NT3-LT1

DATE 27 DEC 78
BY G.B.B.
DATE 27 DEC 78
BY C.H.M.
DATE 27 DEC 78
BY R.L.J.
DATE 27 DEC 78

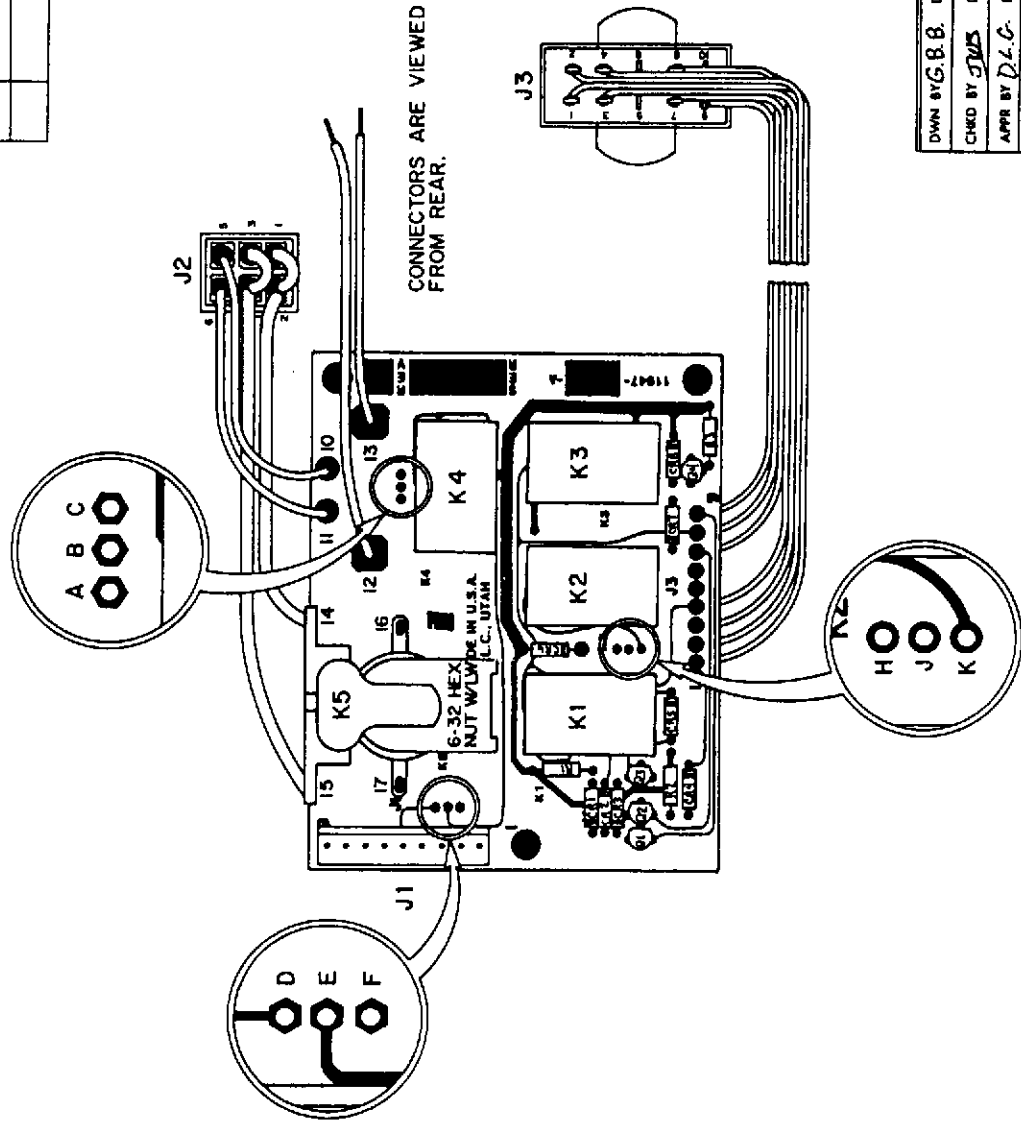
LAIRD TELEMEDIA INC.
SALT LAKE CITY, UTAH

TITLE
SCHEMATIC, P.C. BOARD, R. A.

DRAWING NUMBER
S11947-00A

REV. _____ OF _____
FORM SIZE B
SHEET _____ OF _____

REV.	DESCRIPTION	DWN BY	CHKD BY	APPR BY	DATE



FROM	TO	GAGE	COLOR	LENGTH
1	J3-1	26	BRN	
2	J3-2	26	RED	
3	J3-3	26	ORG	
4	J3-4	26	YEL	
7	J3-7	26	GRN	
8	J3-8	26	BLU	
9	J3-9	26	VIO	
10	J2-5	18	BLK	3 1/2"
11	J2-6	18	WHT	4"
12	---	18	BLK	3 1/2"
13	---	18	BLK	2 1/2"
14	J2-2	16	RED	5"
J2-4	J2-1	16	RED	JUMPER
15	J2-4	16	VIO	6"
J2-2	J2-3	16	VIO	JUMPER
B	C	-	-	JUMPER
E	F	-	-	JUMPER
H	J	-	-	JUMPER
16	BOARD	2.2	BUS	JUMPER
17	BOARD	2.2	BUS	JUMPER

NT2-LT1	NT2-LT1
NT3-LT1	NT3-LT1
NEXT ASSY	FINAL ASSY

DWN BY G.B.B.	DATE 11/18/84	TITLE
CHKD BY DMS	DATE 1/3/84	LAIRD TELEMEDIA INC.
APPR BY D.L.G.	DATE 11/18/84	SALT LAKE CITY, UTAH
ASSEMBLY, P.C. BOARD, REMOTE ADAPTER FOR EIKI NT2-LT1 & NT3-LT1		
TOLERANCE EXCEPT AS NOTED		
DRAWING NUMBER	REV.	FORM SIZE
A11947-00A		B
SCALE	NONE	SHEET
		OF

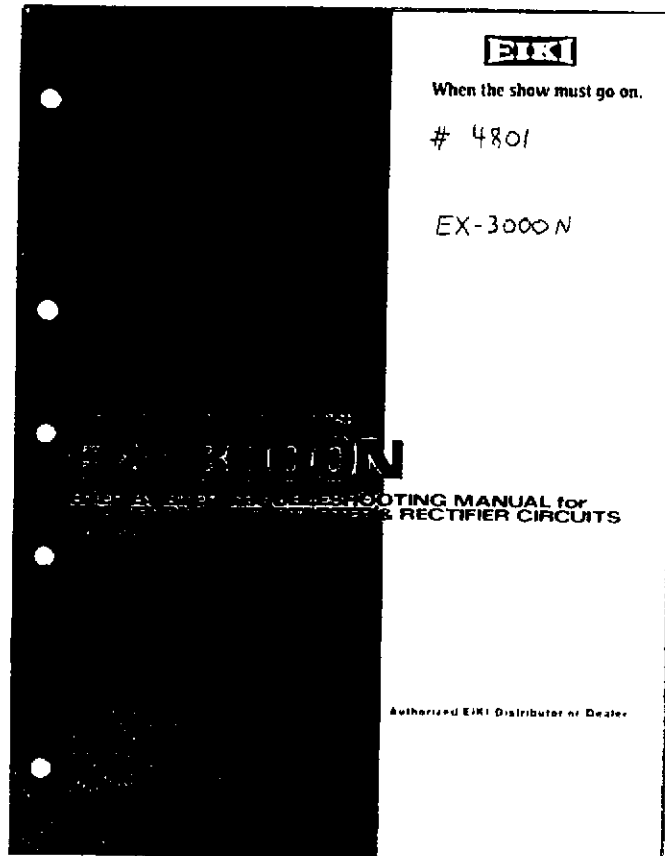


SERVICE UPDATE

SUBJECT: XENON LAMP, POWERSUPPLY AND STARTER TROUBLE-SHOOTING MANUAL

MODELS: EX-3000N

A separate troubleshooting manual containing schematics and adjustments for the EX-3000 Xenon lamp, power supply, and starter is now available.



Troubleshooting Manual P/N 4801

For mechanical service information refer to the NT Series service manual, and EX-3000N.parts list



BULLETIN NO: 156

SERVICE UPDATE

ISSUE DATE: 2/20/86

SUBJECT: 6009/6512 CHANGE-OVER SYSTEM

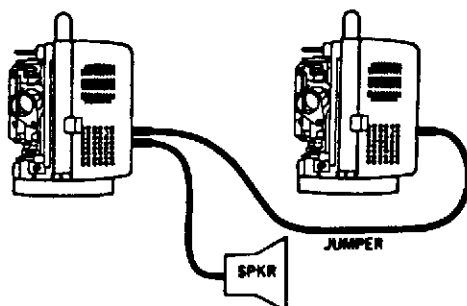
MODELS: NT, EX3000N AND EX4000P

SPECIAL ORDER MODELS WITH CHANGE-OVER MODIFICATIONS PERFORMED BY EIKI U.S.A. ARE NOT COVERED IN THE REGULAR SERVICE MANUAL.

THE ATTACHED DIAGRAM AND SUPPLIMENTARY INSTRUCTIONS ARE FOR YOUR FUTURE REFERENCE.

EACH PROJECTOR IS MODIFIED WITH EXACTLY THE SAME CIRCUIT AND INTERCONNECTED BY A 5 PIN DIN TYPE CABLE THE CIRCUIT IS DESIGNED AS AN ALTERNATE LATCH FROM A TO B AND B TO A PROJECTOR. FOR SET-UP PURPOSES BOTH PROJECTORS MAY BE LATCHED BY PRESSING THE CHANGE-OVER BUTTONS SIMULTANEOUSLY. TO UN-LATCH THE CHANGE-OVER SYSTEMS, RETURN EACH FUNCTION CONTROL TO STOP.

OPERATING INSTRUCTIONS 6009/10 CHANGE-OVER SYSTEM



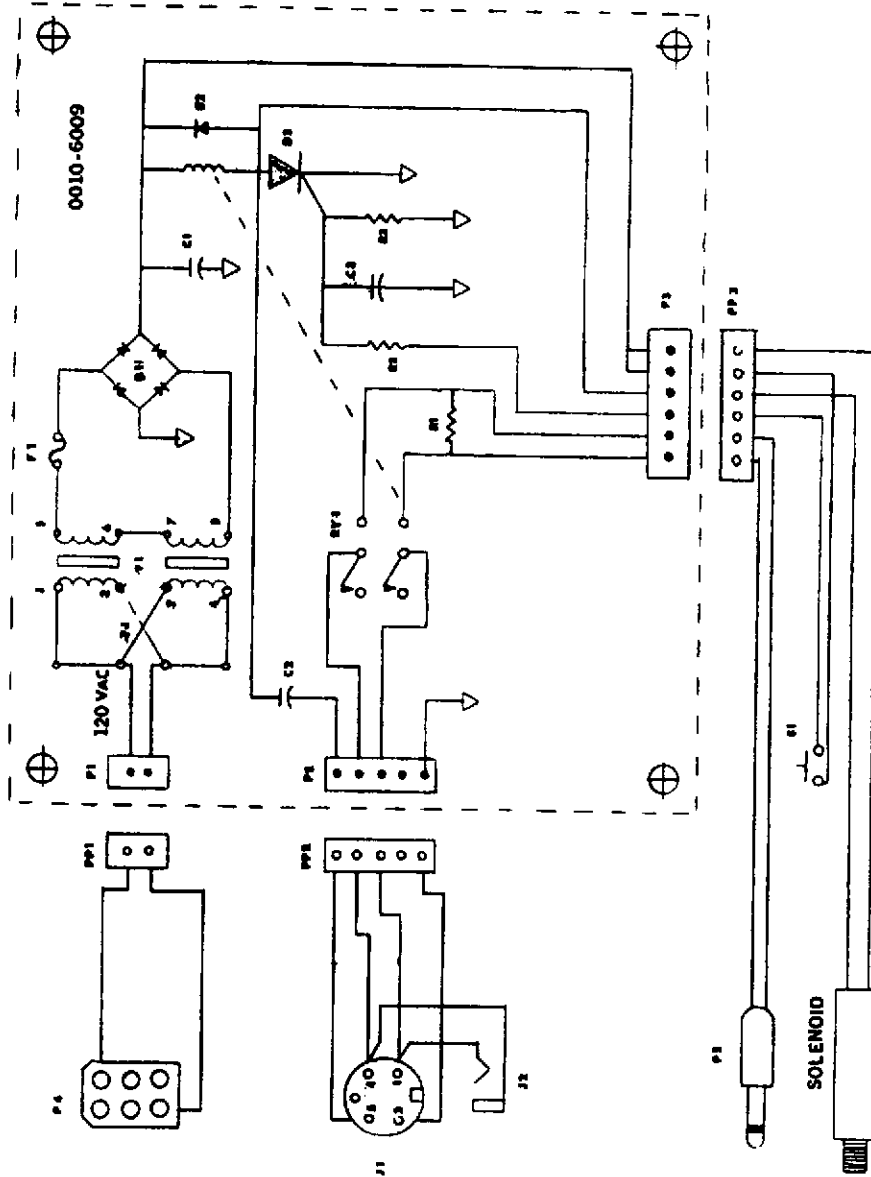
1. SET UP PROJECTORS AS PER OPERATOR INSTRUCTIONS.
 2. CONNECT THE "DIN" INTERCONNECT CABLE BETWEEN THE TWO PROJECTORS.
 3. CONNECT THE LOW Z XLR JACK TO THE THEATER SOUND SYSTEM, *(PIN #1 SHIELD, 2 & 3 ARE SIGNAL) OR PLUG 1/4" EXTENSION SPEAKER CABLE INTO THE JACK LOCATED ON THE REAR COVER. (EITHER PROJECTOR MAY BE CONNECTED, BUT NOT BOTH)
 4. PLUG IN THE PROJECTORS. TURN ON THE MAIN POWER SWITCH OF "A" PROJECTOR. (NOTE: EITHER PROJECTOR CAN BE DESIGNATED AS "A". THE PROJECTOR IS USUALLY WHERE #1 REEL IS ATTACHED)
 5. TURN THE MOTOR/LAMP SWITCH TO THE LAMP POSITION. WITH THE MACHINE RUNNING PRESS THE CHANGE-OVER BUTTON. THE DOUSER WILL OPEN AND THE SOUND WILL CONNECT. ADJUST THE SOUND LEVEL AND FOCUS THE PICTURE.
 6. TURN THE FUNCTION KNOB TO REVERSE THE FILM TO THE STARTING CUE AND RETURN THE FUNCTION KNOB TO "OFF".
 7. NOW CUE UP "B" PROJECTOR WITH #2 REEL IN A SIMILAR MANNER AND RETURN THE FUNCTION KNOB TO "OFF".
 8. TO START THE SHOW, RETURN TO "A" PROJECTOR. TURN THE FUNCTION SWITCH TO FORWARD AND LAMP. PRESS THE CHANGE-OVER BUTTON TO OPEN THE DOUSER AND SWITCH ON THE SOUND.
 9. WHEN REEL #1 IS NEAR THE END, MOVE TO PROJECTOR "B" AND WATCH THE SCREEN FOR THE CUE-MARKS.
 10. ON THE FIRST CUE-MARK, TURN THE FUNCTION CONTROL OF "B" PROJECTOR TO FORWARD AND LAMP ON; THEN ON THE SECOND CUE-MARK, PRESS THE CHANGE-OVER BUTTON AT PROJECTOR "B". PROJECTOR "B"'S DOUSER OPENS AND THE SOUND IS SWITCHED ON. AT THE SAME TIME PROJECTOR "A"'S DOUSER IS CLOSED AND SOUND IS TURNED "OFF".
 11. RETURN TO PROJECTOR "A" AND REWIND THE FIRST REEL AND CUE-UP THE THIRD. CHANGE BACK TO PROJECTOR "A" AT THE END OF REEL TWO BY SWITCHING "A" TO FORWARD/LAMP ON THE FIRST CUE-MARK AND PRESS THE CHANGE-OVER BUTTON ON THE SECOND CUE-MARK.
- (A) EITHER PROJECTOR MAY BE DESIGNATED AS "A" OR "B".
- (B) THE DOUSER WILL NOT OPEN UNLESS THE PROJECTOR IS IN FORWARD.
- (C) TO OPERATE MACHINES SINGLE, IT IS NECESSARY TO PRESS THE CHANGE-OVER BUTTON TO OPEN THE DOUSER AND CONNECT THE SOUND.

*NOTE: OPTIONAL: #5828 LOW Z BALANCE OUTPUT MODIFICATION MAY BE INSTALLED IN THE PROJECTOR OR AN OUTBOARD ATTENUATOR BOX #5830 MAY BE CONNECTED INTO THE 1/4" JACK ON THE REAR COVER.

6009/6512 PARTS LIST

0010-6009	P.C. BOARD ONLY
0005-6008	P.C. BOARD ASSEMBLY
0018-6013	SOLENOID PK-12
0015-6054	CAPACITOR 100 MFD 50 VDC
0015-6055	CAPACITOR 4.7 MFD 35 VDC
0024-6019	CAPACITOR .05 MFD 50 VDC
0019-6062	BRIDGE VM-28
0019-6061	DIODE IN-4007
0009-6070	SCR 276-1067
0015-5805	1/4 AMP FUSE
0024-5710	2 PIN MOLEX
0024-5712	5 PIN MOLEX
0024-5714	6 PIN MOLEX
0024-5711	2 PIN MOLEX
0024-5713	5 PIN MOLEX
0024-5715	6 PIN MOLEX
0015-6060	RESISTOR 2.2 K 1/4 WATT
0015-6058	RESISTOR 4.7 K 1/4 WATT
0015-6059	RESISTOR 47 K 1/4 WATT
0033-6011	RELAY 62N-234P
0024-6075	MOMENTARY SWITCH
0021-6075	DIN CONNECTOR
0015-6056	1/4" PONE JACK

- C-1
- C-2
- C-3
- D-1
- D-2
- D-3
- F-1
- F-2
- F-3
- PF-1
- PF-2
- PF-3
- R-1
- R-2
- R-3
- RV-1
- S-1
- J-1
- J-2



6009 / 6512 CHANGE-OVER SYSTEM



8/4/82



SERVICE UPDATE

MODELS: RT, NT, EX-2000A&N, EX-3000N, EX-4000P,
EX-6000/9000

SUBJECT: AMPLIFIER TRANSISTOR SUBSTITUTIONS

For you convenience models with amplifier output transistors (2SC1667) TR-6 and (2SA837) TR-7 may be repaired with the following substitution transistors available from most local electronic supply distributors.

EIKI PART NO.

SUBSTITUTION

312-52171 (2SC1667)

NTE280, ECG280
GE-262, SK-3297

312-52181 (2SA837)

NTE281, ECG281,
GE-263, & SK-3359

When using any of the above substitutions it is recommended that the transistors be replaced in pairs from the same manufacturer.

NOTE: The use of proper substitutions for the output transistors as indicated will not disqualify the amplifier for future modular exchange.

SERVICE UPDATE

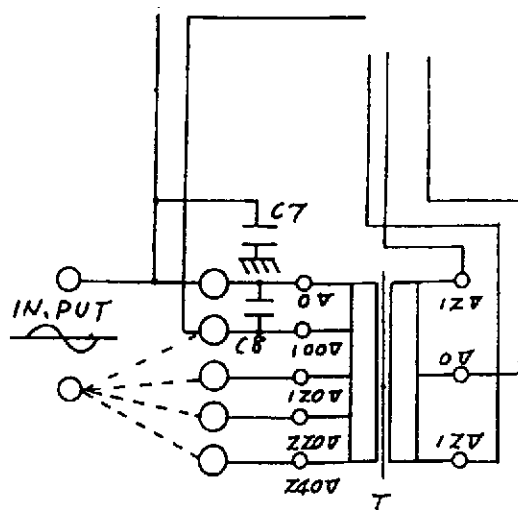
ISSUE DATE: 10/20/86

SUBJECT: EXCESS LEAKAGE CURRENT

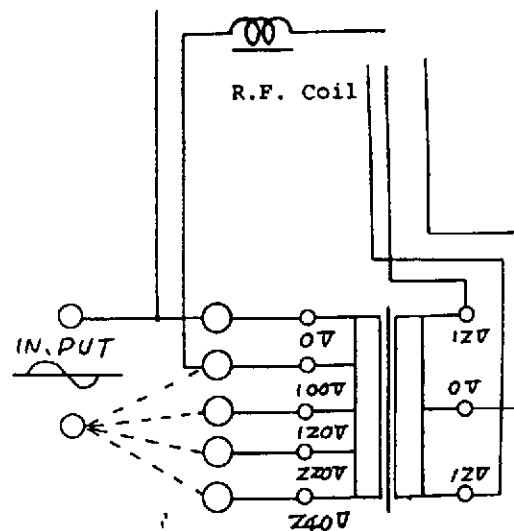
MODEL: 6000' LONG PLAY PEDESTAL

EXCESS R.F. LEAKAGE MAY RESULT IN SUFFICIENT CURRENT TO CAUSE AN ELECTRICAL SHOCK IF THE LP-6000 LONG PLAY PEDESTAL IS NOT CONNECTED TO A PROPERLY GROUNDED ELECTRICAL OUTLET.

TO REDUCE THE LEAKAGE CURRENT, REMOVE THE BOTTOM PLATE, LOCATE R.F. BY-PASS CAPACITOR (C-7, 0.1 MFD-400V) AND REMOVE. INSTALL R.F. CHOKE COIL (980-13471) IN SERIES WITH THE 100V TAP AS SHOWN BELOW.



REMOVE C-7



INSTALL R.F. COIL

980-13471 CHOKE COIL.....\$3.20