

Film-Tech

The information contained in this Adobe Acrobat pdf file is provided at your own risk and good judgment.

These manuals are designed to facilitate the exchange of information related to cinema projection and film handling, with no warranties nor obligations from the authors, for qualified field service engineers.

If you are not a qualified technician, please make no adjustments to anything you may read about in these Adobe manual downloads.

www.film-tech.com

AP

Operation Manual

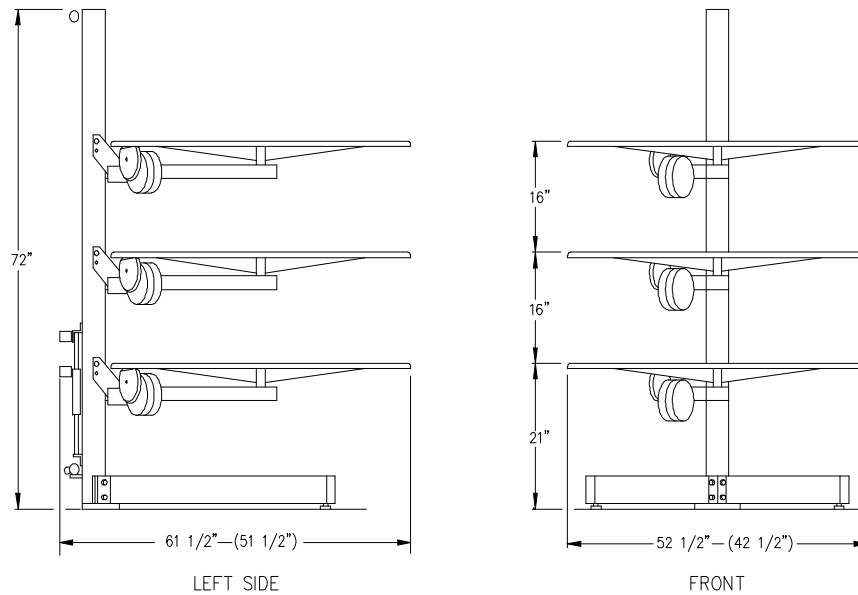
PRODUCT INFORMATION BULLETIN #3001

Record Platter System Identification Numbers Here:

Model # _____ Serial # _____

Table of Contents

Program Run.....	2
Platter timing.....	3
Feed Castor Switch Adjustment.....	3
Variac Adjustment.....	4
Trouble Shooting.....	5
Maintenance.....	5
Threading Diagrams.....	6
Wire Schematics.....	8



AP 3 AUTO PROGRAMMING PLATTER

52" (42") DIA. DISKS

WEIGHT 400 POUNDS

POWER SOURCE

The Auto-Programming Platter System requires one 110/120 Volt AC, 50-60 Hz, 10 AMP grounded power outlet.

FAILSAFE SYSTEM

The Auto-Programming Platter System is equipped with a built in failsafe switch, and is prewired for an optional wrap detector. Any condition, such as film breakage, which allows the film take-up, located on the back of the column, to drop to the bottom of its travel will engage the failsafe switch, and remove power from the variac.

IMPORTANT SAFETY INSTRUCTIONS

1. Read and understand all instructions before using.
2. Do not operate appliance with a damaged cord or if the appliance has been dropped or damaged-until it has been examined by a qualified serviceman.
3. Position the cord so that it will not be tripped over, pulled or contact hot surfaces.
4. If an extension cord is necessary, a cord with a current rating at least equal to that of the appliance should be used. Cords rated for less amperage than the appliance may overheat.
5. Always unplug appliance from electrical outlet before cleaning and servicing and when not in use. Never yank cord to pull plug from outlet. Grasp plug and pull to disconnect.
6. To reduce the risk of electric shock, do not use this product near water or other liquids.
7. To reduce the risk of electric shock, do not disassemble this appliance. Refer all work to a qualified serviceman when service or repair work is required. Incorrect reassembly can cause electric shock when the appliance is used subsequently.
8. The use of an accessory attachment not recommended by the manufacturer may cause a risk of fire, electric shock or injury to persons.
9. Connect this appliance to a grounded outlet.
10. Disconnect this unit from It's source of supply before replacing the lamps.

SAVE THESE INSTRUCTIONS

PROGRAM RUN

This section explains how to operate the Platter System after a program is made up. Make-up and break down of a program is explained in the Make-up Table operation manual.

In Program Run, you feed film to the projector from one platter, and rewind the returning film onto an empty platter. The platter that is feeding film is the PAYOUT platter, and the empty platter that the film is returning to is the REWIND platter. The threading path for a 3-deck Platter System is shown on pages 7 and 8.

1) Place the suction cup brackets, evenly spaced, on the outside of the film to hold it in place. Pull the knob on the center ring and collapse the ring. Gently lift the ring out of the center of the film, expand the ring and place it in the center of the selected REWIND platter. Make sure the center ring is locked in the expanded position. Disengage the drive motor on the REWIND platter.

2) Take the leader from the center of the PAYOUT platter and thread it through the control plate, as shown. Engage the drive motor on the PAYOUT platter.

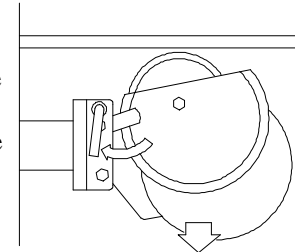
3) Set the variac power switch to ON. Raise the take-up plate up and push the spring loaded pin into the hole in the back of the column. The take-up plate should remain in the raised position. Now as you pull film through the control plate, the PAYOUT platter will spin and keep the film from wrapping around the control plate.

4) After following the appropriate diagrams for threading, hook the film into the center ring on the REWIND platter. Be sure the angle of the twist on the film is correct.

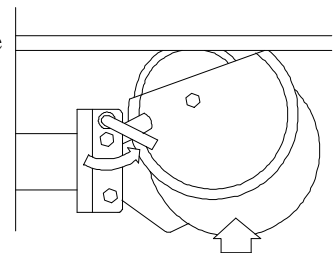
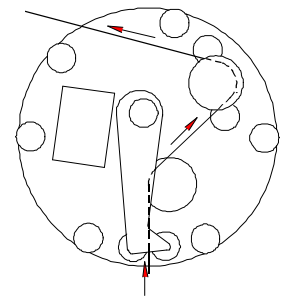
5) Rotate the REWIND platter by hand until the take-up plate is at the top of its travel. **CAUTION:** Failure to do this will cause the platter to start up too fast and film breakage will likely occur.

6) Engage the drive motor on the REWIND platter. Double check the film path. Turn the projector on and the platter will feed, and rewind the film.

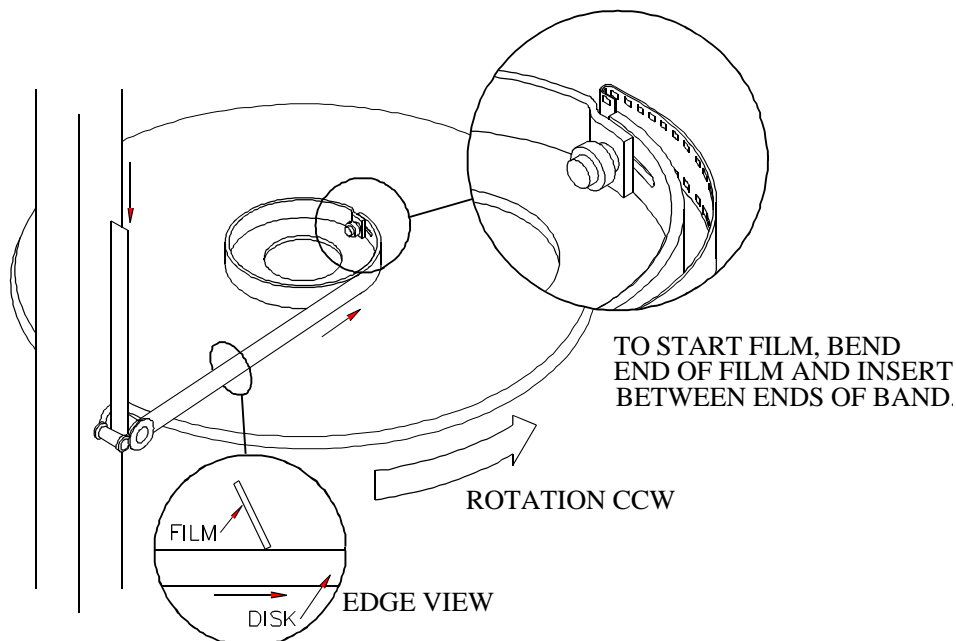
Note: The make-up switches, located below each feed castor on the side of the column, are wired to override the PAYOUT and REWIND functions. During PROGRAM RUN these switches must be in the "O" (off) position.



DISENGAGED



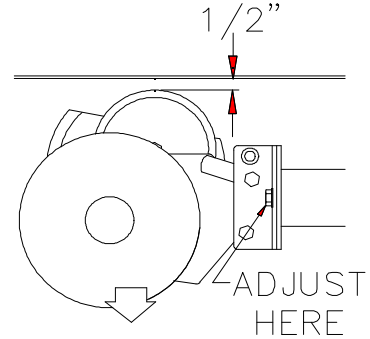
ENGAGED



PLATTER TIMING

The purpose of PLATTER TIMING is to insure that all platters run at approximately the same speed for a given VARIAC setting. Film may be left on the platters during timing but all film must be played out, not routed through pulleys.

- 1) Place a suction cup bracket or piece of dark tape on the edge of each platter to allow you to count revolution easily.
- 2) Set one motor in the disengaged position and adjust the motor at the mount until it is 1/2" from the bottom of the platter as shown here. Adjust the motor by loosening the two hex screws and sliding the motor up or down. Retighten both hex screws before the next step. Make sure the motor bracket is parallel with the arm. Repeat this step with the other two motors.



NOTE: The inside hex screw on the bottom motor may be difficult to reach because of the variac location. Temporarily disconnect the motor from the arm to allow more working room.

- 3) Plug the make-up table into the table port on the variac. Turn the speed control knob on the make-up table all the way counterclockwise (off). Turn the table power switch on.
- 4) Engage all three drive motors. Set the MAKE-UP SWITCH on one of the three platters to "1" (on). Use the speed control knob on the make-up table to increase the speed of the platter until it is turning approximately 1 revolution in 3 seconds, using the tape or suction cup to count each revolution. This is approximately 20 RPM.

NOTE: It is important that you allow the platter speeds to stabilize before each check. Allow several revolutions before comparing speeds.

- 5) Set the MAKE-UP SWITCH on the other two platters to "1" (on). After the platters have come up to speed and stabilized, determine which platter is fastest by observing the relative positions of the suction cups or tape markers. Switch the MAKE-UP SWITCH of one of the other motors to "O" (off). Compare the fastest of the three platters to the remaining rotating platter. When the markers on both platters come into alignment, count 5 revolutions of the fastest plate. The slower platter should not be more than 1/4 revolution behind the faster platter after 5 revolutions. If it is, increase the speed of the slower motor (see MOTOR SPEED ADJUSTMENT).
- 6) If you are unable to increase the speed of the slower motors sufficiently to match the fastest motor, decrease the speed of the fastest motor as directed in the motor speed adjustment procedure and repeat step 5.
- 7) Disconnect the make-up table from the variac.

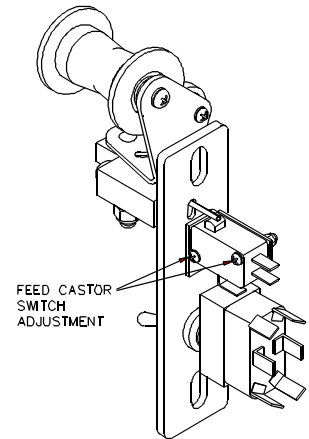
MOTOR SPEED ADJUSTMENT

- 1) Disengage the drive motor and set the make-up table power switch to OFF. Loosen the two hex screws that hold the drive motor to the platter arm.
- 2) To increase platter speed, lower the drive motor. To decrease platter speed, raise the drive motor. Adjustments should be made 1/16" at a time. Retighten the hex screws.
- 3) Do not over adjust the drive motor. When the drive motor is disengaged, the drive wheel must not be in contact with the platter. When the drive motor is engaged it must be in full contact with the platter and not slip. Check for slippage by holding the motor hub with the power off and the drive motor engaged. You should feel resistance as you manually rotate the platter while holding the hub. Over engagement causes the platter to creep up on the spindle.

FEED CASTOR SWITCH ADJUSTMENT

CAUTION: TO AVOID ELECTRICAL SHOCK HAZARD turn the power switch to OFF and unplug the power supply cord before making any feed castor switch adjustments.

- 1) Set the variac power switch to ON. Raise the take-up plate up and push the spring loaded pin into the hole in the back of the column. The take-up plate should remain in the raised position.
- 2) Raise the feed castor to it's upper position. The platter should begin to run. Let the feed castor drop to it's lower position. The platter should run only when the control plate is activated.
- 3) The feed castor switch is set correctly if the switch activates (audible click) when the feed castor is half way between it's upper and lower limit. If adjustment is required, the feed castor must be removed from the column.



VARIAC ADJUSTMENTS

CAUTION: TO AVOID ELECTRICAL SHOCK HAZARD turn the variac power switch to OFF and unplug the power supply cord before making any variac adjustments.

The film take-up plate on the back of the Platter System must move freely. Raise and lower it by hand. Anything causing a restriction must be identified and corrected to insure proper function. When making any adjustments to the variac, always check the film take-up afterward.

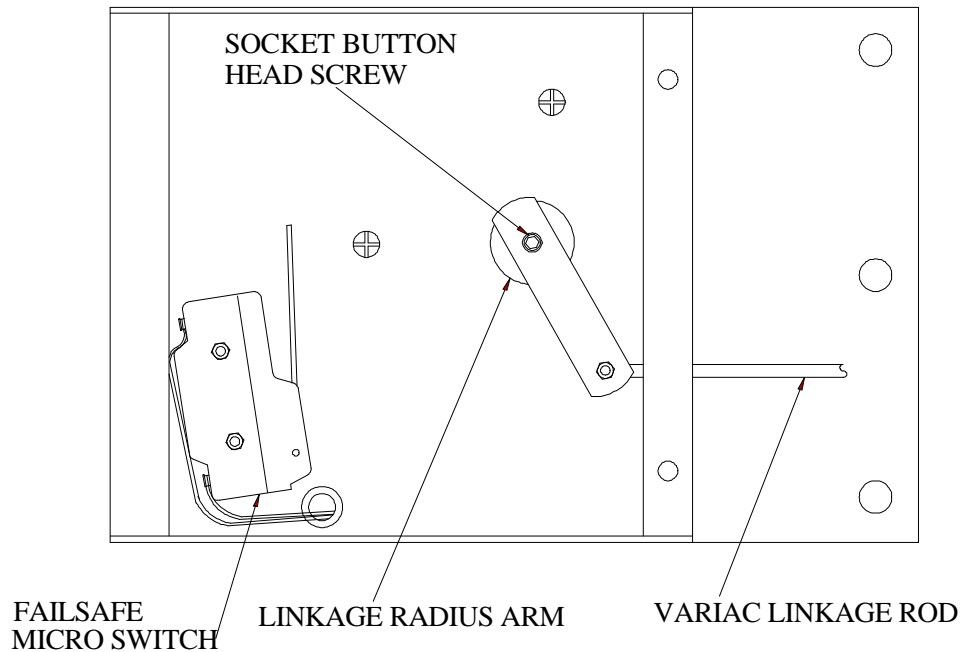
FAILSAFE SWITCH ADJUSTMENT

CAUTION: TO AVOID ELECTRICAL SHOCK HAZARD turn the power switch to OFF and unplug the power supply cord before making any failsafe switch adjustments.

- 1) Raise and lower the take-up carriage by hand. The FAILSAFE SWITCH should activate (audible click) between 1/2" and 3/4" from the bottom of it's travel.
- 2) Loosen the two hex nuts securing the FAILSAFE SWITCH and reposition it until the condition described in step (1) is achieved. Retighten the hex nuts.

ELECTRICAL ZERO ADJUSTMENTS

- 1) Raise the take-up plate to the top of it's travel and secure it with a rubber band around the pulleys. With a 5/32" allen wrench, loosen the socket button head screw holding the linkage radius arm.
- 2) Rotate the variac hub counter-clockwise until it stops. This position is electrical zero. Now rotate the variac hub clockwise one or two degrees and retighten the socket button head screw.
- 3) Remove the rubber band and replace the variac cover. Set the variac power switch to ON. With one hand, raise one feed castor to activate the rewind mode and with the other hand, raise the take-up plate. The drive motor should stop completely when the take-up plate is at the top of it's travel.



TROUBLE SHOOTING

- 1) If the Lights fail to turn on:
 - a) Make sure the Variac Power Switch is ON.
 - b) Check the fuse in the VARIAC, Labeled "LIGHT".
 - c) Check the bulbs.

- 2) If the PAYOUT platter does not operate during PROGRAM RUN:
 - a) Make sure the make-up switch is set to "O" (off).
 - b) Make sure the drive motor is engaged.
 - c) Make sure the control plate arm moves freely and the control plate is threaded properly.
 - d) Check that the FAILSAFE SWITCH is not engaged.
The program must be started with the take-up plate at the top of it's travel.
 - e) Make sure the feed castor is in it's lower position. (see FEED CASTOR SWITCH TESTING)

- 3) If the REWIND platter does not operate during PROGRAM RUN:
 - a) Make sure the make-up switch is set to "O" (off).
 - b) Make sure the drive motor is engaged.
 - c) Check that the FAILSAFE SWITCH is not engaged.
The program must be started with the take-up plate at the top of it's travel.
 - d) Make sure the feed castor is in it's lower position. (see FEED CASTOR SWITCH TESTING)

- 4) If the system fails to shut down at the end of PROGRAM RUN or after film breakage:
 - a) See FAILSAFE SWITCH ADJUSTMENTS.
 - b) If adjustment does not correct the problem, replace the switch.

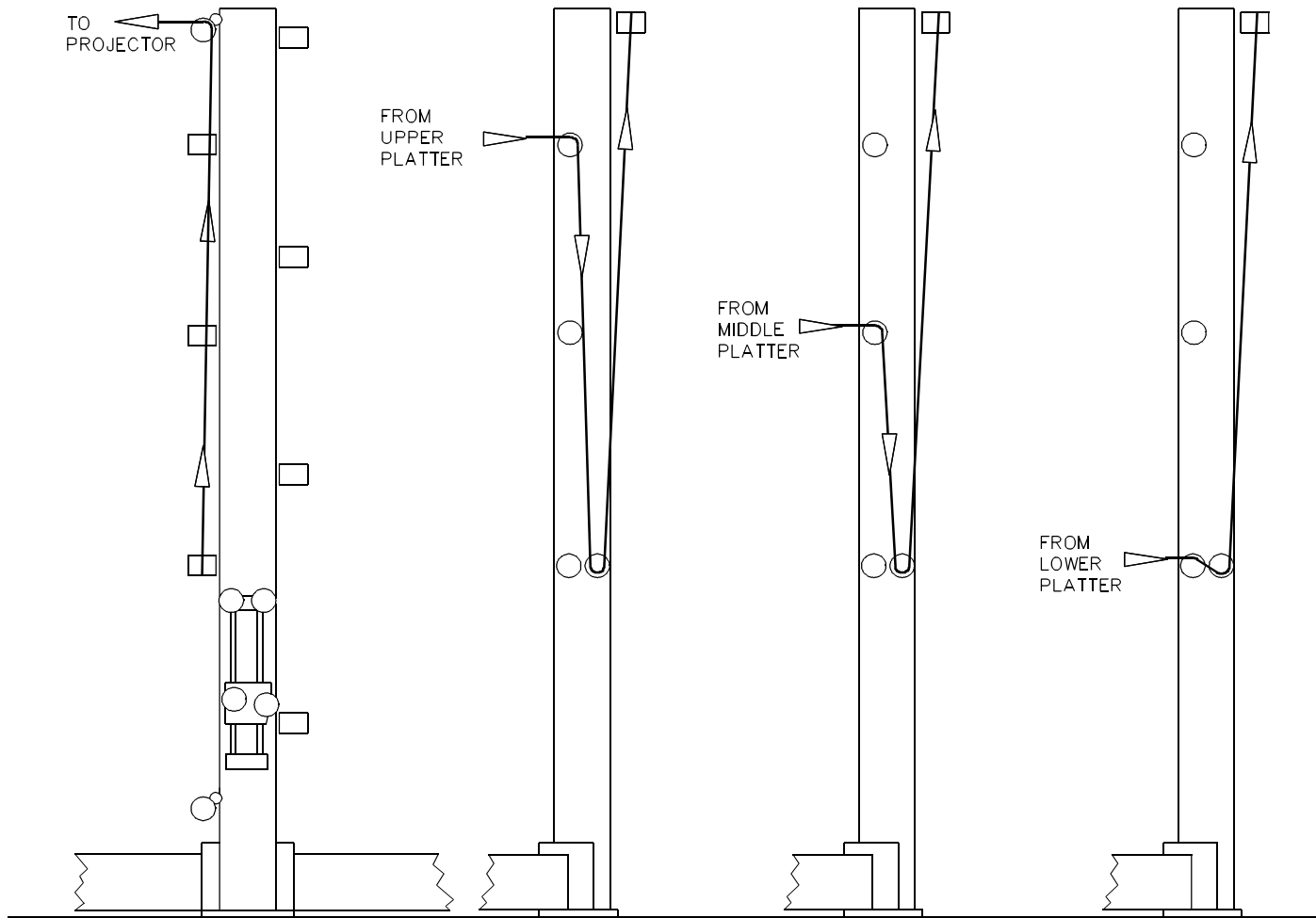
- 5) If the lights turn on but all three drive motors fail to operate in both the PAYOUT and REWIND positions:
 - a) Check the fuse in the VARIAC, labeled "MOTOR".
 - b) Use the make-up table to run the motors in the MAKE-UP position.
see make-up table operation manual) If the motors run, the problem is probably in the variac.

Trouble Shooting (continued)

- 6) If all three motors fail to operate in REWIND but do operate in the PAYOUT check the resistor in the top of the column.
- 7) If a drive motor operates in the REWIND position but fails to operate in the PAYOUT position, swap the control plate with one from another platter, known to be good. If the problem follows the control plate, it requires servicing.
- 8) Drive motors and feed castors can also be tested by swapping them with one from another platter, known to be good. If the problem follows the swapped component, it requires servicing. Remember to recheck PLATTER TIMING if drive motors are moved.

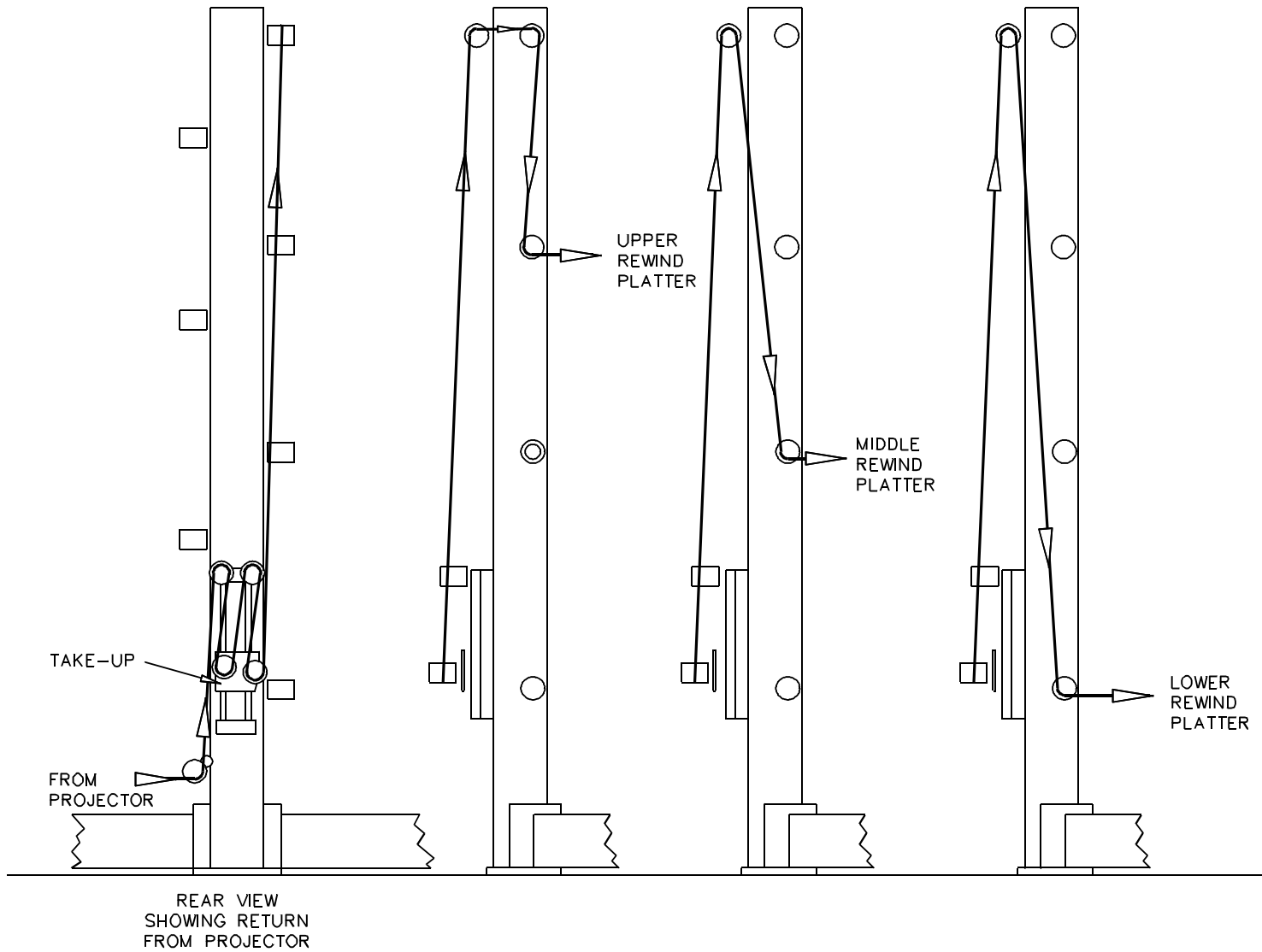
MAINTENANCE

- 1) Keep the platters, control plates, and pulleys clean. Prevention of oil and lint build-up is important. Alcohol is a suitable cleaning agent for this purpose.
- 2) Check for levelness of the Platter System periodically. Use the leveling bolts on the bottom of the legs to make adjustment.
- 3) Screws, bolts, and nuts should be periodically checked for tightness.

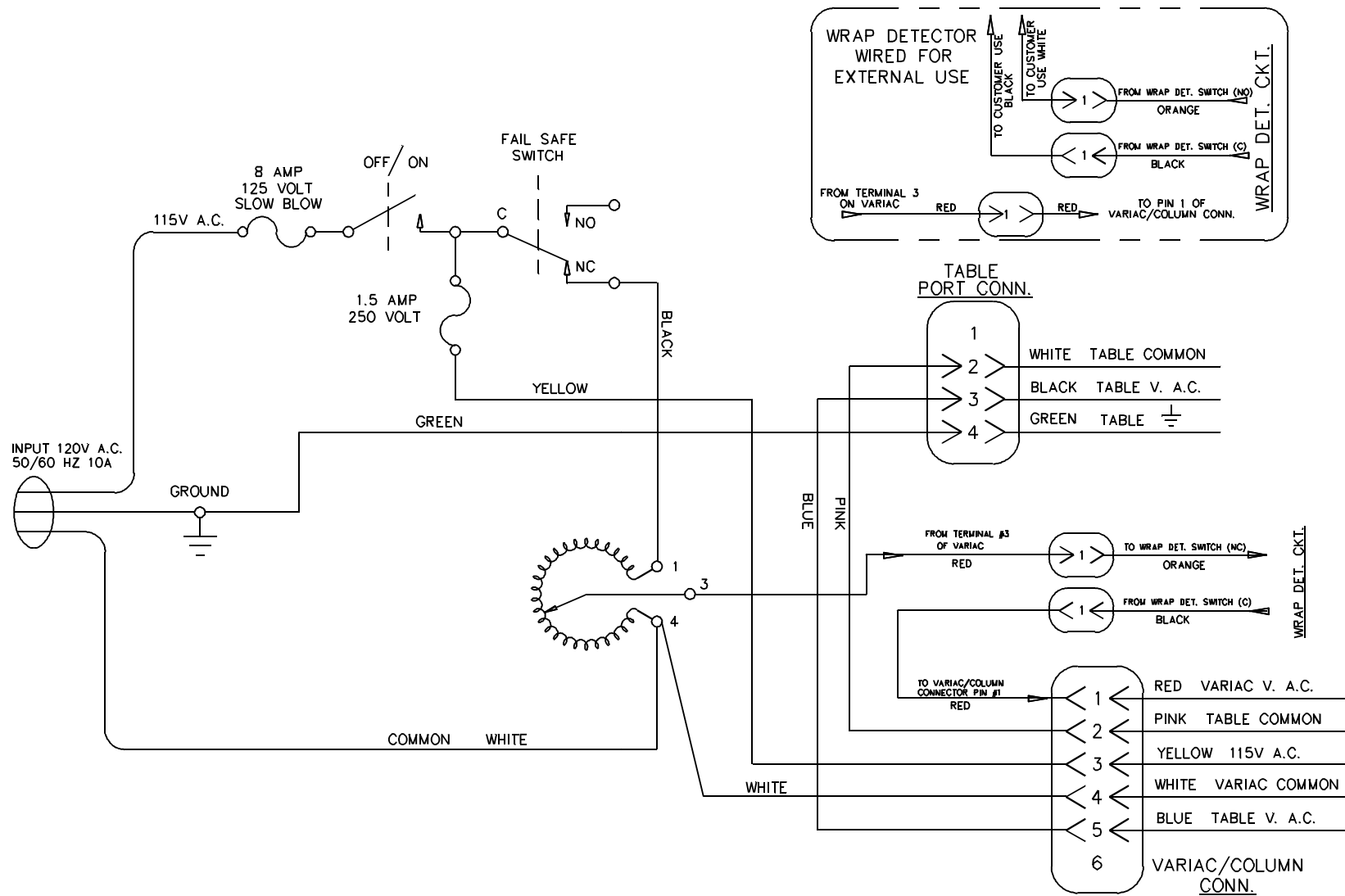


REAR VIEW
 SHOWING FEED-OUT
 TO PROJECTOR

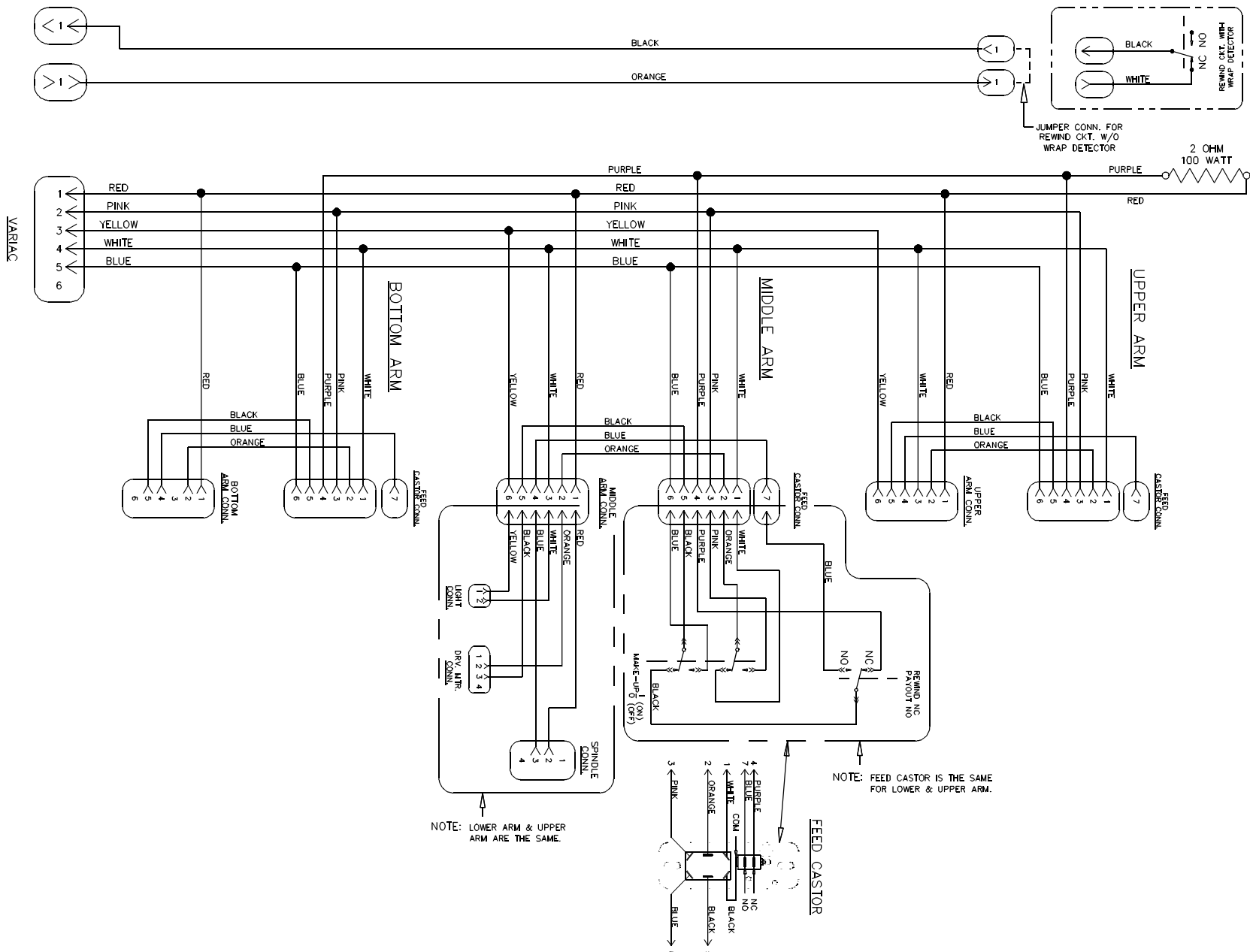
THREE PLATTER FEED-OUT, UPPER, MIDDLE AND LOWER PLATTERS



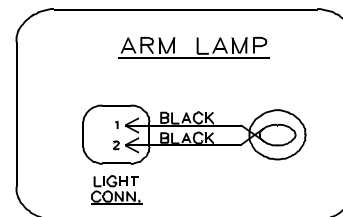
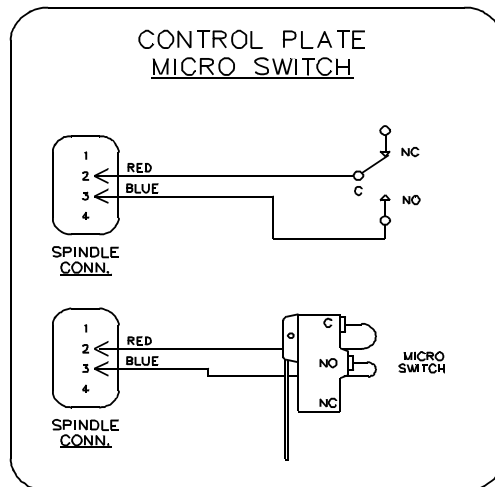
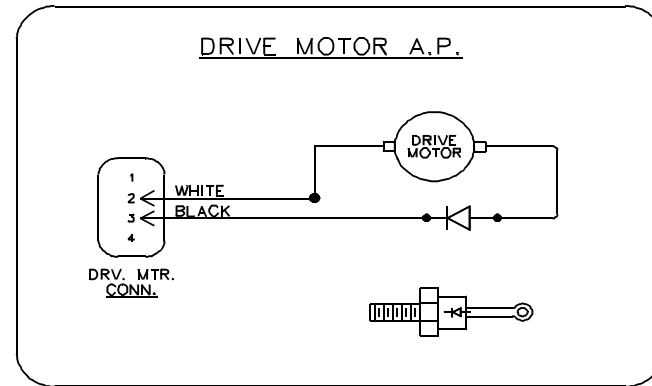
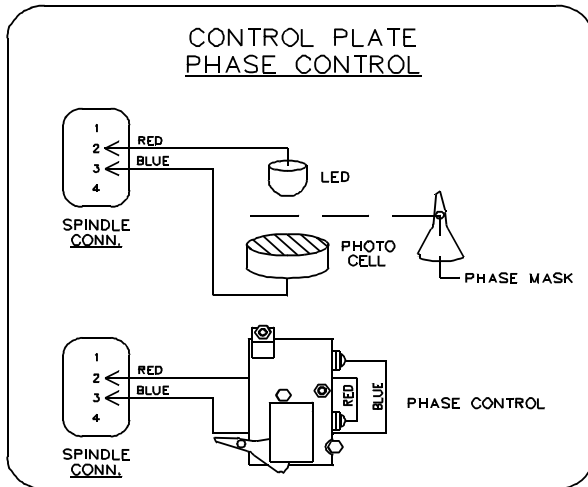
THREE PLATTER REWIND, UPPER, MIDDLE AND LOWER PLATTERS



AP3 VARIAC WIRE SCHEMATIC



AP3 COLUMN/ARM WIRE SCHEMATIC



AP3 WIRE SCHEMATIC