Auto-Photo CANADA LTÉE/LTD.

5778 AVE. ROYALMOUNT, MONTRÉAL, QUÉ. H4P 1K5
TÉLÉPHONE: (514) 731-1637 • 731-1526
FAX: (514) 342-0750
1-800-663-6661

INSTALLING BLACK AND WHITE FILM

1. Mark meter reading on new film to show when film will be finished.
2. Swing out camera towards you.
3. Lift up cover in front of you.
4. Pull knob on lefthand side out of brass gear and turn rollers to remove any paper in camera.
5. If there is paper covering the little hole, stick in your finger and remove all paper.
6. Remove old film cassette.
7. Remove piece of tape holding new film to cassette.
8. Place new film cassette in camera, with meter reading facing outward.
9. Take strip of film and pull down into slot until rubber rollers. Be sure film switch in front of film is in the "down" position. This switch indicates when camera is out of film by green light being off and money coming back.
10. Turn rubber rollers with release knob until film comes out underneath camera.
11. Push back release knob into place so that gears mesh.
12. Press cutter underneath release knob to cut strip of paper and remove cut strip.
13. Close cover and return camera to the original position.
14. Take two tests by pressing the button on the door once for each coin for each test. First test with door open will be blank, second test – close door after pressing button the required number of times and pose for photo with door remaining closed.

THE PHOTO BOOTH IS NOW IN OPERATION!

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Procedures for Changing of Chemicals

1) Press any arm of the second spider to the left . The transmission will go down . When the transmission is in the down position , shut the transmission by closing the transmission switch on the right-hand side , inside the photo booth . The transmission will now remain in the down position .

2) **Remove hose** for refill bottle from splashguard and remove refill bottle.

3) **Remove splashguard** . When removing splashguard ***be careful*** not to touch anything inside the photo booth , Especially any switches or the arms of the spider .

4) Turn the transmission switch back on and allow the transmission to go up . When the transmission is up , shut the transmission switch .

5) **Unplug** Heater and Thermostat from the outlet and remove Tank # 1 .

6) **Remove all tanks** from the machine and pour out all contents . Be careful not to mix the chemicals when dumping contents . The #4 tank should be dumped first and flushed , thereafter each tank should be dumped .

7) **Rinse Tanks and refill** with 3/4 warm water , except for the #1 tank which requires cold water .

8) Chemicals should now be mixed into their respective tanks using the plastic mixing rod provided . The chemicals must be **thoroughly mixed** to ensure that all the powder is properly dissolved in the water .

9) After chemicals are mixed , the tanks should be put back in the machine and filled to the top . Begin with Tank #1 which has it's place indicated against the wood slot in the back left hand corner . Always ensure that the tanks are put back in the proper position in the correct order .

10) Lower the transmission again , and shut off transmission switch . **Replace the splashguard** on the tanks with the short side down .

11) Put the Heater and Thermostat back in Tank # 1 and plug them in . Note that the heater and thermostat only work when the door is closed . In addition the flashing system only works when the door is closed .

12) Open the transmission switch and allow the transmission to come up .

13) Fill and replace the Replenisher bottle . Hang on hook from wall , put hose connector on splashguard into into Tank #1. Ensure that the hose is in liquid in Tank #1 .

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14) Open carriers to ensure that they are in the center of the tanks when coming down . (As per Diagram enclosed)

15) Take 2 tests with the door closed . The second test should give a good photo . If the photos are too dark then lower the lens . (ie adjust to a smaller number) . If the Photos are too light raise the lens (ie adjust to a higher number)

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General Instructions & Care

Cleanliness is of utmost importance in the performance of the photo booth . The machine must be serviced on a weekly basis in order to provide consistent good quality photographs . ***Chemicals must be changed every two weeks !*** On the alternate week the tanks have to be topped up with warm water and the replenisher bottle must be refilled .

Remember : An Ounce of prevention is worth a Pound of cure !

General Maintenance

1) The exterior of the machine should be kept clean at all times . A cleaner bottle and rags are provided with each machine for this purpose .

2) The sitting room should also be kept clean and free of garbage . Particular attention should be paid to the Center Glass . Any dirt on the center glass should be cleaned immediately , as this can have a negative effect on the quality of the photograph .

3) Verify that the fluorescent tubes on the door are working .

4) Ensure that the green light bulb is working . These bulbs burn out frequently , and give the impression that the machine is out of order . Bulbs should be changed as needed .

5) After completing service on the machine a test should be taken to ensure that the machine is operating properly and producing good quality photographs .

A basic supply of spare parts such as fuses and light bulbs are provided with the machine . If you require any replacement parts please contact our office and we will be happy to send them to you .

If you encounter a problem and are unsure how to solve it a simple phone call to our head office will usually ensure a quick solution . We always have an experienced technician to take your calls should you experience any difficulties .

Our toll free number is 1-800-663-6661

After 5:00 pm call 514-731-1526 collect .

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General Instructions Re: Chemicals – Long Life

Chemicals must be thoroughly mixed and properly dissolved to assure uniformity. Chemicals should be prepared as follows:

Order of Tank #	Contents	
1	Developer **(Triple Bag)**	Cold Water Only!
2	Water	Warm Water
3	Water	Warm Water
4	Bleach **(Orange Bag)**	Warm Water
5	Water	Warm Water
7	Water	Warm Water
6	Clearing **(1 Bag in each tank)**	Warm Water
8	Water	Warm Water
9	Toner	Warm Water
10	Water	Warm Water
11	Water	Warm Water
12	Water	Warm Water

When mixing Developer in Tank #1, **use cold water only!** While mixing pour in bag with crystal balls first and ensure that they dissolve. Once this has dissolved pour in the second half (powder mix) and dissolve thoroughly.

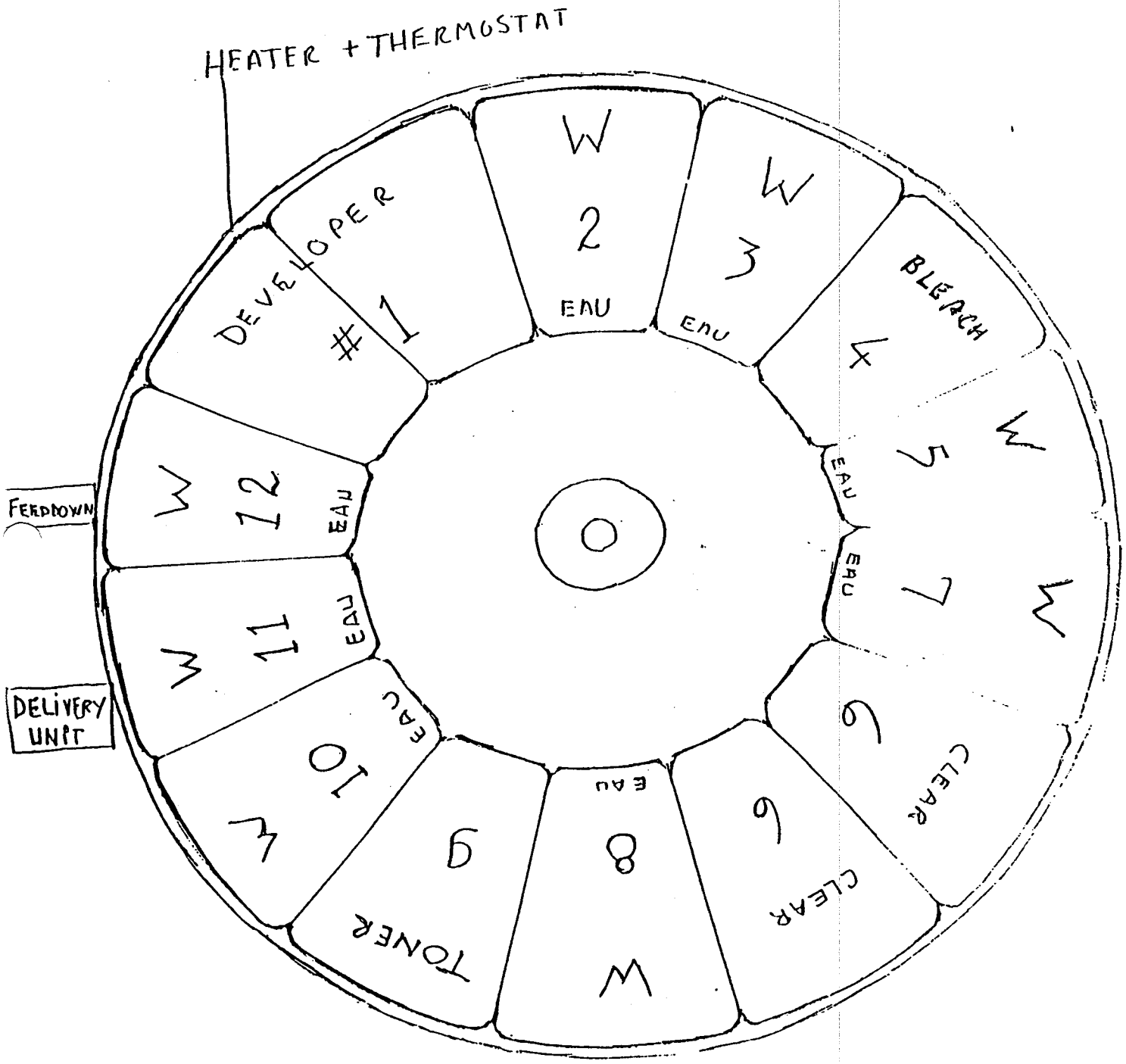
All tanks must be filled to within **1/2 inch of the top**.

Replenisher bottle should be filled with water. Ensure hose is not twisted and clamp on to Tank #1.

A photo should be taken both ***Before*** and ***After*** each chemical change. These photos should be attached to your weekly service report and mailed to us.

BLACK / WHITE
NOIR / BLANC

CONFIGURATION LONG LIFE CHEMICAL



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General Instructions Re : Chemicals

Chemicals must be thoroughly mixed and properly dissolved to assure uniformity .
Chemicals should be prepared as follows :

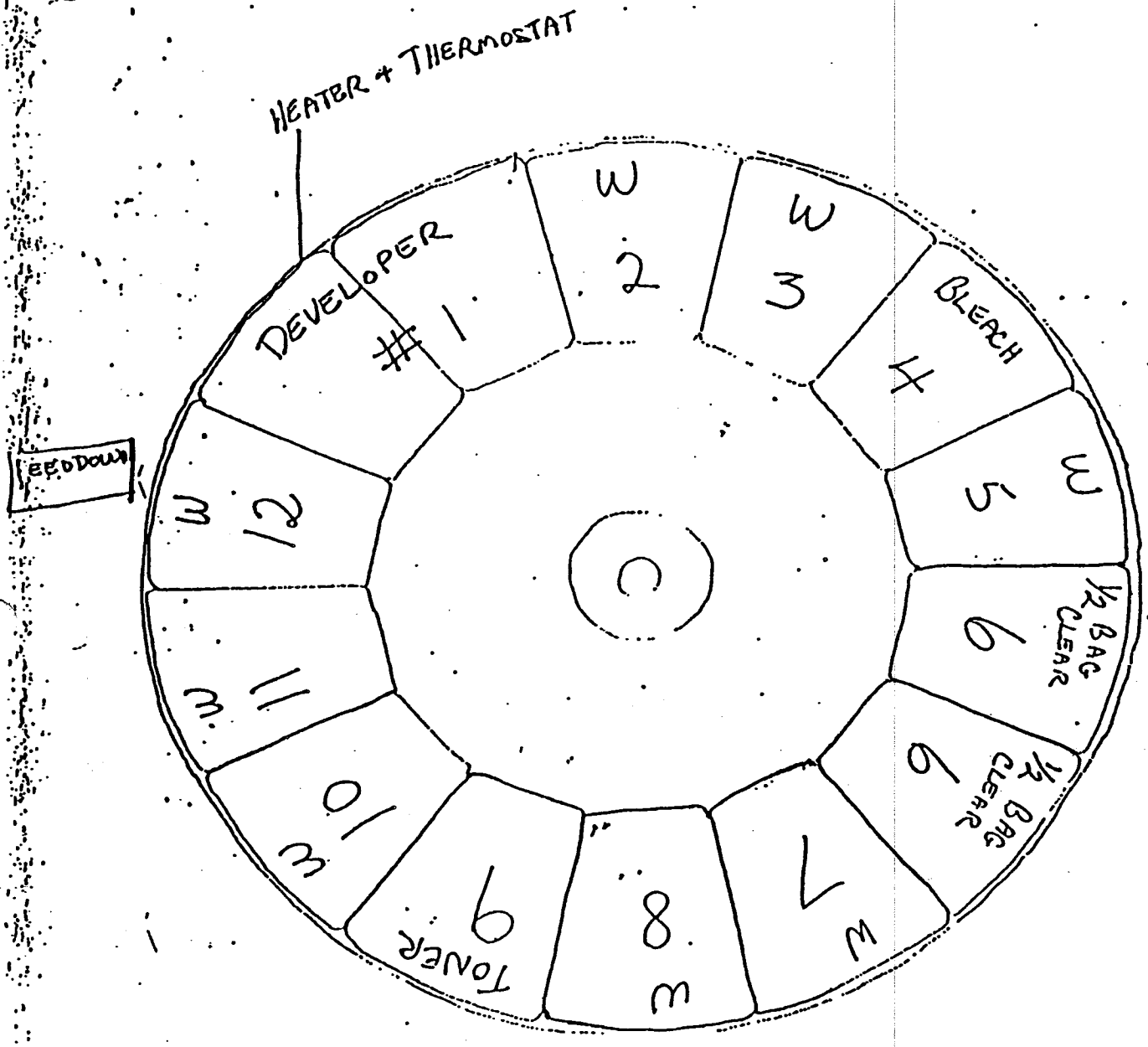
Tank #	Contents	
1	Developer(Double Bag)	Cold Water Only !
2	Water	Warm Water
3	Water	Warm Water
4	Bleach (orange bag)	Warm Water
5	Water	Warm Water
6	Clearing (1/2 Bag in each)	Warm Water
7	Water	Warm Water
8	Water	Warm Water
9	Toner	Warm Water
10	Water	Warm Water
11	Water	Warm Water
12	Water	Warm Water

When mixing Developer in **Tank #1** , use **cold water** only ! While mixing pour in bag with crystal balls first and ensure that they dissolve . Once this has dissolved pour in the second half (powder mix) and dissolve thoroughly .

All tanks must be filled to within 1/2 inch of the top .

Replenisher bottle should be filled with water . Ensure hose is not twisted and clamp on to Tank #1 .

A photo should be taken both *Before* and *After* each chemical change . These photos should be attached to your weekly service report and mailed to us .


HEATER + THERMOSTAT
DEVELOPER #1
W 2
W 3
BLEACH 4
W 5
½ BAG CLEAR 6
½ BAG CLEAR 7
W 8
TONER 9
W 10
W 11
W 12
FEEDDOWN
C

Quality Photos and a clean Studio increases profits

The importance of vending top quality photos at all times cannot be overstated. Good photos create good will and future patronage. Remember, pleased customers will be 'telling and selling' for you.

Change chemicals as often as is necessary, and keep tanks and photo processing parts clean and free of chemical contamination to insure the vending of photos of which you can be proud. Don't be penny-wise and pound-foolish. One poor quality photo in the hands of a dissatisfied customer can do immeasurable damage to your business.

Keep the exterior and interior of your Photo-Me Studio clean and orderly, and replace soiled side and back drapes with clean sets as required. A clean and polished studio will invite business.

This folder has been prepared as a general guide for the installation, maintenance and operation of Models 17 and 18 Photo-Me Studios. Model 18 components are indicated in brackets. Keep it available at all times for quick and ready reference, familiarity with its pages will enable you to minimise service problems and costs, read it thoroughly before starting installation.

Getting the Studio ready to operate

Check mains supply

The Studio is manufactured to operate at 115V A.C. and all electrical components have a 115 volt rating.

Countries having a 200–250V A.C. supply are provided with dropping auto transformers. The tappings of these should be adjusted to give 115V A.C. output. Mains supply colour coding as follows: Brown is Live, Blue is Neutral, Green & Yellow is Earth.

Aligning developer transmission assembly

The developer Transmission Assembly is properly aligned at the factory. However, because of variance in location floor levels it is necessary to check the alignment when setting up the Studio and each time it is re-located.

The point of alignment is where the spherical nut on the Transmission shaft meets the ball guide bushing. The Ball Guide Bushing is mounted under the Camera Tray. When properly aligned the spherical nut at the top of the Transmission shaft enters and releases freely from the ball guide bushing in all positions. The object of these components is to provide a lock for Transmission when the film is being fed into or withdrawn from the paper carriers.

To check alignment

1. Run the Transmission up until the spherical nut is about to enter the Ball Guide Bushing.
2. From this position it is possible to see if the spherical nut is going to go directly into the hole in the Ball Guide Bushing.

Realignment

To centre the spherical nut in the Ball Guide Bushing loosen or tighten hexagon nuts mounted at each side and at the rear of the Transmission mounting ring. These nuts, however, also affect the height of the Transmission Assembly and care should be taken to maintain the correct height. A gauge is supplied with the tool kit for checking this height.

If a gauge is not available the Transmission is at its correct height when the top of the paper carrier cam is about 1/16 of an inch (1.5 mm) from the bottom of the Trigger Body on the underside of the Camera Tray.

To ensure consecutive feeding of film strips into all seven carriers, push button immediately following the delivery of a strip into the previous carrier.

Delivery Unit adjustment
After all the carriers are full it is easy to check the Delivery Unit. If the Delivery Unit fails to pick up the film from the carriers then check:

1. The position of the rollers in relation to the paper. The paper must touch the front roller ⅛ in. (3 mm) forward of the point where the two rollers meet. (Measured towards centre of studio)
2. The rollers must come in the centre of the width of the film.
3. The switch arm must operate on the knuckle of the carrier support arm. Not the Carrier Cam.

If adjustment is necessary loosen bolts holding Delivery Unit and move unit into position. DO NOT move carrier to meet Delivery Unit.

Summary
All movable components can be set in relation to a fixed component so:

1. The Ball Guide Bushing is the fixed point for the adjustment of the Spherical Nut.
2. The Trigger body is the fixed point for the adjustment of the height of the Transmission Assembly.
3. The Feed Down Unit is the fixed point of the Paper Carriers.
4. The Paper Carriers are the fixed point for the adjustment of the Delivery Unit.

Dry Run Test
To ensure functional operation of the Studio before adding chemicals a 'Dry Run' test must be made.

DO NOT under any circumstances put your hands between the Transmission Assembly and the Camera Tray. If the Transmission rises unexpectedly then you may suffer a serious injury.

The main switch for the machine is provided in the junction box on the right hand side of the Studio. This box incorporates a circuit breaker which will automatically turn the whole Studio off, if a short circuit occurs for any reason in the Studio.

Check that all electrical plug connections are secure.

1. Camera Relay to Camera.
2. Main Harness to Camera
3. Main Harness to Trigger.
4. Main Harness to Upper Light Box on Door.
5. Main Harness to Studio Door.
6. Main Harness to strobe.
7. Check Studio Mains Cable. It must be fitted with a proper plug for the wall socket. All Studios must have an earth connection.

Under no circumstances operate a Studio without an earth connection

Checking of Electrical Sections

Checking Flash Lamps, Red Light, Green Light
This check must be made with the Studio Door closed. The safety switch is actuated by the opening and closing of the Studio Door. The switch actuates the two-contact-point in the Strobe Unit. When the door is opened one point closes and unloads the voltage from the Strobe Capacitors. The other point opens cutting off the power supply to the Strobe Unit.

Having made sure that the components are in the same condition as they were when they left the factory you can insert a coin into the coin insert plate slot. The Green Light should go out immediately. Five seconds later the Red warning light should come on for approximately two seconds. After the Red Light the Upper and Lower Flash Lights should operate simultaneously. This sequence is repeated twice for 2 shot machines and four times for 4 shot machines.

The Green Light will remain out until the strip is cleared from the feed-down.

To be certain of your machine and adjustment three or four coins should be tried.

Out of paper warning
The out of paper switch is fixed with a thumb screw on the end of the cassette holder facing the door when the camera is swung out (white border only). When the paper magazine is empty, one side of the switch opens cutting the power to the Green Light and to the coin reject solenoid, causing the mechanism to reject any coins inserted through the coin slot.

Fault Finding

Check wing nut on cassette – if tight it will prevent the film from feeding causing short lengths, The wing nut should be tight only when cassettes are in transit.

When the white border assembly is correctly adjusted the white border at the extreme top of the photo strip should be equal in width to the white border at the extreme bottom of the photo strip. If this is not so it can be adjusted by loosening the four screws, and either raising or lowering the white border assembly. If the top border is thinner than the bottom border the white border assembly needs to be raised. If the top border is thicker than the bottom border the white border assembly needs to be lowered. Re-tighten screws after adjustment ensuring that the paper from the cassette falls naturally into the track in the white border block. Do not force the paper to one side as this will cause the paper to bind resulting in inconsistent paper lengths and white border irregularities. Also when re-tightening the screws make sure the stop (cut paper) is correctly positioned. The intensity or brightness of the white border is adjusted by the potentiometer on the side of the cassette holder on top of the camera. Turn clockwise to dim the border and anti-clockwise to brighten the border.

If the white border flares on to the picture the border brightness may be too high and needs to be turned down by rotating the potentiometer slightly in a clockwise direction. If flaring still occurs then the clearance beneath the pressure plate is too great. The clearance is carefully set at the factory before despatch but should it need adjusting proceed as follows:

1. Disconnect mains electricity supply.
2. Swing camera to its outward position.
3. Remove film from camera.
4. Remove the four fixing sources and withdraw white border assembly.
5. Slacken the locking screw in each side of the border block.
6. With a piece of film beneath the pressure plate and the pressure plate in position, tighten the locator screws until the film is just nipped.
7. Slacken the two locator screws half a turn.
8. Re-tighten locking screws.
9. Remove piece of film and replace white border. Assembly with four screws and the stop (cut paper).
10. Re-load film, swing camera to its operating position and switch on mains electricity supply.
11. The white border will now need adjustment, as described earlier.

Developer Transmission Assembly

Removal

1. With the Transmission in its down position and all carriers in their 'in' position, turn off power to the machine. Remove left-hand thread spherical nut and lift off Spider Assembly.
2. Disengage and drop the outer shaft guard from the drive flange. Loosen the set screw affixing the drive flange and remove drive flange from the Transmission shaft.
3. Remove outer shaft guard. Loosen the two set screws on the bumper spring collar and remove inner shaft guard, bumper spring and bumper spring collar as assembled.
4. Remove Tank Tray.
5. Remove the three ½ in. BSF Nylock nuts on the bolts through the Support Assembly, disconnect the three wires to the motor and lift the Transmission and Support Assembly off the bolts and out of the Studio.

Installation

1. Lift the transmission and Support Assembly back on to its fastening bolts and replace the nuts.
2. Connect the motor wires.
3. Align Transmission for proper height and centre as described in the paragraph 'Aligning Developer Transmission Assembly'.
4. Install Tank Tray.
5. Drop Inner Shaft Guard, bumper spring and bumper spring collar over the Guide Tube, and using the two set screws in the bumper spring collar, set the bumper Spring approximately 7 in. (17.8 cm) from the bottom of the Tank Tray.
6. Slide outer Shaft Guard over Inner Shaft Guard and install Drive Flange, but do not tighten set screw any more than is necessary to hold Flange in place to adjustment described in Step No. 8.
7. Install Spider Assembly on Drive Flange, making sure that the pin on the Drive Flange is in the slot on the Spider Assembly casting.

Installation

1. Attach Assembly to Camera Tray with the three machine screws, connect the wiring.
2. Switch on Machine.
3. Check alignment of Paper Carriers to Feed Down Assembly.

Delivery Unit

Removal

1. With Spider Assembly in its down position, disconnect electrical power to Studio by removing service cord from wall receptacle.
2. Support Assembly and Nut Plate with one hand and remove the two screws that hold Assembly to bottom side of upper tray.
3. Lay Assembly on upper tray.
4. Disconnect electrical terminals.

Installation

1. Connect electrical terminals with Assembly laying on upper tray.
2. Support Assembly and nut plate with one hand and attach Assembly to underside of upper tray with two screws. Carry out delivery unit adjustment instructions.
3. Connect electrical power to Studio.

Trigger Assembly

Removal

1. With the Spider Assembly in its down position switch off machine.
2. Remove Camera to gain access to fastening screws on Camera Tray.
5. Remove 4-pin plug.
4. Remove the nut from the rear screw.
5. Support the assembly and remove the front screw.

Installation

1. Support the Assembly and fasten to the Camera Tray with the two machine screws and one nut.
2. Plug into main harness.
3. Replace Camera.
4. Switch on Machine.

Trigger Linkage Adjustment

The Trigger Linkage requires adjustment when turn-in and turn-out pins fail to make a full stroke.

1. To adjust, hold solenoid in its energised position and loosen lock nut (295).
2. Screw solenoid link (2000), in or out, until carrier turnout pin (2276) is in extreme down position without compressing spring (485) and tighten lock nut (259).
3. Let solenoid out to its de-energise position.
4. Turn stop nut (28) until carrier turn-in pin (2279) is in extreme down position and tighten stop nut (28) one half turn. This releases pressure on ball pin (2348) and stops forward motion of solenoid on groove pins (462).

How to use this book

This book has been prepared as a general guide for the installation, maintenance and operation of the Model 17 Photome Studio. Keep it available at all times for quick and ready reference.

Familiarity with its pages will enable you to minimize service problems and costs, and at the same time assure you of maximum profits.

The first section of this book is devoted to "Setting up" the Studio to operate. It also presents an explanation of the machine's electrical, mechanical and photographic operations in working order sequence, and outlines procedures for general maintenance and control of photographic quality. Read this section thoroughly before starting installation.

The second section includes illustrations, parts listing and electrical wiring diagrams.

Getting the Studio ready to operate

ALIGNING DEVELOPER TRANSMISSION ASSEMBLY

The developer Transmission Assembly is properly aligned at the factory. However, because of variance in location floor levels it is necessary to check the alignment when "Setting up" the Studio and each time it is re-located.

The point of alignment is where the spherical nut on the transmission shaft meets the ball guide bushing. The ball guide bushing is mounted under the Camera Tray.

When properly aligned the spherical nut at the top of the Transmission shaft enters and releases freely from the Ball Guide Bushing in all positions. The object of these two components is to provide a lock for the Transmission when the Film is being fed into or withdrawn from the paper carriers.

CHECK MAINS SUPPLY

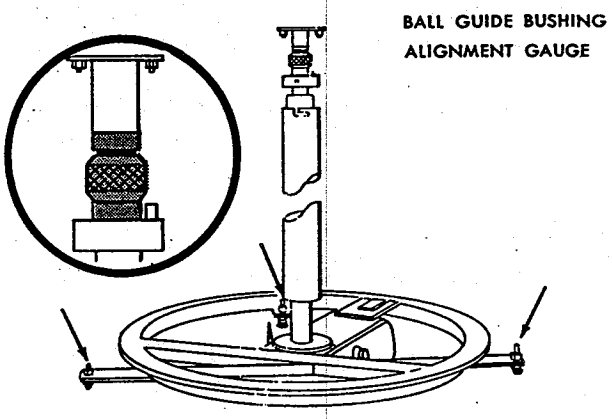
The Studio is manufactured to operate at 110 volts A.C. and all of the electrical components have a 110 volt capacity.

In the event of the mains supply being in the 200-250 volt range a double wound transformer is fitted in the base of the Studio.

It is absolutely essential that before attempting to operate the machine the voltage of the electrical mains supply is checked to ensure that it is not in excess of the capacity of the components of the Studio.

To check alignment

1. Run the Transmission up until the spherical nut is about to enter the Ball guide Bushing.
2. From this position it is possible to see if the spherical nut is going to go directly into the hole in the Ball Guide Bushing.



Transmission Alignment

If realignment is required

To centre the spherical nut in the Ball Guide Bushing loosen or tighten hexagon head nuts mounted at each side and at the rear of the Transmission mounting ring.

The correct height of the Transmission Assembly can also be obtained by tightening or loosening these three spring-loaded nuts.

Check alignment of Paper Carriers using the Carriage Gauge provided with the machine.

1. Before starting cycle of operations, drop Transmission outer shaft guard to expose shaft.

This is accomplished by loosening the spherical nut on the top of the Transmission Shaft and raising the spider assembly enough to allow the turning and release of the Guard from the mounting set screws.

2. Each paper Carrier should be checked when positioned directly in front of the door opening and then with the Transmission in its highest position.

To position a Carrier for this check press maintenance button on the door, as the carrier comes into position stop the machine by turning off the main switch.

3. With the Transmission at its highest point, the guard lowered and the paper carrier facing you, place the large "V" notch of the gauge firmly against the Transmission Shaft (NOT THE GUARD), and rotate the gauge until the small "V" notch comes to rest against the Vertical Edge of the paper carrier. Carrier is in alignment if "V" edge conforms with the "V" notch on the Gauge.

If the edge of the paper carrier and the "V" notch do not conform, gently pull or push carrier into its proper position.

After all the carriers have been checked replace guard on to set screws and turn lock. Tighten the spherical nut, making sure that the Spider Casting is properly located on its pin in the Collar.

Run machine and check that all carriers accept paper.

If a carrier will not accept paper it may not be properly aligned to the Feed Down Unit.

To check this bring the paper carrier up under the Feed Down Unit and stop the machine.

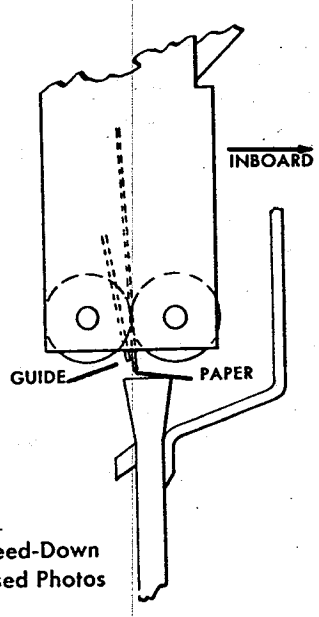
Swing the Camera out to gain access to the top of the Feed Down Unit through the slot on the Camera Tray.

Feed a dry paper strip into the Feed Down Unit and rotate the rollers to bring it out of the bottom of the Unit.

The paper must be in the centre of the paper carrier, if it is not adjust its position by tightening or loosening its stop screw.

After adjustment is made the locking nut on the stop screw must be tightened against the Spider Casting.

When you are satisfied that all carriers are in their correct positions then the Studio can be tested pressing the Maintenance button on the door once for each carrier.



Paper Feed-Down
for Exposed Photos

To ensure consecutive feeding of paper strips into all seven carriers, push button immediately following the delivery of a strip into the previous carrier.

DELIVERY UNIT

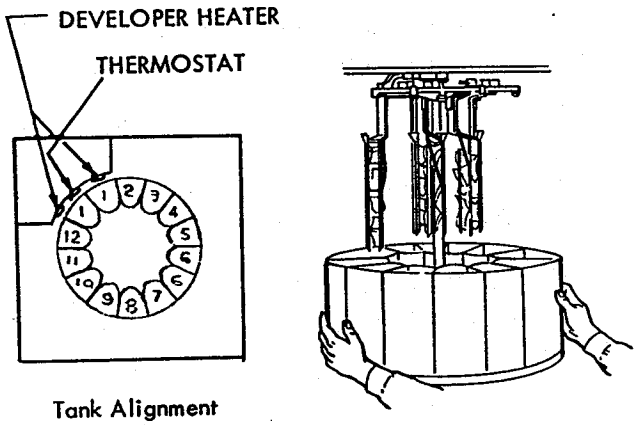
After all carriers are full it is easy to check the delivery Unit. If the Delivery Unit fails to pick up film from the carriers then check:

1. The position of the rollers in relation to the paper. The paper must touch the front roller $\frac{1}{8}$ in. forward of the point where the two rollers meet.
2. The Rollers must come in the centre of the paper.
3. The switch arm must operate on the knuckle of the paper carrier support arm. Not on the Carrier Cam.

If adjustment is necessary loosen bolts holding Delivery Unit and move unit into position. DO NOT move carrier to meet delivery Unit.

To summarize the "Setting Up" procedure, it is easy to remember if you think of it this way. All moveable components can be set in relation to a fixed component so:—

1. The Ball Guide Bushing is the fixed point for the adjustment of the Spherical Nut.
2. The Trigger body is the fixed point for the adjustment of the height of the Transmission Assembly.
3. The Shaft of the Transmission Unit is the fixed point for the adjustment of the paper carriers using the Carrier Gauge.
4. The Feed Down Unit is the fixed point for the adjustment of the lateral position of the paper carriers.



Tank Alignment

1. Turns out the Green Light on the door.
2. Turns on the Out of Paper Light.
3. De-energizes "Coin reject" Solenoid causing the mechanism to reject any coins inserted through the coin slot.

Final Adjustments

Mix the Chemicals according to the instructions on the packets in the chemical kit. With the Transmission at its topmost position turn off machine and install Tank No. 1 under the block of three Sockets in the left-hand rear corner of the machine. Add the other tanks in numerical order.

Lower the Transmission and stop machine. Instal Splash Guard. The forward ridge rests on the outside circumference of the Tanks with the widest section of band extending above the Tanks. It may be necessary to compress the Tanks towards the centre if the band does not readily seat down.

Plug Thermostat into the CENTRE socket of the three above Tank No. 1.

If Thermostat Plug is inserted in any other socket the Heaters WILL NOT OPERATE. Place Thermostat in Developer solution then clip over the side of the Tank between it and the Splash Guard.

The Thermostat MUST be in the corner of the Tank. If it is in the middle there is a possibility that a paper carrier on its journey through the Tanks may strike the Thermostat and jam on top of the Tanks.

The two heaters are lowered into the developer solution and inserted in the two remaining Sockets.

The Thermostat is already set when the machine is tested at the factory, and no adjustment should be necessary. If however a new Thermostat is ever required it must be set at 84°F or a little above the 30°C marked on the dial. These temperatures vary slightly from country to country and experience will show you the best temperature to use.

Check to see that the Paper Carriers when in the Tanks will be in the Centre of the Tanks. Adjustment can be made by turning the Tanks and the tray to the right or left as is necessary. Check that all carriers are in and Transmission is at the top of its stroke and stopped, close the main door and allow ¾ to 1 hour for the developer solution to reach the desired temperature and the sediment in the chemical tanks to settle.

It is suggested that several photo-strips be taken using coins to ensure that the photograph is up to the standard required.

Electrical • mechanical operational sequence

See Electrical Schematic and Wiring Diagrams

1. Customer's coin momentarily closes coin switch at the bottom of the Coin Mechanism Assembly which closes and "Locks in" the Camera Start Contact points in the Camera Relay. This set of contact points passes power to the Strobe Unit which charges up ready for the first "Flash," and also energises the coil of the "Delay Relay."

After 5 seconds the "Delay Relay" closes and passes power to the Camera Motor.

2. Camera Motor turns the Geneva driver clockwise.
3. The Instruction light cam on the Geneva driver shaft momentarily closes the instruction light switch as the shaft starts to rotate. This turns on the RED warning light in the view window prior to each exposure.
4. The Geneva driver during one complete revolution turns two geneva drive gears in succession.
   a. The first Geneva drive gear turns the shutter drive shaft which opens the Camera Shutter for the first exposure.

   The strobe light cam on the shutter drive shaft operates the strobe light switch which fires the strobe lights.

   b. The second Geneva drive gear turns the paper drive shaft and rubber rollers which feed down the paper strip for the second exposure and opens the Camera stop switch operated from a "V" cam on the Geneva gear shaft, described in section 6, which in turn supplies second source of power to Camera Motor.
5. Cycle repeats itself for the second and third time.
6. A double disc cam is mounted on the Geneva

All chemicals making up the Model 11 Photome Kit are in crystal or powder form. Each preparation is packed in an individual air-sealed polyethylene bag.

All crystals and powders must be thoroughly mixed into working solutions on site. Although time-consuming to mix, they are easy to store and transport from one site to the next.

Each Chemical Kit has a set of mixing instructions printed on the plastic containers.

CARE AND MAINTENANCE SUGGESTIONS

1. Use only clean tanks. Wash and rinse before each and every chemical change. Clean chemically with used bleach solution every 60 days or more often if required.
2. Stir and mix chemicals only with a hard rubber, plastic or glass rod and rinse between mixing of different solutions.
3. To avoid possible contamination of one chemical by another, mix in operational sequence, i.e., Developer, Bleach, Clearing and Toner.
4. Keep paper carriers clean and free from chemical deposits. Contamination will produce inferior prints and shorten the life of the Chemicals. All paper carriers on all Models should be rinsed in hot water at each Chemical Change.
5. To ensure consistently good quality photographs, the Chemicals should be changed every 500 photo strips or once a week, whichever comes first.
6. The developer temperature is set when leaving the factory but if it is necessary to replace the thermostat then the temperature should be set at 90°F to 92°F. Local conditions in various countries may prove a lowering of this temperature to be advisable but not normally will the temperature need to be raised. Whenever possible it is best that the Studio should be left switched on 24 hours a day. Should it, however, be necessary to disconnect the Studio at night, be sure to turn it on again at least one hour before starting the day's business.

CHEMICAL SOLUTIONS

The purpose of these tests is to isolate chemicals which may be the cause of sub-standard photographs. Tests should be made only:—

1. Following the complete change of chemicals and the replenishing of remaining tanks with fresh water.
2. With the developer temperature set correctly and the Iris adjusted correctly.

TESTING DEVELOPER SOLUTION

This test is made with the Studio door open and by pressing the maintenance button. As the carrier leaves the developer tanks (No. 1) the emulsion side of the paper should be a deep black.

If it is grey or mottled, run several more strips, and if condition does not improve change the solution.

TESTING BLEACH SOLUTION

Bleaching solution (Tank 4) should remove all traces of black on emulsion side of paper. If it fails to do this after observing two or three strips then the solution has not been properly mixed or is over diluted.

TESTING CLEARING SOLUTION

Clearing action (Tanks No. 6) should remove all traces of the orange bleach stain. If not, check that all crystals have dissolved.

TESTING TONER SOLUTION

The Toner solution (Tank No. 9) must be checked independent of the developing, bleaching and clearing solutions by running a separate strip through the complete cycle with the cabinet door closed. Presuming that the developing, bleaching and clearing solutions have been satisfactory, the photo strip as it enters tank 9 should be white. The toner action should bring out the latent image or unexposed (dark areas) in sharp contrast to the exposed portions (white areas). The blacker the blacks the whiter the whites, and a full graduation of tones between these extremes, the better the print.

Take particular note of the border frames around each print. If they are a deep black and the dark areas of the photograph do not contrast sharply with the white areas check developer temperature to ensure it is not too high.

QUALITY CHECK ON PHOTOGRAPHIC PAPER

Should you have reason to doubt the quality of the photographic paper being used, the following check should be made, first making sure that the chemical solutions are fresh and effective.

Close off Camera lens to light by taping a black piece of paper over the funnel opening on the inside of the door. Close the door, making sure the paper is held in place between Funnel and the Camera Gasket.

Start the machine with a coin and wait for the paper to be delivered.

The strip of paper should be completely black. Satisfactory paper, while wet, may present a slightly mottled surface.

However, it should dry into a deep black. Light streaks across the paper are indicative of faulty film or light in dark room area of machine.

Before changing film run off several strips. Sometimes light leakage is confined to first few feet of film in the magazine.

Over-all grey tones, especially in the borders of the strip, indicate that the film may have been stored at a temperature of over 75°F for several days while in storage or transit.

paper.

Dark section at the bottom of the last print (Example L)

(Developer solution more than ½ in. from the top of the tank)

Fill tank No. 1 to ½ in. from the top.

Light section at the top of the first print on strip (Example M)

(Deposits in the bottom of chemical tanks)

Change chemicals. Mix new chemicals thoroughly.

Image blurred (Example N)

1. Lens out of focus or alignment.
2. Lens or prism fogged or extremely dirty.
3. Glass on door smudged or dirty.

Unsightly background (Example O)

1. Soiled or torn back drape.
2. Dirty white "Formica" wall.
3. Chemicals over age.

Faulty development (Example P)

(Over-age chemicals)

Change chemicals, thoroughly clean chemical tanks.

Image giving negative effect (Example Q)

Check to see that all chemical tanks are in their right positions.

All-over "muddy" effect (Example R)

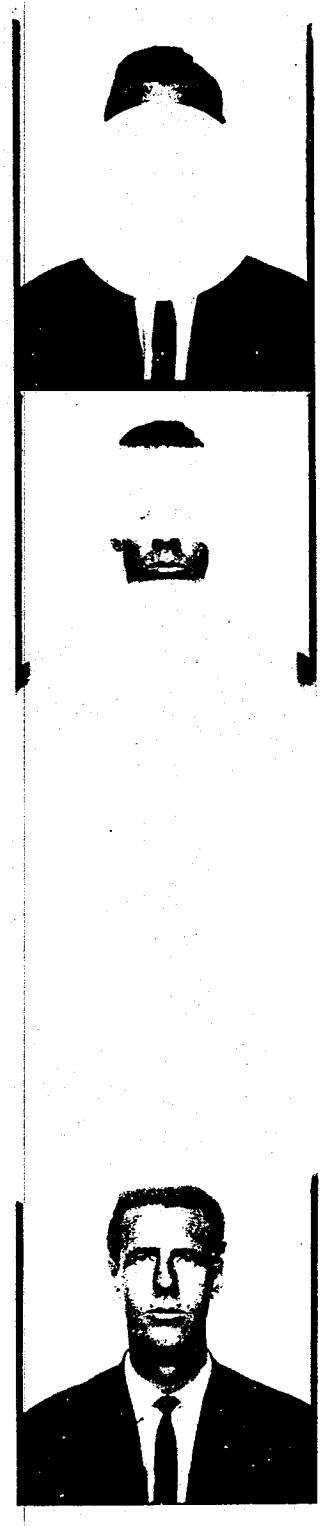
Clean tanks, change chemicals.

Prints overlapping on strip (Example S)

1. Loose or worn camera paper feed rollers.
2. Tighten set screws on rollers.
3. Check to see if rubber is still attached to brass insert.
4. Check to see if roller is still round.

Example A

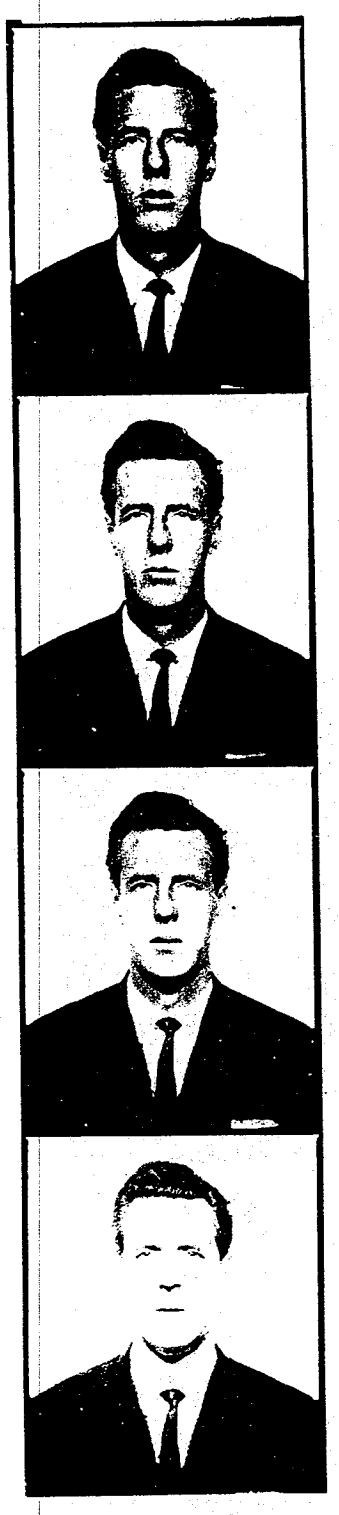
Example B



Example C

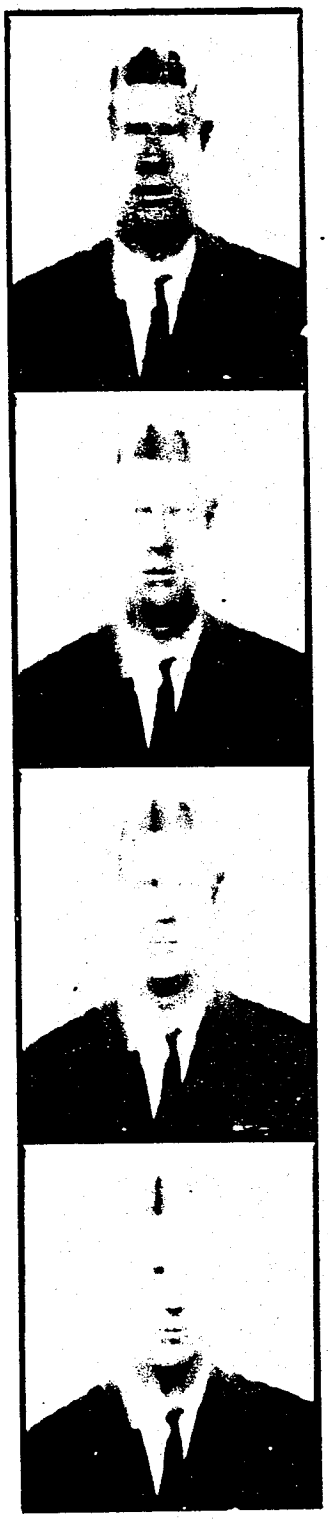
Example G

Example H



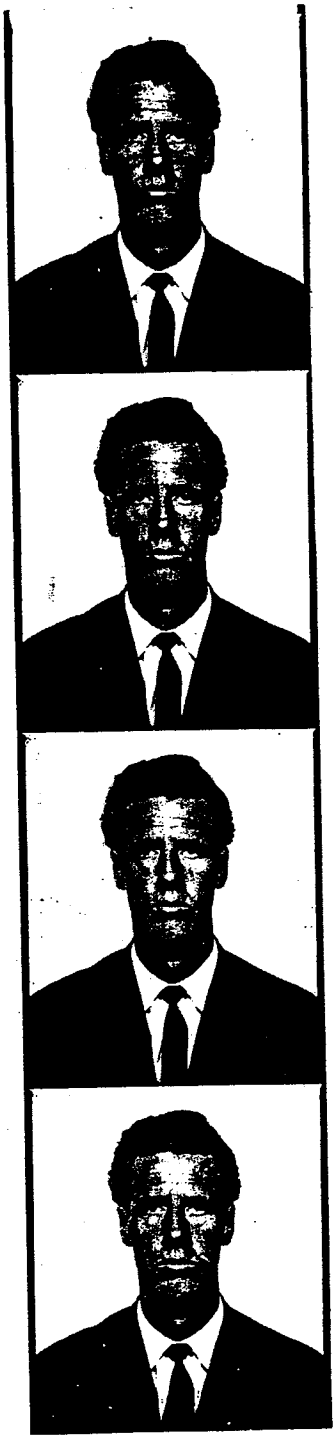
Example I

Example M



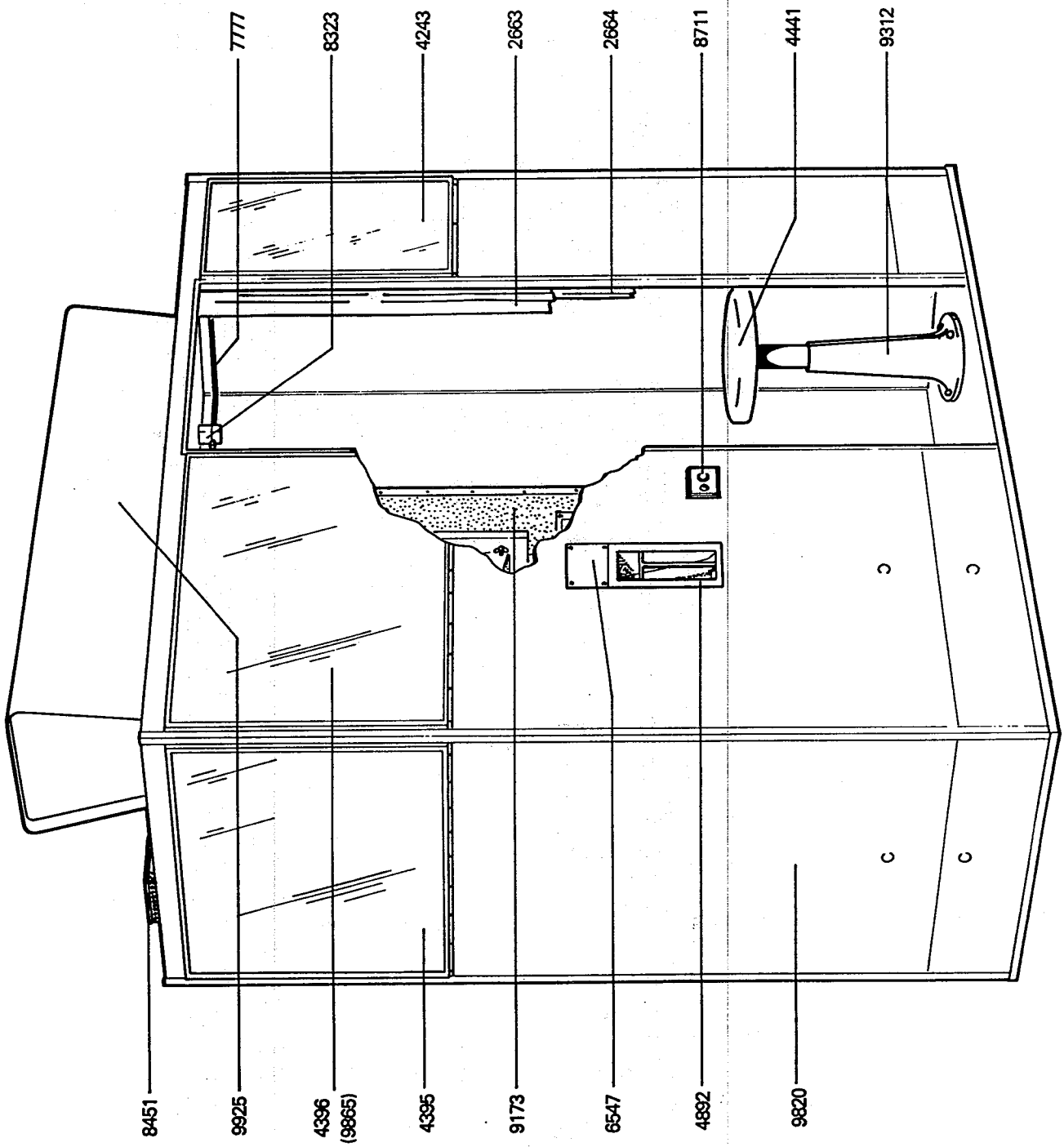
Example N

Example O

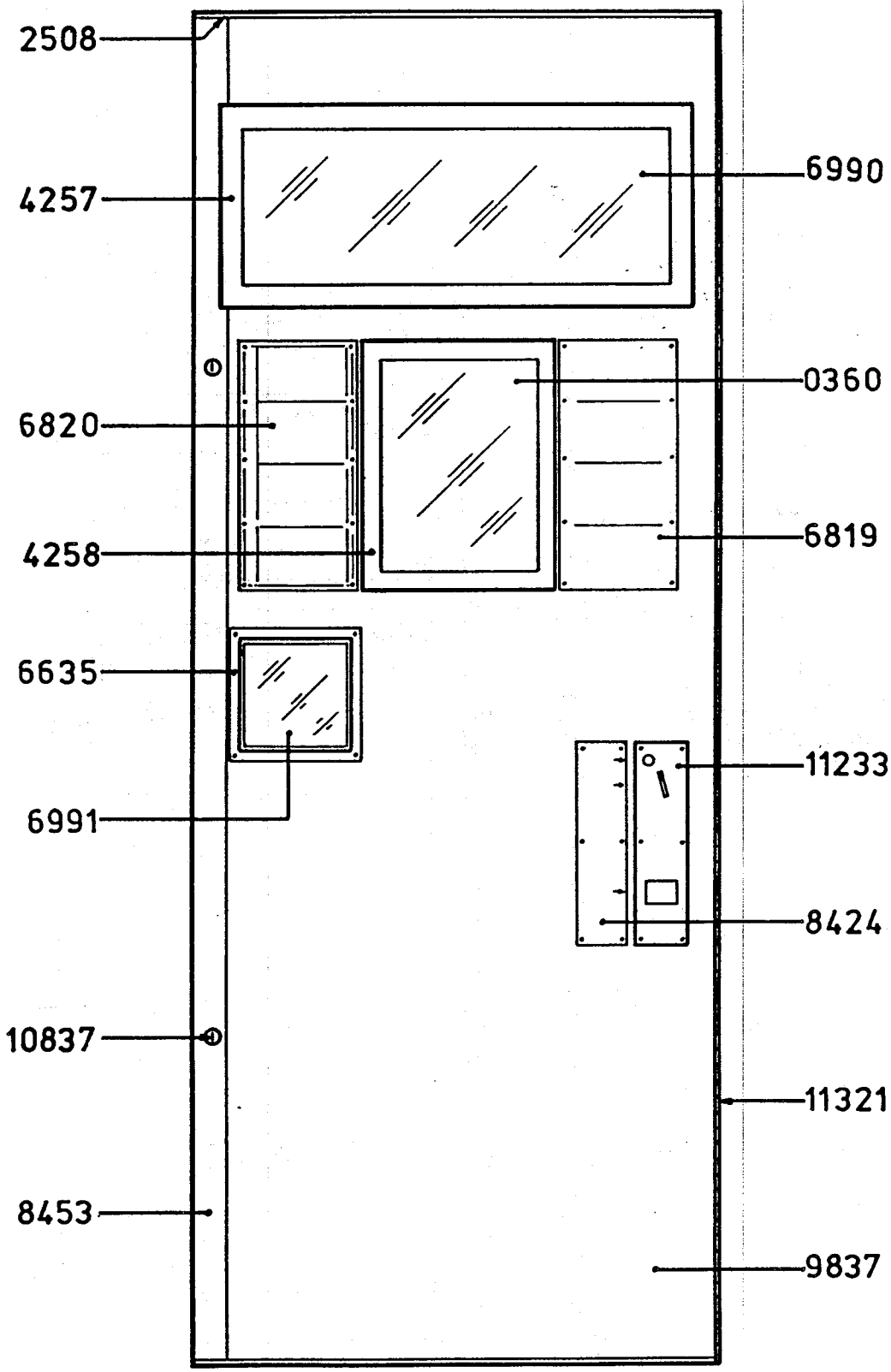


Example S

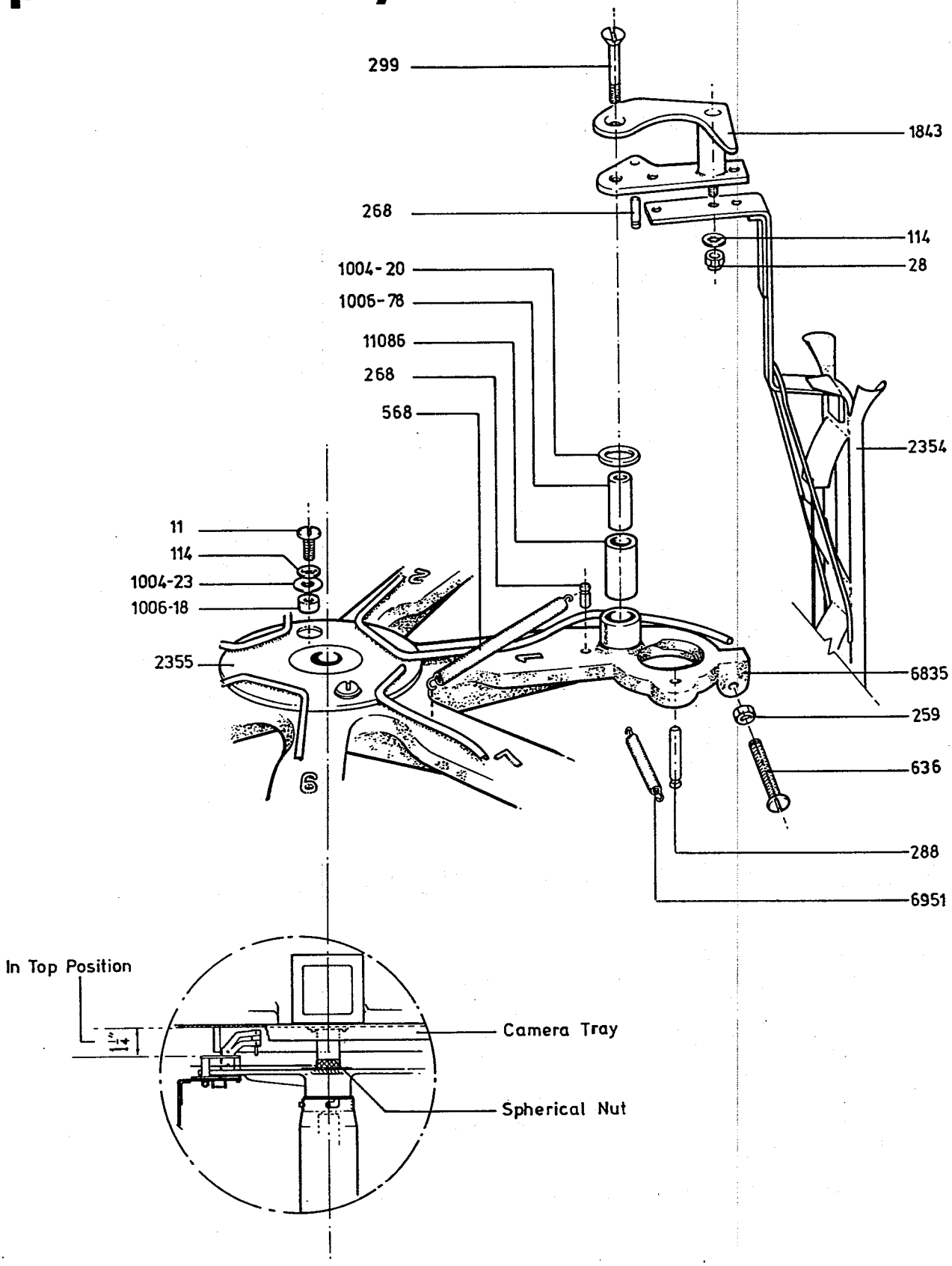
Studio External 9172(9185)



Door Assembly 9173

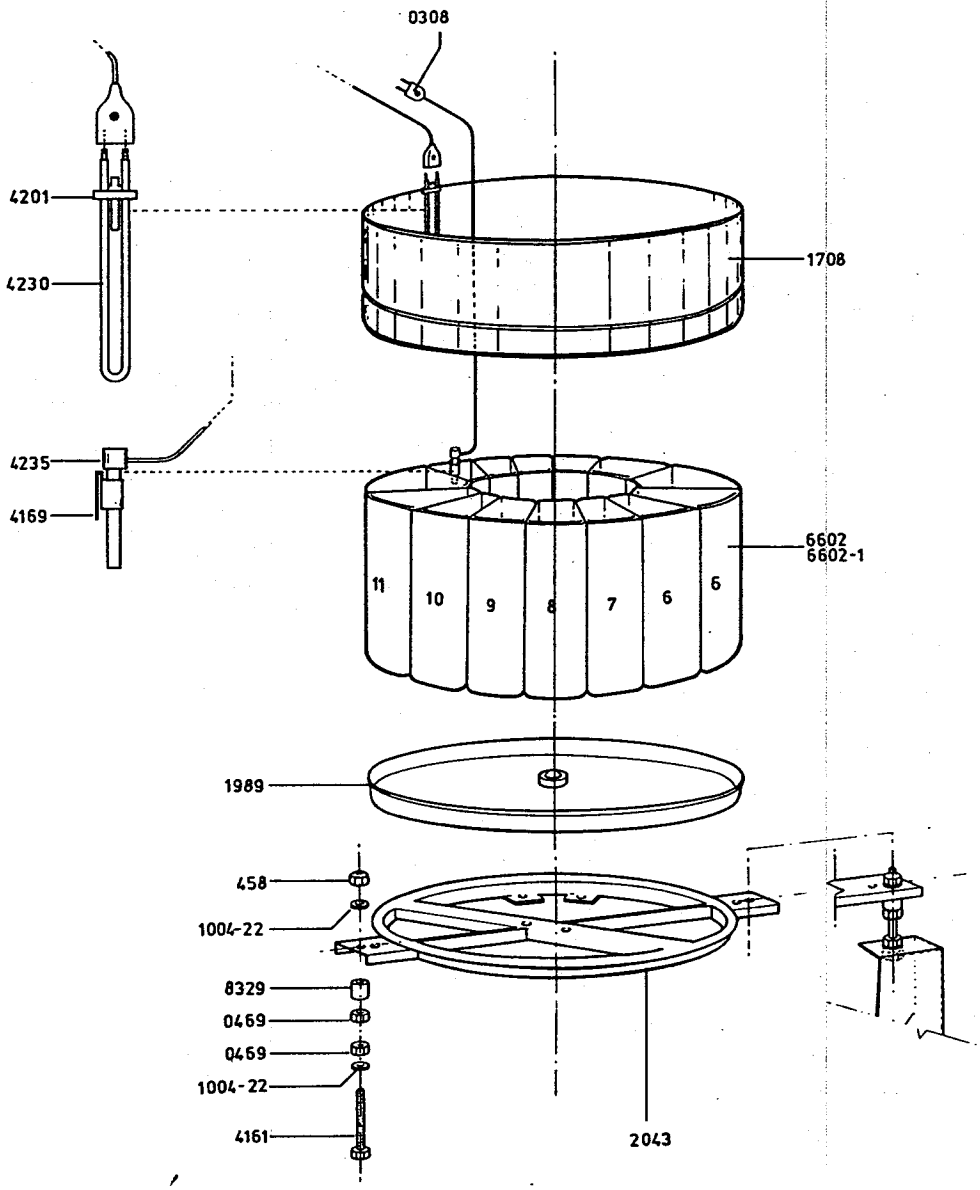


Spider Assembly 9780



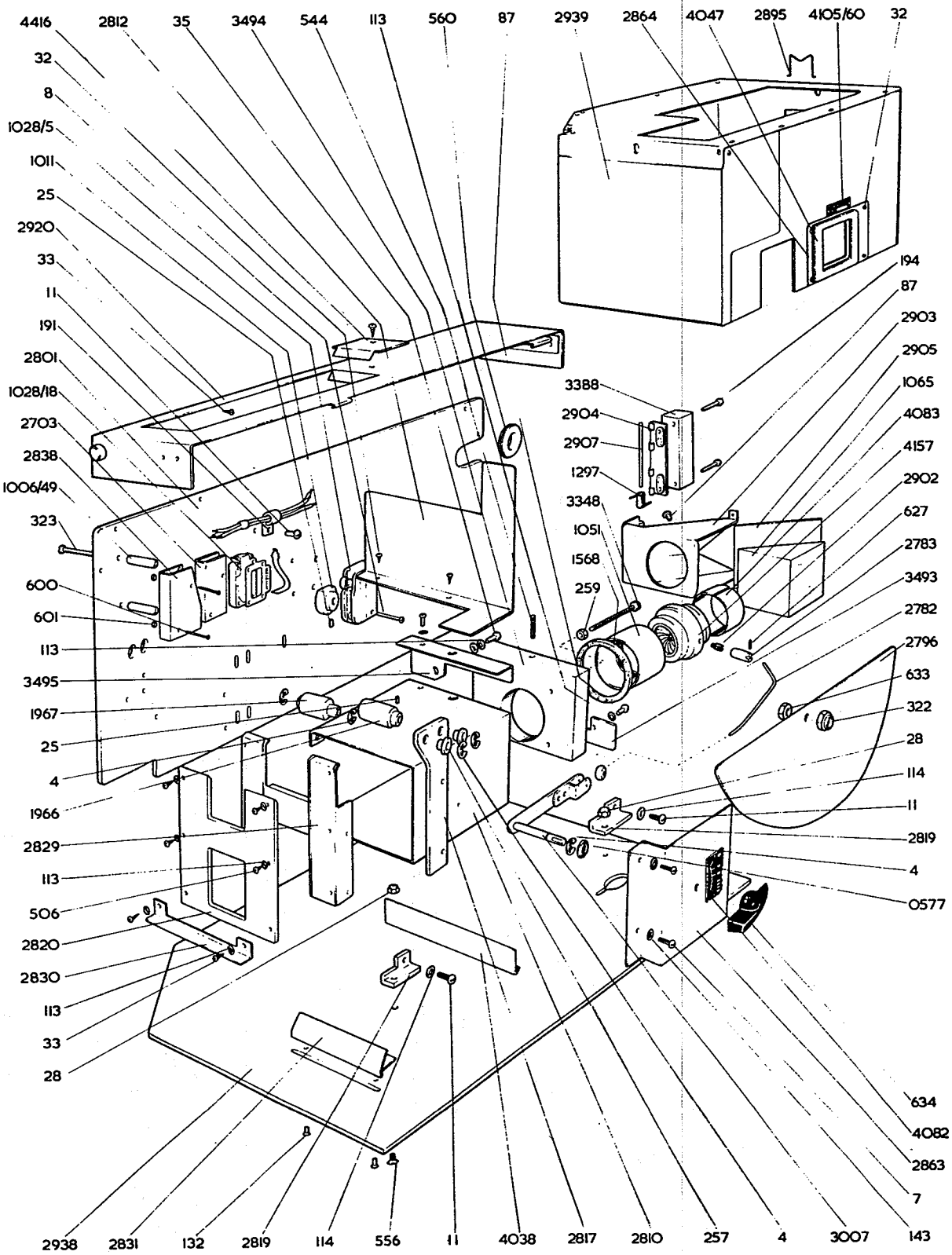
— Spherical Nut Arrangement —

Developer Tank Assembly 4173

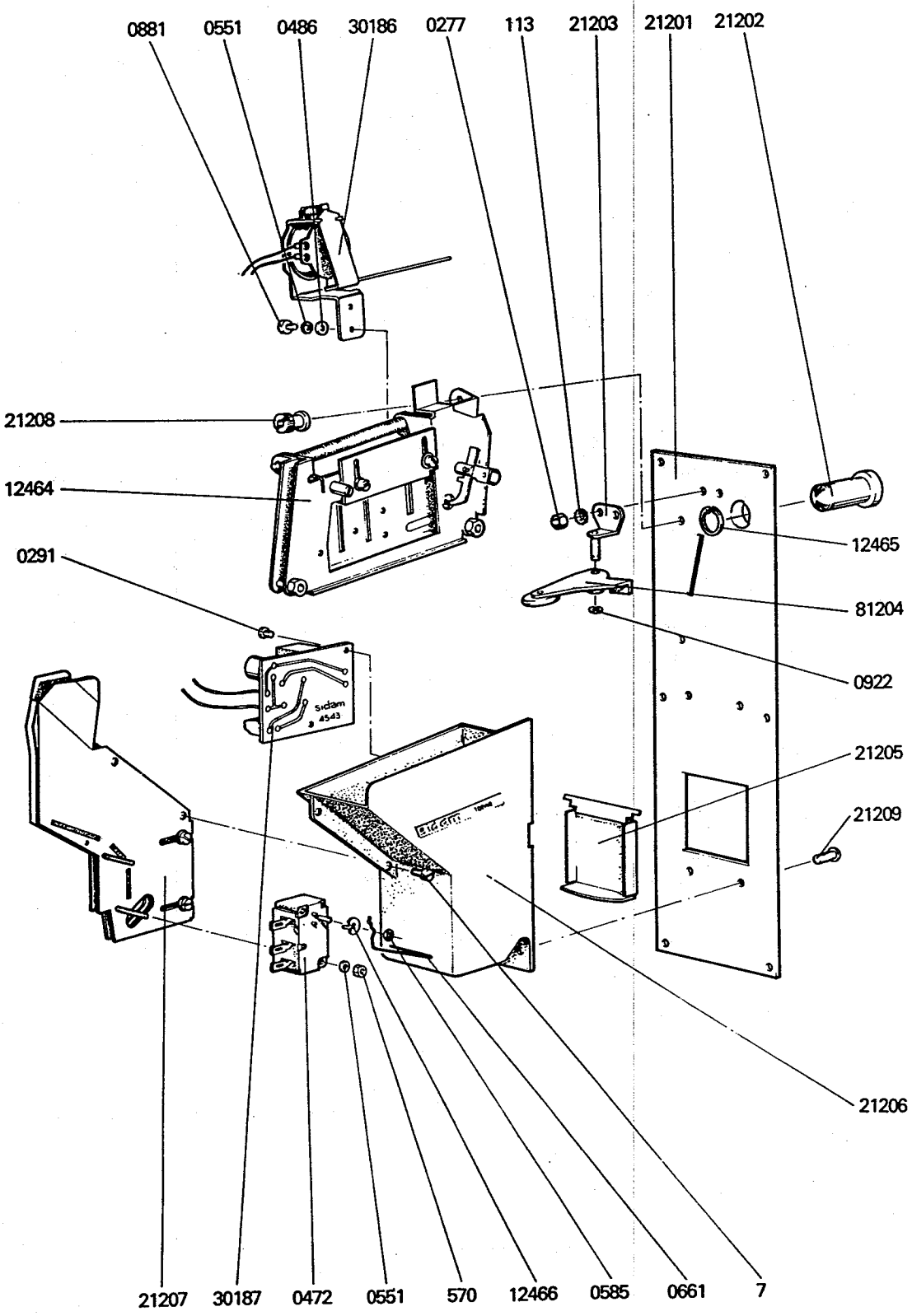


17

Plate Camera 9159(9149)



Coin Mechanism 11233



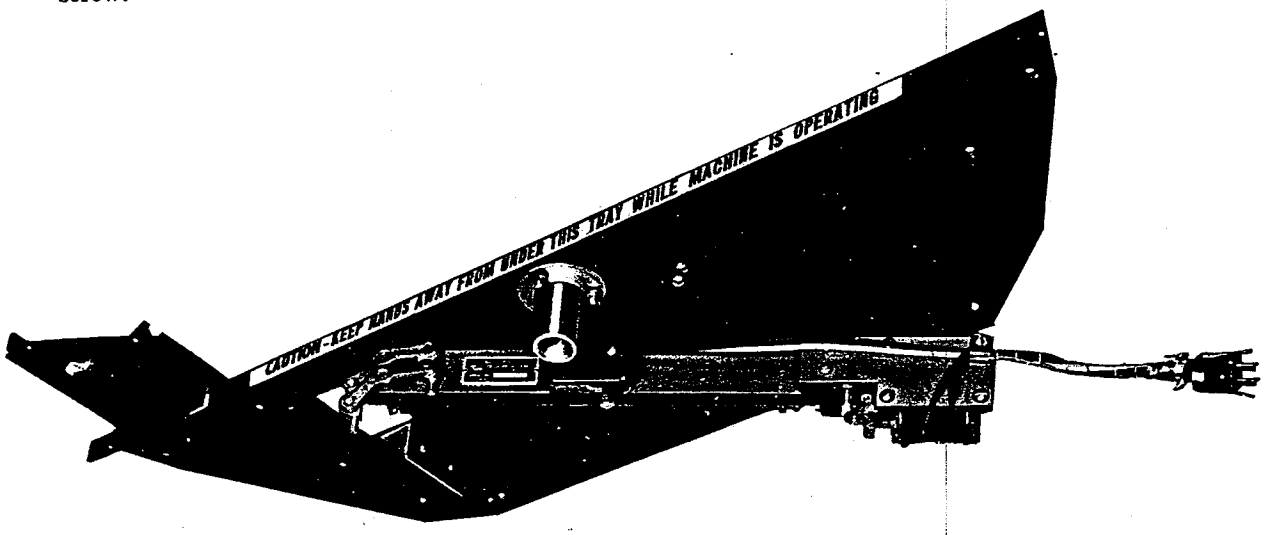
Trigger assembly

REMOVAL

1. With the Spider Assembly in its down position switch off machine.
2. Remove Camera to gain access to fastening screws on Camera Tray.
3. Remove the nut from the rear screw.
4. Support the assembly and remove the front screw.

INSTALLATION

1. Support the Assembly and fasten to the Camera Tray with the two machine screws and one nut.
   Plug into main Harness.
2. Replace Camera.
3. Switch on Machine.



TRIGGER ASSEMBLY PARTS LIST

PART NO.	REQ'D	DESCRIPTION
978	1	Trigger Assembly
2142	1	Frame Assembly
2148	1	Lever Assembly, Lower
2337	1	Lever Assembly, Upper
2279	1	Turn-In Pin Assembly
2276	1	Turn-Out Pin Assembly
4160-16	1	Wire Lead 13in. White and Black Tr.
4160-1	1	Wire Lead 14in. Black
435	2	Drive Screws
1028-5	1	Microswitch
0244	1	Solenoid Assembly
2200	1	Link, Solenoid
491	1	Jones Plug
1004-25	2	Washer
191	1	Clamp, Plastic
8	2	Screw
4077	1	Bracket U.K. Solenoid C.R.
4079	1	Bracket U.K. Solenoid Short
4105-34	1	Nameplate

PART NO.	REQ'D	DESCRIPTION
139	3	Screw
13	1	Screw
462	2	Groove Pin
1247-103	4	Sleeve, Insulating
2756	1	Block, Solenoid
2342	1	Pin, Ball
259	1	Nut
444	2	Ring
445	1	Ring
1006-25	1	Bushing, Spacer
258	8	Ring
2341	1	Block, Lever
463	1	Ring
1004-23	2	Washer
28	5	Nut
485	2	Spring
2591	1	Pin, Solenoid Link
0243	2	$\frac{1}{8}$in. x $\frac{1}{8}$in. F/H Tubular
4275	2	Oilite Bushes

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CANADA LTÉE/LTD.

5778 AVE. ROYALMOUNT, MONTRÉAL, QUÉ. H4P 1K5
TÉLÉPHONE: (514) 731-1637 • 731-1526
FAX: (514) 342-0750
1-800-663-6661

INSTRUCTIONS FOR RAISING SPIDER ASSEMBLY BECAUSE CARRIERS ARE NOT CLEARING THE TANKS OR TRANSMISSION IS NOT STOPPING

1. Remove the spherical nut as per diagram. To remove this, turn it in a clockwise direction.
2. Remove spider assembly completely, including all the carriers.
3. Put a washer or pieces of paper on the shaft where the spider assembly was removed.
4. Replace the spider assembly in the same position, fitting into the slot.
5. Return the spherical nut on top and tighten, counterclockwise.

Test 7 arms by taking strips. Should you find any of the arms not taking the paper because they have been bent, remove the arm completely, including the hinge on top, as per diagram. Leave this arm and hinge inside the photo booth on the floor. Our man will replace it the next visit.

Re: Item 3 -- If you find that, after you have put back the spider assembly, the transmission shuts off, this means you have raised the spider assembly too high. To correct this, take off the washer you have put on and put on paper instead, to be less high.

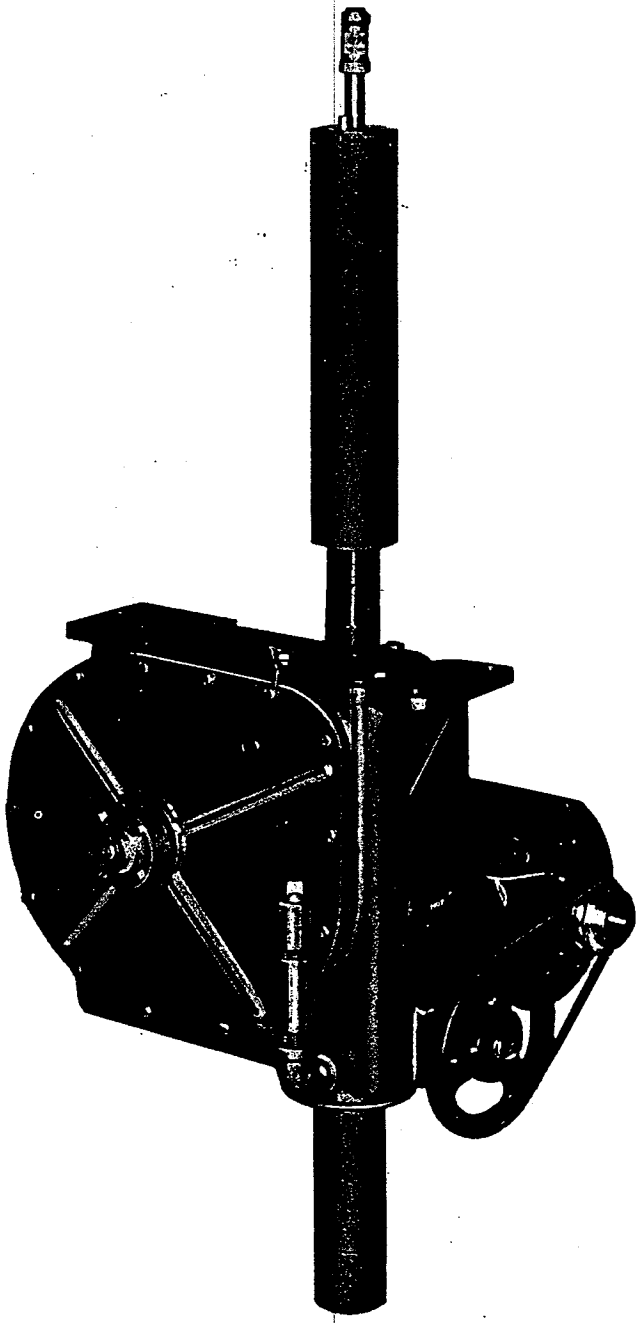
Developer transmission assembly

REMOVAL

1. With the Transmission in its down position and all carriers in their "in" position, turn off power to the machine. Remove left-hand thread spherical nut and lift off Spider Assembly.
2. Disengage and drop the outer shaft guard from the drive flange. Loosen the three set screws affixing the drive flange and remove drive flange from the Transmission shaft.
3. Remove outer shaft guard. Loosen the two set screws on the bumper spring collar and remove inner shaft guard, bumper spring and bumper spring collar as assembled.
4. Remove Tank Tray.
5. Remove the three ½in. BSF Nylock nuts on the bolts through the Support Assembly. Disconnect the three wires to the motor and lift the Transmission and Support Assembly off the bolts and out of the Studio. The Support Assembly can now be removed in comfort.

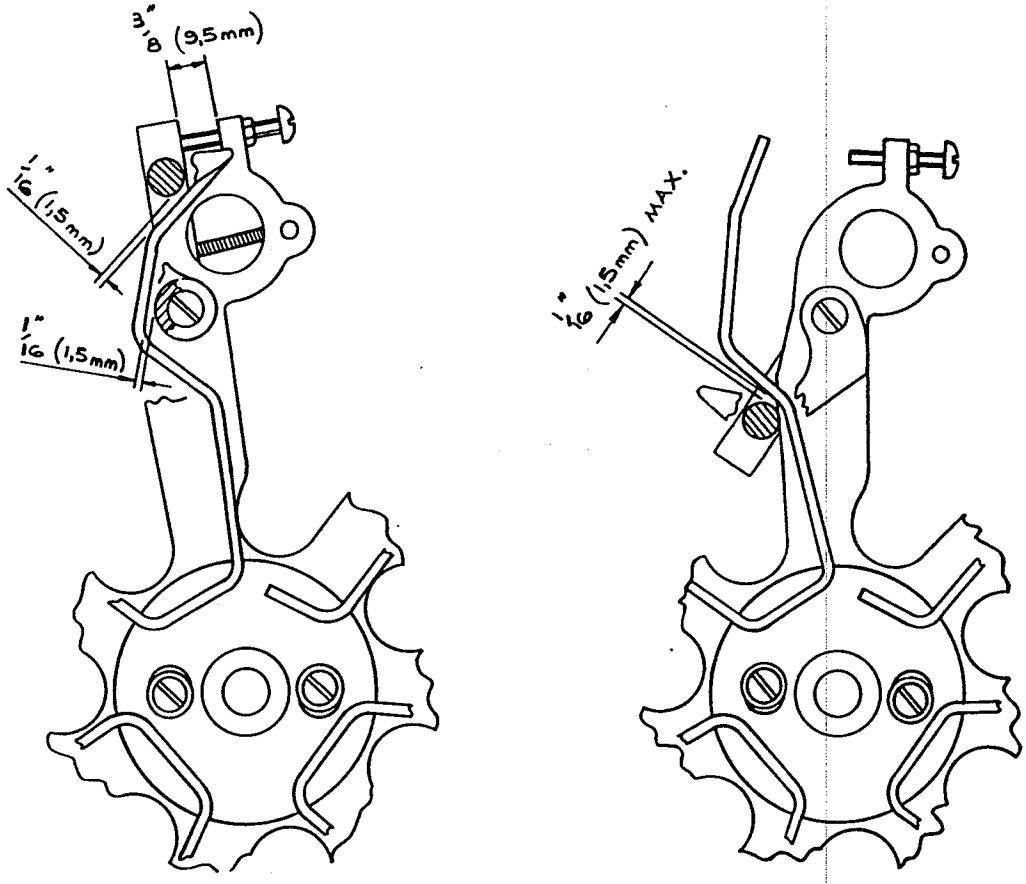
INSTALLATION

1. The Support Assembly can now be bolted back on to the Transmission.
2. The Transmission and Support Assembly can then be dropped back on to its fastening bolts and the nuts replaced.
3. Connect the motor wires.
4. Align Transmission for proper height and centre as described in the paragraph Aligning Developer Transmission Assembly.
5. Install Tank Tray.
6. Drop Inner Shaft Guard, bumper Spring and bumper Spring Collar over the Guide Tube and, using the two set screws in the bumper Spring Collar, set the bumper Spring approximately seven inches from the bottom of the Tank Tray.
7. Slide Outer Shaft Guard over Inner Shaft Guard and install Drive Flange, but do not tighten set screws any more than is necessary to hold Flange in place prior to adjustment described in Step No. 9.
8. Install Spider Assembly on Drive Flange, making sure that the pin on the Drive Flange is in the slot on the Spider Assembly casting.
9. Whenever the Drive Flange is removed from the Drive Collar it is necessary, when re-installing, to check clearance between the "turnout" cam and the "turnout" pin on the Trigger linkage before tightening set screws in the Drive Flange to the Driver Collar. This is accomplished by turning the Transmission drive pulley counter-clockwise by hand, to raise the top of the Transmission Shaft to within ½in. of the Ball Guide Bushing mounted to the underside of the Camera Tray.



Rotate Spider Assembly so as to position the centre of the loop on one of the Spider Arm castings at a point directly under the "turn in" pin on the Trigger Assembly linkage.

Spider Assembly 9780



Control Disc Assembly Setting

1. Set each adjusting screw to protrude 3/8".
2. With the carrier in adjust each control disc assembly arm so that there is 1/16" (1.5mm) clearance between the arm and the brass cam post.
3. With the carrier out adjust each control disc assembly arm so that there is 1/16" (1.5mm) clearance between the arm and the casting boss and 1/16" (1.5mm) between the arm and the brass cam post.

Note – Return each carrier after this adjustment has been made.

Spider assembly

REMOVAL

1. With Spider Assembly in the down position, switch off machine.
2. Remove spherical nut, left hand thread, and lift Spider from Transmission Shaft.

To avoid bending the paper carriers place the assembly upside-down on the bench.

INSTALLATION

1. With Transmission in its down position, place the Spider Assembly on the shaft with the positioning pin on the top of the Drive Flange Collar fitting into the slot on the Spider Assembly Casting.
2. Replace spherical nut.
3. Switch on Machine.