# Enclosures and Paper Handling

## Adjustments and Lubrication

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1. GENERAL

1.01 This section provides the adjustment and lubrication procedures for the maintenance of the cover, base, cabinet, paper unwinder, and paper winder as used in the INKTRONIC Page Printer Set (RO). It is reissued to incorporate engineering changes. Since it is a general revision, marginal arrows used to indicate changes and additions are omitted.

CAUTION: REMOVE POWER FROM SET BEFORE CHECKING OR MAKING ADJUSTMENTS UNLESS OTHERWISE STATED.

1.02 The adjustments are arranged in a sequence that should be followed if a complete readjustment of the particular unit were undertaken. In following such a procedure, parts or assemblies that are removed to facilitate adjustments should not be replaced until all other adjustments, which would be facilitated by removal of these parts are made. If any adjustment is changed, related adjustments should be checked. Before making any adjustment, read the adjustment instructions thoroughly. After an adjustment is completed, be sure to tighten any nuts or screws which may have been loosened.

1.03 The spring tension values indicated are scale readings which would be obtained when proper scales are used as specified. Springs that do not meet the requirements, and for which no adjusting procedure is given, should be replaced by new ones.

1.04 Check all moving parts to make sure they are free from binds before operating the units under power.

1.05 References to right or left, up or down, front or rear, apply to the units as viewed when facing them from the front or operators side.

1.06 Parts ordering information can be obtained from Section 592-820-801TC. For the tools necessary in making the adjustments, refer to Section 570-005-800TC.
2. ADJUSTMENTS

2.01 Cover

COVER AND BASE GASKET

Requirement
Bottom surface of cover should be in contact with gasket on base. Cover should compress gasket evenly around perimeter of cover so as to prevent air gaps along entire length of gasket.

To Adjust
With cover latch mounting nuts friction tight and connector mounting nuts friction tight (left side), position cover. Tighten mounting nuts.

COVER ALIGNMENT — PRELIMINARY

(1) Requirement
Cover should be centered (left to right) with respect to base, as gauged by eye.

(2) Requirement
Bottom leading edge of cover should be
Min 0.031 inch — Max 0.078 inch under flush with base.

To Adjust
With both stud mounting nuts friction tight, position cover from left to right and/or front to rear. Tighten stud mounting nuts.
2.02 Cover (continued)

COVER LATCH (RIGHT AND LEFT)

Requirement
Latch release button should be centrally located in its cover opening. Check both buttons.

To Adjust
Position the latch with its mounting nuts loosened. Tighten mounting nuts.

COVER ALIGNMENT — FINAL

(1) Requirement
Upper panel (on cover) and lower panel (on base) should align. Gauge by eye.

(2) Requirement
Clearance between upper panel and lower panel should be
Min 0.062 inch --- Max 0.094 inch
Check both sides.

To Adjust
With upper panel and lower panel mounting screws friction tight, position panels to meet requirements. Tighten panel mounting screws.
SURFACE ALIGNMENT

Requirement
Top surface of front lid (at leading edge) should be within +0.031 inch and -0.031 inch from being flush with cover housing.

To Adjust
Position front lid with bracket mounting nuts friction tight. Tighten mounting nuts.

HINGE POST — PRELIMINARY

Requirement
Front lid should be centered (left to right) in opening as gauged by eye.

To Adjust
With hinge post locknuts loose, turn hinge posts as required to center front lid. Tighten locknuts.

HINGE POST — FINAL

Requirement
With front lid held toward either left or right side, endplay between hinge post shoulder and hinge plate should be

Min some --- Max 0.010 inch

To Adjust
With lid held toward opposite side, loosen hinge post locknut, and turn hinge post to obtain required endplay. Tighten locknut.
2.04 Cover (continued)

FRONT LID -- UPPER PANEL CLEARANCE

Requirement
With front lid closed and latched, there should be minimum clearance between front surface of front lid and rear surface of upper panel.

To Adjust
With front lid hinge plate mounting screws loosened, position front lid. Tighten mounting screws.
2.05 Cover (continued)

REAR LID ALIGNMENT

(1) Requirement
With front and rear lids closed and latched, clearance between front and rear lids should be
Min some --- Max 0.047 inch

(2) Requirement
Rear lid should be centered (left to right) in opening as gauged by eye.

To Adjust
With four mounting nuts securing rear lid hinge to cover loosened, position rear lid front to rear and/or left to right. Tighten mounting nuts.

(Top View)
2.06 Cover (continued)

FRONT LID LATCHES

(1) Requirement
With front lid latched and held down against rear lid extension, clearance
between front lid latch and cover latching surface should be
Min some --- Max 0.015 inch

(2) Requirement
With front lid closed, latch should engage cover latching surface by
Min 0.047 inch --- Max 0.094 inch

To Adjust
Form latch bracket up or down, toward or away from cover, until requirements
are met. Check both right and left latches.
2.07 Base

LOWER FRONT PANEL

(1) Requirement
   Lower front panel should be centered (left to right) with respect to base.
   Gauge by eye.

(2) Requirement
   Bottom edge of lower front panel should be flush with base gasket.

(3) Requirement
   Clearance between bottom leading edge of upper front panel and top leading
   edge of lower front panel should be
     Min some --- Max 0.025 inch

To Adjust
   With lower front panel mounting screws loosened, position panel to meet
   requirements. Tighten mounting screws.
2.08 Base (continued)

FUNCTION STRIP

(1) Requirement
Clearance between pushbutton cover bracket and top forward edge of lower front panel should be
Min some --- Max 0.094 inch
under flush, as gauged by eye.

(2) Requirement
Clearance between pushbutton cover bracket and lower front panel should be minimum, as gauged by eye.

(3) Requirement
Function strip pushbuttons should have bind-free operation.

To Adjust
With function strip assembly mounting screws loosened, position function strip assembly to meet requirements. Tighten mounting screws and check pushbutton operation. Refine adjustment if necessary.
2.09 Cabinet

**TOP PANEL SLIDE TRACKS**

**To Check**
Remove top panel. Note that front mounting screw of each track fixes the forward position of the track. Rear end pivots about this screw for adjustment.

(1) Requirement
Right track should align with left track within 1/32 inch.

(2) Requirement
Edge of left track should be parallel to left edge of cabinet frame within 0.062 inch.

**To Adjust**
With rear mounting screws loosened, pivot rear end of left track to meet requirement (1). Tighten screws and position right track in same manner.

**TOP PANEL (SLIDING SECTION)**

To Check
Remove and invert top panel to facilitate alignment of slides.

(1) Requirement
Edge of right slide should be equidistant (front-to-rear) from left side within 1/32 inch.

(2) Requirement
Edge of left slide should align with adjacent edge of panel within 1/32 inch.

To Adjust
With mounting screws (10) friction tight position slides. Tighten screws.

**PIVOT MOUNTING SCREWS**
2.10 Cabinet (continued)

TOP PANEL LOCATION

To Check
Engage each slide with its ball bearing assembly on respective track. Push top panel toward rear of cabinet frame until front end of track butts against flange of panel; secure slides with screws. Move panel inward and outward slowly to check for binds.

Requirement
Top panel should be centrally located on cabinet frame from left to right and front to rear. Bottom edge of panel normally clears frame by approximately 1/8 inch. Slides should move freely in their tracks.

To Adjust
With only screws that secure right track loosened, refine requirement (2) of TOP PANEL SLIDE TRACKS (2.09) by gently closing panel as right track is shifted toward right or left.

TOP PANEL LATCH

To Check
Top sliding panel should be in its normally closed position.

Requirement
Clearance between latch slide and engaging surface should be
Min flush--Max 0.015 inch

To Adjust
With catch mounting screws loosened, position catch. Tighten screws.
TOP PANEL (REAR SECTION)

(1) Requirement (panel alignment)
   Lower edge of rear top panel (left and right side) should lie on a plane that is parallel to upper edge of front top panel and above it by approximately 0.062 inch.

(2) Requirement
   With front panel in its fully closed position, clearance between rear edge of front section and adjacent edge at rear section should be
   Min some --- Max 0.060 inch

To Adjust
   With rear top panel mounting screws loosened, position rear top panel.
   Tighten mounting screws.
2.12 Cabinet (continued)

HIGH VOLTAGE INTERLOCK — OVERRIDE SWITCH

To Check
Front door should be removed.

Requirement
Switch plunger should extend past mounting
cabinet frame member by
Min 0.035 inch — Max 0.078 inch

To Adjust
With switch mounting plate screws loosened,
position switch mounting plate. Tighten screws.

Note: Front door normally hinged at left.

2.13 Paper Unwinder

SLACK ARM ROLLER

Requirement
Slack arm roller should be free to rotate.

To Adjust
Loosen either right or left side arm clamping
screw and rotate the side arm in a direction
to free roller. Tighten clamping screw.
2.14 Paper Unwinder (continued)

SLACK ARM STOPS — PRELIMINARY

To Check
Paper spindle should be empty and slack arm should be in rest position.

Requirement
Clearance between slack arm and paper spindle supports (right and left) should be approximately 3/8 inch.

To Adjust
With lower slack arm stop mounting nut loosened, position lower slack arm stop (adjust right and left stops). Tighten mounting nut.

SLACK ARM STOPS — FINAL

To Check
Paper spindle should be empty and slack arm should be in rest position.

Requirement
With slack arm depressed, deflection from rest position should be no more than 3 inches.

To Adjust
With upper slack arm stop mounting nut loosened, position upper slack arm stop (adjust right and left stops). Tighten mounting nut.

(Please refer to diagram for visual representation.)
2.15 Paper Unwinder (continued)

LOW PAPER SENSING ARM

Requirement
With paper roll biased toward cover, low paper alarm switch should close when diameter of paper roll is 1-1/2 inches.

To Adjust
Loosen two screws which support pivot for low paper sensing arm. With continuity tester or voltmeter attached to switch contacts, position pivot support bracket toward right or left until requirement is met. Tighten screws.

LOW PAPER SENSING ARM SPRING

To Check
Paper roll should be approximately 1-1/2 inches in diameter.

Requirement
Amount of force to pull low paper sensing arm spring to installed length should be
Min 10 oz --- Max 12 oz
This should result in a force of
Min 1/2 oz --- Max 3/4 oz
against paper roll.

To Adjust
If requirement cannot be met, replace low paper sensing arm spring.
2.16 Paper Unwinder (continued)

SLACK ARM RETURN SPRING

To Check
Paper slack arm should be in normal rest position with no deflection.

Requirement
Amount of force to pull slack arm return spring to installed length should be
Min 20 oz --- Max 28 oz
This should result in a force of
Min 4 oz --- Max 6 oz
to deflect slack arm approximately 1/4 inch from rest position.

To Adjust
If requirement cannot be met, replace slack arm return springs (right and left sides).
2.17 Paper Unwinder (continued)

PAPER ALIGNMENT

To Check
Feed paper through unit without necessarily printing.

Requirement
Paper should be centered with no more than 1/8 inch difference between side frames of transport mechanism and edge of paper on each side.

To Adjust
With the two paper unwinder mounting screws and the nut on the mounting stud loosened, position paper unwinder assembly either right or left. Tighten mounting screws.
2.18 Paper Winder

Note: Do not attempt to loosen or adjust screws which secure the paper winder arms to the mounting bracket. This adjustment is made at the factory and should not be disturbed.

UPPER, INTERMEDIATE, AND LOWER DRIVE BELTS

Requirement
With a force of 8 ounces applied to center of each drive belt, deflection should be
Min 3/32 inch --- Max 7/32 inch

To Adjust
With mounting screw of upper drive belt pulley loosened, position drive pulley to meet requirement. Tighten screw. In a similar manner, position intermediate belt drive pulley and tighten its screw. Position motor and its drive pulley to align and tension lower belt. Tighten motor mounting screws.
2.19 Paper Winder (continued)

**WINDER MOTOR ACTUATING SWITCH**

To Check
Paper slack arm should be in raised position.

Requirement
Switch should open power line to motor when paper slack arm is lowered
Min 1-1/16 inches—Max 1-3/16 inches

To Adjust
With actuator cam mounting screw loosened, position actuator cam. Tighten mounting screw.

**PAPER SLACK ARM SPRINGS (RIGHT AND LEFT BRACKETS)**

To Check
Paper slack arm should be in raised position.

Requirement
Min 18 oz—Max 20 oz
to pull paper slack arm spring to its installed length (check both right and left springs).

To Adjust
If requirement is not met, replace right and left paper slack arm springs.

(Right Side Bracket with Cover Plate Removed)
3. LUBRICATION

3.01 The cover, base, cabinet, paper unwind, and paper winder should be lubricated as directed in this portion of the section.

3.02 The photographs show paragraph numbers referring to particular line drawings of mechanisms and illustrates the location of these mechanisms on the particular unit. Parts are shown in an upright position, viewed from the front, unless otherwise stated.

3.03 Spring loops, felt washers, and certain shafts should be oiled. The friction surfaces of all exposed moving parts should be lubricated; however, over lubrication should be avoided. Exercise care to prevent oil or grease from getting between magnet armature pole faces. Keep all electrical contacts free of ink, oil, or grease. Also, keep the cover gasket free of contamination.

CAUTION: REMOVE POWER FROM SET BEFORE AN ATTEMPT IS MADE TO INSPECT, LUBRICATE, OR CLEAN ANY PORTION OF THE UNITS.

3.04 Refer to Section 570-005-800TC for lubricant ordering information.

3.05 The following symbols are used to indicate the type and amount of lubricant required:

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<th>Symbol</th>
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<tr>
<td>O1</td>
<td>One drop of oil (KS7470)</td>
</tr>
<tr>
<td>O2</td>
<td>Two drops of oil (KS7470)</td>
</tr>
<tr>
<td>G</td>
<td>Thin coat of grease (KS7471)</td>
</tr>
<tr>
<td>GM</td>
<td>Tacky grease (TP145867)</td>
</tr>
<tr>
<td>AL</td>
<td>Aero Lubriplate (TP301313)</td>
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Note: Use TP194853 oil injector to lubricate ventilation fans as specified.
3.05 Front Lid Latches

- G Sliding Surface
- O1 Sliding Surface
- G Latching Surface
- O1 Loops - Each End
- Latchlever
- Latch Bolt
- Latch Spring

3.06 Front Lid Release Spring

- G Engaging Surface
- Release Spring
3.07 Front Lid Hinge Post

3.08 Rear Lid Hinges (Right and Left)

3.09 Cover Latches (Right and Left)
3.10 Cover Guide Posts

G Engaging Surface  Post

O1 Engaging Surface  Latch Plate
3.11 Top Panel Slides

(Bottom Front View)

3.12 Top Panel Slide Tracks

(Top Front View)
3.13 Sliding Panel Latch

(O2) Sliding Surfaces

(O1) Hooks - Each End

(G) Latching Surface

(O2) Sliding Surface - Each End and Center

Latchlever

Spring

Panel Latch

Panel Latch Track

(Bottom Front View)

3.14 Front Door Pivots (Hinge) — Upper and Lower

(AL) Pivot (Hinge)

(O1) Sliding Surface

(O1) Loops - Each End

Pin

Release Lever

Spring
3.15 Interlock Override Switch

(Right Side View)

3.16 Module Slides

AL Sliding Surface Module Slides
3.17 Ventilation Fans

Lubricate the fans every 10,000 hours using the TP94853 oil injector.
To lubricate:

1. Remove cap from end of oil injector.
2. Place needle at the center of the circle marked on the gold label.
3. Position the needle at an angle of approximately 45° to the surface of the label.
4. Pierce the label and the concealed self-sealing rubber cap located under the label.
5. Depress the oil injector plunger slowly to release approximately 1/8 inch of oil.

Note: Two fans are located in the cabinet base.
3.18 Slack and Sensing Arms

- O1 Bearing Surface (Each End)
- O1 Hooks - Each End
- O1 Pivot
- O1 Hooks - Each End
- O1 Pivot

Slack Arm Roller
Slack Arm Return Spring
Slack Arm
Sensing Arm Spring
Sensing Arm Bracket
Actuating Lever Spring
Actuating Lever
3.19 Right Bracket

(Right Side View)
3.20 Left Bracket

- O1 Bearing Surface
- GM Bearing
- O1 Hooks - Each End
- O1 Bearing Surface
- Paper Tensioner Arm
- Paper Reel Drive Pulley
- Spring
- Upper Belt Drive Pulley
- Intermediate Belt Drive Pulley

(Left Side View)