Deltronic Labs, Inc. presents. . .

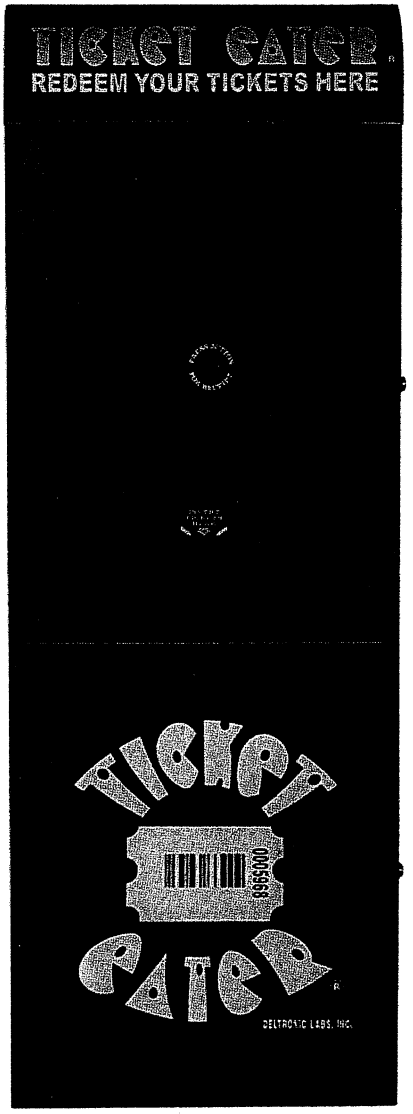
The TT-2000 Ticket Eater®

New Design

Latest Addition to the Ticket Eater® Series
For the New Mellinium!

A fully automated, high speed, stand alone Ticket Eater® that counts and destroys tickets and prints a receipt. TT-2000 fills big shoes, but has a small footprint: Only 21"L x 21"W x 59"H.

A valuable tool to make the redemption process part of the FUN! The customers feed their own tickets into the TT-2000 and enjoy the display and counting process - presenting a receipt to redeem their prizes.



120vac
60Hz 6Amp

Available
230vac
50Hz 3Amp

FEATURES

- High visibility four digit 2" display of each ticket value and total points counted- 8 to 10 tickets/sec

  Display sends messages too:

FULL bin	PAPER low
PRINT	ERROR

- User friendly ,Thermal Printer for *Fast,* Crisp print-outs. (Accepts up to 8" paper roll)
- Programmed when manufactured to accept and read ONLY your custom bar coded tickets. OPTION: Can read non bar coded tickets
- Can be programmed on location to read up to eight different bar coded ticket values
- Accepts standard redemption tickets 2"L x $1^{5}/_{32}$"W
- Quick Release Cutter Mechanism and internal electronics mounted to a convenient roll out shelf
- No cheating allowed!!! Pull on those tickets and it subtracts one!

For further details and specs on the exciting TT-2000 please call SALES at 215-997-8616

Manufactured with Pride in the U.S.A.

U.S. Patents 5211093& 5996457

c UL us CE
LISTED
5D31

Another quality product from Deltronic Labs. . . *the industry leader in ticket dispensers*
For information on our complete line of products, please call

Deltronic Labs, Inc.

120 Liberty Lane, Chalfont, PA 18914 • 215-997-8616 • *FAX #* 215-997-9506
Visit us at our web site: www.deltroniclabs.com

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REVISION 6-2003

TT-2000 OPERATING PROCEDURES

REVS. 24M, 24T, 25T & Rev. 3.1 -7T, M& K

Two switches (red and black/white) are located inside the unit. These switches are on the left side of the lower shelf near the mechanism. The black/white switch is wired to the front switch. These switches are used in the procedures below to do an audit, and to set the date, time, options, values, and ticket point values for new bar codes, and other functions

Printers:

Dot Matrix:- Star Only

Two small switches are mounted to a small PC Board next to the printer which is mounted to the door. There are also three LED's mounted on the same board. The top LED is just an 'ON' indicator. This LED is green. The bottom LED is the 'ON LINE' indicator (also green) and will normally turn on when the unit is turned on. The top switch will turn this LED alternately on then off if pressed. The other switch will cause the printer to feed paper. The middle LED (red) will only turn on when the printer has a problem (such as out of paper).

Thermal:-Citizen Only

There is one small push button switch on the side of printer. This switch advances the paper through printer. There is a toggle switch next to it. This is the power switch. **Please refer to page 7 in this manual for paper loading. Refer to PPU-231 users manual for printer care and various functions.**

Entry of Date, Time, and Bar-coded Tickets

I. Open top door of TT-2000. Pull "**Main Safety**" switch out. Display will cycle through test mode. When display returns to "Snake Mode", Push sw1 on logic PCB. Display will read 99-0. You are now in "**SETUP MODE**". The red "**Internal Power**" switch must be on.

II. Note that the display (on the front door) now reads '99 0'. Press and release the black switch to change the '0' to '1' and then to '2' to '3' and then back to '0'. Pressing the red switch will have the same result except the display will display '0' then '3' then '2' then '1' and then back to '0'. This fact will also be used to set a value. That is, press and release the black switch to increment the value whereas the red switch decrements the value. **You must press both switches to accept the value and go to the next step**. .

III A. **DATE AND TIME**

While in the setup mode, the display will read '99 0'. Press both switches at this time to enter the date and time. Use the red and black switches to set the values as follows: NOTE: the date and time of May 16, 1997, 2:24 PM is used as an example.

1. The display should read "1" plus a flashing number, which is the "century". Change to read '19'. Press both switches when done.

2. The display should read "2" plus a flashing number, which is the "year". Change to read '97'. Press both switches when done.

3. The display should read "3" plus a flashing number which is the "month". Change to read '5' for May. Press both switches when done. Value from 1-12.

4. The display should read "4" plus a flashing number, which is the "date". Change to read '16'. Press both switches when done. Value from 1-31.

5. The display should read "5" plus a flashing number, which is the "day". Change to read '2' for Monday. Press both switches when done. Value from 1-7. ie. 1=Sun

6. The display should read "6" plus a flashing number, which is the "hour". Change to read '**14**' for 2 PM. Press both switches.

7. The display should read "7" plus a flashing number, which is the "minute". Change to read '24'. Press both switches when done. Value can be set from 0-59. At this time, the seconds are set to '0' and all the information is saved. The display will go back to '99 0'.

B. **OPTIONS**

While in the setup mode, the display will read '99 0'. Increment the display to read '99 1'. Press both switches at this time to set the options as follows:

The display will now show '10 x' (x='0' or '1'). Press the red or black / white switch to set the options in the list below to either '0' or '1'.

Display x = 0 or 1	Description of Options Revisions 3.1K & 7K
'10 x'	1/0=print/don't print serial # on receipt
'11 x'	0/1=print time in 12 / 24 hour format
'12 x'	0/1=dis/enable dual rear sensors (1/2 ticket detect) Rev 3.1K- 0=error detect 1sec 1= 10sec.
'13 x'	0/1=dis/enable printing barcode on receipt
'14 x'	0/1=dis/enable look for holes in tickets
'15 x'	0/1=dis/enable sending checksum digit in (1st machine code digit dropped if enabled)
'16 x'	0/1=barcode/holes-only operation- Note: Jumpers on BCR-1000 must be changed to switch from reading holes or reading barcodes on tickets
' 17 x'	0/1=dis/enable print text below barcode

NOTE: Options 16 & 17 used in Revs 25T & Version 2 Rev.1 K & Up.

C. Machine number, minimum tickets required, full bucket setting, error adjust, paper length setting & audits.

While in the setup mode, the display will read '99 0'. Increment the display to read '99 2'. Press both switches at this time to adjust the values mentioned as follows:

C. (CONTINUED):

The display will now show '20 n' (n=0-9). The n is the first digit of the machine number. Set this digit to the desired value. For example, if you want the machine number to be '123' set this value to 1. Press the two switches at the same time when done. (Note: This is the FIRST digit in the barcode printed on the receipt if the check sum option is disabled. If this option is enabled then this digit will not be included in the barcode. **NOTE**: **This digit is dropped on receipt if a 3 digit machine code is desired**.

The display will now show '21 n' (n=0-9). The n is the second digit of the machine code. In the example above set the value to 2. Press both switches when done.

The display will now show '22 n' (n=0-9). The n is the third digit of the machine code. Press both switches when done. **Three digit Max in V2R3.1K. V2R7K has optional fourth digit (see pg. 5)**

The display will now show '23nn' (nn=1-99). The nn is the minimum number of points required so that a receipt can be printed. Example, if this is set to 5 then at least 5 points (5 tickets of 1 point value) have to show on the display before the customer can get a receipt. Press both switches. (V2R3.1K) **See Page 5 for V2R7K Settings**

The display will now show '24nn' (nn=1-99)/ The nn is the full bucket value in thousands. Try setting this to 25 for 25,000 tickets. After 25,000 tickets the display will read 'FULL'. The unit will not take in any more tickets until reset. (V2R3.1K) **See 5 for V2R7K setting.**

The display will now show '25nn' (nn=1 to 99). This option is not used at this time.

The display will now show '26nn' (nn=1 to 99). This sets the **value of ticket for holes only operation**. Press both switches when done

The display will now show '27nn' (nn=0 to 17). This sets the percentage of good tickets versus bad tickets that the unit will accept from a strip of tickets. The chart below shows an example of percentages available: **NOTE**: Effective for bar-coded tickets ONLY.

Value	% Good Tickets	% Bad Tickets	Value	% Good Tickets	% Bad Tickets
0	100	0	17	10	90

Factory setting is value of 10. 0= most security 17= less security

The display will now show '28nn' (nn=0 to FF in hex). Use the hex code chart below to determine the value you need. This value sets the length of a roll of paper in 10 foot units. The roll of paper that is sent out for the unit using thermal paper is 1105 feet. Therefore use 110 (1105/10). This converts to 6E hex in the table. The roll of paper that is sent out for the unit using regular paper is 485 feet. Therefore use 48 (485/10). This converts to 30 hex in the table. When the unit determines that the paper is empty, it will display "PAPEr". **See page 6 or 6A.**

HEX CODE CONVERSION TABLE EXAMPLES

40	28	91	6B	142	8E	193	C1	244	F4
41	29	92	6C	143	8F	194	C2	245	F5
42	2A	93	6D	144	90	195	C3	246	F6
43	2B	94	*6E	145	91	196	C4	247	F7

NOTE: Because of the changes made in REV.7K there are certain banks that are different and new ones added. These are as follows:
Bank# 99-1, Option # 12
V2R3.1K is Error detect
V2R7K is enable/disable rear sensors

Bank# 99-2
V2R3.1K # 23 = Minimum number of tickets inserted to enable printing of receipt.
V2R7K # 23 = 4th digit in mach. code number. **NOTE:** The first digit on receipt is dropped when a 3 digit machine code is desired. Example: Use "**21**-"n"as first number of a 3 digit code.

V2R3.1K # 24 = Ticket Bin "FULL setting.
V2R7K # 24 = Minimum number of ticket to enable printing of receipt.

V2R3.1K # 28= Setting of paper roll length.
V2R7K # 28= Ticket Bin "FULL" setting.

V2R7K ONLY # 29 = Setting of paper roll length.
30 = Setting for use of four or five digit display (change # accordingly)
31 = Setting for three or four digit machine code number.

D. **ENTERING NEW TICKET BARCODES**

While in the setup mode, the display will read '99 0'. Increment the display to read **'99 3'**. Press both switches at this time to learn new bar codes as follows:

(V2R3.1K & V2R7K)

The display will now read **'31nn'** (nn=0-99). The nn is the point value of the ticket. Pressing and releasing both switches will cause the display to go to '32nn' etc. up to '38nn' for up to 8 ticket slots. Go to the first 'available' position ("31" or the first ticket learned). Set the point value for the new ticket. Then insert at least 7 tickets into the ticket slot. The motor will turn on to take in the tickets and 'LEARN' the new barcode, and then stop. Remove any extra tickets. The display will now show the data read. Write down this information in case you need to contact the factory. **Press and release both switches to accept.**

E. **RE-SET COUNTERS**:

While in the setup mode, the display will read '99 0'. Increment the display to read **'99 4'. Press both switches at this time and do the following**: The unit will go to a non flashing '99 4' display. Press the RED switch to reset the counters. The display will go back to a flashing 99 4'. (V2R3.1K)

F. **RE-SET "PAPr" mode**: (Indicated on Display)

While in the setup mode, the display will read '99 0'. Increment the display to read **'99 5' press both switches to re-set the value for a new roll.**(V2R3.1K)

G. **To Print AUDIT**:

While in the setup mode, the display will read '99 0'. Increment the display to read **'99 6'** and **press both switches to print** the total number of tickets counted since last re-set. The time, date and machine code number will also print. The unit will go back to '99 0'. (V2R3.1K)

H. **To Print info of LAST TRANSACTION**: (Time, Date, Receipt value & Machine Code)

While in setup mode, the display will read 99-0. Increment the display to read **99-7** and **press both switches to print** the information. (V2R3.1K)

I. **To Escape Setup mode**: Increment display to read **99-8** and **press both switches**. Display will go back to "Snake Mode" (V2R3.1K)

J. **RE-SET "FULL" Bin**: When display reads **"FULL",** the TT-2000 will not accept any more tickets and must be re-set. A sw. directly under left side of switch bracket on shelf will reset "Full" **CAUTION: PRESS RED SWITCH ONLY IF TICKET BIN IS EMPTIED!!!!!!! REV. 3.1K AND UNDER.**

See page 6-A for details on revision V2R7K,T &M.

ATTENTION:
Functions and features of V2R7K Software

The V2R7K software uses slightly different commands and functions then prior revisions. These differences are listed below. (See yellow label on prom for Rev. number)
The "**Functions"** mode is similar to the "setup" mode described earlier in this manual.
A. To Enter Functions Mode:
1. Open top door of Ticket Eater.
2. Reach through hole in logic PCB cover, press SW1 and **hold.**
3. Pull "Main Safety" switch out and release SW1. Display will read "**FUnC**" -X (**X= 0-5**)

To choose function to be performed, use Black or Red push button to change function #. When desired function number is chosen, **press SW1 to execute the command**.

"FUnC" 0= Return to Attract Mode. "Snake"
"FUnC" 1= Print Duplicate Receipt.
"FUnC" 2= Print Audit of total tickets inserted. Total is first number printed.
"FUnC" 3= Manual Printer Paper Reset. Use only if paper is replaced before "**PAPEr**" message displayed.
"FUnC" 4= Manual "FULL" Ticket bin Reset. Use only if bin is emptied before "**Full**" message is displayed.
"FUnC" 5= Print Options and Settings List.

B. The **Red push button** in this version software has multi-functions. Pressing the button when no message is displayed will have no function. The button will reset the following messages **ONLY** when displayed.

1. When display reads "**FULL**" press Red button after ticket bin is emptied. **Note**: The ticket bin should ALWAYS be emptied after display reads "FULL" and is reset.

2. When display reads "**PAPEr**" press Red button after a new roll of paper is inserted. (switch is marked with label for functions)

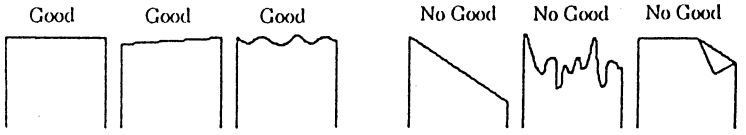
Follow steps on pages 1 through 6 for option settings and "**Setup Mode**".

NOTE: There are variations of option banks for different revisions of software. These differences are noted in the appropriate areas listed in this manual.

4.3 Inserting the Paper

⚠ CAUTION:

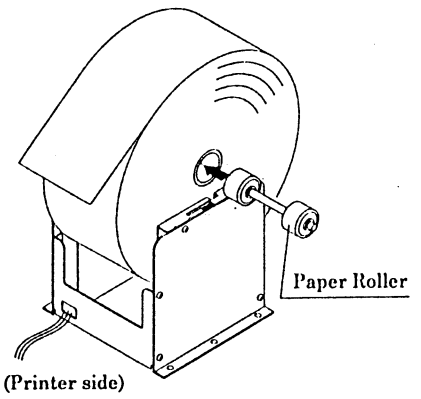
1) Be sure to use the specified paper roll.
2) Use of non-specified paper may not guarantee the print quality, printing head life, presenter operation, and so on.
3) Do not insert a ragged or dog-eared end of the paper roll, because it could result in a paper jam or insertion error.

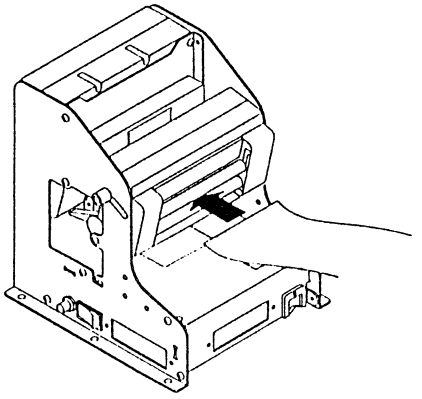


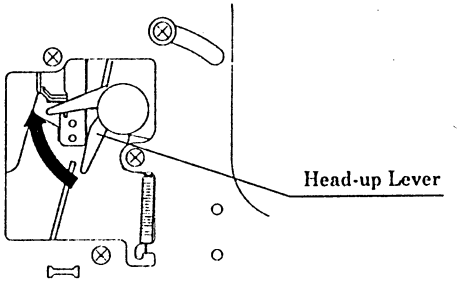
1. Cut the front end of the paper roll almost at a right angle.
2. Insert the paper roller of the paper holding unit into the core of the paper roll as shown in the figure on the next page.
3. Make sure the paper winding direction and put the paper roll onto the PHU.
4. Make sure that the power is turned on.
5. If there is still some paper remaining after a paper-out indication, eliminate the paper roll according to "4.4 How to Remove the Remaining Paper Roll."
6. Raise the head-up lever of the printer/presenter unit. (See the next page.)
7. Insert the front end of the paper roll straight into a paper insertion slot as shown in the figure on the next page, until the paper stops.
8. Put back the head-up lever. The paper is automatically pulled in by the platen roller to feed a constant amount of paper. (When auto-loading is enabled.) Remove the cut paper to enable printing.

⚠ CAUTION:

1) If the paper roll is still slack, rewind the paper to remove the slack.
2) If the paper roll is tilted, raise the head-up lever to correct the paper roll position, or pull out the paper roll and set it again.
3) Do not hold or press the paper roll while printing, because it could cause a paper jam.
4) After the paper is set, the printer is made ready to start printing. Note that if data is remaining in the buffer, the printer will start printing after the paper is set.

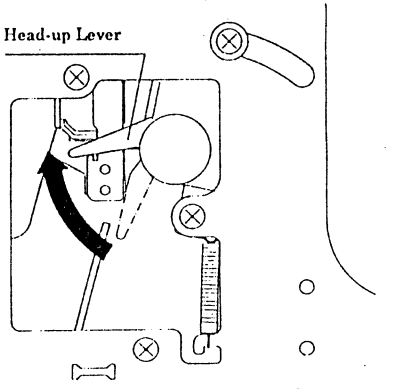






4.4 How to Remove Remaining Paper Roll

1. Raise the head-up lever of the printer/presenter unit.
2. Gently pull out the paper from the printer/presenter unit. If the paper roll is still remaining, cut it just before the paper insertion slot before pulling it out.



⚠ CAUTION:

1) Never take out paper with the head-up lever lowered, because it could damage the printing head.
2) The printer mechanism may be very hot just after printing, so be duly careful.

IMPORTANT PAPER WIDTH CANNOT EXCEED 3.125 in. THERMAL PAPER ONLY
NOTE IF USING PAPER WITH TICKET EATER LOGO, PAPER IS LOADED OPPOSITE OF ABOVE (FROM BOTTOM)

CAUTION

Upon receiving any new program chips or logic PCB's with new chips containing the following revisions:

A. 4T9T

B. 4T9M

C. 24T

D. 24M

NOTE: revisions are marked on the chips (Yellow Sticker)

E. 25T

F. Version 2 Rev. 1 Through 7 T, M &K

The paper low indicator and "FULL" bin are pre-set. After inserting new program you MUST:

A. Replace paper with new roll

B. Empty ticket bin

For 7" to 8" paper roll, the low indicator is set to 1150 ft. For a 4 1/2" roll, it is set 485 ft. These lengths are approximate and the settings can be changed in the field. Refer to operating instructions or call Deltronic Labs at (215) 997-8616.

Maintenance Check List
TT-1000 & TT-2000

1. When the guide assembly is released or entire assembly is removed for servicing or cleaning, the proper method to replace is as follows:

IMPORTANT: The **MOTOR** assembly has extra "O" rings installed on both Lower drive roller and motor shafts. Before replacing **GUIDE** assembly, be sure the rings are not "riding" on the sides of the rollers. They should be far left or right of Roller ends, towards side plates.

A. **Align** both idler roller **shafts** with slots in the side plates. At the same time the (4) pins on side of mech are aligned with corresponding slots.

B. First, place rear Idler roller shaft into it's slots (closest to cutter)
Second, let front idler roller shaft drop into it's slot
Third, pull assembly slightly towards you to allow pins to drop in their slots.

C. Push entire assembly forward until it stops (Toward Cutter). When assembly is forward, push **DOWN** on spring spacer block (has Phillips head screws). to load springs. Rear springs should lock in slots with springs. **See pgs. 15 & 16 for details.**

D. Close chute cover. Replace cutter (make sure cutter is seated all the way down to mesh gears.

See Accompanying drawings for details of motor , guide assemblies & parts.

2. Clean optos on barcode reader PCB.

   A. Carefully remove cable from top of PCB.
   B. Remove (2) thumb screws.
   C. Lift PCB straight up, and turn over. Using a soft cloth or alcohol swab, carefully wipe optos.
   D. Replace PCB, thumb screws and cable.

3. Clean rear fan filter (located behind cabinet)when applicable.

   A. Remove filter frame under fan by pulling down on sides of frame. There are (4) clips. Shake filter or bang to remove dust. When all dust is removed, replace filter to frame and snap back on to fan.

4. Check cutter blade for a tight fit on shaft (tighten on flat of shaft).

5. Check blade for build-up of dirt or adhesive from paper.

   A. Clean with alcohol swab or solvent.

6. Check large gear for a tight fit on motor shaft. Note: There are (2) set screws on large gear. #1 holds RPM regulator to hub (this screw does not tighten to shaft). #2 holds gear w/RPM reg. to motor shaft (this screw will be aligned with screw in pulley gear). There should be **NO** play in gear on shaft.

7. Be sure chute cover is pushed down all the way (this activates a "kill switch" under shelf. No power will get to motor if switch is open. Check for bent chute below.

See Accompanying drawings for details of motor , guide assemblies & parts.

8. Keep entire shelf area clean of dust. Optos may be affected the most from dust build-up. Note: While cleaning unit, **TURN POWER OFF.** Do not use a metal end vacuum to clean any **PCB's**. A can of compressed air will do the job (or compressor).

9. Do not block exhaust fan on rear and right side of unit. If placing near a wall or any other object, allow at least 6 in. from it.

10. Empty trash bin when display reads **"FULL"** press either re-set switch. If bin is emptied erratically the full count will be disrupted. If trash disposal is scheduled otherwise, i.e.. Shift changes etc. Counter can be re-set at any time. *Rev.24 or Version2 Rev1-2. NOTE: Version2Rev3, bin will re-set anytime either re-set switch is pressed. No audit will print.

11. "Paper low" indication is set to specific paper roll lengths. When display reads **"PAPr"** replace with new roll and in program mode set display to read 99-5 press both switches to re-set, close door & power up.

12. Printer problems are indicated by display reading **"PErr"**.

A. Paper jam in printer (Not exit plate).
B. Printer goes off line.
C. Loss of power.
D. Data not being received.
E. Incorrect loading of paper- out of paper

Note: When printer experiences power loss or goes off line, unit must be powered down & up.

13. **Constant "0"** or no start indicates tickets in guide or in entrance block.

A. Remove ticket(s) from entrance block. Display will show ticket count, re-insert tickets.
B. Turn power off to motor assembly. TURN LARGE GEAR IN REVERSE. Tickets will appear at entrance.
C. If necessary, remove Barcode PCB & Guide assembly. (see important replacement instructions for guide assy. PG 15). Remove tickets, replace PCB & Assy.

There are Diagnostic LED's on the TT-2000 Tray

Number varies depending on model and revisions

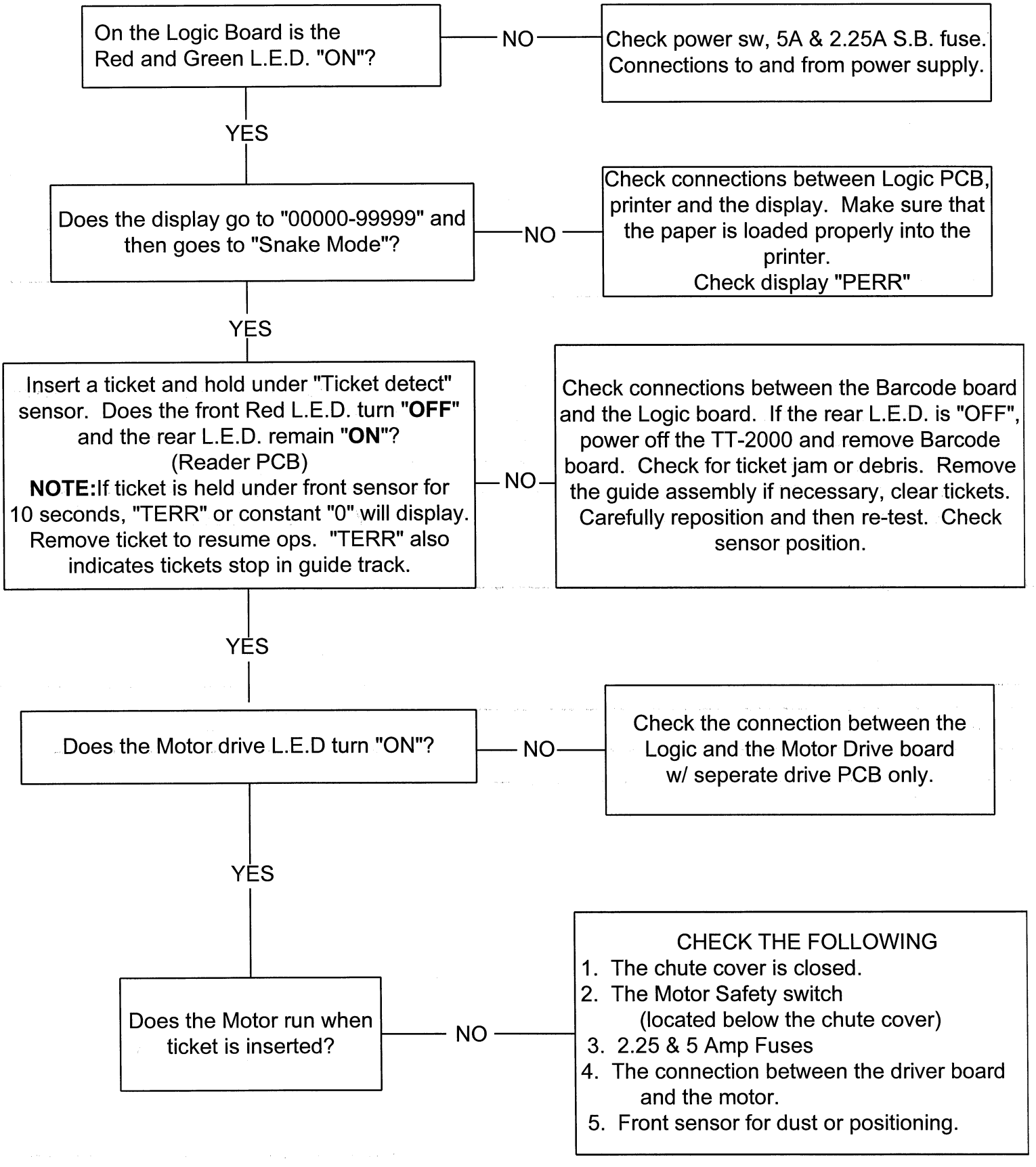
Logic Board Rev5	***Indicates***	***Status***
Red L.E.D.	+5 V	-Both normally **ON**
Green L.E.D.	+12 V	*If **OFF**, check power switch, 2.25AMP SB Fuse & connections

Barcode Reader Board (HO-1000 PCB) Version 2 Rev.1& UP	***Indicates***	***Status***
Front Red L.E.D.	Ticket Detect	-Normally **ON** -Turns **OFF** when tickets are inserted.
Rear Red L.E.D.(s)	Ticket jam if L.E.D. is **OFF** while mechanism is idle.	-Normally **ON** -Turns **OFF** when tickets are being cut.

Motor Drive Board Model TT-2000 Only	***Indicates***	***Status***
1 L.E.D.	Motor drive signal from the logic board	-Normally **OFF** -Turns **ON** when tickets are inserted-motor runs.

Power Supply PCB - 9000 PS Model TT-1000 Only	***Indicates***	***Status***
1 L.E.D.	24V	-All normally **ON** continuously.
2 L.E.D.	12V	
3 L.E.D.	5V	

TROUBLE SHOOTING FLOWCHART
OPEN DOOR AND POWER ON BY PULLING OUT THE WHITE INTERLOCK SWITCH
Red toggle switch supplies power to the Printer, Motor Assembly & Logic PCB



Does the motor run before inserting tickets (At power-up)?

YES

Check: Front sensor positioning & leads & drive transistor. Power Supply for 5V to Barcode PCB. Blocked Entrance block.

No

Insert a strip of 10-20 tickets. Does it cut OK?

NO

Power off the TT-2000 and remove the Cutter & Guide assemblies. Clean and then reposition. Re-test.

Remove cutter, check:

A. Build-up on blade edge
B. Blade is tight on flat of shaft
C. Gear is tight on shaft
D. Paper in cutter housing
E. Stationary blade adjustment
F. Proper seating of cutter assy.

Remove Guide Assembly, check:

A. Roller springs must have proper tension & mounting screws tight.
B. Top guide "finger" should be straight in line with guide track.
C. Clear any paper in guide track or entrance block.

YES

Did it count OK?

NO

No count at all, try "Relearning" Barcoded ticket. Check options for ticket values & ticket style.

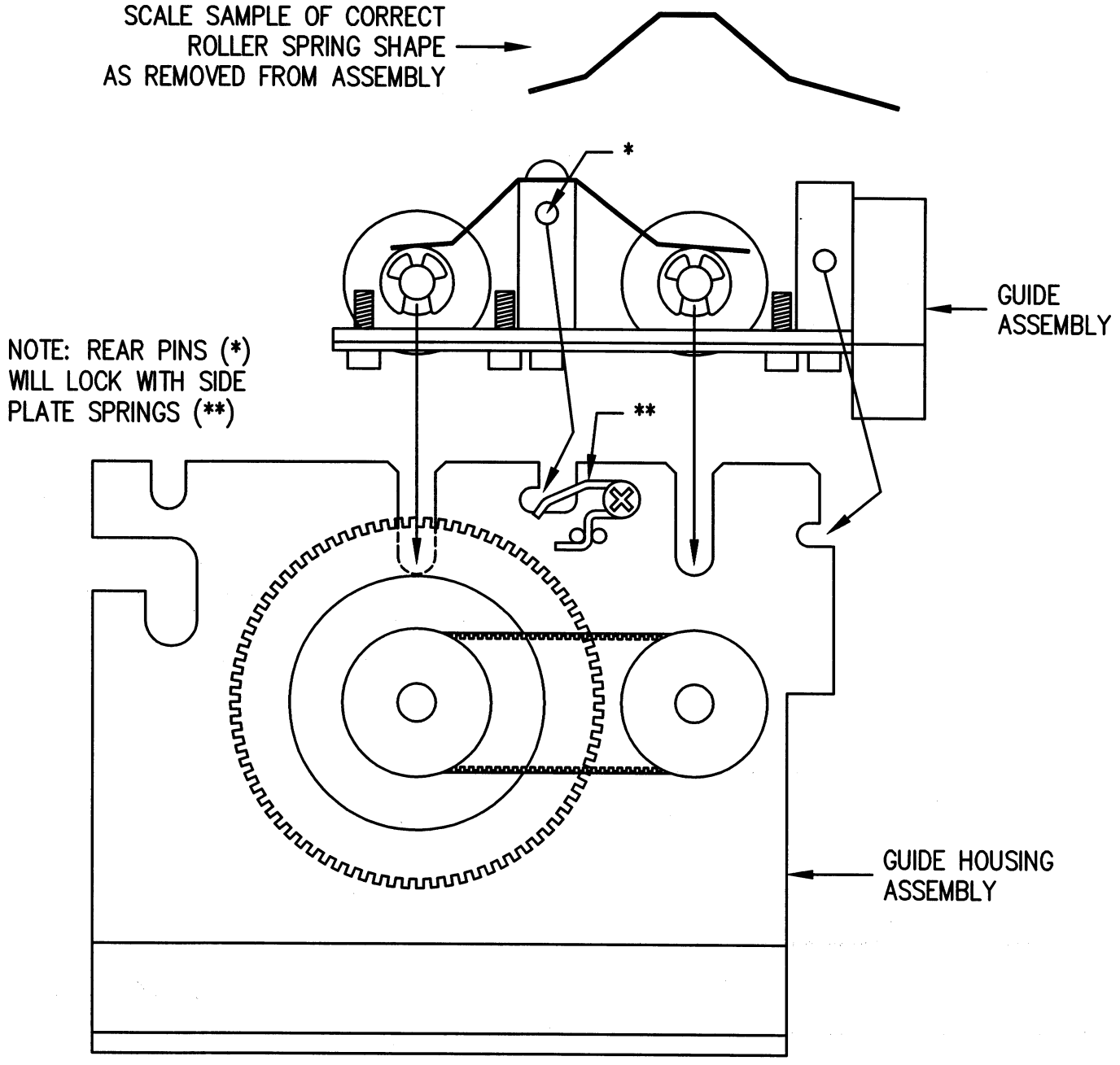
Miscount? Clean Barcode sensor, blow out any excess dust. Reposition guide assembly. Check roller springs for proper shape & tension (see drawings). Re-test. See section above for cutter & guide assemblies

YES

Print receipt. Print OK?

NO

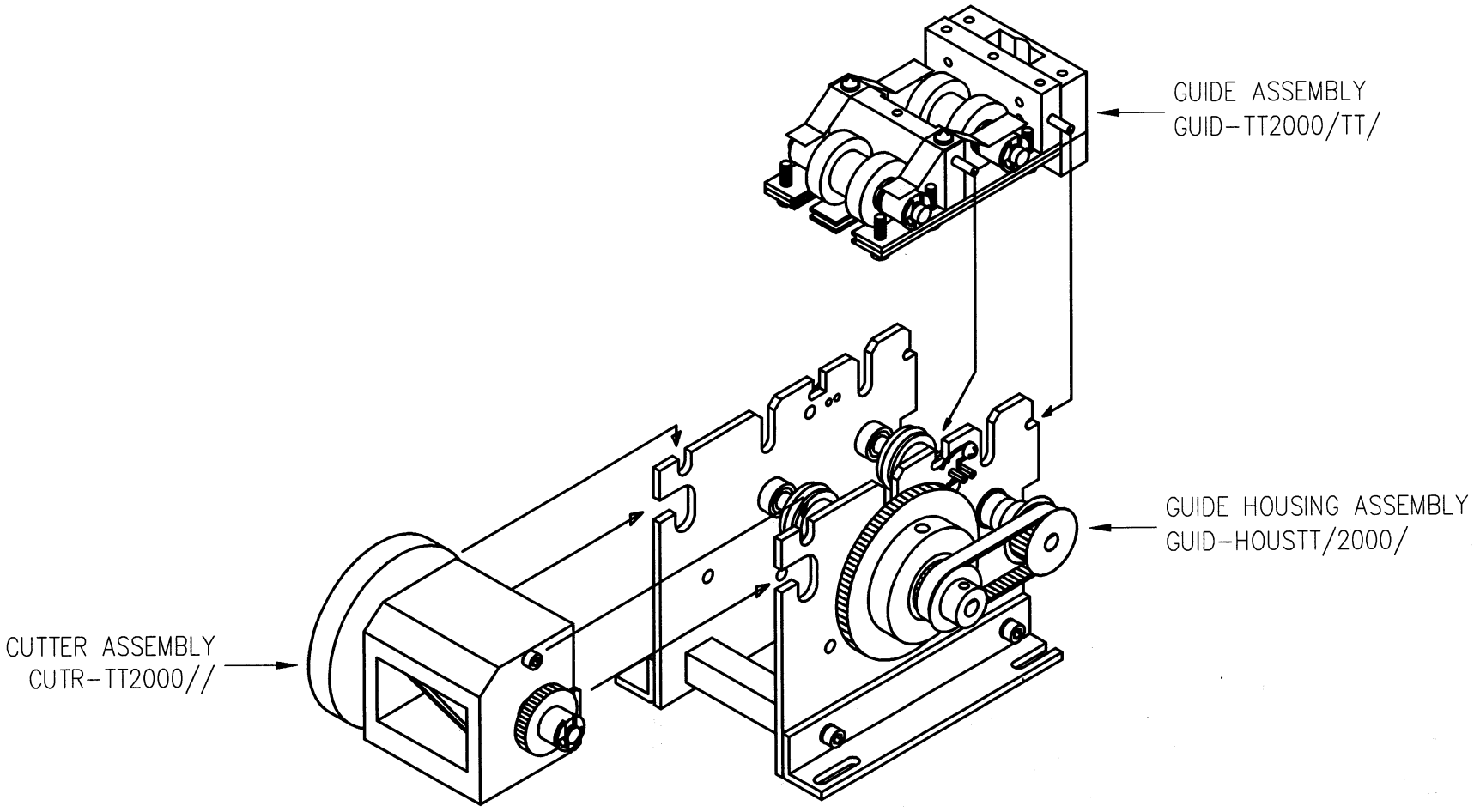
Make sure that the paper is loaded properly. NOTE: Thermal paper is only printed on one side. (Check paper loading in manual. pg 7)



CAUTION!

WHEN <u>INSERTING GUIDE ASSEMBLY</u> INTO GUIDE HOUSING ASSEMBLY, YOU MUST ALIGN THE TOP ROLLER SHAFTS IN THE APPROPRIATE SLOTS <u>BEFORE</u> PUSHING THE GUIDE ASSEMBLY DOWN AND FORWARD.

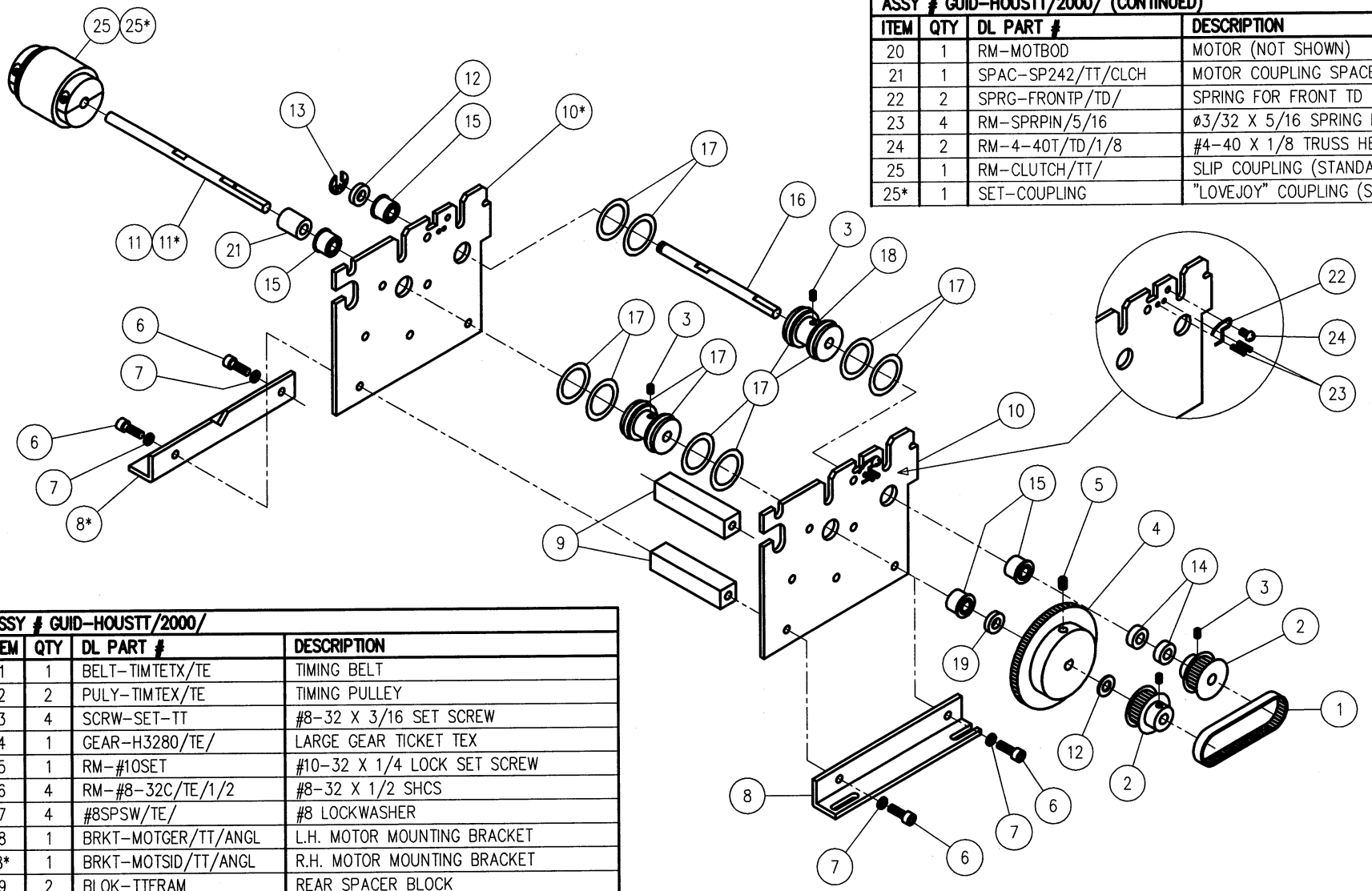
IMPROPER PROCEDURE MAY CAUSE DAMAGE TO THE ROLLER SPRINGS. REFERENCE THE MAINTENANCE TIPS AND TROUBLESHOOTING GUIDE.



NOTES:
1. REFER TO PAGE 11 FOR DETAILS ON GUIDE ASSEMBLY INSERTION.
2. BE SURE THE CUTTER ASSEMBLY IS PUSHED ALL THE WAY DOWN AND GEARS ARE MESHED PROPERLY.

REV	DATE	DESCRIPTION
B	10/17/02	REVISED & REDRAWN

DRAWN rgd	DATE 2/2/00	Deltronic Labs, Inc. 120 Liberty Lane, Chalfont, PA
CHECK	DATE	
APPR	DATE	TICKET EATER GUIDE ASSEMBLY INSERTION EXPLODED VIEW
COMPUTER GRAPHICS MANUAL CHANGES RESTRICTED		GUID-TT2000/TT/ PG.16 B



ASSY # GUID-HOUSTT/2000/ (CONTINUED)			
ITEM	QTY	DL PART #	DESCRIPTION
20	1	RM-MOTBOD	MOTOR (NOT SHOWN)
21	1	SPAC-SP242/TT/CLCH	MOTOR COUPLING SPACER
22	2	SPRG-FRONTP/TD/	SPRING FOR FRONT TD PANEL
23	4	RM-SPRPIN/5/16	ø3/32 X 5/16 SPRING PIN
24	2	RM-4-40T/TD/1/8	#4-40 X 1/8 TRUSS HEAD SCREW
25	1	RM-CLUTCH/TT/	SLIP COUPLING (STANDARD)
25*	1	SET-COUPLING	"LOVEJOY" COUPLING (SPECIAL ORDER)

ASSY # GUID-HOUSTT/2000/			
ITEM	QTY	DL PART #	DESCRIPTION
1	1	BELT-TIMTETX/TE	TIMING BELT
2	2	PULY-TIMTEX/TE	TIMING PULLEY
3	4	SCRW-SET-TT	#8-32 X 3/16 SET SCREW
4	1	GEAR-H3280/TE/	LARGE GEAR TICKET TEX
5	1	RM-#10SET	#10-32 X 1/4 LOCK SET SCREW
6	4	RM-#8-32C/TE/1/2	#8-32 X 1/2 SHCS
7	4	#8SPSW/TE/	#8 LOCKWASHER
8	1	BRKT-MOTGER/TT/ANGL	L.H. MOTOR MOUNTING BRACKET
8*	1	BRKT-MOTSID/TT/ANGL	R.H. MOTOR MOUNTING BRACKET
9	2	BLOK-TTFRAM	REAR SPACER BLOCK
10	1	RM-SDPTTL	SIDE PLATE LEFT SIDE
10*	1	RM-SDPTTR	SIDE PLATE RIGHT SIDE
11	1	SHFT-CLUTCH/	MOTOR DRIVESHAFT (SLIP COUPLING)
11*	1	RMSHFTDR/TT/	MOTOR DRIVESHAFT (LOVEJOY COUPLING)
12	2	SPAC-032/TT/WSHR	SPACER WASHER
13	1	RING-E25RET/TT/	RETAINING RING
14	2	PULY-SP212/TE/NYLN	NYLON SPACER
15	4	PSB-250	BRONZE PRESS-ALIGN BEARING
16	1	SHFT-TTDRV/TE/	TIC TEX DRIVE ROLLER SHAFT
17	12	RING-TICTEX/TE/	URETHANE O-RING
18	2	ROLR-DRIVE/TE/	T/E DRIVE ROLLER W/O PARTS
19	1	SPAC-093/TT/WSHR	SPACER WASHER

REV	DATE	DESCRIPTION
B	10/17/02	REVISED & REDRAWN

DRAWN rad	DATE 2/2/00
CHECK	DATE
APPR	DATE

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Deltronic Labs, Inc.
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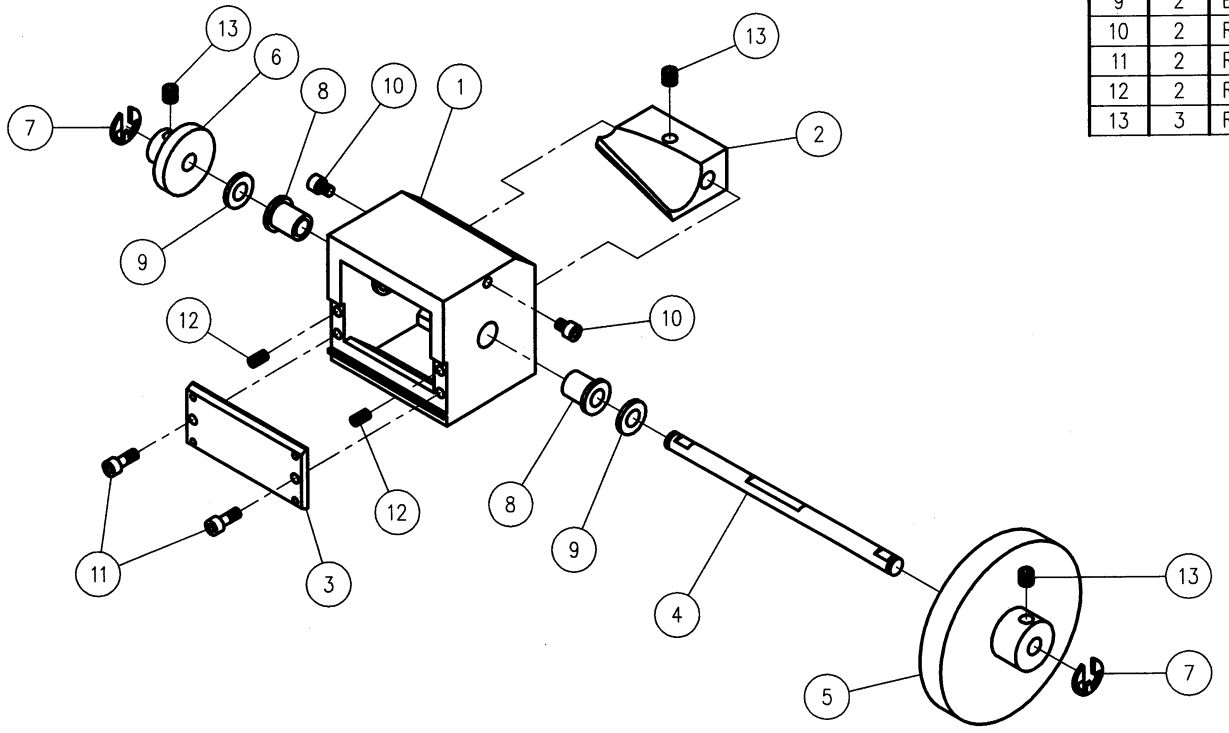
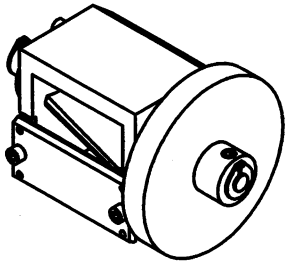
TICKET EATER GUIDE HOUSING ASSEMBLY
EXPLODED VIEW

GUID-HOUSTT/2000/ | PG.17 | B

ASSY # CUTR-TT2000//			
ITEM	QTY	DL PART #	DESCRIPTION
1	1	RM-HOUSING/	HOUSING
2	1	RM-CUTBLD/TE	ROTATING CUTTER
3	1	RM-BLDSTN//	STATIONARY BLADE
4	1	SHFT-TT2CUT//	SHAFT
5	1	CUTR-WHEEL//	FLYWHEEL
6	1	GEAR-H3232/TE/	GEAR
7	2	RING-E25RET/TT/	RETAINING RING
8	2	BRNG-FF312	FLANGED BUSHING
9	2	BRNG-TT504	THRUST WASHER
10	2	RM-#6-32C//3/16	#6-32 X 3/16 SHCS
11	2	RM-#6-32C/E/3/8	#6-32 X 3/8 SHCS
12	2	RM-#6SET//1/4	#6-32 X 1/4 SET SCREW
13	3	RM-#10SET//	#10-32 X 3/16 SET SCREW





REV	DATE	DESCRIPTION

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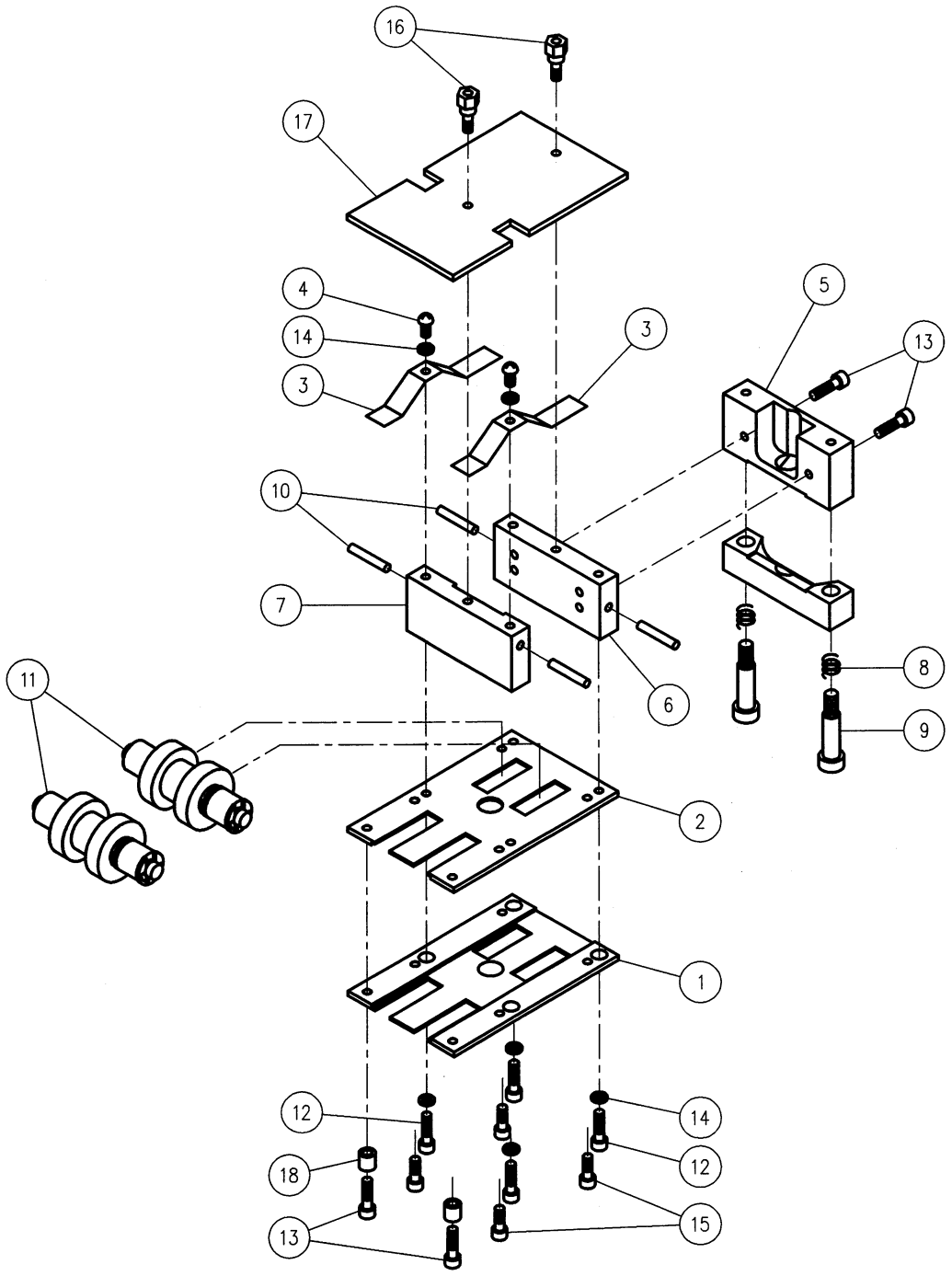
CHECK	DATE
APPR	DATE
COMPUTER GRAPHICS MANUAL CHANGES RESTRICTED	

Deltronic Labs, Inc.
120 Liberty Lane, Chalfont, PA

TICKET EATER CUTTER ASSEMBLY
EXPLODED VIEW



ASSY # GUID-TT2000/TT/			
ITEM	QTY	DL PART #	DESCRIPTION
1	1	GUID-TTBOT//	TICKET GUIDE (BOTTOM)
2	1	GUID-TTTOP//	TICKET GUIDE (TOP)
3	2	SPRG-ROLLER/TE/TT	ROLLER SPRING REV 4
4	2	RM-#6-32/TE/3/16	#6-32 X 3/16
5	1	RM-TICTEX/TE/ENTR	TT1000 ENTRANCE BLOCK
6	1	BLOK-TT/FRONT	CENTER SPACE BLOCK
7	1	BLOK-TTCEML	CENTER SPACER BLOCK W/ MILL
8	2	RM-SPRGEN	ENTRANCE BLOCK PIANO SPRING
9	2	RM-#10-24 X 3/4	ENTRANCE BLOCK SHOULDER SCREW
10	4	RM-SPRPIN/ 3/4	SPRING PIN 5/32 X 3/4 LG
11	2	ROLR-ASSM/TE/IDLR	IDLER ROLLER ASS'Y
12	4	RM-#6-32S/TT/3/8	#6-32 TAMPERPROOF SCREW
13	4	RM-#6-32C/TE/1/2	#6-32 X 1/2 SHCS
14	6	RM-#6LOCW/AD/	#6 LOCKWASHER
15	4	RM-#6-32/TE/3/8	#6-32 X 3/8 SHCS
16	2	SCRW-TT1000/TT/BARC	MALE/FEM HEX THRD STANDOFF
17	1	BAR CODE READ PCB	CHECK REV
18	2	SPAC-STOPPR/TT/GUIDE	STOPPER FOR GUIDE ASS'Y

NOTE: ITEMS 16 (THUMB SCREWS) AND 17 (PRINTED CIRCUIT BOARD) ARE NOT INCLUDED IN ASSEMBLY.

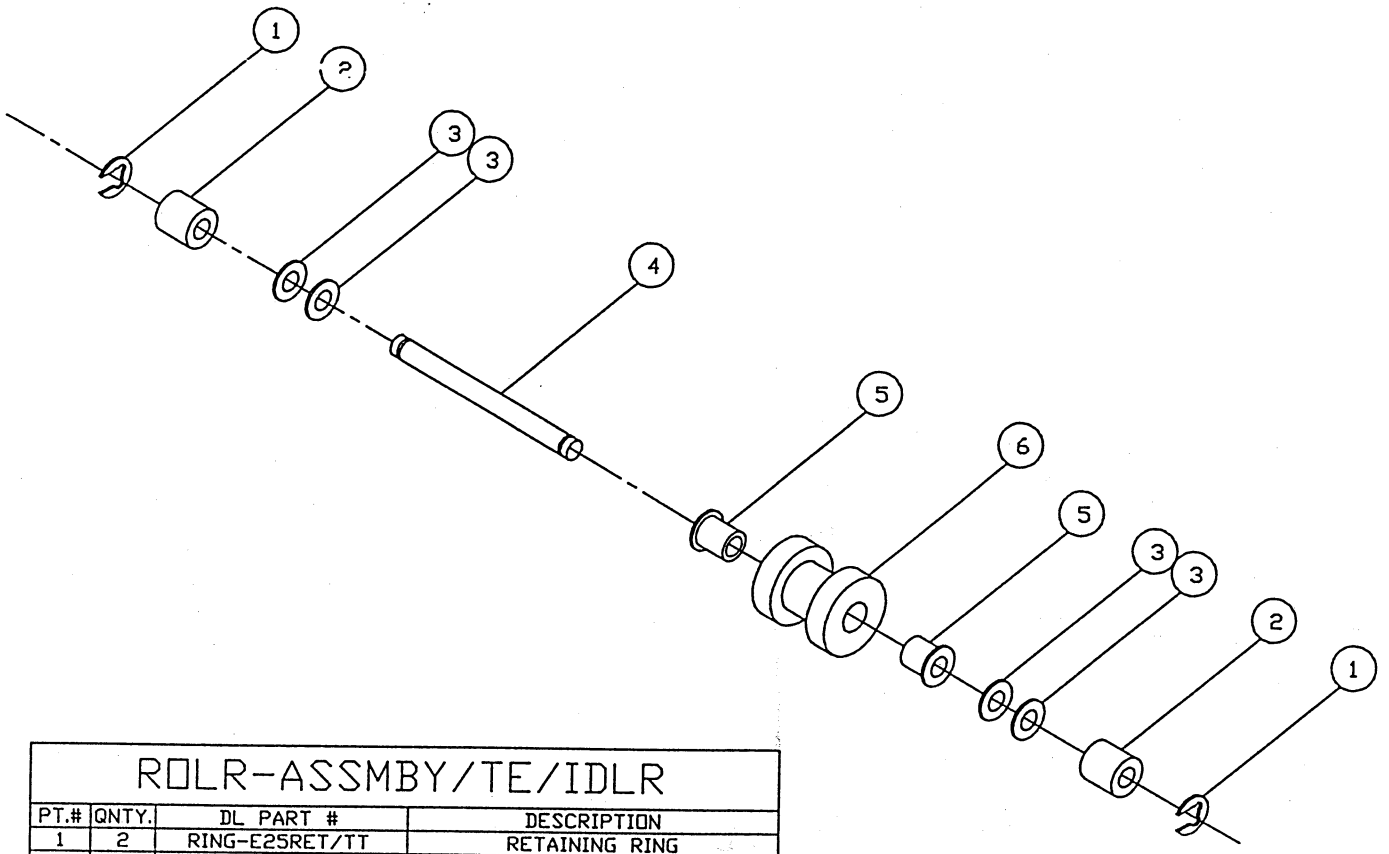
REV	DATE	DESCRIPTION
B	10/17/02	REVISED & REDRAWN

DRAWN rad DATE 2/2/00
CHECK DATE
APPR DATE
COMPUTER GRAPHICS MANUAL CHANGES RESTRICTED

Deltronic Labs, Inc.
120 Liberty Lane, Chalfont, PA

TICKET EATER GUIDE ASSEMBLY
EXPLODED VIEW

GUID-TT2000/TT/ | PG.19 | B



ROLR-ASSMBY/TE/IDLR

PT.#	QNTY.	DL PART #	DESCRIPTION
1	2	RING-E25RET/TT	RETAINING RING
2	2	SPAC-232 IDLR	SPACER 232 IDLER ROLLER
3	4	SPAC-032/TT/WSHR	SPACER WASHER
4	1	SHFT-IDLRLR/TE/	TE IDLER ROLLER SHAFT
5	2	BRING-F312	FLANGED BRONZE BEARING
6	1	RM-RLRIDL/TE/	IDLER ROLLER

PG. (20)	ROLLER ASSM. EXPLODED VIEW
DRAWN BY	DANIEL P CARLIN
DATE:	2/2/00
REVISIONS:	

CAUTION:

The TT-2000 Ticket Eater program (Rev 25 or Version 2 Rev 1 K & up and Barcode PCB Rev. 8 or Version 2 Rev 1 & up) has the option to read bar-codes or non bar coded tickets. The unit is shipped as ordered per the customer's requirements as follows:

1. Non bar-code mode: to read tickets that have no bar code.

2. Bar code mode: to read tickets with barcodes.

To change the mode:

1. The options need to be set properly (see option 16 on page 3 section B in the user's manual).

2. The jumpers on the bar code reader board need to be configured properly (see the accompanying diagrams of Bar code Reader PCB).

The unit will NOT count properly if these steps are not set correctly.

If you have any difficulty selecting these modes or options, please contact Deltronic Labs at (215) 997-8616.

NOTE: The Rev.25 mentioned above refers to the program revision as annotated on the yellow label on the main chip on the logic board. The Barcode board is Rev.8 or Version 2 Rev 1 & up and the logic board is Rev.5.

Stationary Blade Adjustment

The TICKET EATER blade is adjusted at the factory. Blade wear will occur over time. Adjusting the blade so that it is closer to the cutter will extend the life of the blade. Follow these simple steps:

Step 1. Remove the cutter assembly from the mechanism. Make sure that power is OFF and that the blade is not rotating when you remove the assembly.

Step 2. Set the cutter assembly on a bench in such a way that you can access the blade screws and turn the flywheel. Use the edge of your bench to allow the housing to lie flat.

CAUTION: Even though the blade may be dull, it is still sharp enough to cut. Keep your fingers away from the cutter and blade.

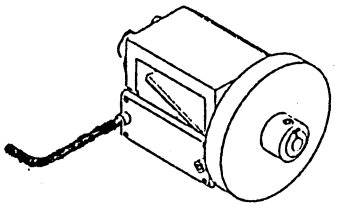


FIGURE 1

Step 3. Using a 7/64" hex wrench, loosen the two #6-32 X 3/8" socket head cap screws by turning the wrench counter-clockwise. Do not remove the screws. Loosen them to the point that they can be turned with fingers alone. Please see Figure 1.

Step 4. Using a 1/16" hex wrench, insert the wrench through the top clearance hole in the stationary blade. Engage the #6-32 X ¼" socket set screw. Please refer to Figure 2.

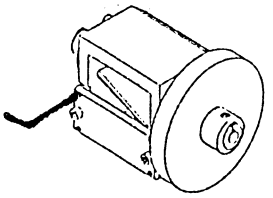


FIGURE 2

Step 5. Turning the set screw clockwise will cause the blade to advance closer to the cutter. The procedure is to turn the set screw clockwise while spinning the flywheel slowly towards you. As the blade approaches the cutter edge, you should start to hear and feel the cutter contact the blade as you spin the flywheel. If you turn the set screw in too far, the cutter will not spin freely. Repeat the procedure with the set screw on the right until you get an even contact between the cutter and blade, all the way across.

Step 6. When you are satisfied with the contact being made between the cutter and the blade, begin to tighten the two socket head cap screws with the 7/64" hex wrench. Tighten just a little on each side and continue to spin the flywheel to check the blade to cutter fit.

You will find that tightening the cap screws will pull the blade away from the cutter. To compensate for this, adjust the set screws to allow the blade to run tighter to the cutter and proceed with tightening the cap screws. When you have the cap screws tightened, you should still have a slight contact between the cutter and blade when you spin the flywheel.

Reinstall the cutter assembly into the mechanism. (see pg. 16 in manual)

Stationary Blade Replacement

The TICKET EATER blade has two cutting edges. When one edge becomes dull and cannot be adjusted any further, it can be flipped around to use the second edge. Follow these steps to change the cutting edge or to replace the blade altogether.

Step 1. Remove the cutter assembly from the mechanism. Make sure that power is OFF and that the blade is not rotating when you remove the assembly.

Step 2. Set the cutter assembly on a bench in such a way that you can access the blade screws and turn the flywheel. You will have to put a spacer under the housing to allow the flywheel to turn freely.

CAUTION: Even though the blade may be dull, it is still sharp enough to cut. Keep your fingers away from the cutter and blade.

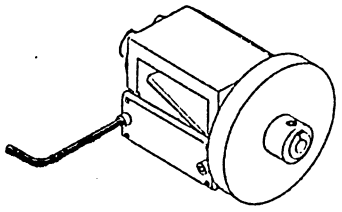


FIGURE 1

Step 3. Using a 7/64" hex wrench, loosen and remove the two #6-32 X 3/8" socket head cap screws by turning the wrench counter-clockwise. Please see Figures 1 and 2.

Step 4. Remove the blade. Leave the two #6-32 X ¼" set screws in place.

Step 5. If only one edge is worn, spin the blade around and reinstall it. Note the position of the beveled edge and take care not to install the blade backwards. If both edges of the blade are worn, replace blade.

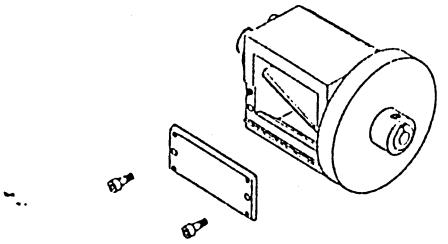
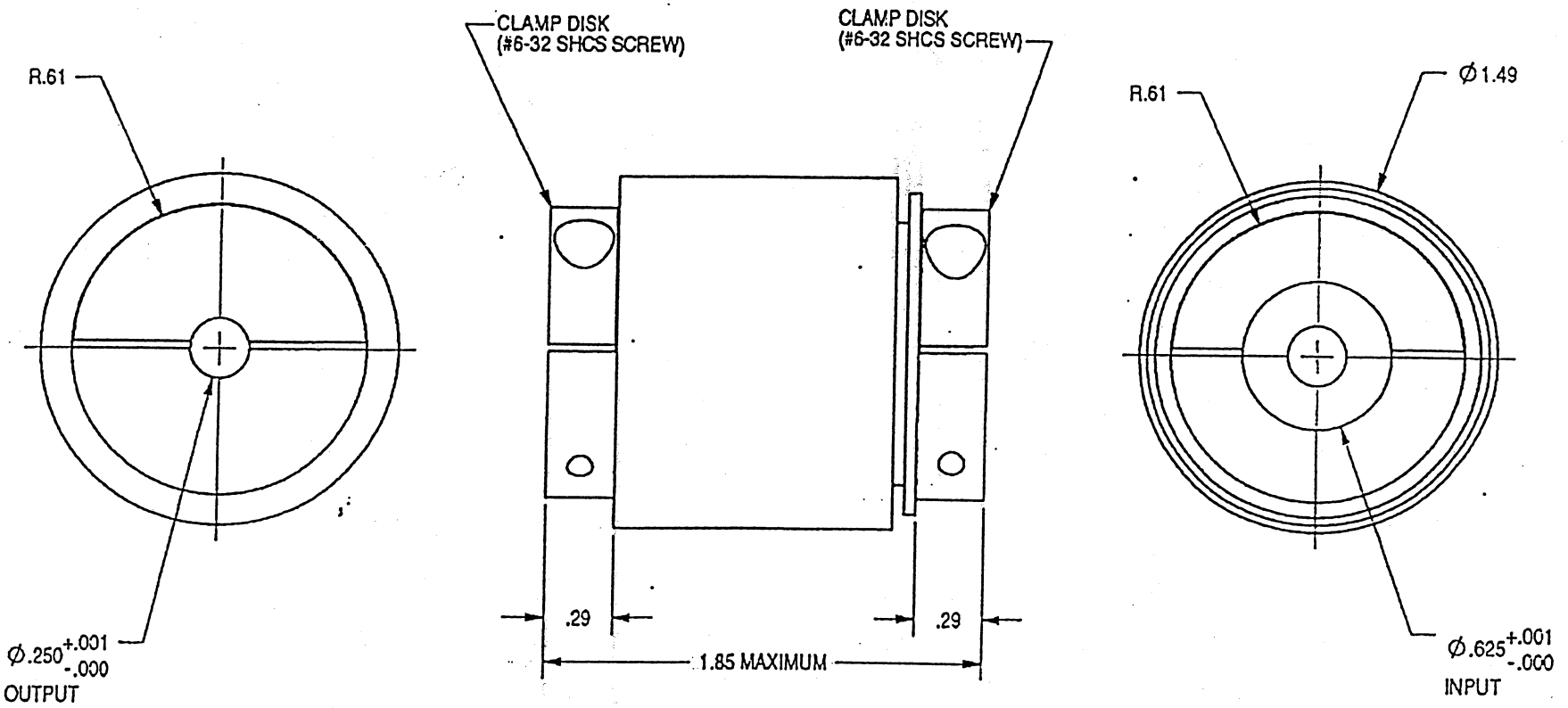


FIGURE 2

Step 6. Follow the instructions contained in this manual for blade adjustment.

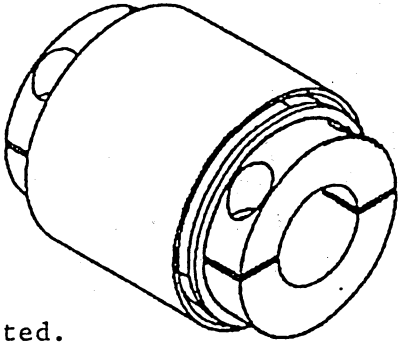
Note: Blades can be returned to Deltronic Labs, Inc. for sharpening.

REV.	DESCRIPTION	DATE	BY



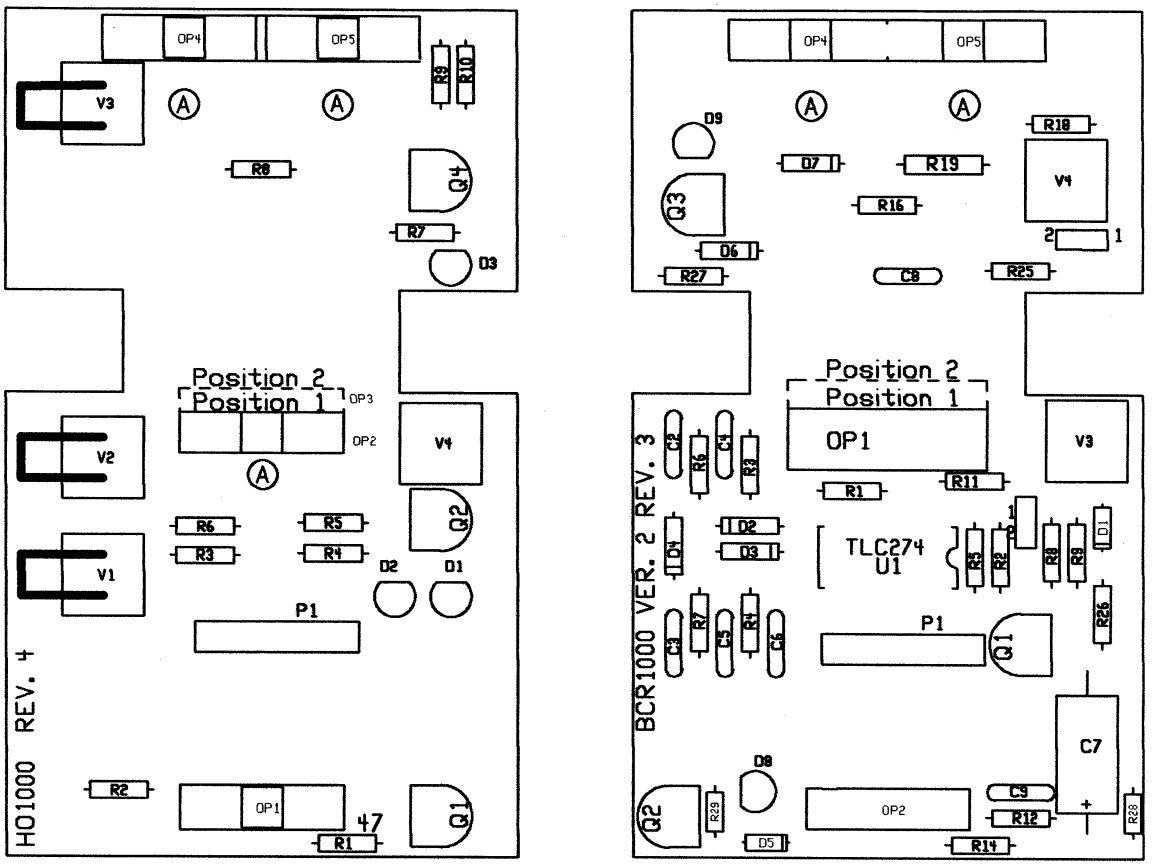
IMPORTANT!

Clamp Disks must be tight. Tighten one side at a time. Partially tighten one screw, then the other. BE SURE there is equal distance between top and bottom portions of clamp when both screws are tight. (SEE DRAWING) Motor shaft and drive shaft must be aligned properly when clutch is inserted.



MOTOR DRIVE CLUTCH

REQ'D / NEXT ASSY	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES: .XXX±.005 .XX±.02 ANGLE X°±5° XX°±.5°	TITLE: SLIP COUPLING		
		MATL		
		PAGE 24		
	DRAWN DATE: G. A. 6-6-2001	SCALE: 3:2	DRAWING NUMBER: SP-2027-M1	REV.



NOTE: For HO-1000 Rev.4 OP2 = Position 1, OP3 = Position 2
For BCR-1000 Rev.3 OP1, Use Position 1 or 2
For Ticket guide assemblies with **OVAL** cutouts use Position 1 or 2.
For Ticket guide assemblies with **ROUND** cutouts use: Position 1 **ONLY**.
(Middle Sensors Only)

IMPORTANT: For Sensor Replacement:

Scanner PCB's BCR-1000 Rev. 2 & 3 and HO-1000 Rev. 4, have sensor "L" bracket mounting holes marked "A" (Marked on drawing only)
Use only when replacing middle or rear sensors.
Other sensors use PCB mounted "studs" to brace sensors.

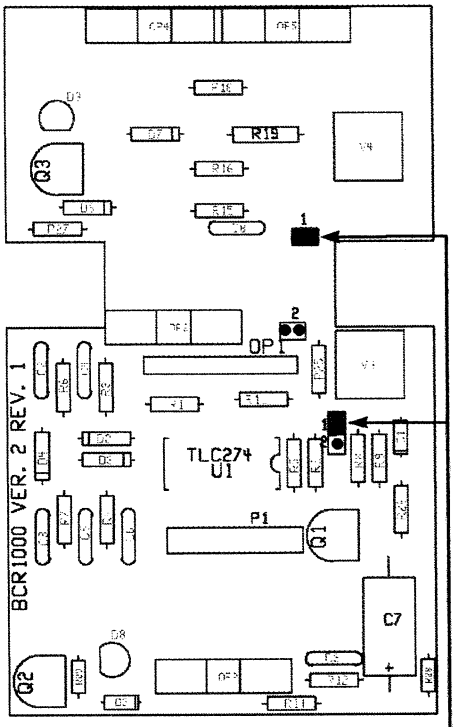
When replacing sensors, note Rev.# on PCB. If mounting holes do not exist, remove brackets before mounting. **(Insert sensors to same depth and direction as all others).**

SENSOR PLACEMENT: Each scanner PCB has specific sensors in certain locations.

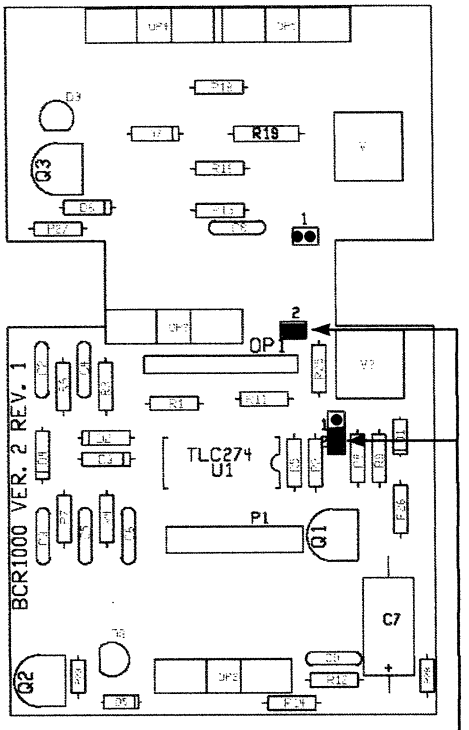
For HO-1000- All Revs. USE:
VTR16DI- ("V" shaped Lens) OP4 and OP5 ONLY (can be used in OP1)
QRB1114- (Flat Lens) OP1 and OP2-3 ONLY

For BCR-1000- All Revs. USE:
VTR16D1- ("V" shaped Lens) OP2, OP4 and OP5
QRB1114- (Flat Lens) Can be used in OP2 ONLY

NOTE: For BCR-1000 PCB, All Revs. OP1 is OTC680 ONLY

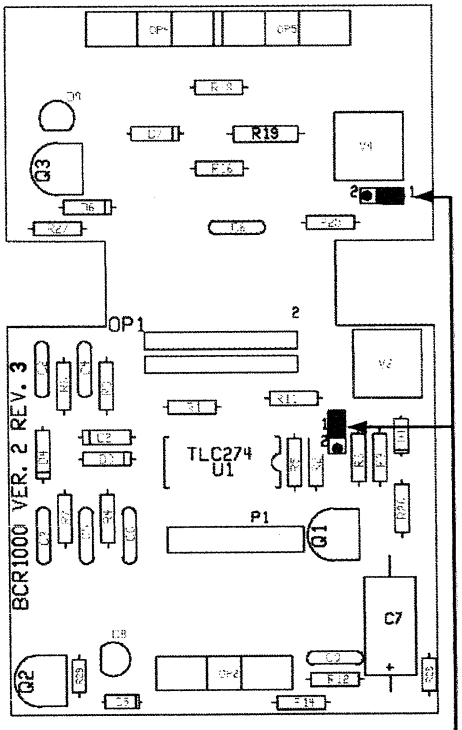


The configuration above is for holes only operation.

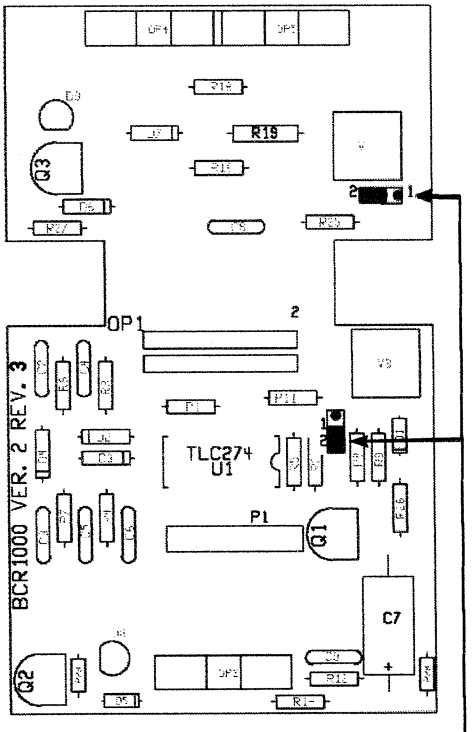


The configuration above is for tickets with barcodes

BCR1000 Rev. 1



The configuration above is for holes only operation.



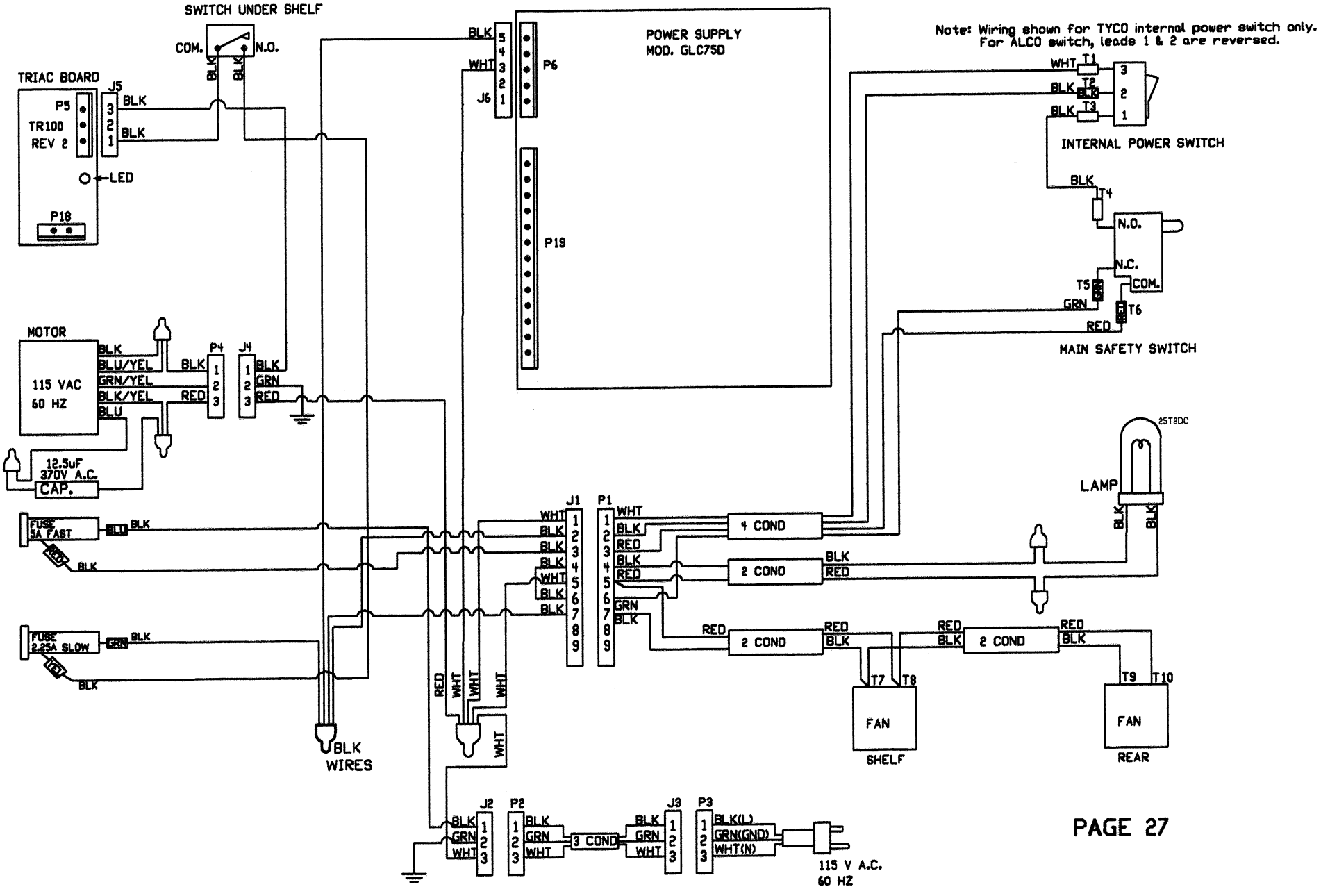
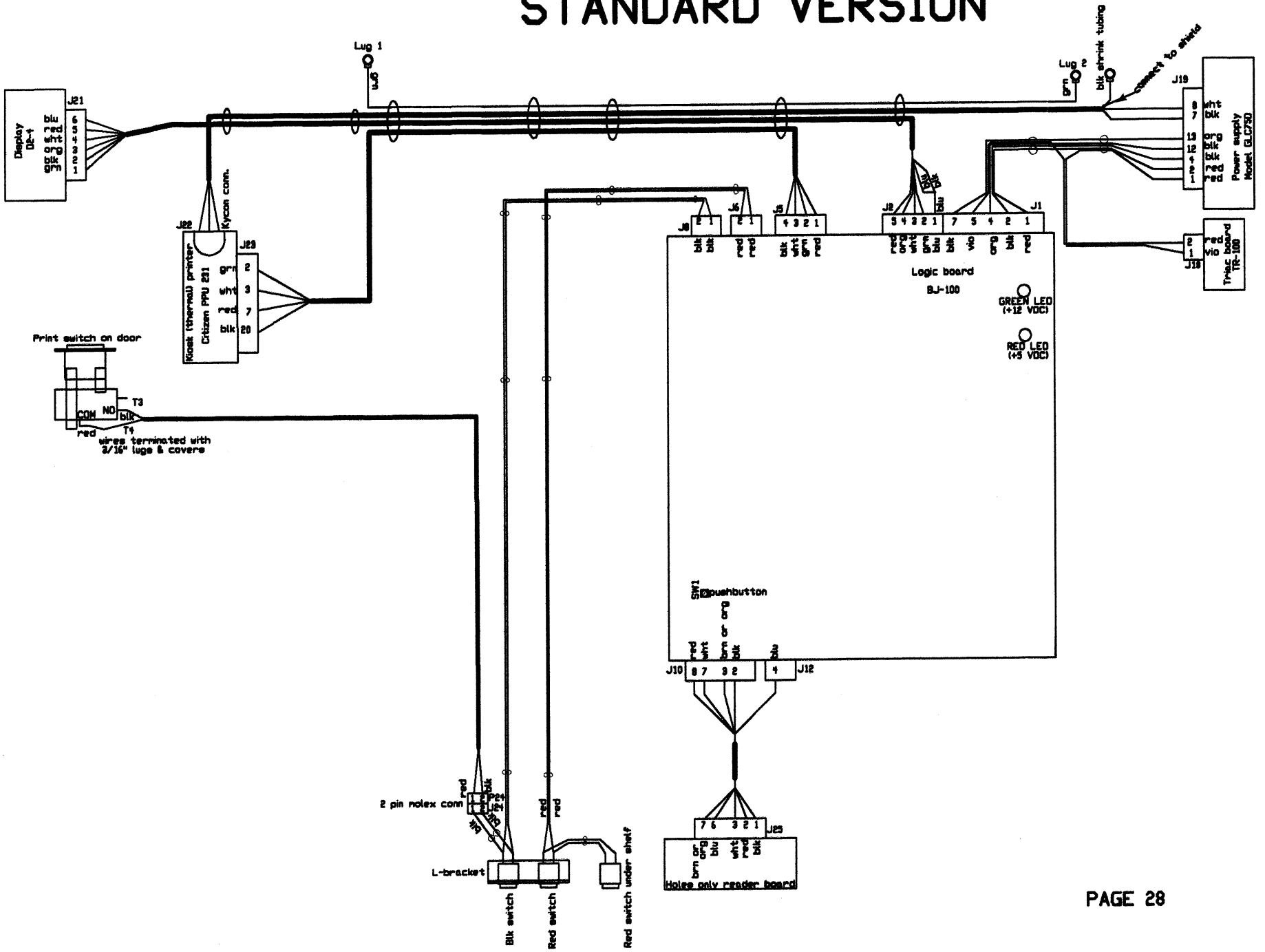
The configuration above is for tickets with barcodes.

BCR1000 Rev. 3-4

Above are the different configurations for the BCR1000 ticket reader PCB. Two different revs. are shown (V2R1 & V2R3). Both revs are intended for normally reading tickets with barcodes (right configuration). The holes only configuration (left) is intended for temporary use, such as when barcoded tickets are unavailable for a short period. For a more permanent situation, the HO-1000 board should be used for holes only operation. Also note that the options for the control unit or its program need to be changed to work properly in the holes only configuration.

TTEX AC HARNESS
STANDARD & DKS VERSION

NOTE: WIRE COVERS ARE CLEAR EXCEPT WHERE NOTED



TTEX DC HARNESS
STANDARD VERSION