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Intelligent Cash Box (ICB) System

Operation and Maintenance Manual (Rev. A)

JCM Part No. 960-000044



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Introduction

JCM's Intelligent Cash Box (ICB) system increases efficiency in the soft drop and soft count process for casinos. This is accomplished using proprietary software to create individual machine set tickets which are printed by the ICB system Printer Station. Those tickets are inserted into the ICB-compatible WBA-12/13 bill validators at specific machine locations.

When the ICB is placed in an ICB-equipped machine, the WBA transmits the machine set ticket ID to the cash box through optical sensors. After the cash box ID has been set, all insertions into the WBA are transmitted to the cash box memory module in the same manner.

When the cash box is removed from the machine, it is placed on a Docking Station that is attached to the Printer Station. The Docking Station reads the contents of the cash box, transmits the information to the Printer Station, and a ticket is generated with the machine ID in bar code format plus other specified information. The Docking Station resets the cash box fields to zero, and it is ready to be re-installed in any compatible machine.



Equipment Identification

Intelligent Cash Box (Part No. 550-100114)

There are two differences between a standard cash box and the Intelligent Cash Box (ICB). The handle is hinged, and there is a metal box above the handle. The rectangular, metal box contains a PCB with an LED, two sensors, a lithium battery (life-span 5 years), and a microcontroller with on-board RAM.





Docking Station (Part No. 501-000052)

This tool reads data stored in the cash box memory module. It transmits the information to the Printer Station, then sets data fields in the cash box to zero. The Docking Station has a CPU board that requires an EPROM. Make sure the latest software version is installed in the unit.

Printer Station (Part No. 501-000072)

The Printer Station contains a TPS-200 (Manual Part No. 960-000051). It prints the Machine Number Set tickets and soft count tickets when the cash box is placed on the Docking Station. It has a CPU board that requires an EPROM. It has harnessing for connections to a PC serial port and the Docking Station Tool. Make sure the latest software version is installed in the unit.



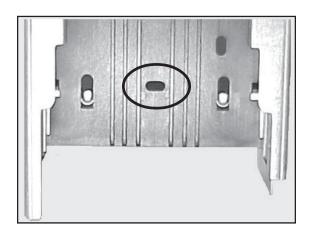
Installation - Retrofit Kit

WBA-SS Chassis Modification

It may be necessary to drill a hole in older WBA-SS frames to communicate with the ICB. Required tools are a drill, 5mm drill bit, and a template.







Retrofitting an Existing Cash Box

This change is made by drilling out the two existing 3/16" rivets securing the handle and removing the handle. Line up the new ICB handle assembly (Part No. 067083) and install using the 3/16" rivets (Part No. 148-000001) provided.

NOTE: Make sure to blow out any metal drill shavings to prevent damage to the cash box.

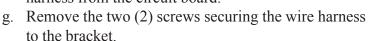


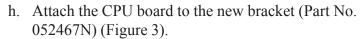
Retrofitting the WBA-12/13-SS

- a. Remove the WBA head.
- b. Disconnect the seven (7) wire harnesses, attached to the transport circuit board, one (1) on the side, the other six (6) on top.
- c. Remove the three (3) screws (Figure 1, 2) securing the circuit board.

 One (1) screw secures a rod.

 Remove the rod.
- d. Remove the bracket and circuit board from the WBA.
- e. Remove the screw on the corner of the circuit board.
- f. Turn the bracket over and disconnect the WBA wire harness from the circuit board.





- i. Secure the wire harness on the new bracket. Make sure to match up the cut corners on the receptacle with the new bracket for proper fit and plug the harness into the CPU board (Figure 4).
- j. Attach the optical interface harness (Part No. 067086) to the receptacle on the ICU board (Figure 5).
- k. Attach the upper bracket (Part No. 086639) to the lower bracket.
- 1. Mount the optical interface board (Part No. 067104) on the bracket with two (2) screws (Figure 6).
- m. Re-install the circuit board in the transport.

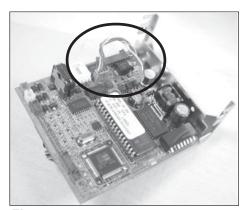


Figure 5

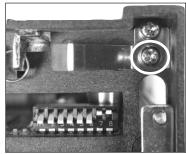


Figure 1

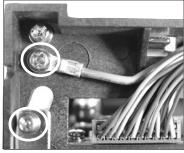


Figure 2

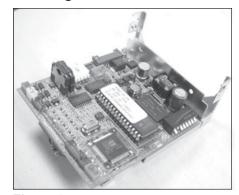


Figure 3

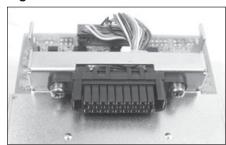


Figure 4

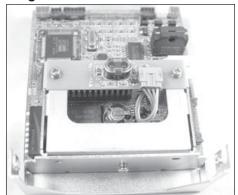


Figure 6

Retrofitting the WBA-12/13-SU

Swivel Plate (F-swivel plate)

- a. Remove the two (2) E-rings securing the swivel plate in place (Figure 1).
- b. Remove the screw securing the ground wire standoff on the side of the transport and remove the last E-ring (Figure 1).
- c. Slide the shaft out of the transport to replace the existing swivel plate.

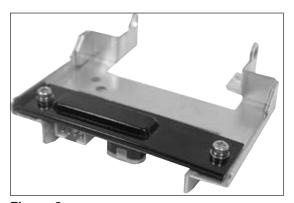


Figure 2

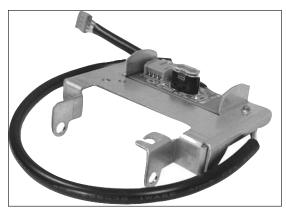


Figure 2a. Right side up

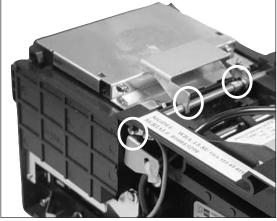


Figure 1

- d. Place the black, mylar sheet (Part No. 079648) over the back of the optical board (Part No. 079646), and secure the board to the new swivel plate (Part No. 086639). Make sure the mylar sheet is positioned as shown (Figure 2).
- e. Slide the rod back through, slipping the new swivel plate and spring over it.
- f. Replace the E-rings on the rod. Remember that the stand-off plate on the side of the transport unit goes under the E-ring.
- g. Secure the harness (Part No. 079485) on the swivel plate with the Ty-wrap before threading it to the circuit board. Tie it off on the stand-off plate (Figure 3).

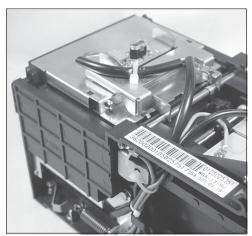


Figure 3

Software

The software is located on the CD (Part No. 501-000046) supplied with the kit or can be ordered separately.

The ICB CD

The disk contains the necessary files to set up the Machine Set Ticket program, the cash box number program, plus two files showing how to convert a database spreadsheet to .csv format.

Setup.exe

This program loads the ICB Machine Set Ticket program on your hard drive.

Template.xls

If the Machine Set numbers are stored in a database file, this Excel file displays the database formatting before being converted into .csv format. Excel and other database files can be saved as .csv files by clicking on "Save As" then selecting the .csv format.

Sample.csv

This is an example of how actual data looks in the .csv format.

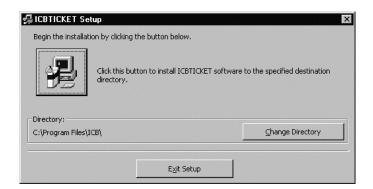
ICB Cash Box Number.exe

This file is used to program a number into the cash box. It can also be used to view the accounting data stored in the cash box.

Place the CD supplied with the product in the drive. The program will run automatically after a few seconds

First, all of the necessary files are downloaded onto the hard drive.

Second, the Machine Set Ticket program is installed. Follow the instructions on the screen.



Once the program is loaded, two icons are placed on the desk top: one icon for the Machine Set Ticket program, the other icon for the cash box number program.

To run either program, double-click on the appropriate icon.

Machine Number Set Ticket Procedure

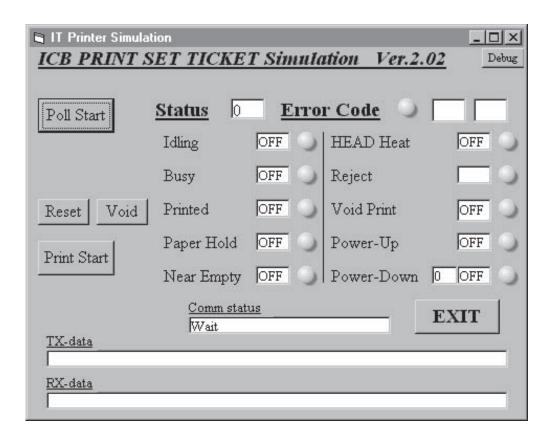
First, load fan-fold paper into the TPS-200 Printer Station, and attach the power cord.

Attach the 9-pin cable (female-to-female) to the RS-232 port on the Printer Station, and the other end to a serial port on your computer.

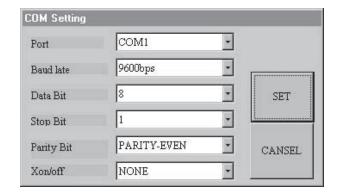
Turn on the Printer Station power (The ON/OFF switch is on the back of the Station).

Double click on the "ICB Ticket" icon.

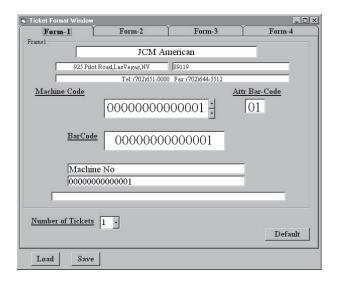
Click on the "Poll Start" button.



This will open up the "COM Setting" window. The only change on this window could possibly be the COM Port setting. If there is no change, click on the "SET" button.

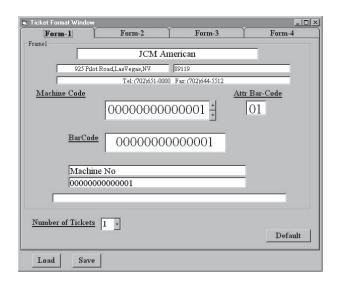


This opens the "Ticket Format" window.



There are four (4) forms on this window.

Form-1:



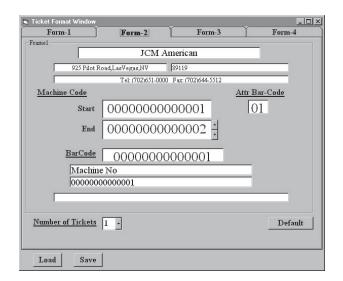
Form-1 is used for individual Machine Tickets. The top portion is where the customer can enter specific information, such as Name, Address, Telephone. The Machine Code section is where each machine can be assigned a unique 14-digit identification number. The number can reflect location, asset number, etc.

NOTE: The "Attr Bar Code" window must always show 01.

With the power off, open the printer and turn DIP switch 1 ON for printing sequential tickets in Form-2 and Form-3

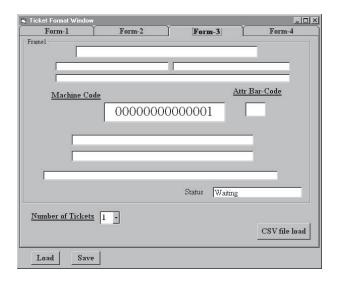


Form-2:



Form-2 is used to establish a sequential series of Machine Number Tickets manually. The customer identification information must be entered as on Form-1. Leave the number in the "Number of Tickets" window at 1 unless multiple tickets for the same machine are required.

Form-3:



Form-4:

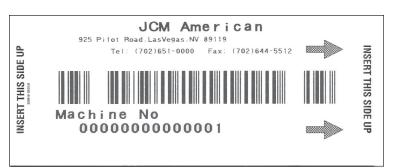
Form-4 is not being used at this time.

Form-3: After an Excel (or other) database file has been converted to the .csv format (use the sample file, template.xls, to format the database properly), use the "CSV file load" button to download the file.

To Print Tickets

Leave the Ticket Format Window open. Make the ICB Print Set Ticket window the active window. Click on "Reset" then "Print Start" to print the tickets. If the program locks up, use the Reset button. If the paper runs out during the printing, simply open the printer and load more paper.

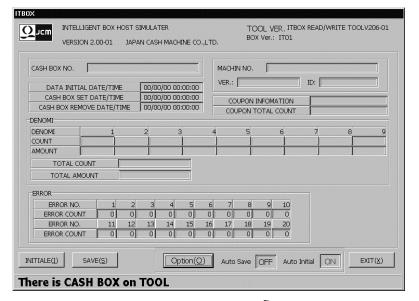
After the Machine Number Tickets are printed for all machines, the tickets must be individually inserted in the appropriate machines to set the Machine Number in the WBA. With the power off, set the WBA DIP switches 1, 3 and 8 ON . Apply power to the WBA. Insert the Machine Number Ticket as shown. While the ticket is held in the WBA, the bezel lights will



flash rapidly. The ticket will be returned and the lights will go out. Once this operation is finished, reset the WBA DIP switches to their normal position.

Setting the Box Number

- Use the Docking Station and a PC for this procedure. Verify the time and date on the computer are accurate.
- b. Connect the power cord, then connect the Docking Station to the serial port on the PC using the male-to-female cabling supplied in the kit. Turn on the power to the Docking Station.
- c. Double-click on the "Cash box number" icon on the desktop.



- d. Place a cash box in the Docking Station.
- e. Select "Initial", then click on "Yes."
- f. Enter an appropriate cash box identification number.
- g. Click on "OK."
- h. When the green "OK" light on the Docking Station is ON, not blinking, place another cash box on the Docking Station and repeat the process. When all the cash box numbers have been assigned, the cash boxes can be installed in the machines. The machines are now ready to use.



Soft Count - Soft Drop

When the initialized cash box is placed in a machine, the WBA transmits the Machine Number to the cash box through optical sensors. It transmits transactions the same way.

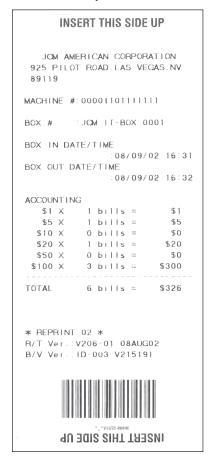
Retrieving Cash Box Information

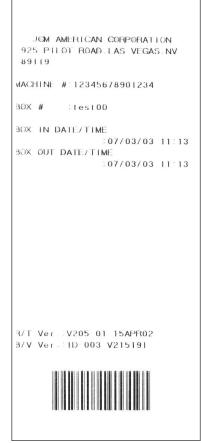
This procedure requires a Printer Station, a Docking Station, and the necessary power cords and cabling.

NOTE: Do not remove the cash box until the ticket begins to print. The cash box will not initialize.

- a. Plug power supply cords into 110V receptacles and the Printer Station and the Docking Station.
- b. Plug the 9-pin female-to-female cable from the Docking Station to the Printer Station.
- c. Turn both units ON.
- d. Place a cash box on top of the Docking Station.
- e. Information in the cash box memory will be transferred to the Docking Station which sends it to the printer. The printer will print a ticket with information from the cash box while the green light on the Docking Station blinks.
- f. The cash box memory is cleared when the ticket begins to print.

Sample Tickets - Two Options Available





g. If an error occurs, "out of paper" or "paper jam" for example, that keeps a ticket from being printed after the download, the cash box information can still be retrieved. The information is stored in the Docking Station temporarily. Correct the printing error, then lift the cash box off the Docking Station momentarily. Replace the cash box on the Docking Station, and the stored information for that cash box will be printed. Once a new cash box is placed on the Docking Station, the previous information is deleted.

ICB Enable/Disable Procedure

All NexGen WBA software has modifications that affect the way the ICB-modified WBA is enabled or disabled. Up to now, it has been disabled by the DIP switch. The new method is to create an ENABLE or DISABLE ticket using the "Set Ticket" software and the TPS-200 Printer, and insert it into the WBA whenever the bill acceptor needs to be enabled or disabled.

Use the Machine Number Set Ticket program to create the ENABLE/DISABLE tickets.

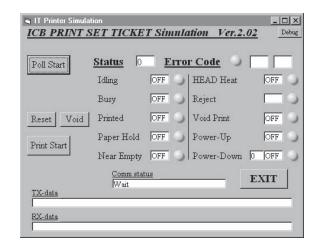
First, load fan-fold paper into the TPS-200 Printer, and attach the power cord.

Attach the 9-pin cable (female-to-female) to the RS-232 port on the Printer, and the other end to a serial port on your computer.

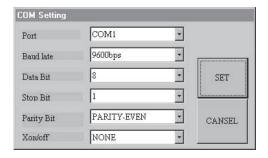
Turn on the Printer power (The ON/OFF switch is on the back of the Station).

Double click on the "ICB Ticket" icon. This opens the "ICB Print Set Ticket Simulation" window.

Click on the "Poll Start" button.



This opens the "COM Setting" window. The only change on this window could possibly be the COM Port setting. If there is no change, click on the "SET" button.

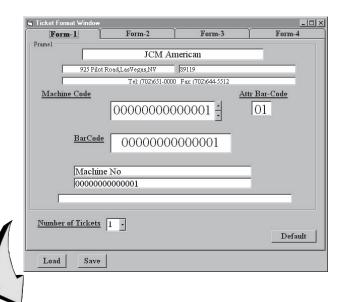


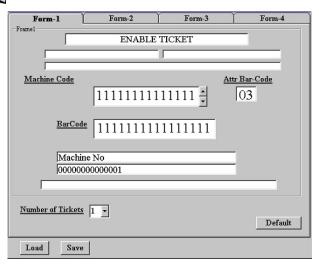
This opens the "Ticket Format" window. There are four (4) forms on this window. Modify Form -1 to create the ENABLE ticket.

Change the top title line to ENABLE TICKET. Change the Attr Bar-Code to 03. Change the Machine Code, Bar Code, and Machine No. windows to all ones. Then go back to the ICB Print Set Ticket Simulation window and print a ticket.

With the power off, set the WBA DIP switches 1, 3 and 8 ON. Apply power to the WBA. Insert the ENABLE ticket. While the ticket is held in the WBA, the bezel lights will flash rapidly. The ticket will be returned and the lights will go out after a few seconds. Once this operation is finished, turn off the WBA and reset the WBA DIP switches to their normal position.

If the machine number has not been set, or the number is being changed, insert a Machine Number ticket right after the ENABLE ticket is returned.

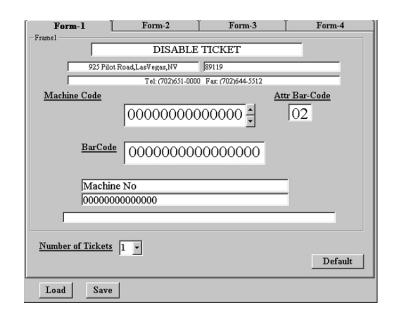




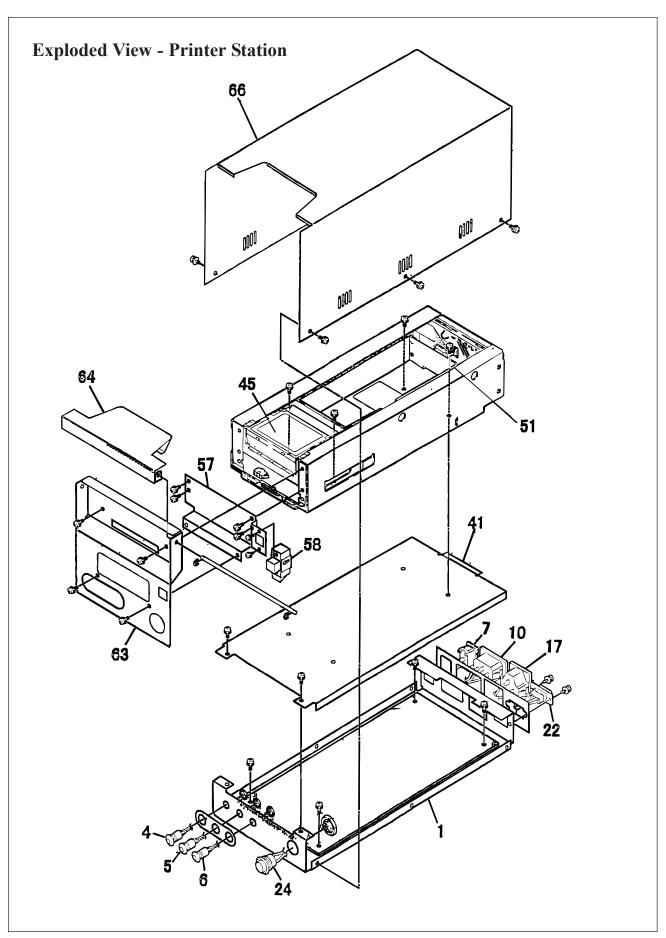


Use the same procedure to create a DISABLE ticket. Type DISABLE TICKET on the title line, and change the Attr Bar-Code to 02. Make sure the Machine Code, Bar Code and Machine No. windows all read zero.

With the power off, set the WBA DIP switches 1, 3 and 8 ON . Apply power to the WBA. Insert the DISABLE ticket. While the ticket is held in the WBA, the bezel lights will flash rapidly. The ticket will be returned and the lights will go out. Once this operation is finished, reset the WBA DIP switches to their normal position.



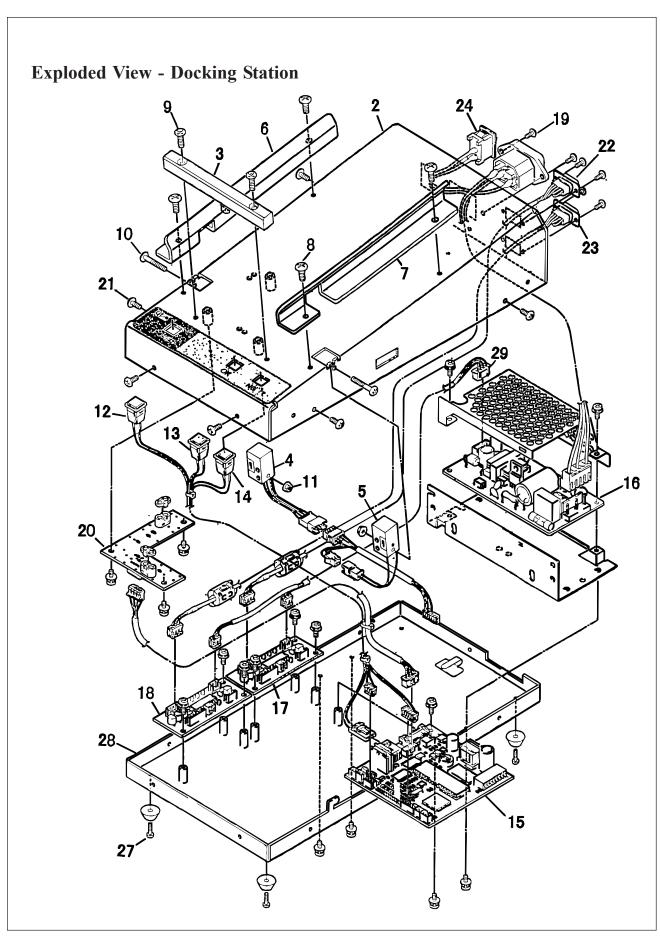




Parts List - Printer Station

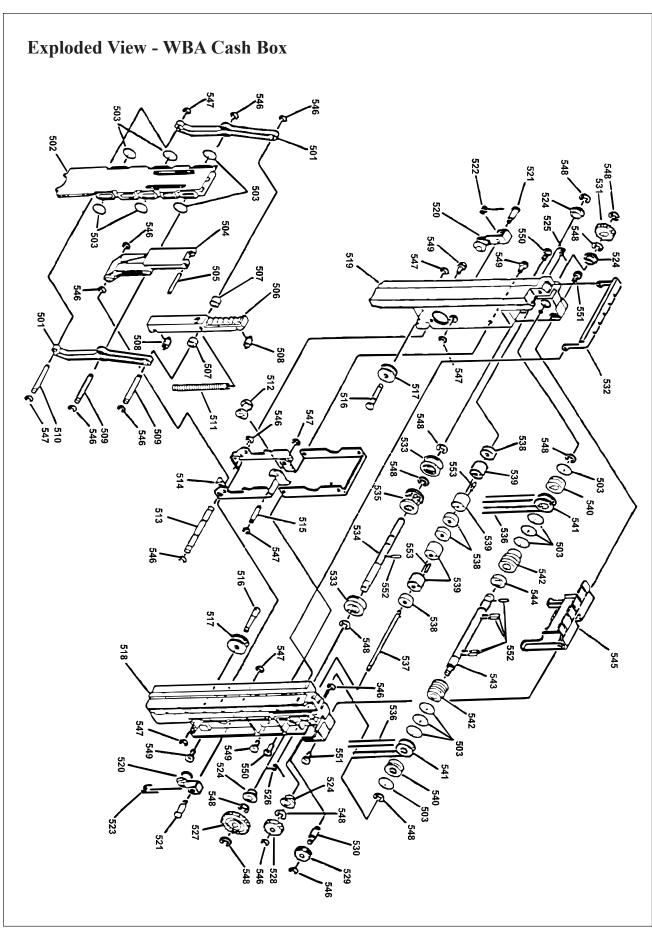
No.	EDP No.	Part No.	Description	Qty.
1	080767	4018PT0102	PS Base	1
2	059438	TM-127-11	Bracket	4
3	050773	4018PT0107	LED Plate	1
4	081202		Power LED	1
5	081203		Error LED	1
6	081204		Paper LED	1
7	080851	A81-21-11N2	Locker Switch	1
8	080862	3200-05-11	TSW (White) Harness	1
9	080863	3200-05-12	TSW (Black) Harness	1
10	080853	S-170	Inlet	1
11	080865	3200-05-14	INT (White) Harness	1
12	080866	3200-05-15	INT (Black) Harness	1
13	080867	3200-05-16A	INT (Green) Harness	1
14	001244	T-18R	(HB-100)	6
15	081207		Fuse Harness Ass'y	1
16	081038		Fuse	1
17	080854	S-150	(Outlet)	1
18	080868	3200-05-17	TOUT (White) Harness	1
19	080870	3200-05-19A	TOUT (Green) Harness	1
20	080872	3200-05-21A	EXTCN Harness	1
21	080953	3200-05-05		1
22	044669	JFS-4S-C1N	D-SUB Fixed Hexagon Screw	2
23	4080861	3200-05-07A	PS Harness	1
24	081568	MS-950R	Push Switch Red	1
25	080852	ML-20-3	Terminal Base	1
26	006850	M4x12	Pan Screw w/washer Fe (CMs)	2
27	031786	M4X6	Pan SEMS Screw Brass Ni	1
28	006031	Ø 4	Washer Outside Tooth CM	3
29	031786	M4X6	Pan SEMS Screw Brass Ni	1
30	005659	M4X6	Pan SEMS Screw Fe CM	2
31	006031	Ø 4	Washer Outside Tooth CM	3
32	030829	M111-4-008A	GND Level (UL)	
33	066525	LCA75S-24-H	Switching Power Supply	1
34	052419	M3x6	Pan Screw with Washer Fe CM (S)	8
35	080873		Connector Circuit Board Ass'y	1
36	052419	M3x6	Pan Screw with Washer Fe CM (S)	8
37	080860	3200-05-06	DC Harness	1
38	085243	3200-05-22	TSP02 Harness	1
39	073213	XG4z-0002	Connector Latch	2

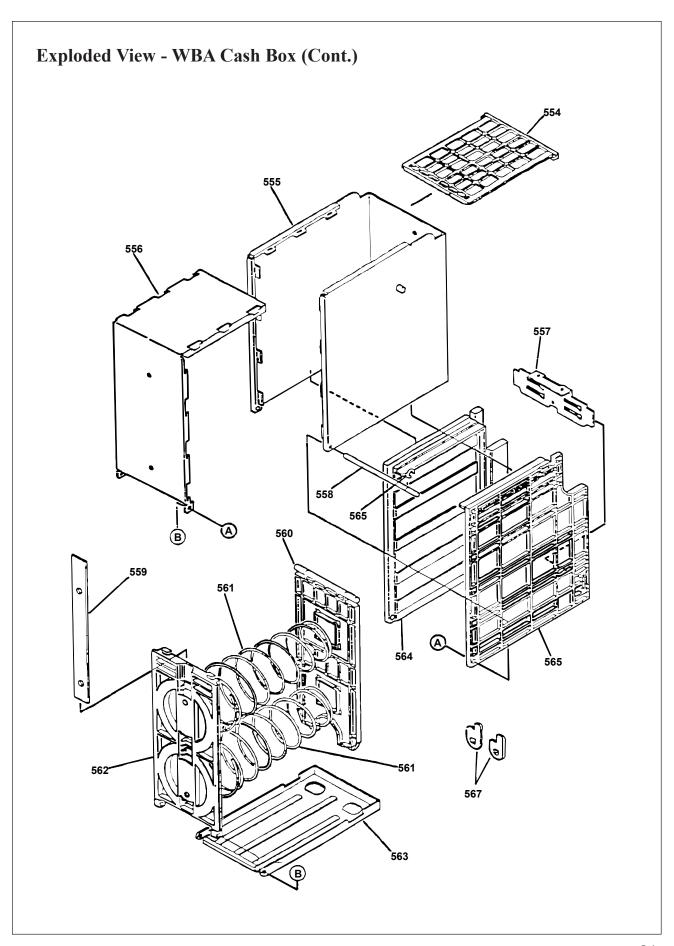
No.	EDP No.	Part No.	Description	Qty.
40	001244	T-18R	(HB-100)	6
41	080768	4018PT0103	Printer Base	1
42	080779	4018PE0101	Harness Protection Bush	1
43	005663	SD-10	Cord Clamp	3
44	052400	M3X5	Pan SEMS Screw Fe CM	2
45	081678		TSP-02-05 Printer (JCM)	1
46	080775	0667PT0208	Paper Pusher A (40)	1
47	080774	0667PT0207	Paper Pusher B (40)	1
48	003705	Ø 2	E-ring SUS	5
49	080777	0667SH0201	Pusher Fulcrum	1
51	085244	4009PT0201	Hopper (400)	1
53	003662	M3X5	Bind Screw Fe BC	17
54	052401	M3X5	Plate Scrw Fe CM	4
55	005663	SD-10	Cord Clamp	3
56	003662	M3X5	Bind Screw Fe BC	17
57	080772	4018PT0106	Latch Plate	1
58	015533	TL-135-B-N	Push Latch	1
59	003596	M2.6x5	Pan SEMS Screw	2
60	003662	M3X5	Bind Screw Fe BC	17
61	080776	4018SH0101	Front Shaft	1
62	003705	Ø 2	E-ring SUS	5
63	080769	4018PT0104	Front Plate	1
64	080770	4018PT0105	Up Plate	1
65	003662	M3X5	Bind Screw Fe BC	17
66	080766	4018PT0101	PS Cover	1
67	003662	M3X5	Bind Screw Fe BC	17
69	001291	MA8-7A08	Control Seal	1
70	057704	1A-1(1.8M)	Power Supply Code Set	1
71	080871	3200-05-20	I/F Harness	1
72	014175	0.4X450X550	Plastic Bag	1
73	081306	4018PK0101	Packing Material	1
74	066397	0.05X180X320	Plastic Bag	1
75	080953	3200-05-05		1
76	006021	M2.6X4	Plate Screw Fe CM	2
77	080778	4018MA0101A	Indication Seal	1



Parts List - Docking Station

No.	EDP No.	Part No.	Description	Qty.
1	071137		RW-M2 Unit	1
2	080927	0943PT0921	R/W Cover 3	1
3	080931	0943PT0925	Box Guide C 3	1
4	071108	KI892-AA1	Luminosity	1
5	081287	KI892-AA02	Optical Detection	1
6	080929	0943PT0923	Box Guide A 3	1
7	080930	0943PT0924	Box Guide B 3	1
8	080932	M4X6	Truss Screw Chalk Lead Plating	1
9	080934	M3X12	Plate Screw Chalk Lead Plating	4
10	080933	M3X18	Truss Screw Chalk Lead Plating	2
11	014189	M3	Nut w/Flange	2
12	07119		PW LED	2
13	07114		OK LED	1
14	07116		NG LED	1
15	070157		13 CPU Circuit Board	1
16	071107	LDA10F-12SN	Power Supply	1
17	081015		I/F Circuit Board	1
18	057119		I/F Circuit Board	1
19	003270	A0026F	AC	2
20	081018		Communication Circuit Board	4
21	046975	M3X6	Truss Screw Chalk Lead Plating	13
22	081010	841-05-29	PC I/F Harness	1
23	081009	841-05-28	Printer I/F Harness	1
24	000610	SW-W101A-03BB		1
25	080928	0943PT0922	IT Base 3	1
27	005555	M3X6	Pan Screw w/washer Fe CM (S)	5
28	080928	0943PT0922	IT Base 3	1
29	071111	841-05-19B	I/F Harness	1

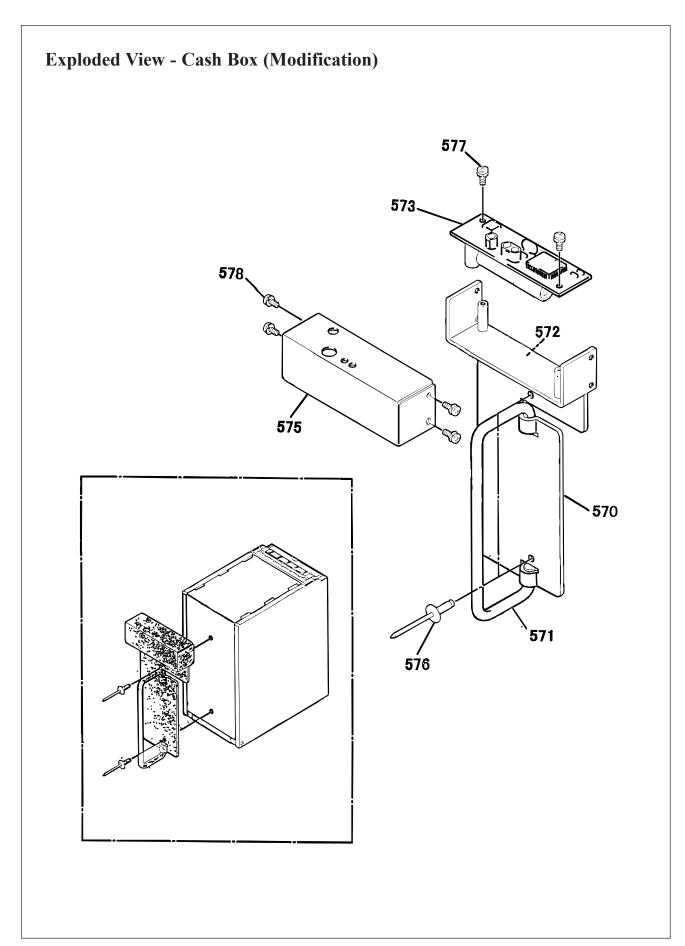




Parts List - WBA Cash Box

No.	EDP No.	Part No.	Description	Qty.
501	052559	0943RE0506A	Push Link 2	2
502	052556	0943RE0503C	Push Plate	1
503	034864	P11	O-ring	14
504	052557	09430RE0504B	Push Link 1	1
505	052629	0943SH0507	U Arm Pin	1
506	052560		PU Rack	1
507	052580	0943RE05105A	Arm Roller	2
508	052631	0943BE0502	R RO Pin	2
509	052627	0943SH0505	U R Shaft	2
510	052630	0943SH0508	L Arm Shaft	1
511	052651	0943CS05001	PU Spring	1
512	052579	0943RE0514B	R Guide Roller	1
513	052628	0943SH0506	L Arm Shaft	1
514	052503	0943PT0501D	PU Base	1
515	052626	0943SH0504	G RO Shaft	1
516	052634	0943ST0504	Pulley Stud	2
517	052515	0943RE0114A	Pulley W5 B	2
518	052555	0943RE0502D	PU Guide R	1
519	052554	0943RE0501E	PU Guide L	1
520	053633	0943AS0501A	B VP Arm Assy	2
521	052633	0943ST0502A	Arm Stud	2
522	052653	0943KS0603	PVT Spring L	1
523	052652	0943KS0501	PVT Spring R	1
524	052561	0943RE0508	Bush Ø 6B	4
525	052654	0943KS0503	PR Spring R	1
526	052655	0943KS0504	PR Spring L	1
527	052582	0943RE0518B	PU Gear 2	1
528	052547	0943RE0302	Stand Gear	1
529	052581	0943RE0517	PU Gear 1	1
530	052632	0943ST0501	Gear Stud	1
531	018184	SBC-0216	Gear (16Z)	1
532	052504	0943PT0502B	PR Cover	1
533	052578	0943RE0512	V Roller	2
534	052624	0943SH0502A	Gear Shaft	1
535	052563	0943RE0810B	Rack Gear	1
536	052583	150MXL4.8V	Timing Belt	2
537	052625	0943SH0503	Roller Shaft	1
538	026108	RE-7V10	Roller	4
539	034851	RE0-06	Roller	4
540	052562	0943RE0509A	B OL Pulley	2

No.	EDP No.	Part No.	Description	Qty.
541	052514	0943RE0113A	Pulley W5 A	2
542	034849	RE0-04	Pulley	2
543	052623	0943SH0501A	Pulley Shaft	1
544	052577	0943RE0511	Pulley Collar	1
545	052558	0943RE0505E	PU Cover	1
546	046983		Ø 3 E-ring	11
547	046982		Ø 2 E-ring	8
548	003708		Ø 4 E-ring	11
549	005555		M2.6X6 Screw w/washer	4
550	026071		M2.6X8 Tapping No.2 Class	2
551	053011		M2.6X14 Screw w/washer	2
552	038938		Ø 2X10 Parallel Pin	7
553	018192		Ø 1.6X10 Waveform Pin	2
554	052552	0943RE0404F	Box CN Plate	1
555	052496	0943AS0401E	Box Cover Assy	1
556	052497	0943PT0402D	Box Cover 2	1
557	052500	0943PT0405A	Tang Catch	1
558	052622	0943SH0401A	Box Pin	1
559	052499	0943PT0404	HN Plate	1
560	052553	0943RE0405D	Receive Plate	1
561	034869	LB-02-B	Receive Plate Spring	2
562	052551	0943RE0403F	Spring Holder	1
563	052498	0943PT0403E	Box OP Cover	1
564	052549	0943RE0401E	Box Frame L	1
565	052550	0943RE0402E	Box Frame R	1
566	003706		Ø 2.5 E-ring	1
567	052505	0943PT0504	Tang B	2



Parts List - ICB Cash Box (Modification)

No.	EDP No.	Part No.	Description	Qty.
570	067110	0943AS0802	IT Base Assy	1
571	067084	0943PE0801A	IT Handle	1
572	081042	0943PE0802	IT Sponge	1
573	067085		Intelligent Circuit Board	1
574	081052	0943PT0810	Reinforcement Board	1
575	067111	0943PT080	IT Cover	1
576	056762	AD-SSH-64	Rivet (Sealed Type)	2
577	00555	M2.6X6	Pan Screw w/washer CM (S)	2
578	023755	M2.6X4	Pan Screw w/washer CM (S)	4



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