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A6/V6 Bill Validator Specifications

Acceptance Rate

96% or greater for US\$1, 5, 10, 20

Bill insertion

4-way Acceptance

Acceptance Speed

Approx. 3 seconds (including bill stacking)

Interfaces

Pulse or MDB (Multi-Drop Bus)

Bill box Capacity

Approx. 300 bills (200~300)
or
500 bills (300~500)

Weight

Approx. 2kg (shipping)

Power Sources

34V DC (M.D.B)

12V DC or 110V AC, 60HZ

Power Consumption

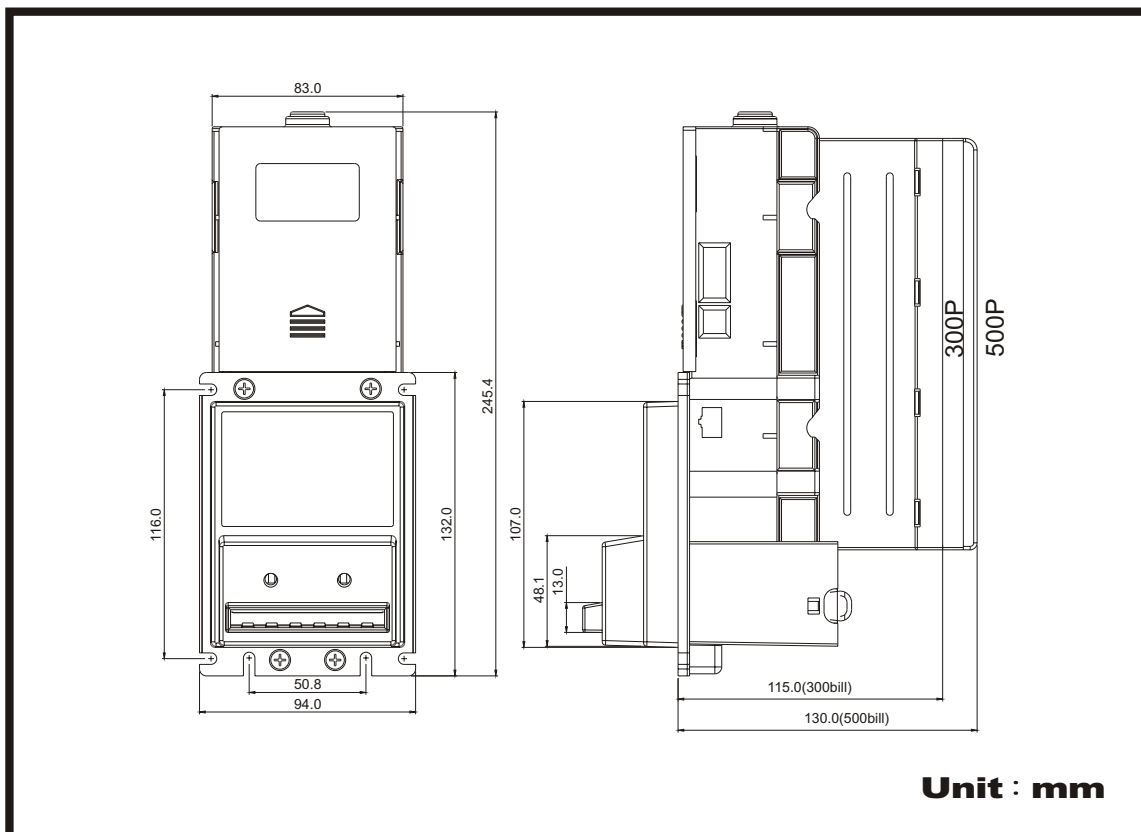
Max 50 watts

Environment Range

Operating Temperature -15°C~60°C

Storage Temperature -30°C~70°C

Humidity : 30%~85% RH (no condensation)



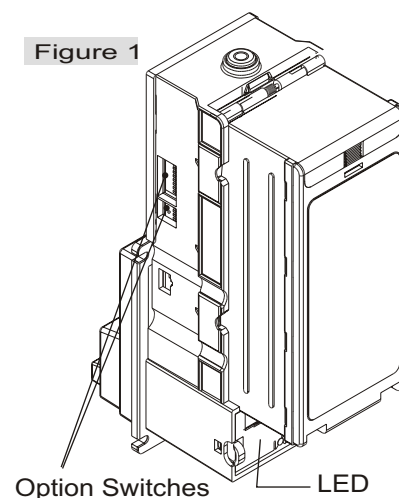
LED Display

The two LED lights located at the front of the unit will show the operational status of the bill validator. The LED lights will flash ON and OFF (in 500ms intervals) when the unit is ready to accept bills. The LED lights will be OFF if the unit is disabled or out of service, in which case the unit will not accept any bills.

The bill validator can only accept one bill at a time. The LED lights will be OFF and will not accept another bill while a bill is being validated in the unit. The LED lights will start to flash normally when the bill validator is ready to accept the next bill.

LED Status

DIAGNOSTICS LED ON =OK FLASHES	(GREEN LED) LED OFF =POWER OFF STATUS
1	bill jammed
2	disabled from system
3	sensor problem
4	reserved
5	bills box removed
6	bills box is full of money



When LED is "ON" means the unit is enable and ready to accept bill, If LED is "OFF" means, no power has been applied to the unit, Please check the power is applied.

Note:

In addition to the 30-pin connector, there is also an 8-pin RJ-45 connector on the side of the bill validator designed for the purpose of downloading programs and updating validation software. The connector will be kept open under normal operation of the bill validator. It will only be used when new software or programs need to be downloaded into the flash ROM. The pin-out assignments of the 8-pin RJ-45 connector are as follows:

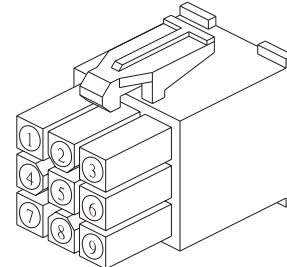
Pin 1 - GND	Pin 5 - /RESET
Pin 2 - TXD2	Pin 6 - VCC
Pin 3 - RXD2	Pin 7 - RXD1
Pin 4 - PROGRAM	Pin 8 - TXD1

A6 Pin-out Assignments (12V DC)

For the **12V DC** version of the A6 bill validator, the harness (*part number WEL-M007*) has a dual-in-line 30-pin peripheral connector at one end and a 9-pin mating connector at the other end. Connect the 30-pin connector to the side of the bill validator and the 9-pin mating connector to the 12V DC power cable (part no. CU-961-1, see pg. 10 for pin-out info).

◆ 9-pin mating connector pin-out assignments:

Pin 1 INHIBIT (+)	Pin 6 Reserved
Pin 2 INHIBIT (-)	Pin 7 CREDIT (+) [N.O.]
Pin 3 Reserved	Pin 8 CREDIT (-) [Common]
Pin 4 Reserved	Pin 9 GND (Power)
Pin 5 12V DC HOT (Power)	



◆ Dual-in-line 30-pin peripheral connector (A6, 12V DC) pin-out assignments:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Pin 1 - CREDIT(-)COM	Pin 16 - CREDIT (+) (N.O.)
Pin 2 - 12VDC HOT (Power).	Pin 17 - Reserved
Pin 3 - NEUTRAL ENABLE	Pin 18 - HOT ENABLE
Pin 4 - Reserved	Pin 19 - KEY
Pin 5 - INHIBIT(+)	Pin 20 - INHIBIT(-)
Pin 6 - KEY	Pin 21 - EARTH GROUND
★ Pin 7 - /\$1_CREDIT	★ Pin 22 - /OUT_OF_SERVICE
★ Pin 8 - /INTERRUPT	Pin 23 - Reserved
★ Pin 9 - /\$5_CREDIT	★ Pin 24 - /ACCEPT_ENABLE
Pin 10 - GND(Power)	★ Pin 25 - /\$2_CREDIT
★ Pin 11 - /DATA	★ Pin 26 - /SEND
★ Pin 12 - ESCROW_HIGH	★ Pin 27 - \$1_ENABLE_LOW
★ Pin 13 - \$5_ENABLE_HIGH	★ Pin 28 - \$2_ENABLE_LOW
★ Pin 14 - \$2_ENABLE_HIGH	★ Pin 29 - \$5_ENABLE_LOW
★ Pin 15 - \$1_ENABLE_HIGH	★ Pin 30 - ESCROW_LOW

《★》 **NOT USED.**

◆ **CAUTION:** Turn off the power before connecting or disconnecting the bill validator.

A6 Option Switch Settings (12V DC)

A6 dip-switch settings and functions:

FUNCTION	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8	SW1	SW2	SW3	SW4
Reject \$ 1	ON											
Accept \$ 1	OFF											
Reject \$ 5		ON										
Accept \$ 5		OFF										
Reject \$ 10			ON									
Accept \$ 10			OFF									
Reject \$ 20				ON								
Accept \$ 20				OFF								
Reserved					ON							
Reserved					OFF							
High Acceptance						ON						
High Security						OFF						
Harness disable							ON					
Harness enable							OFF					
Inhibit Active High(NOTE-1)								ON				
Inhibit Active Low(NOTE-1)								OFF				
1 pulse / one dollar									OFF	OFF		
2 pulse / one dollar									ON	OFF		
4 pulse / one dollar									OFF	ON		
20 pulse / one dollar									ON	ON		
Interface Timing Conversion	50ms on / 50ms off										OFF	OFF
	60ms on / 300ms off										ON	OFF
	30ms on / 50ms off										OFF	ON
	150ms on / 150ms off										ON	ON

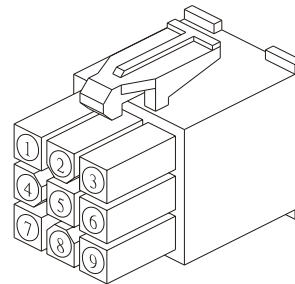
◆ Factory configuration has all switches in the **OFF** position.
Note see page 11.

A6 Pin-out Assignments (110V AC)

For the 110V AC version of the A6 bill validator, connect the 30-pin peripheral connector on one end of the harness (part no. WEL-M008) to the side of the unit and the 9-pin mating connector to the 110V AC power cable (WEL-M012, see pg. 11 for pin-out info).

◆ 9-pin mating connector pin-out assignments:

- Pin 1 NEUTRAL INHIBIT
- Pin 2 NEUTRAL ENABLE
- Pin 3 HOT ENABLE
- Pin 4 110VAC HOT (Power)
- Pin 5 **Earth - Ground**
- Pin 6 110VAC NEUTRAL(Power)
- Pin 7 CREDIT RELAY (N.O.)
- Pin 8 CREDIT RELAY (Common)
- Pin 9 Reserved



IMPORTANT: On 110V AC units, the Earth Ground must be located inside the machine.

◆ Dual-in-line 30-pin peripheral connector (A6, 110V AC) pin-out assignments:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

- | | |
|--------------------------------|------------------------------|
| Pin 1 - CREDIT_RELAY_COM | Pin 16 - CREDIT REALY (N.O.) |
| Pin 2 - Reserved . | Pin 17 - Reserved |
| Pin 3 - NEUTRAL ENABLE | Pin 18 - HOT ENABLE |
| Pin 4 - 110 VAC NEUTRAL(Power) | Pin 19 - KEY |
| Pin 5 - NEUTRAL INHIBIT | Pin 20 - 110 VAC HOT (Power) |
| Pin 6 - KEY | Pin 21 - EARTH GROUND |
| ★ Pin 7 - /\$1_CREDIT | ★ Pin 22 - /OUT_OF_SERVICE |
| ★ Pin 8 - /INTERRUPT | Pin 23 - Reserved |
| ★ Pin 9 - /\$5_CREDIT | ★ Pin 24 - /ACCEPT_ENABLE |
| Pin 10 - GND | ★ Pin 25 - /\$2_CREDIT |
| ★ Pin 11 - /DATA | ★ Pin 26 - /SEND |
| ★ Pin 12 - ESCROW_HIGH | ★ Pin 27 - \$1_ENABLE_LOW |
| ★ Pin 13 - \$5_ENABLE_HIGH | ★ Pin 28 - \$2_ENABLE_LOW |
| ★ Pin 14 - \$2_ENABLE_HIGH | ★ Pin 29 - \$5_ENABLE_LOW |
| ★ Pin 15 - \$1_ENABLE_HIGH | ★ Pin 30 - ESCROW_LOW |

《★》 NOT USED.

◆ **CAUTION:** Turn off the power before connecting or disconnecting the bill validator.

A6 Option Switch Settings (110V AC)

A6 dip-switch settings and functions:

FUNCTION	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8	SW1	SW2	SW3	SW4
Reject \$ 1	ON											
Accept \$ 1	OFF											
Reject \$ 5		ON										
Accept \$ 5		OFF										
Reject \$ 10			ON									
Accept \$ 10			OFF									
Reject \$ 20				ON								
Accept \$ 20				OFF								
Reserved					ON							
Reserved					OFF							
High Acceptance						ON						
High Security						OFF						
Harness disable							ON					
Harness enable							OFF					
Inhibit Active High(NOTE-1)								ON				
Inhibit Active Low(NOTE-1)								OFF				
1 pulse / one dollar									OFF	OFF		
2 pulse / one dollar									ON	OFF		
4 pulse / one dollar									OFF	ON		
20 pulse / one dollar									ON	ON		
Interface Timing Conversion	50ms on / 50ms off										OFF	OFF
	60ms on / 300ms off										ON	OFF
	30ms on / 50ms off										OFF	ON
	150ms on / 150ms off										ON	ON

◆ Factory configuration has all switches in the **OFF** position.

V6 (MDB) Pin-out Assignments

For the MDB interface V6 bill validator, connect the 30-pin peripheral connector on one end of the harness (*part no. WEL-M006*) to the side of the unit and the standard 6-pin MDB connector to the power/interface connector.

◆ The standard 6-pin MDB connector pin-out assignments:

- Pin 1 - 34 VDC
- Pin 2 - 34 VDC Power Return
- Pin 3 - N/C
- Pin 4 - Master Receive
- Pin 5 - Master Transmit
- Pin 6 - Communications Common

◆ Dual-in-line 30-pin peripheral connector (V6, MDB) pin-out assignments:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

- | | |
|----------------------------|----------------------------|
| Pin 1 - CREDIT_RELAY_COM | Pin 16 - 34VDC_RETURN |
| Pin 2 - CREDIT_RELAY_N.O. | Pin 17 - NEUTRAL_INHIBIT |
| Pin 3 - 24VAC_HOT | Pin 18 - NEUTRAL_ENABLE |
| Pin 4 - HOT_ENABLE | ★ Pin 19 - CASH_COUNTER_HI |
| Pin 5 - KEY | Pin 20 - 24VAC_NEUTRAL |
| Pin 6 - MDB_MASTER_RxD | Pin 21 - KEY |
| ★ Pin 7 - /\$1_CREDIT | ★ Pin 22 - /OUT_OF_SERVICE |
| ★ Pin 8 - /INTERRUPT | Pin 23 - MDB +34VDC |
| ★ Pin 9 - /\$5_CREDIT | ★ Pin 24 - /ACCEPT_ENABLE |
| Pin 10 - GND | Pin 25 (Not Used) |
| ★ Pin 11 - /DATA | ★ Pin 26 /SEND |
| ★ Pin 12 - ESCROW_HIGH | ★ Pin 27 - \$1_ENABLE_LOW |
| ★ Pin 13 - \$5_ENABLE_HIGH | Pin 28 - MDB_GND |
| Pin 14 - MDB_MASTER_TxD | ★ Pin 29 - \$5_ENABLE_LOW |
| ★ Pin 15 - \$1_ENABLE_HIGH | ★ Pin 30 - ESCROW_LOW |

《★》 **NOT USED.**

◆ **CAUTION:** Turn off the power before connecting or disconnecting the bill validator.

V6 (MDB) Option Switch Settings

V6 dip-switch settings and functions:

FUNCTION	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8	SW1	SW2	SW3	SW4
Reject \$ 1	ON											
Accept \$ 1	OFF											
Reject \$ 5		ON										
Accept \$ 5		OFF										
Reserved			ON									
Reserved			OFF									
Reserved				ON								
Reserved				OFF								
Reserved					ON							
Reserved					OFF							
High Acceptance						ON						
High Security						OFF						
Reserved							ON					
Reserved							OFF					
Reserved								ON				
Reserved								OFF				
Reserved									ON			
Reserved									OFF			
Reserved										ON		
Reserved										OFF		
Reserved											OFF	OFF
Reserved											ON	OFF
Reserved											OFF	ON
Reserved											ON	ON

◆ Factory configuration has all switches in the **OFF** position.

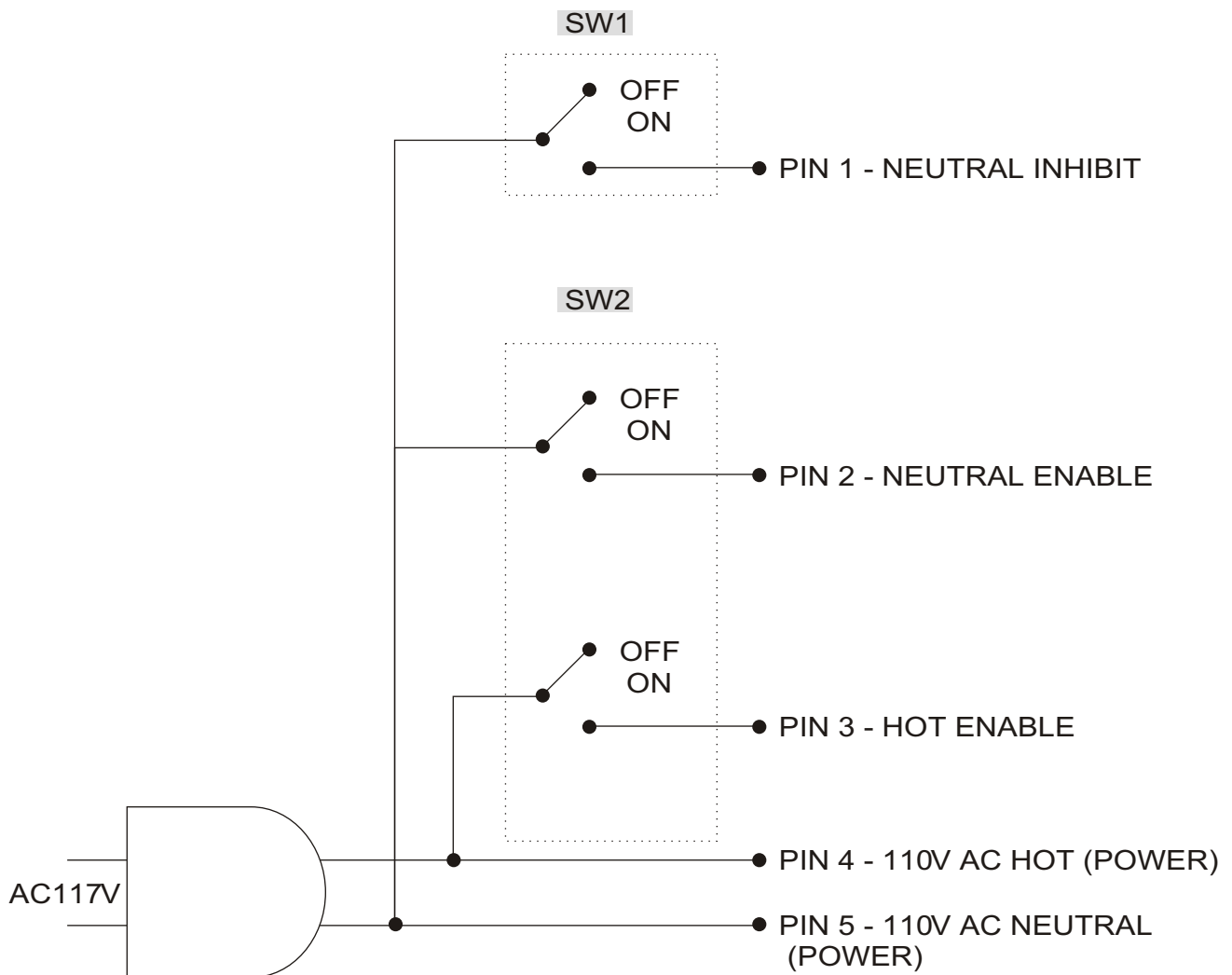
Inhibit Active HIGH/LOW

AC 110V "Inhibit Active HIGH"

- (1) Bill Validator option switch NO.8 setting "ON"
- (2) Keep SW-2 at "ON" position
- (3) When SW-1 at "ON" position Bill Validator will not accept bill
- (4) When SW-1 at "OFF" position Bill Validator will accept bill

AC 110V "Inhibit Active LOW"

- (1) Bill Validator option switch NO.8 setting "OFF"
- (2) Keep SW-2 at "ON" position
- (3) When SW-1 at "ON" position Bill Validator will accept bill
- (4) When SW-1 at "OFF" position Bill Validator will not accept bill

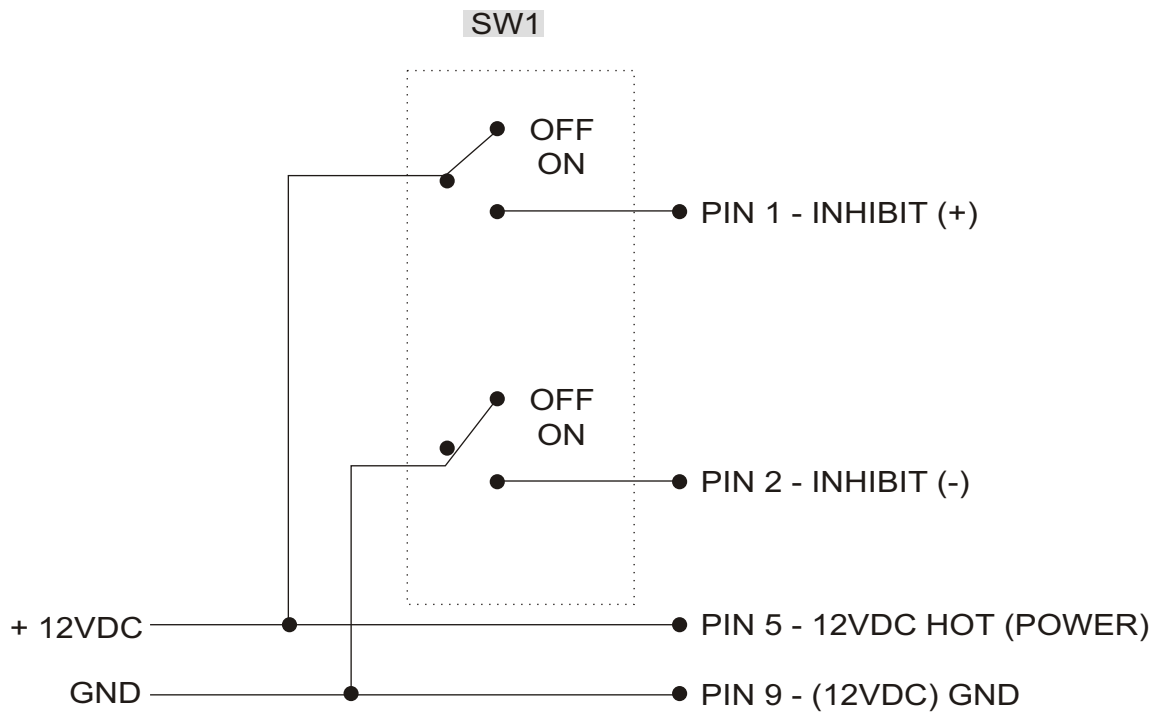


DC 12V "Inhibit Active HIGH"

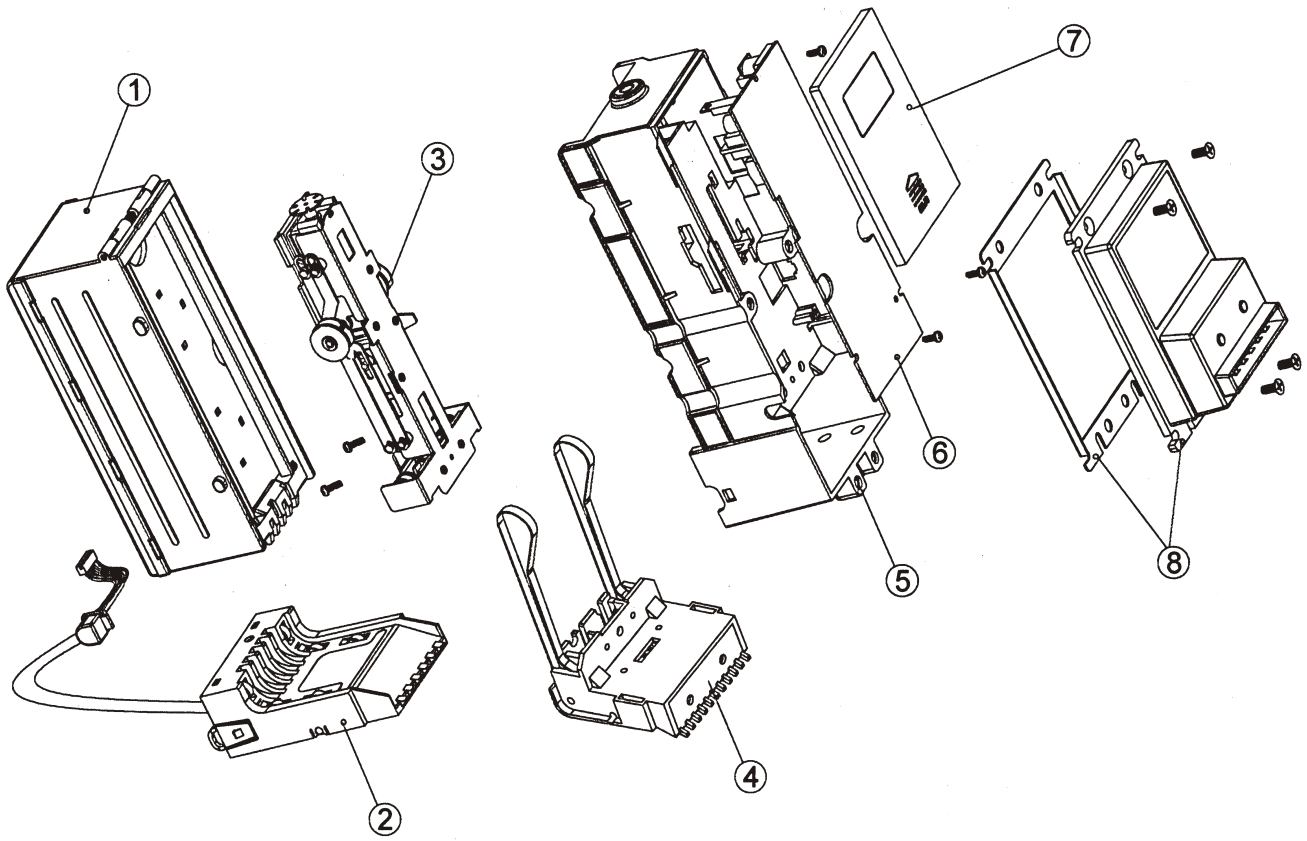
- (1) Bill Validator option switch NO.8 setting "ON"
- (2) When SW-1 at "ON" position Bill Validator will not accept bill
- (3) When SW-1 at "OFF" position Bill Validator will accept bill

DC 12V "Inhibit Active LOW"

- (1) Bill Validator option switch NO.8 setting "OFF"
- (2) When SW-1 at "ON" position Bill Validator will accept bill
- (3) When SW-1 at "OFF" position Bill Validator will not accept bill



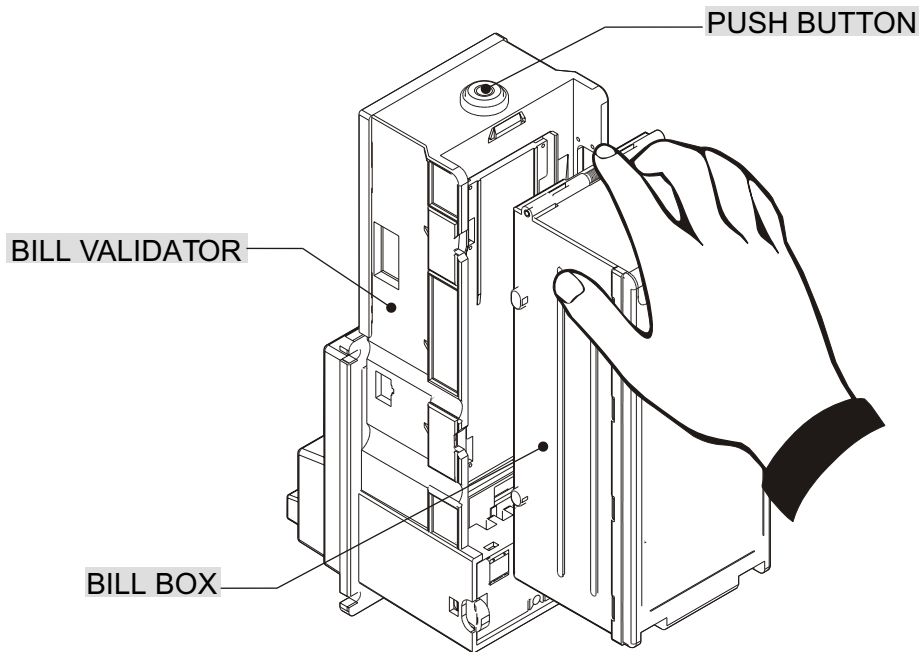
Recommend Parts List:



PART LIST			
NO .	Part name	Qty	Part No .
1	300 Bill box	1/set	3MB-SBX01001
	500 Bill box		3MB-SBX02001
2	LED Housing Assembly	1/set	3MB-UPX01001
3	Transfer unit		3MB-PRO01001
4	Sensor Housing Assembly	1/set	3MB-DWN01001
5	Main base Assembly	1/set	3MB-CAS01001
6	A6 CPU P.C.B Board	1/set	3BA-AA227-A
	V6 CPU P.C.B Board	1/set	3BA-AA227-F
7	CPU P.C.B Board Cover	1/set	A21210
8	Bezel Assembly	1/set	3MB-FAC01001

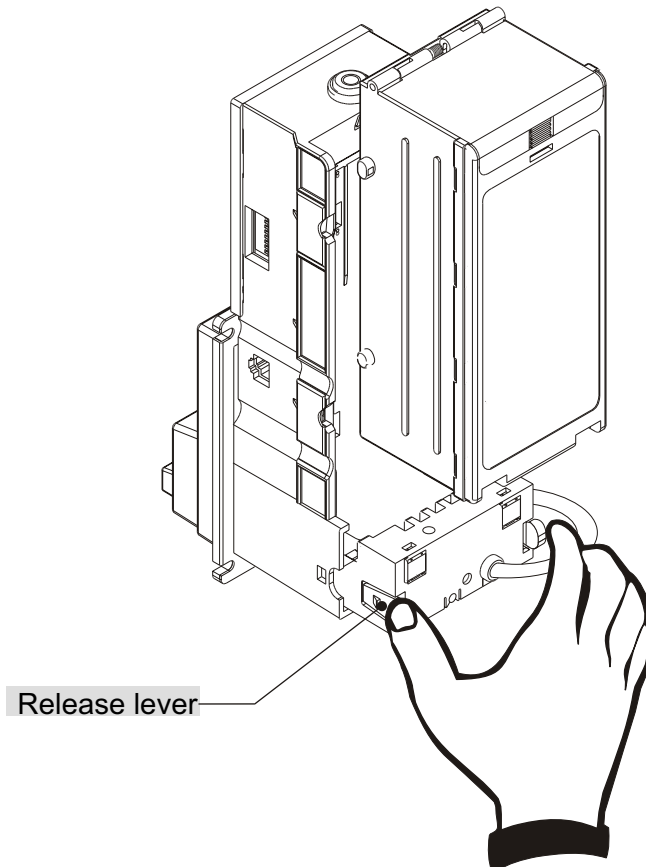
Removing Bill Box:

- 1. Push white button on top of Bill Validator. Lift up back of bill box.



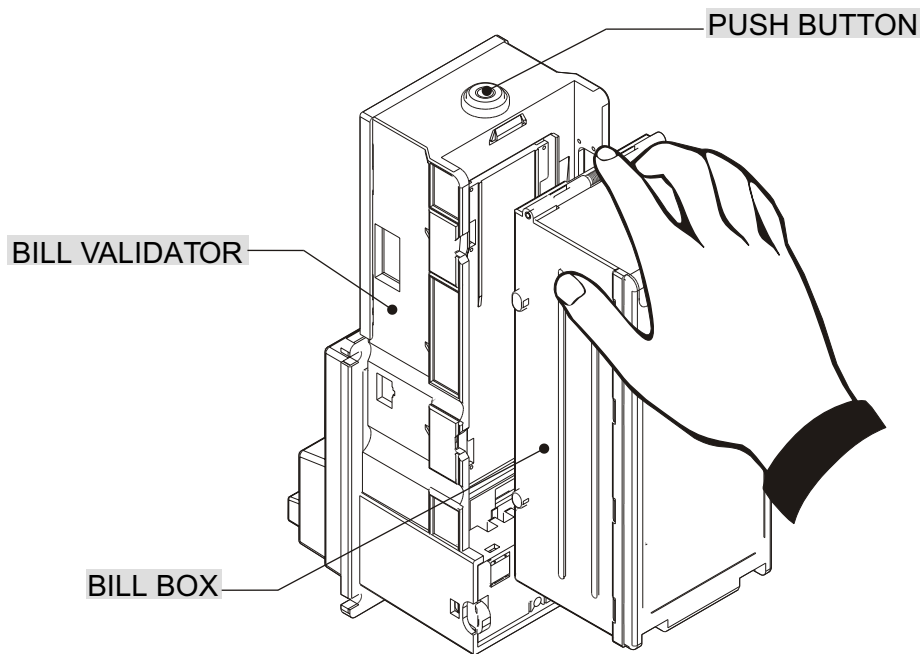
Removing LED Housing Assembly:

- 2. Pressing release lever and pull back for sensor pad removal.

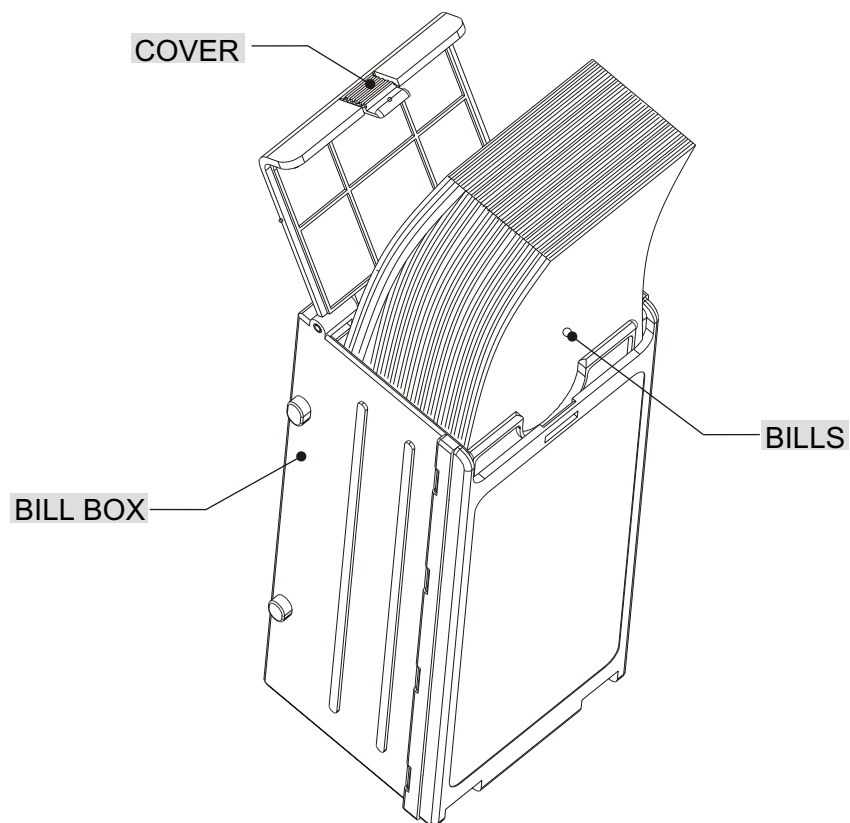


Collecting Bills:

- 1. Push white button on top of Bill Validator. Lift up back of bill box.



- 2. Open the bill box cover to take out bills.

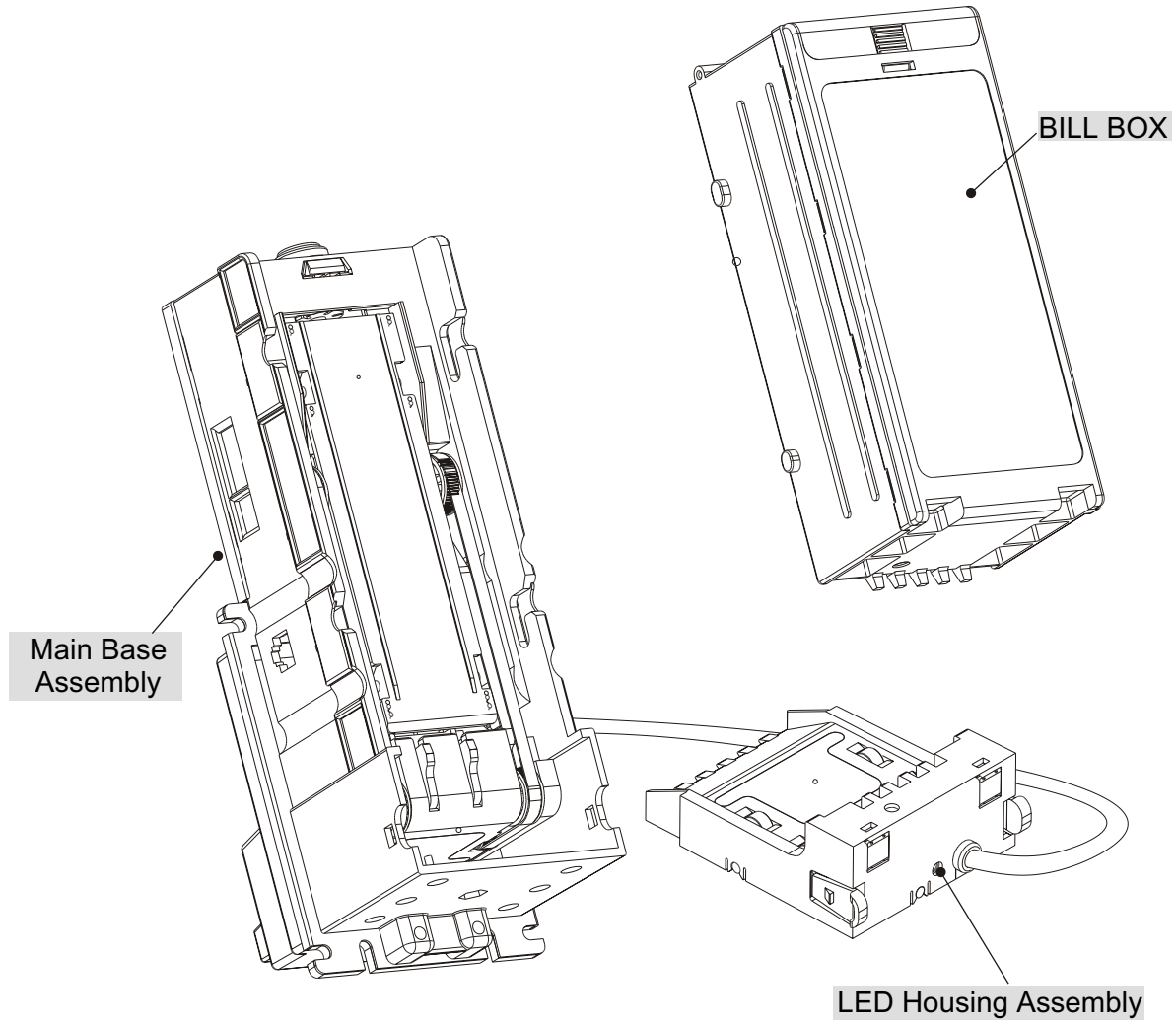


Removing a Jammed Bill:

- 1. Take out box & LED Housing Assembly.
- 2. Remove jammed bill.

Caution:

- 1. Put back the LED Housing Assembly at first.



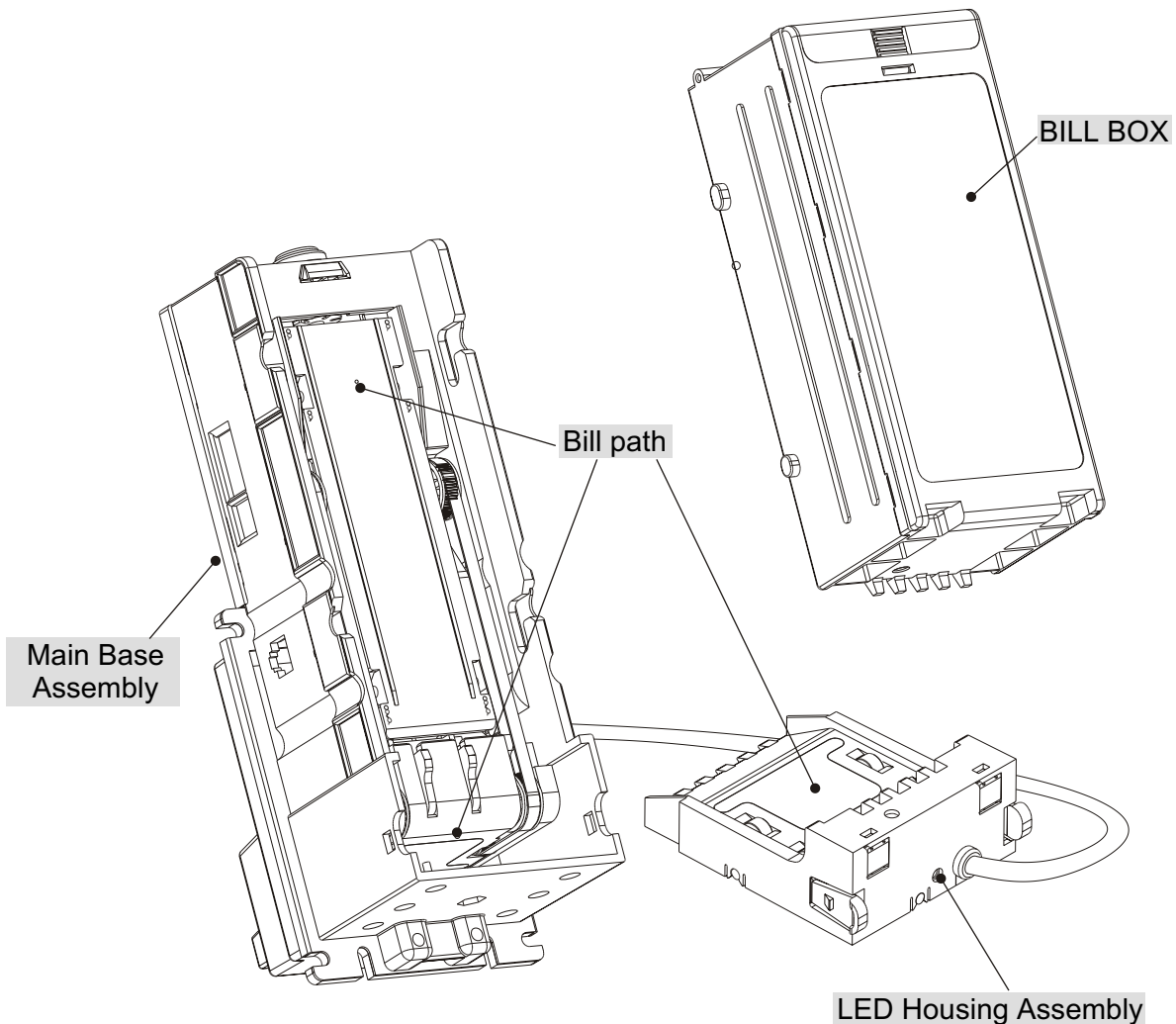
Cleaning:

Dirt deposited on the scanner including the sensor, could cause jamming of bills and degradation of the bill identification performance. Periodically clean the internal parts.

- 1. Turn off the power
- 2. Take out bill box & LED Assembly.
- 3. Use a soft cloth or cotton swab to clean the internal parts. If the dirt cannot be removed easily, apply a standard head cleaner on a cloth or cotton swab and wipe off the dirt.

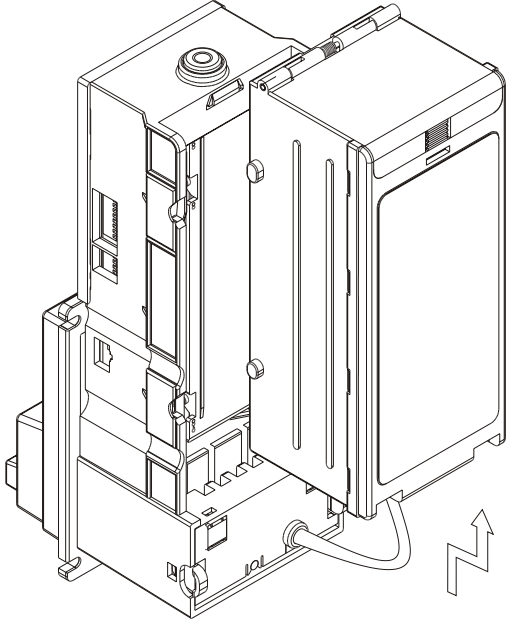
Caution:

- 1. Never use an organic solvent such as thinner to wipe the head.
- 2. Put back the LED Housing Assembly at first.

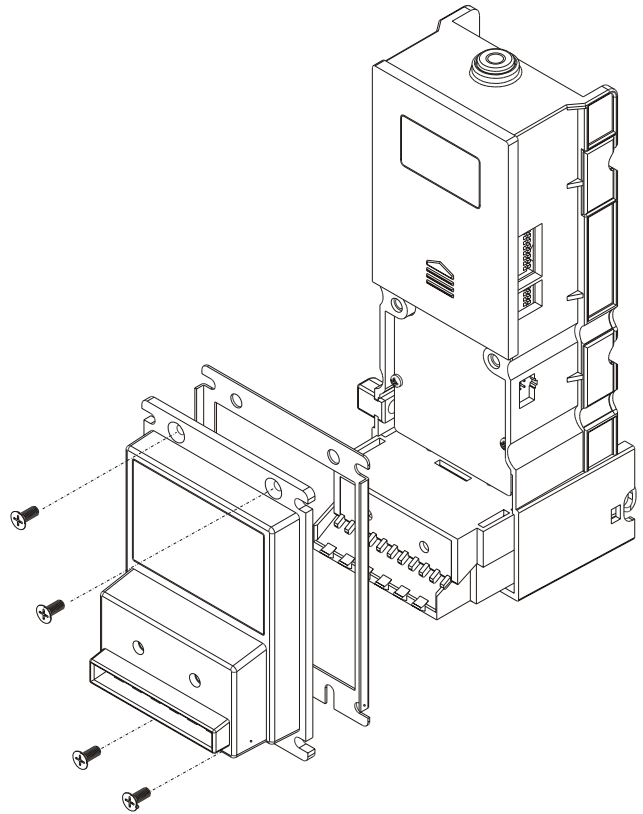


Disassembly and Assembly:

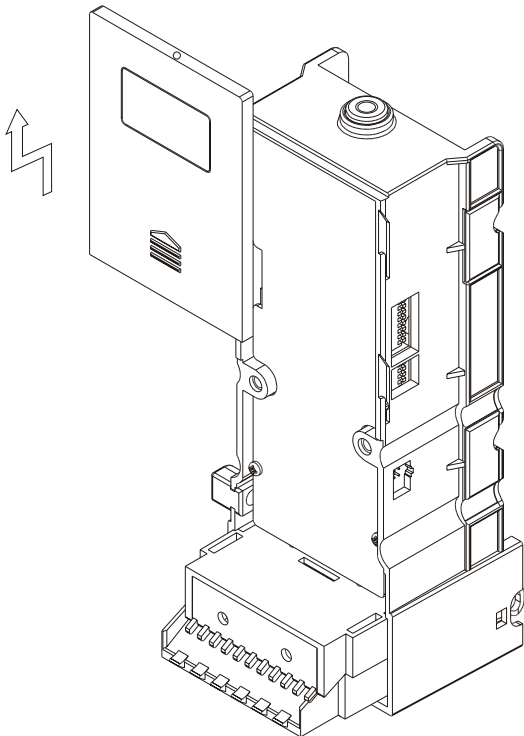
● 1. Removing Bill Box



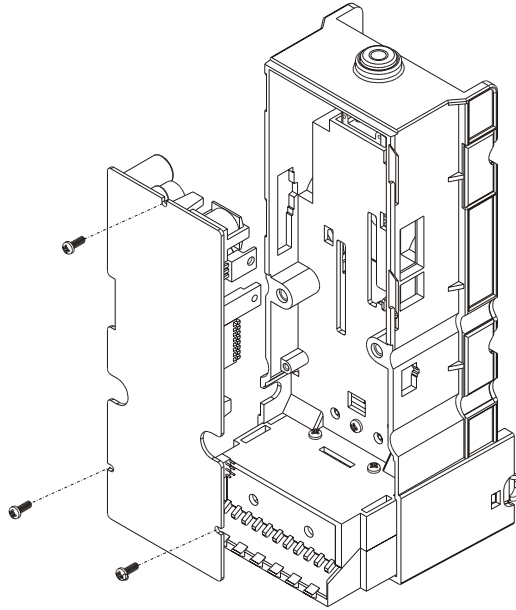
● 2. Remove 4 Screws on Bezel



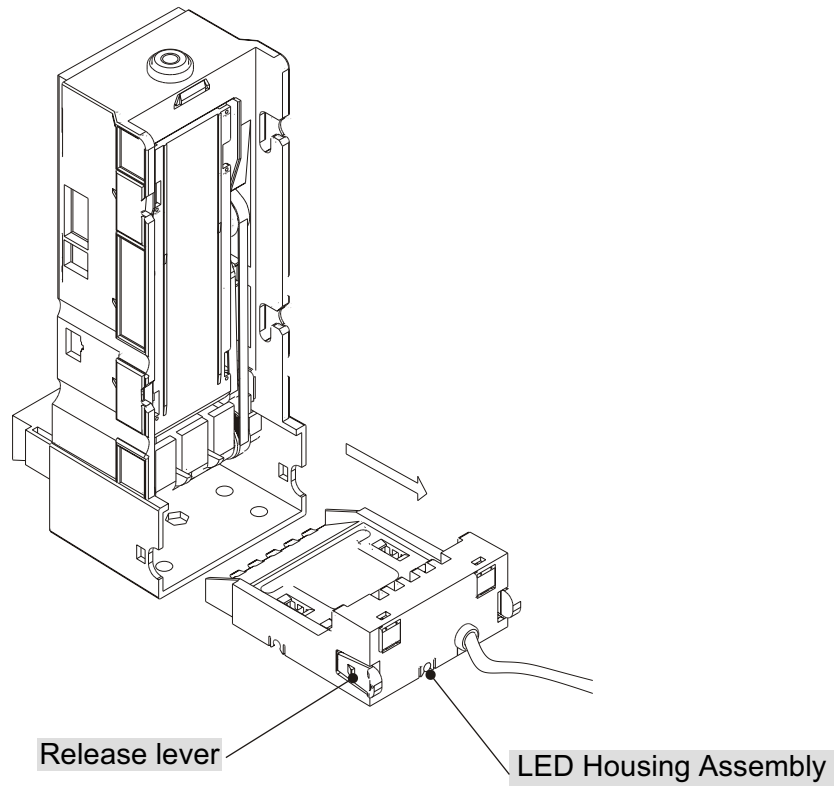
● 3. Remove P.C.B Cover



- 4. Removing 3 screws from the CPU board and disconnect the 5 connector on the underside of the board.

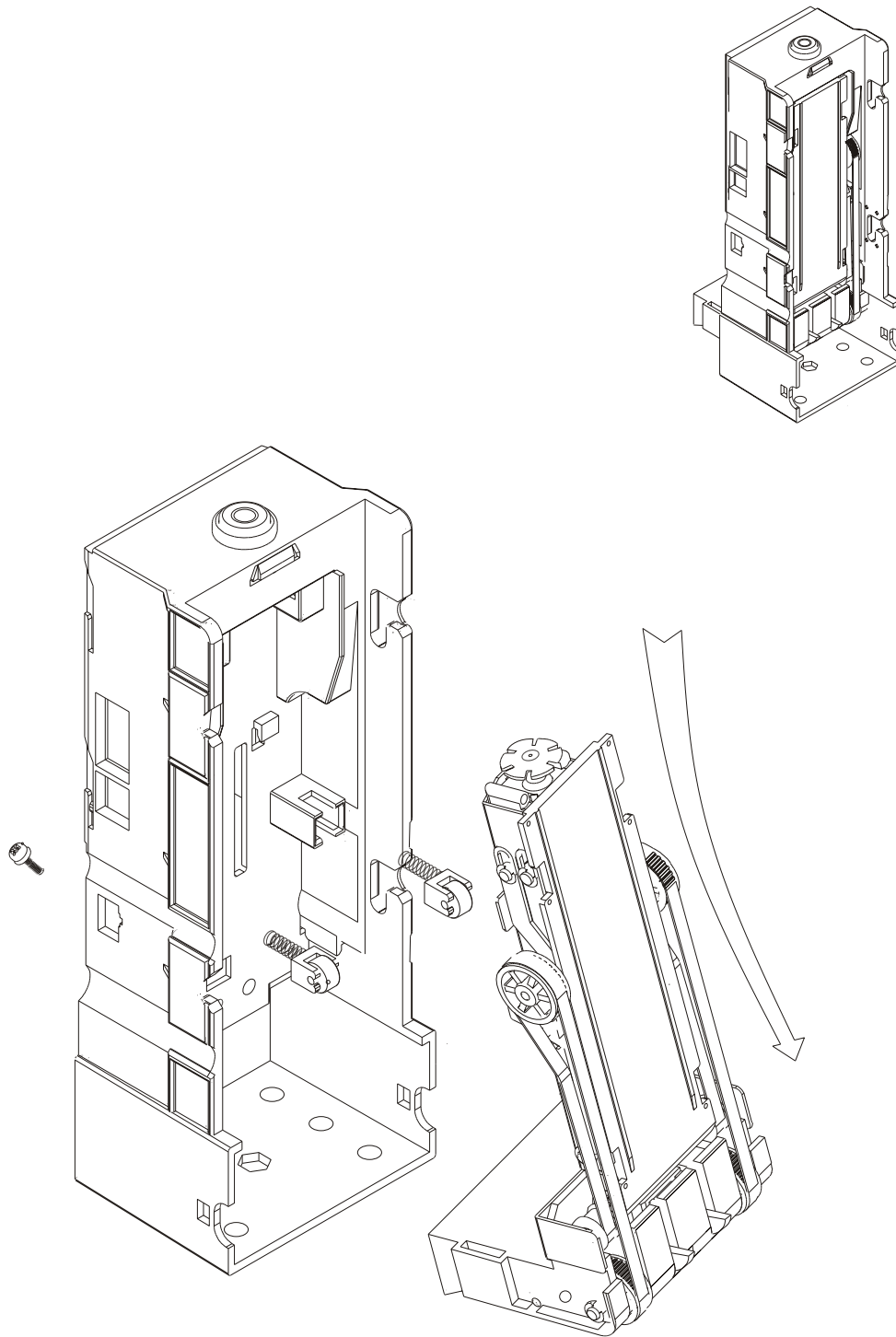


- 5. Pressing release lever and pull back for LED Housing Assembly remove.

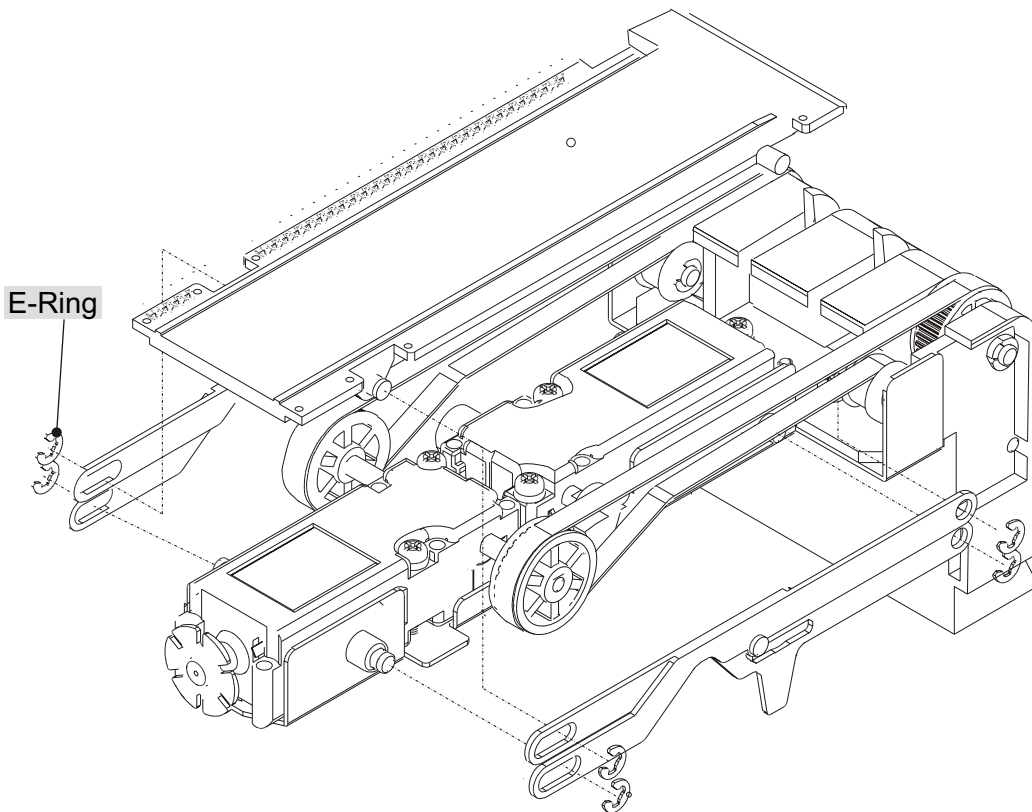
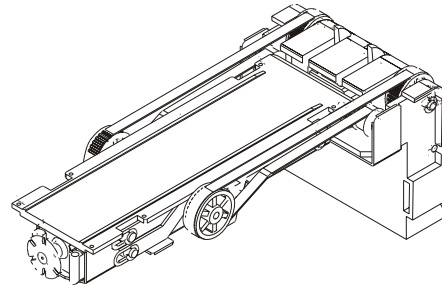


Disassembly of Transfer Unit:

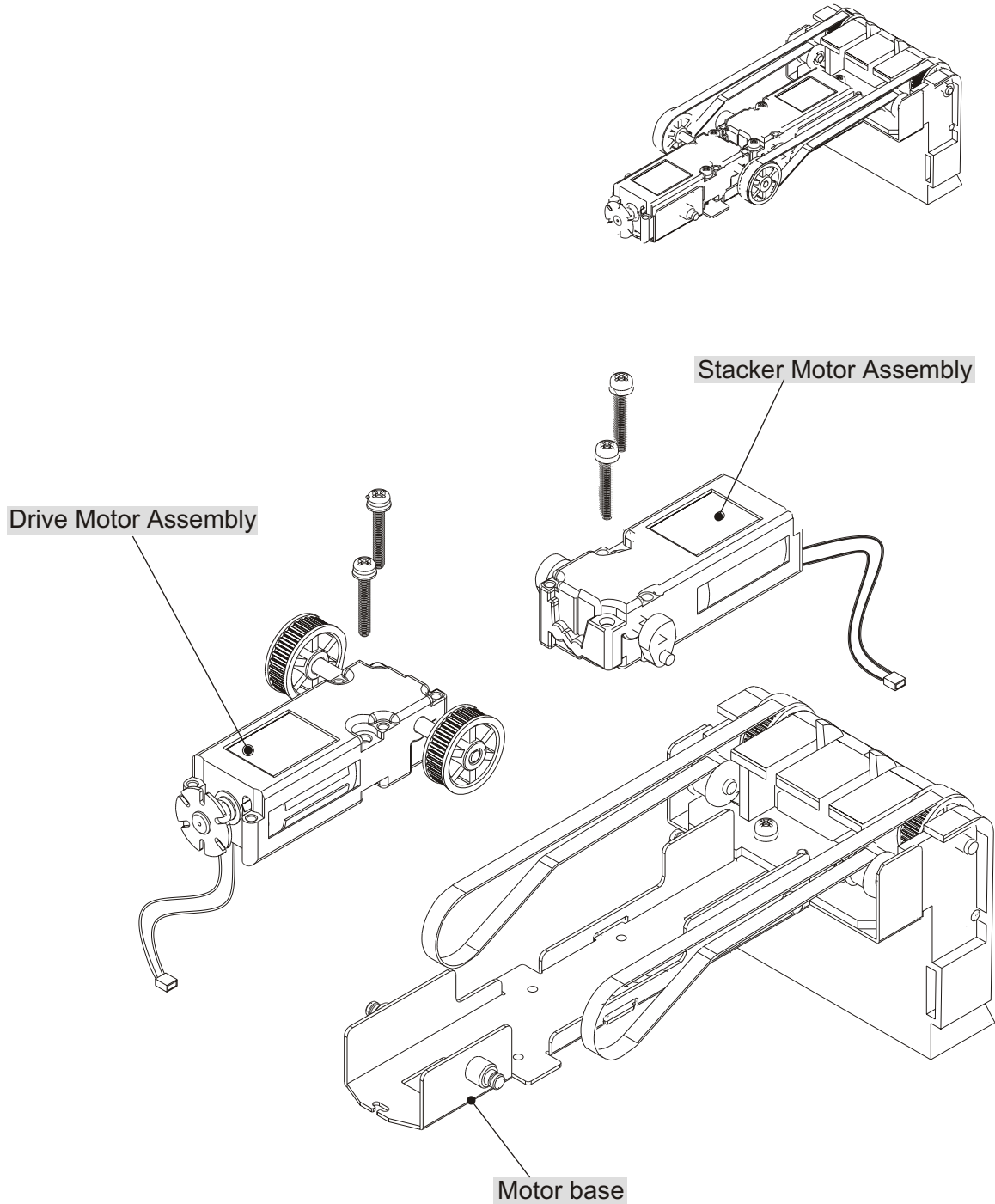
- 1. Remove 1 screw on the main base underside,
Then take out the transfer unit.



- 2. Remove 8 E-ring on booth sides, to remove the press mechanism.

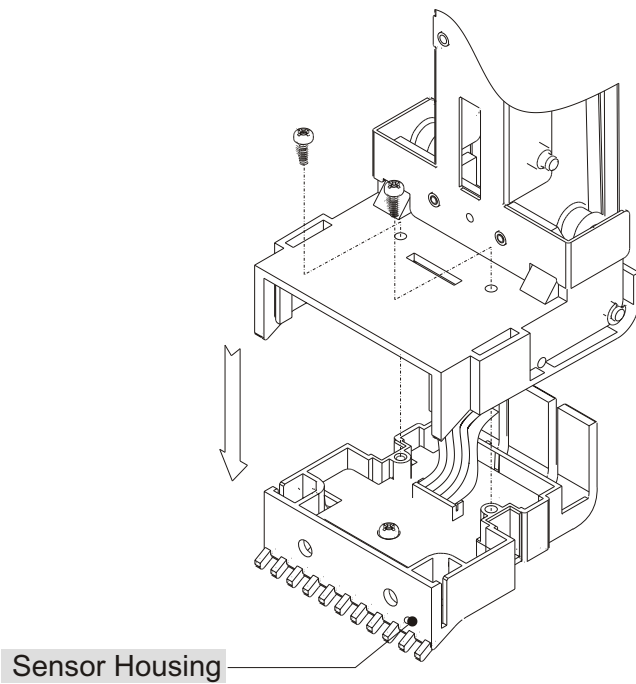


● 3. Remove 4 screws on top of motor, separate the motor & motor base.

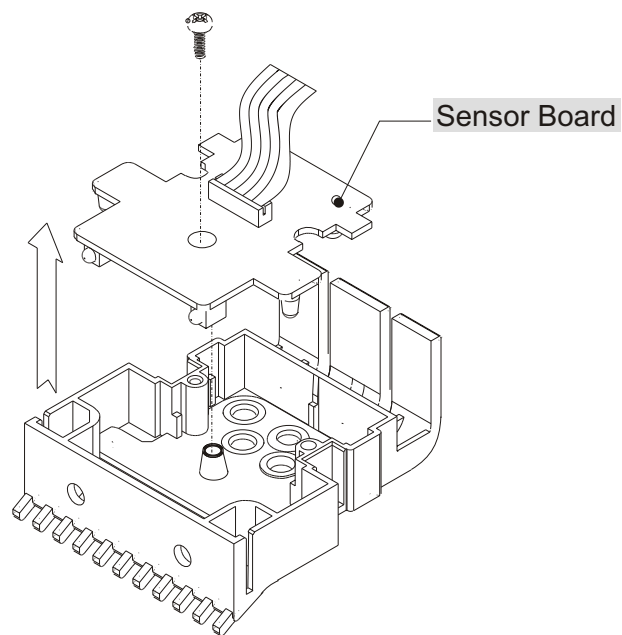


Disassembly of Sensor Housing Unit:

- 1. Remove 2 screws and separate the housing cover.

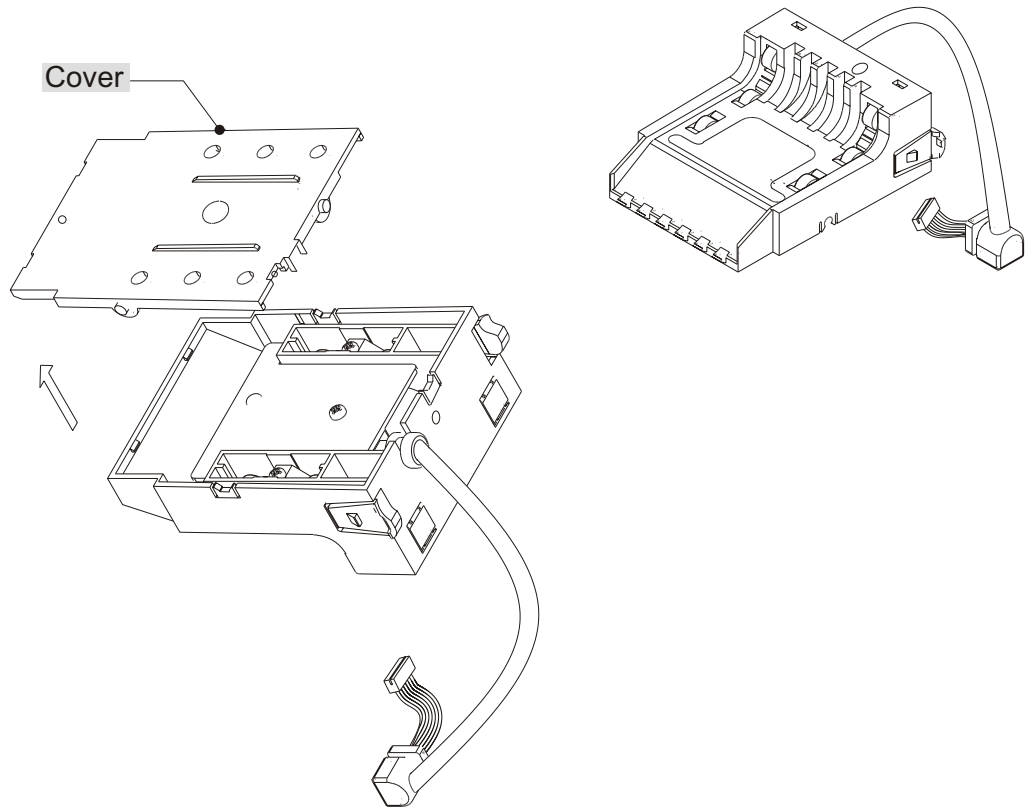


- 2. Remove 1 screw on sensor board Then take out the board.

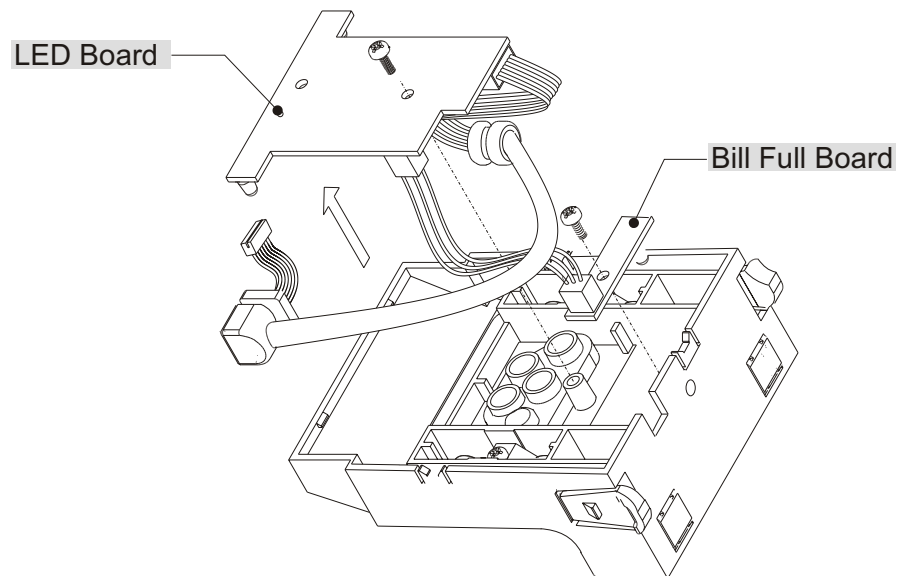


Disassembly of of LED Housing Unit:

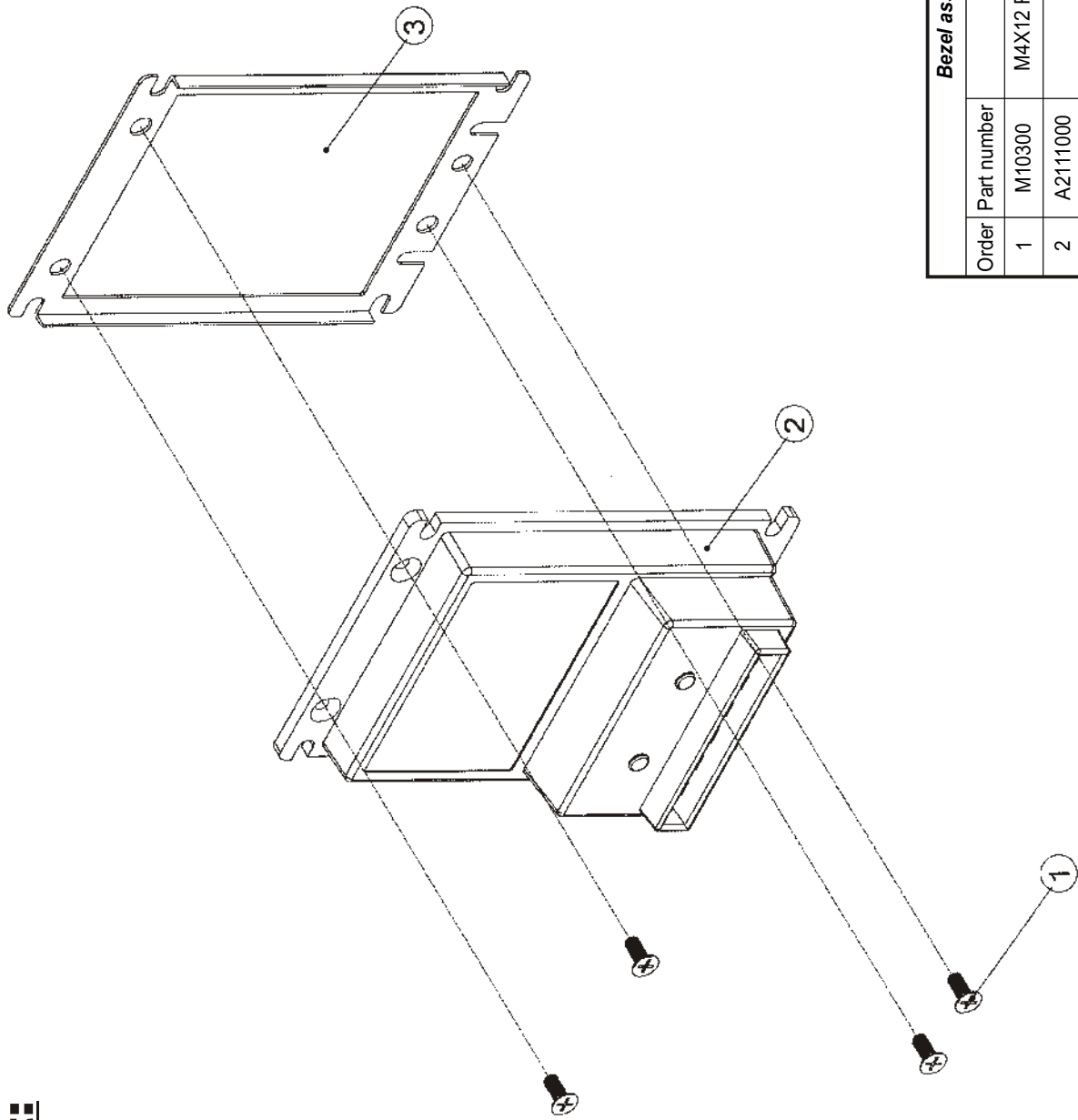
- 1. Using screw drive (—)open the cover.



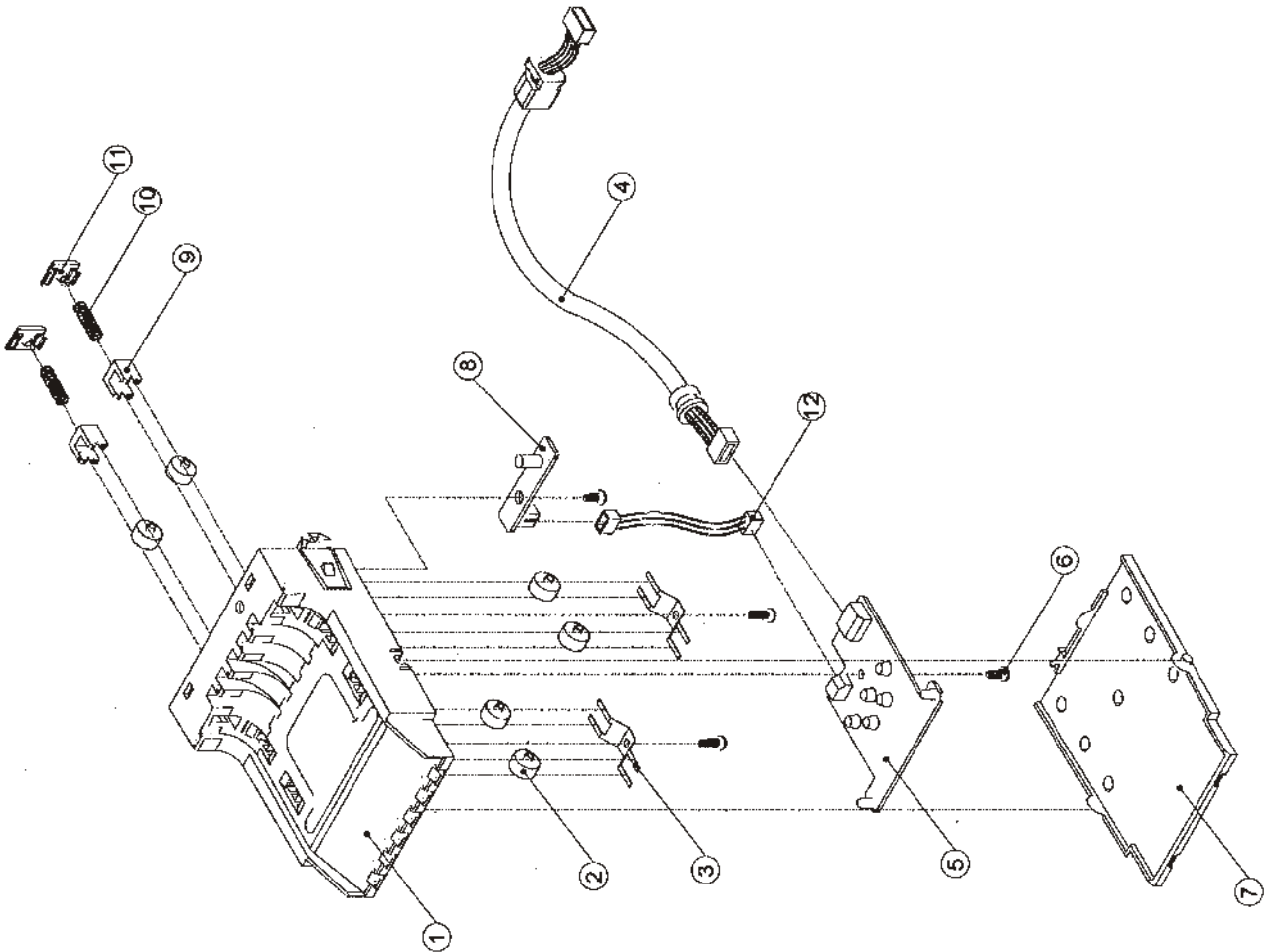
- 2. Remove 2 screws on LED board & bill full board,
Then take out 2 board.



Parts List:



Bezel assembly			
Order	Part number	Remarks	Quantity
1	M10300	M4X12 Round head screw	4
2	A2111000	Bezel	1
3	C12230	Mounting frame	1
4			

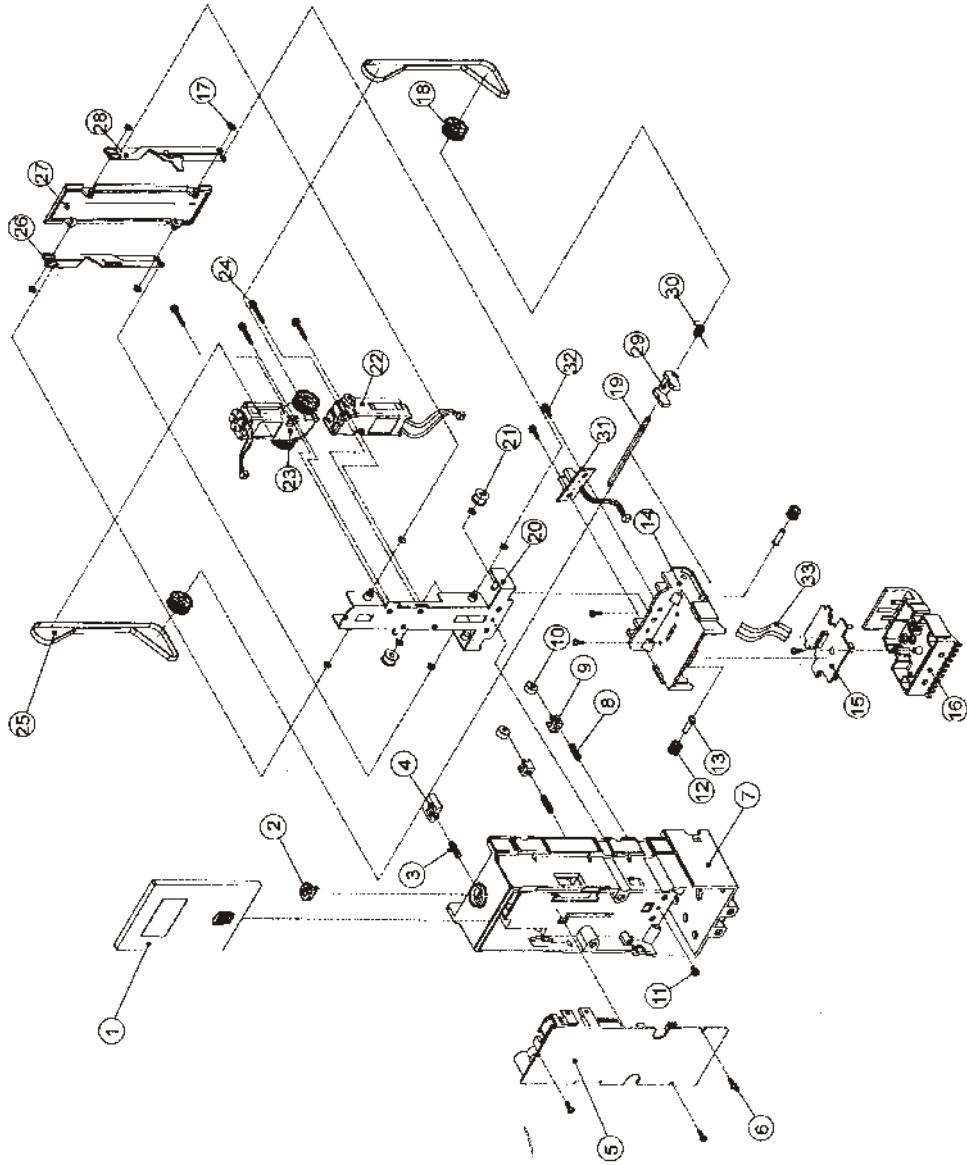


LED Housing assembly

Order	Part number	Remarks	Quantity
1	A215000	LED Board housing	1
2	A21820	Roller	6
3	C-12130	Plate spring	2
4	WEL-M004	CPU Board connect harness	1
5	3BA-AA227-B	LED Board	1
6	BA-060	3 x 8 Screw, TP2	4
7	A21520	Housing cover	1
8	3BA-AA227-C	Stacker sensor board	1
9	A21250	Roller holder	2
10	G-10220	Spring	2
11	A21280	Idle roller cover	2
12	WEL-M005	Stacker sensor harness	1
13			

Chassis assembly

Order	Part number	Remarks	Quantity
1	A21210	CPU Board cover	1
2	A21680	Push button	1
3	G10270	Spring	1
4	A21690	Slider	1
5	3BA-AA227-A	A6 CPU board	1
	3BA-AA227-F	V6 CPU board	
6	BA-060	3 x 8 Screw, TP2	6
7	A2116000	Main base	1
8	G10220	Spring	2
9	A21250	Roller holder	2
10	A21820	Roller	2
11	BA-041-1	M3X6 Screw with washer	1
12	A21270	Belt pulley (0 style, 14t)	2
13	B10670	Pulley shaft	2
14	A21530	Frame, drive	1
15	3BA-AA227-D	Sensor board	1
16	A2154000	Sensor board housing	1
17	BA-036	Retaining ring-E type, E3	10
18	A20750	Belt pulley (0 style, 30t)	2
19	B10660	Pulley, idler	1
20	C12070	Motor base	1
21	B20020	Pulley, idler	2
22	3MB-MOT02001	Motor assembly, stacker	1
23	3MB-MOT01001	Motor assembly, drive	1
24	M10080	M3 X 20 Screw with washer	4
25	E50070	Belt (MXL 162t)	2
26	C1210000	Lever-A, stacker	1
27	A21220	Stacker cap	1
28	C1211000	Lever-B, stacker	1
29	A21840	Lever, anti-pullback	1
30	G10340	Spring, anti-pullback	1
31	3BA-AA227-G	Sensor board, anti-pullback	1
32	M10200	M3 X 15 Screw with washer	2
33	WEL-M003	Flexible Flat Cable, 10 pin	1



Warranty:

Unpacking the Bill Validator

Unpack the bill Validator and immediately inspect it for damage. If the unit is damaged, return it to its original carton along with packing materials.

Notify the delivering carrier of damages and request immediate inspection.

Send a letter of intent to the delivering carrier within 96 hours from the time of delivery. Send a copy of the letter to the shipper.

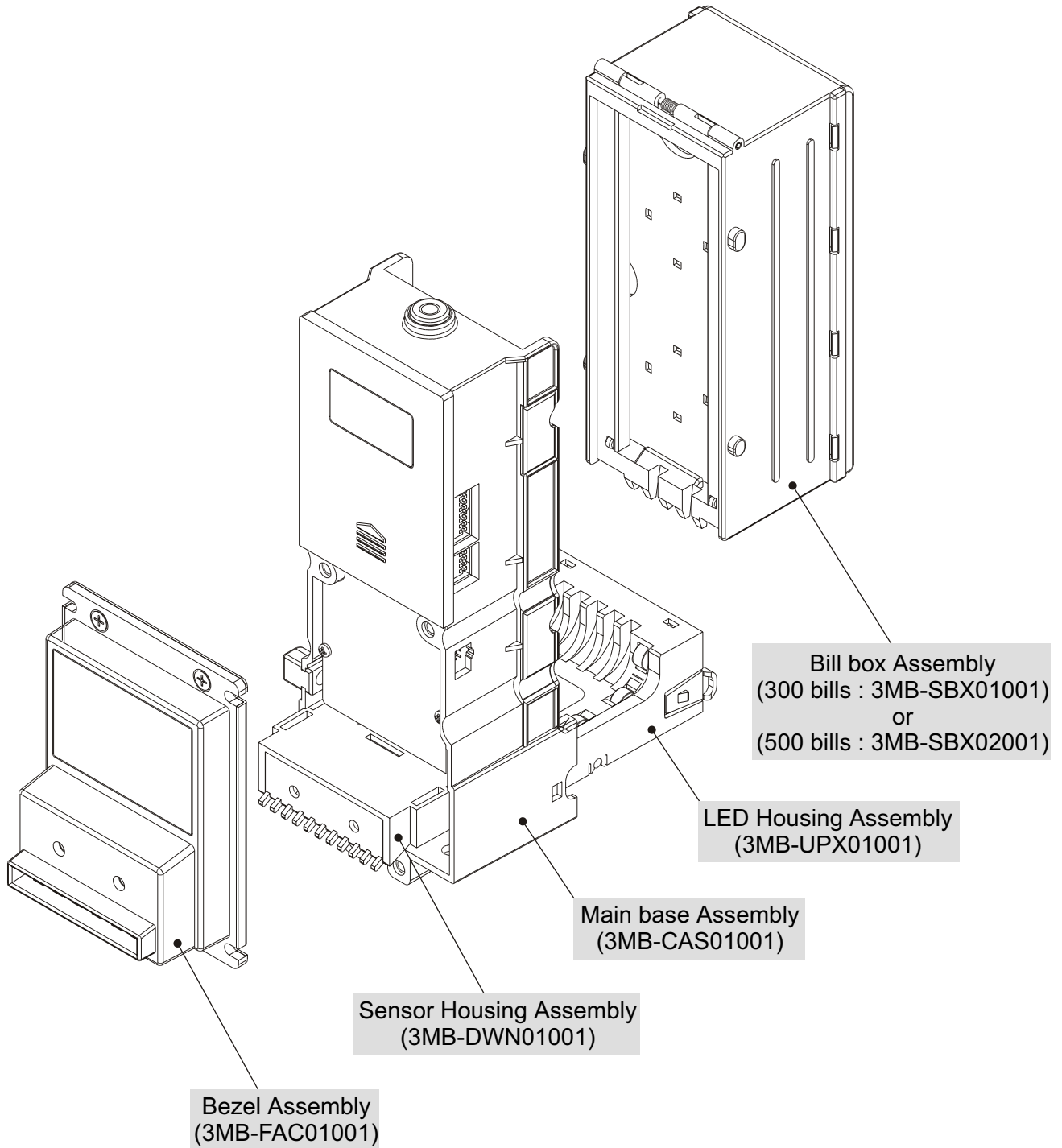
Only the consignee (the person or company receiving the bill Validator) can file a claim against the carrier for concealed damages.

Retain the original carton and packing materials for future use in shipping or transporting the bill Validator.

A6/V6 Series Bill Validator come with a Two Year Manufacturer's Warranty.

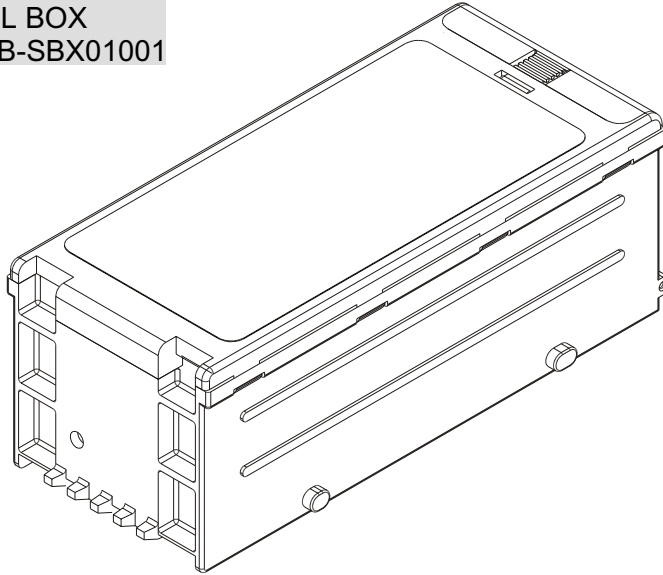
Once the unit has been inspected, record the model and serial numbers from the label on the side of the bill Validator. Refer to these numbers when you call our service center for service or information. The manufacture's warranty is based upon the date of manufacture. Parts and labor are included for In Warranty repairs.

Component Names:

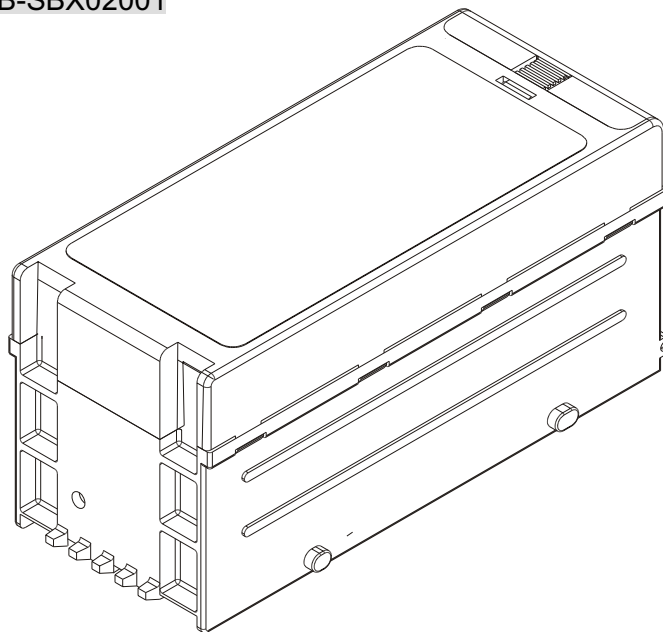


Bill Box:

300 BILL BOX
PART NO:3MB-SBX01001

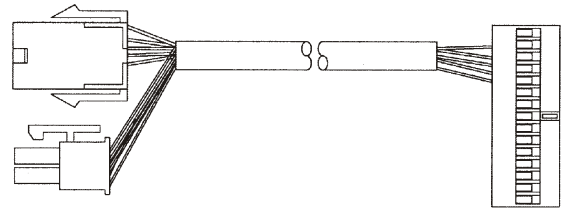


500 BILL BOX
PART NO:3MB-SBX02001

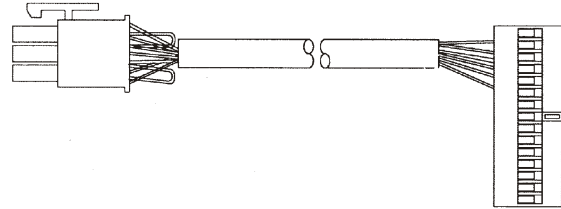


Cables:

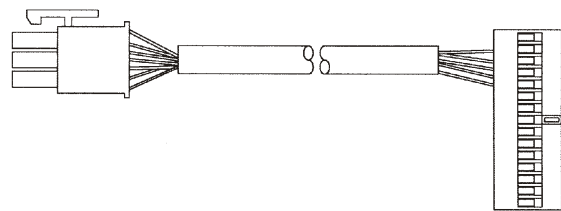
MDB Cable
Part Number-WEL-M006



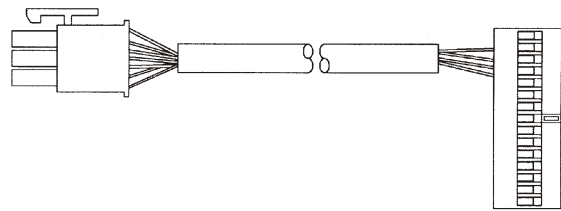
Pulse+DC 12V
Part Number-WEL-M007



Pulse 110 VAC
Part Number-WEL-M008

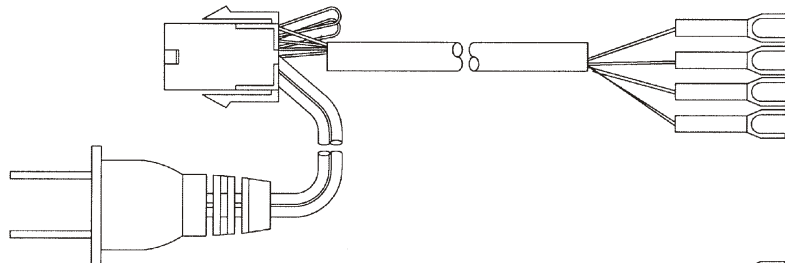


Pulse+DC 12V
Part Number-WEL-M011
Midway+Only

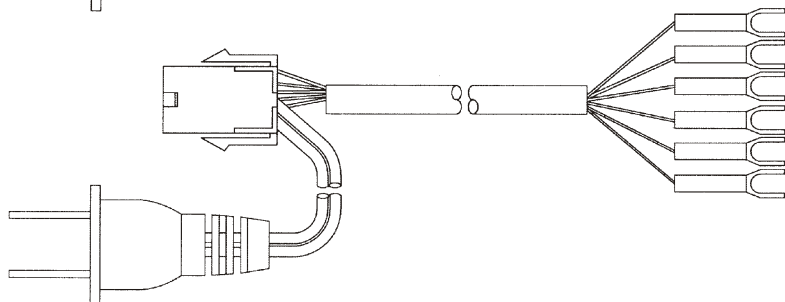


Option Accessories:

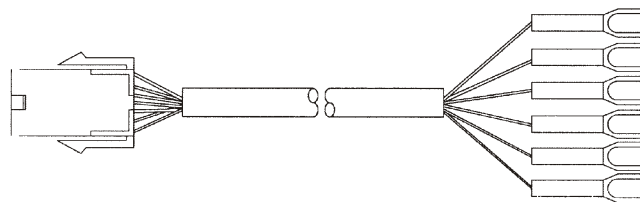
Pulse AC 110 V
Part Number-WEL-M010

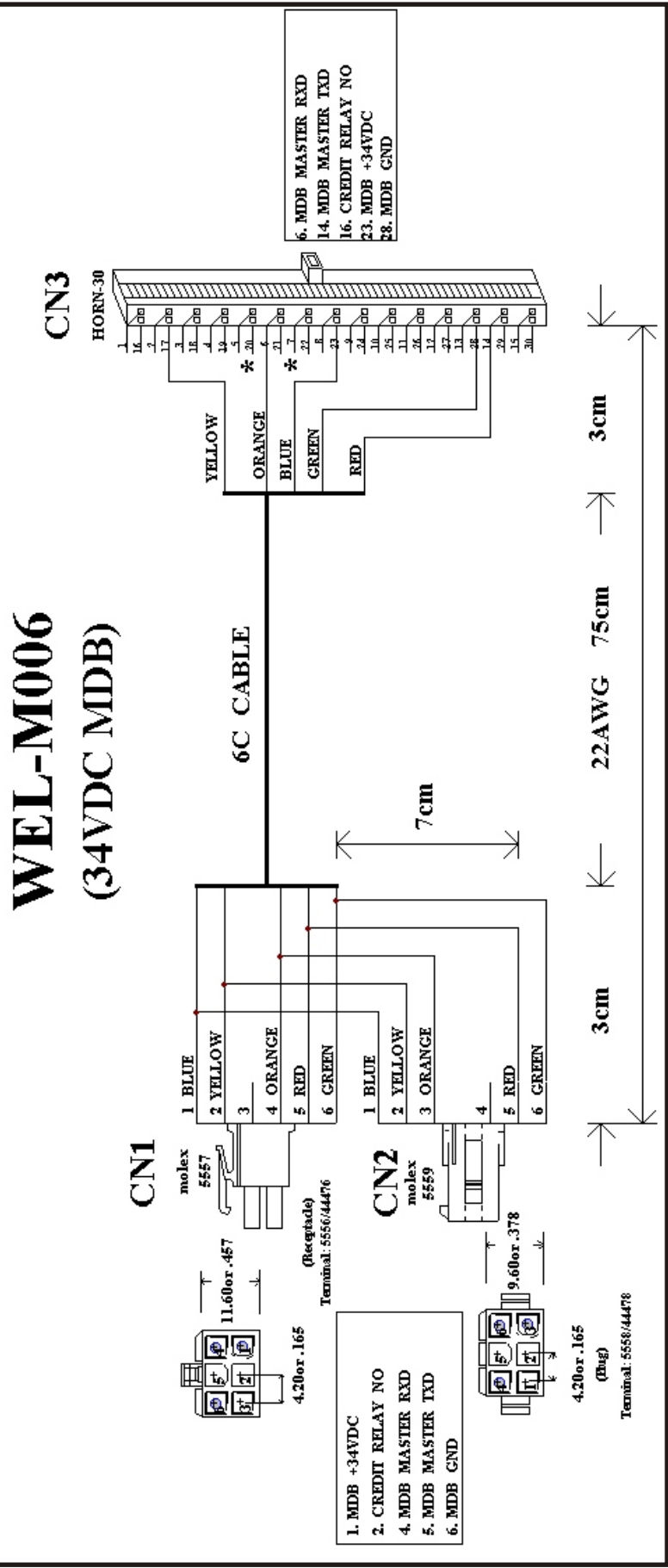


Pulse AC 110 V
Part Number-WEL-M012

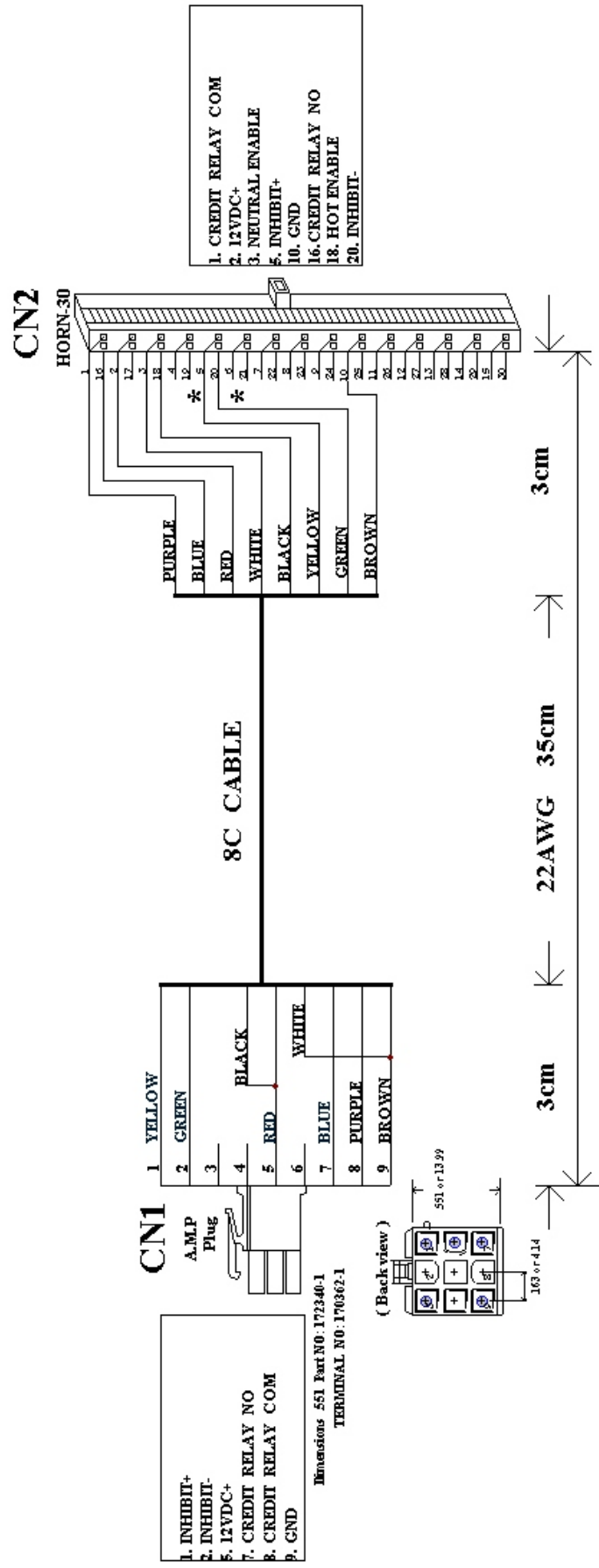


Pulse AC 110 V
Part Number-CU-961-1

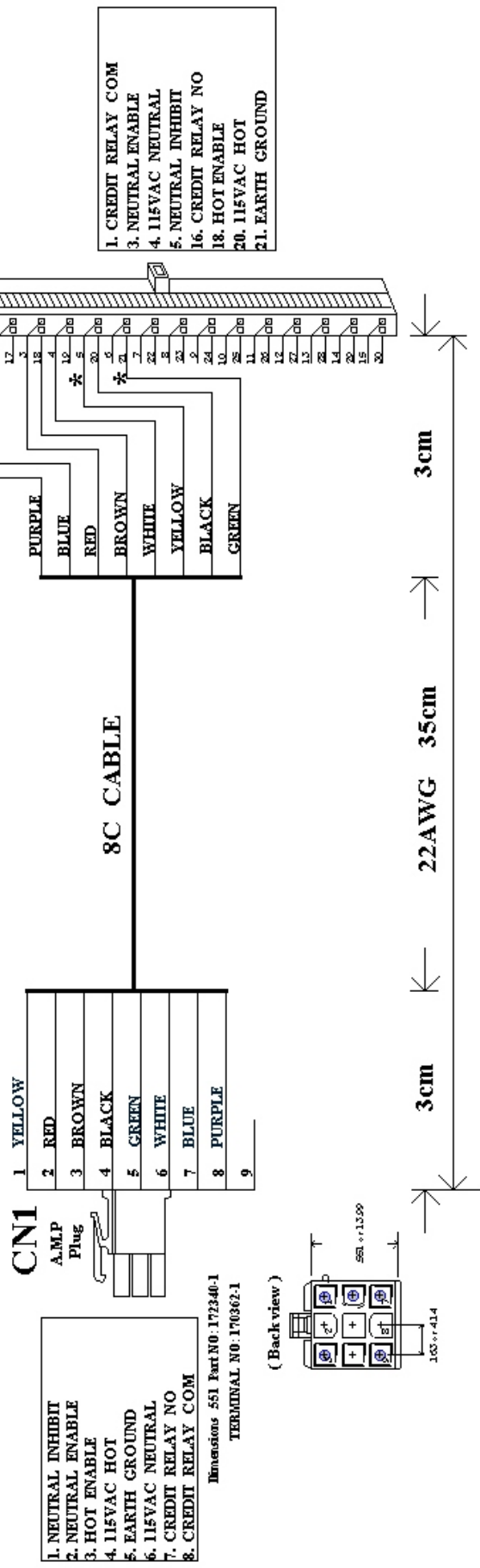




WEL-M007-A (12VDC)

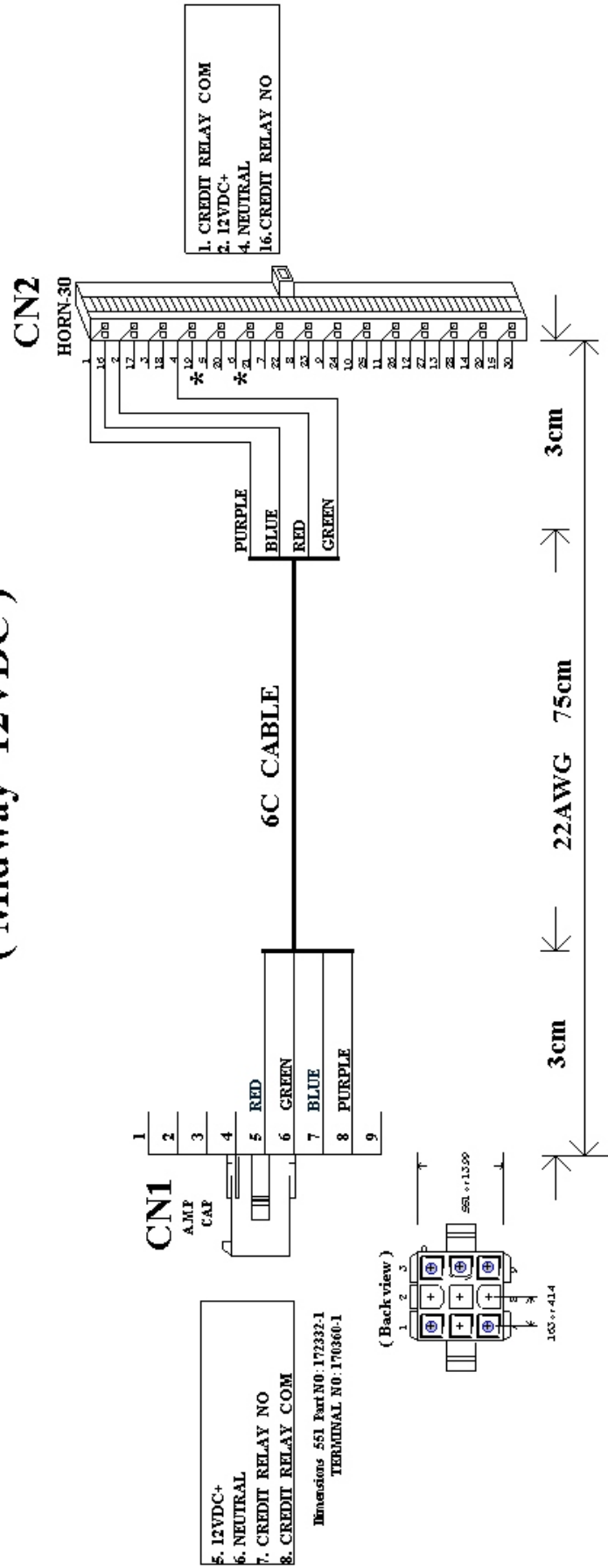


WEL-M008-A (110VAC)

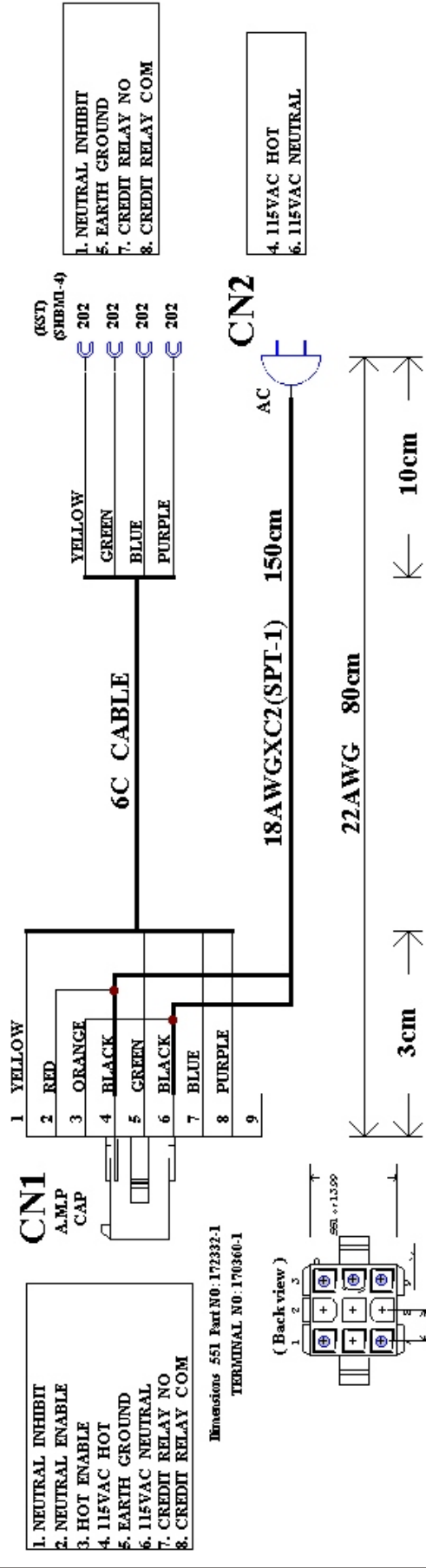


WEL-M011

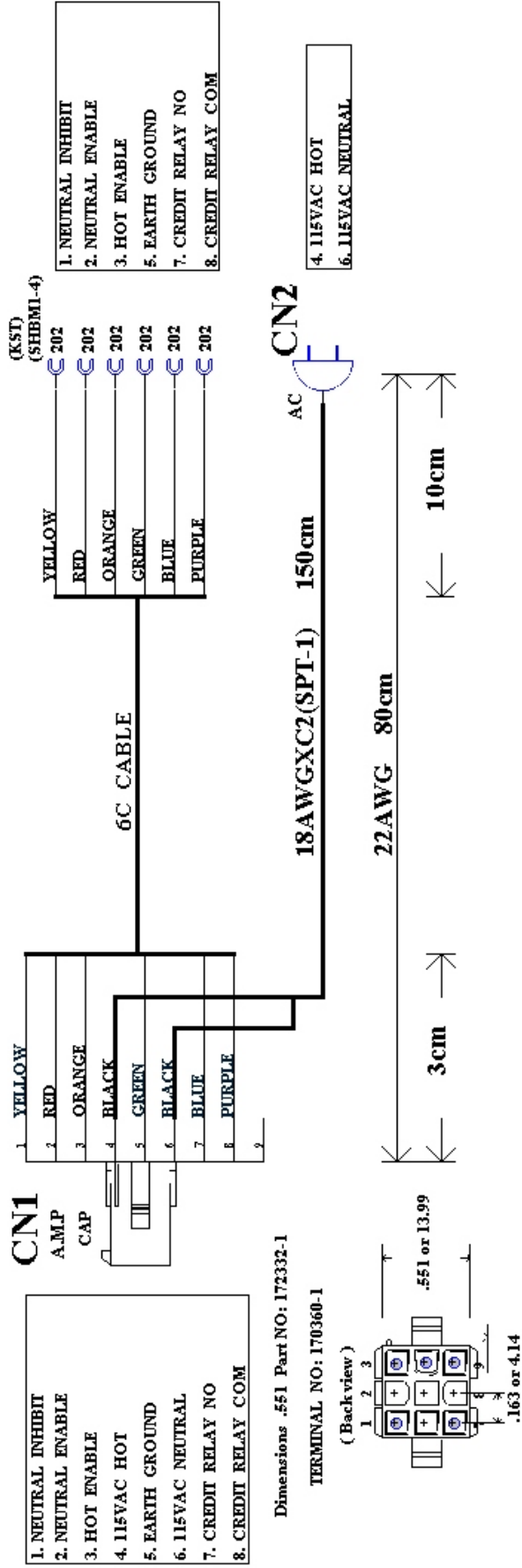
(Midway 12VDC)



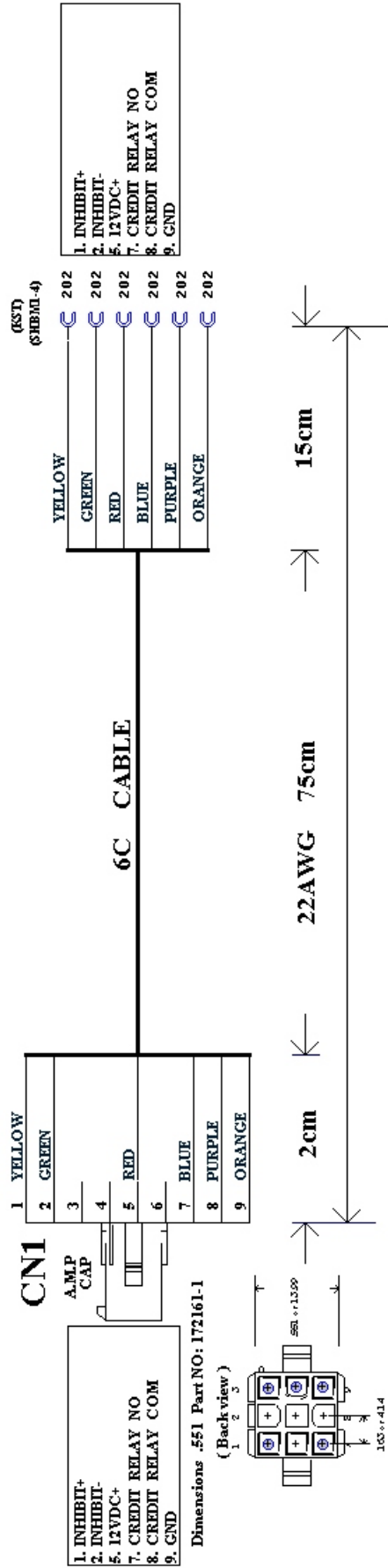
WEL-M010 (110VAC)



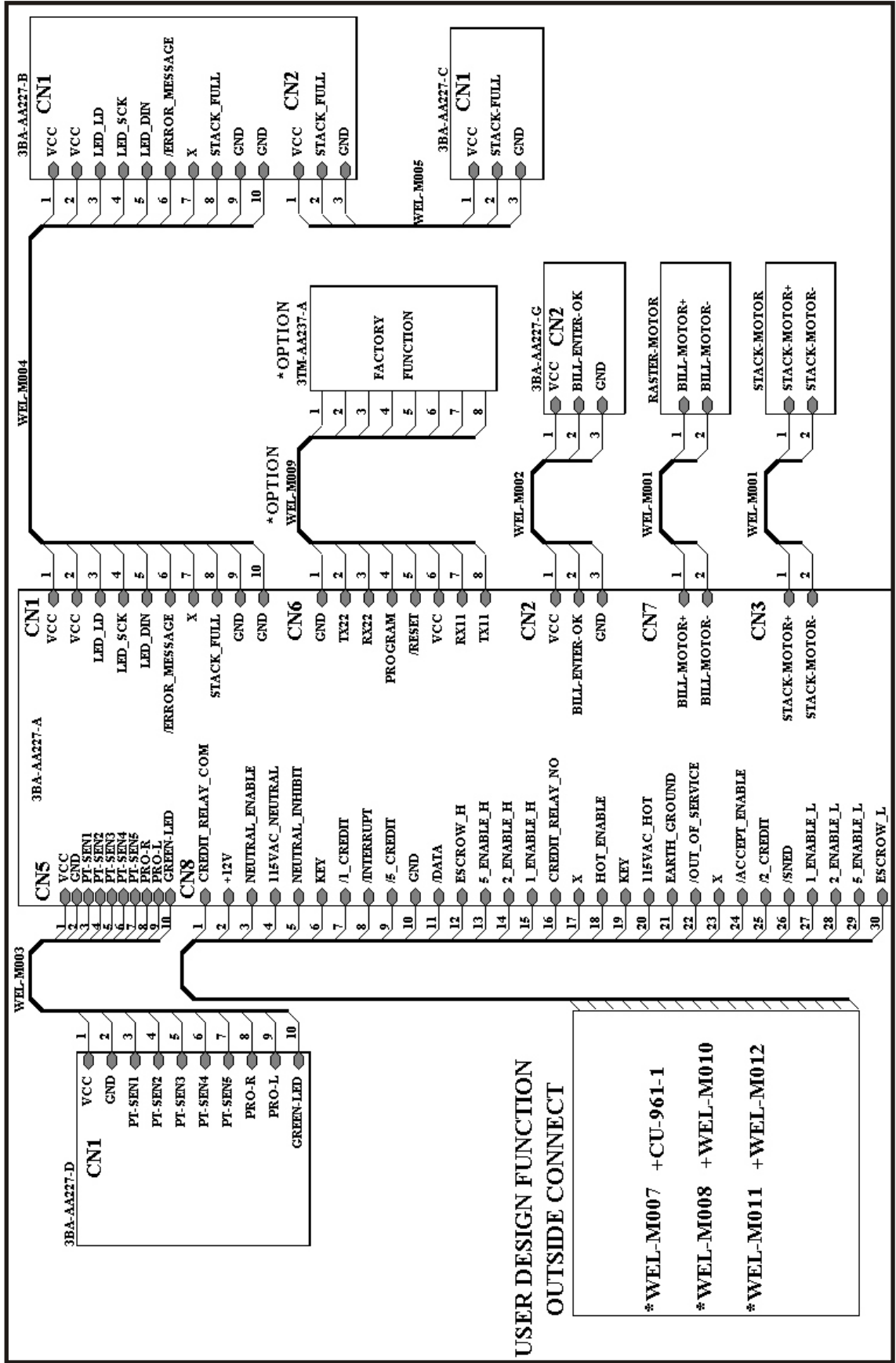
WEL-M012 (110V AC)



CU-961-1 (+12V DC)



General Wiring Diagram (A6)



General Wiring Diagram (V6)

