Rev. K Board Retrofit

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*Assembly Kit (P/N 200732) Includes:

Part #	_Description_
200155 Rev K	Controller PCB Assembly
500355	Rev. K Board Retrofit Instruction Document

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Procedures for Rev. K Control Board Installation

- When replacing a Rev J Control Board in a **900MTU** first remove the existing 200354 board and keypad.
- Plug the keypad into J11, The door switch of the MTU into J12, and the 10pin plug from the 200354 into J5 as shown on Figure 1A

Figure 1A
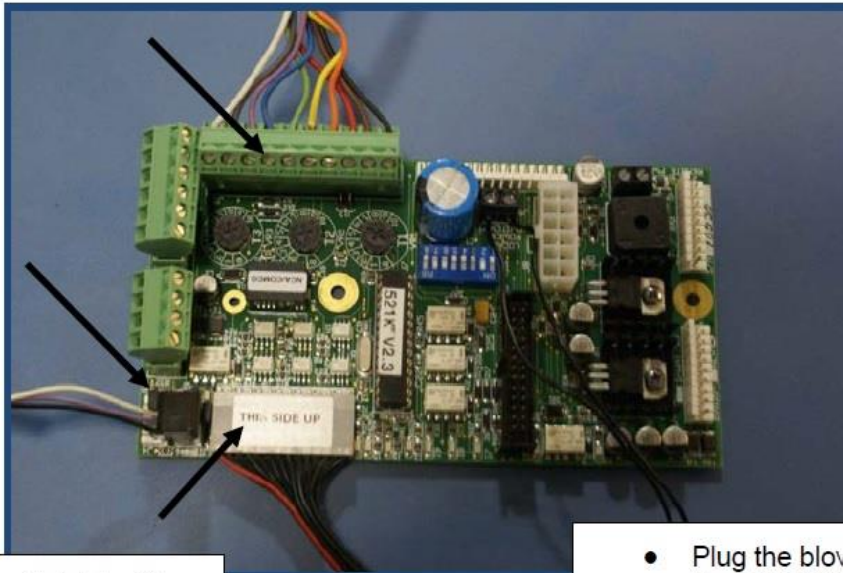
900MTU

If customer unit is a 922 make sure a shunt is placed on J13. Make sure Dip switch 7 is off as well.

- Plug the power switch into J9

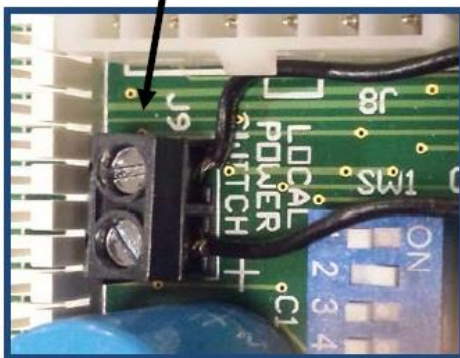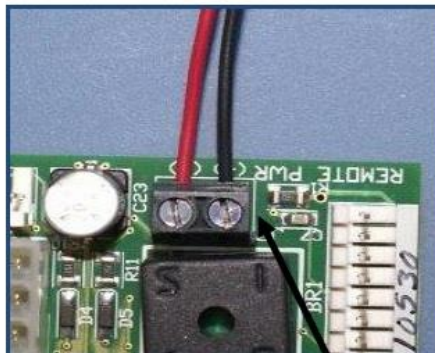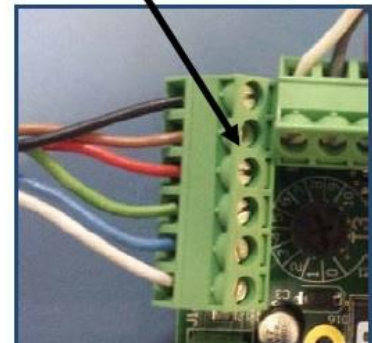- Plug the blower harness in from the old 200354 board

Figure 1B

Figure 1C

Figure 1D

- Wire the remote power to J7

Some applications will be replacing an old Rev J Control Board. In this case you are required to make modifications to existing cable harnesses to insure the machine works properly.

Dual Door 900MTU

- When replacing a Rev J Control Board in a **Dual 900MTU** first remove the existing cable assembly (200378) followed by the Rev J Control Board. Once the cable harness and Rev J Control Board are removed refer to figures 1A and 1B below for cable modification instructions.

Cut off existing Panduit Connector from P1.

Re-terminate wires to provided plugs as indicated
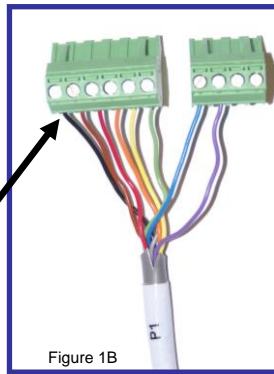
1-Blk
2-Brn
3-Red
4-Org
5-Yel
6-Grn

1-Blu
2-Pur
3-Open
4-Open

Figure 1A

Figure 1B

Figure 2A

Before Modifications

After Modifications

- Once harness is modified install new Rev K Control Board using existing hardware and mounting bracket. Reinstall modified cable harness (200378) as shown in figure 2A above and apply correct switch settings. (Note: For switch settings refer to page three of document)

521 ITU

- When replacing a Rev J Control Board in a **521 TU** first remove the existing interface cable (200190) followed by the Rev J control Board.
  - Install new Rev K Control Board using existing hardware and mounting bracket.
  - Terminate field wiring directly to Rev. K Control Board using provided plugs as indicated in figure 3A and apply correct switch settings. (Note: For switch settings refer to page three of document)
  - Install J2 and J3 where they were previously from the Jboard.
  - Install CVM relay wiring to remote power on J7

Customer Send   Decel Switch

6-SOL(+)
5-SOL(-)
4-V
3-P
2-P2
1-P1

Blower

6   1

Field Wiring

Figure 3A

LobbyTellerSystem

- When replacing a Rev J Control Board in a **LTS** first remove the existing cable assembly (200189-1) followed by the Rev J Control Board. Once the cable harness and Rev J Control Board are removed refer to figures 1A and 1B above for cable modification instructions.
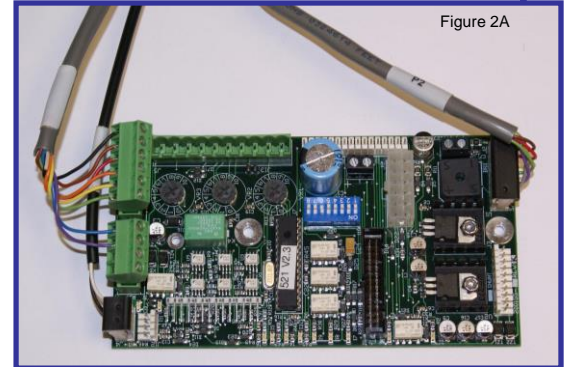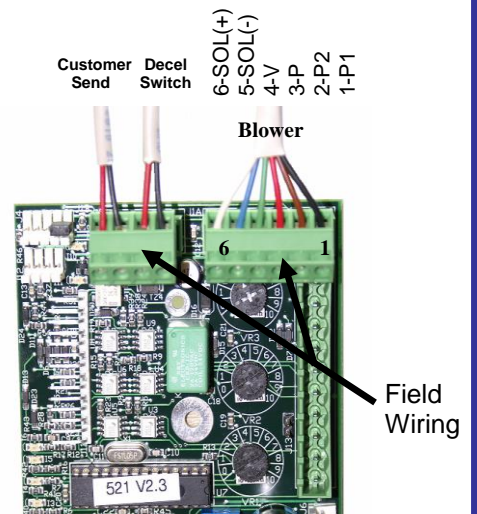   - Once harness is modified install new Rev K Control Board using existing hardware and mounting bracket. Reinstall modified cable harness (200189-1) as shown in figure 4A and apply correct switch settings. (Note: For switch settings refer to lower portion of this page)
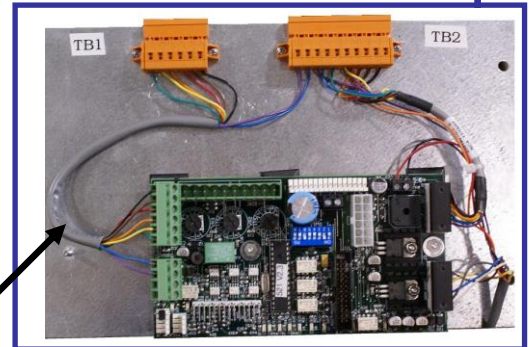
Cable Harness (200189-1)

Figure 4A

Rev. K Board Switch Settings

Switch settings for 900MTU

900A CU

1 – Off
2 – On
3 – Off
4 – Off
5 – Off
6 – Off
7 – On
8 – Off

900AX CU

1 – On
2 – On
3 – Off
4 – Off
5 – Off
6 – Off
7 – On
8 – On

921/922 CU
Blower above TU

1 – Off
2 – On
3 – Off
4 – Off
5 – Off
6 – On
7 – Off
8 – Off

922 CU
Blower above CU

1 – On
2 – On
3 – Off
4 – Off
5 – Off
6 – On
7 – Off
8 – On

Switch settings for 521 TU

Manual

1 – Off
2 – Off
3 – Off
4 – Off
5 – Off
6 – On
7 – Off
8 – Off

Motorized

1 – Off
2 – On
3 – Off
4 – Off
5 – Off
6 – On
7 – Off
8 – Off

Switch settings for Lobby Teller

Chute

1 – Off
2 – On
3 – Off
4 – Off
5 – Off
6 – On
7 – Off
8 – Off

Lift Station

1 – Off
2 – On
3 – Off
4 – Off
5 – Off
6 – On
7 – Off
8 – Off
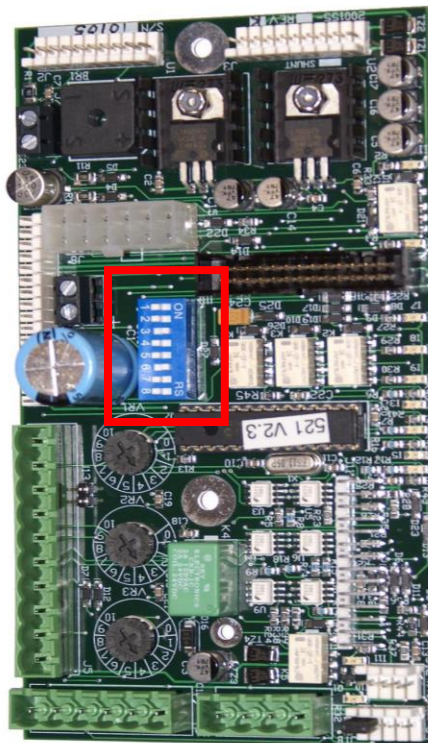
LED Legend
(I1): LED1 Local Door Closed
(I2): LED2 Local Door Open
(I3): LED3 Send
(I4): LED4 Recall
(I5): LED5 All Doors Closed
(I6): LED6 Decel Switch
(I7): LED7 Solenoid
(I8): LED8 Vacuum
(I9): LED9 Pressure
(I10): LED10 Remote Door Closed
(I11): LED11 Remote Door Open

NOTES:

TIMERS

(T1) CYCLE TIMER. CONTROL TIME RANGE WITH OPTION SWITCH 6.

(T2) DOOR OPEN DELAY TIMER. DELAY DOOR OPENING WITH OPTION SWITCH 3.

(T3) <u>SELECT PROCESSOR VER. LEVEL</u>
  (CHIP VER. 2.0 AND HIGHER)
   SOLENOID ENGAGE TIMER. <u>SWITCH 4 NOT USED.</u>
   TIME SOLENOID STAYS ENGAGED, RANGE 5-15 SEC.
  (CHIP VER. PRIOR TO 2.0)
   STOP VALVE DELAY. <u>NOT NORMALLY USED.</u>
   ACTIVATE/DEACTIVATE WITH OPTION SWITCH 4.

OPTION SWITCHES

(1) 521/LOBBY TELLER APPLICATION:
  OFF=521 APPLICATION(STD)
  ON=LOBBY TELLER APPLICATION

(2) DISABLES AUTOSEND:
  OFF=MANUAL TELLER
  ON=MOTORIZED TELLER

(3) DOOR OPEN DELAY AFTER CYCLE:
  OFF=NO DELAY AFTER CYCLE
  ON=ADJUSTABLE DELAY WITH TIMER #2.

(4) STOP VALVE DELAY: SELECT PROCESSOR VER. LEVEL
(FOR VERY SHORT RUNS OR OTHER NONSTANDARD INSTALLATIONS).
<u>NORMALLY "OFF".</u>
  (CHIP VER. 2.0 AND HIGHER)
   OFF=INACTIVE
   ON=ACTIVE (500 MILLISECOND-FIXED)
  (CHIP VER. PRIOR TO 2.0)
   OFF=INACTIVE
   ON=ACTIVE, ADJUST DELAY WITH T3, RANGE 100-400MS

(5) SELECT PROCESSOR VER. LEVEL
  (CHIP VER. 2.0 AND HIGHER)
  DIVERTER OPTION:
   OFF=INACTIVE
   ON=ACTIVE (DOOR OPENS EACH CYCLE)
  (CHIP VER. PRIOR TO 2.0)
  NOT USED:

(6) CYCLE TIMER RANGE:
  OFF=T1 RANGE 0-100 SEC.(10-SECOND INCREMENTS)
  ON=T1 RANGE 0-10 SEC.(1-SECOND INCREMENTS)

(7) SELECT PROCESSOR VER. LEVEL
  (CHIP VER. 2.0 AND HIGHER)
  900A OPTION: (CARRIER DETECT, DOOR CONTROL)
   OFF=INACTIVE
   ON=ACTIVE
  (CHIP VER. PRIOR TO 2.0) NOT USED:

(8) SELECT PROCESSOR VER. LEVEL
  (CHIP VER. 2.0 AND HIGHER)
  DOOR REVERSAL OPTION: (LTS TO 521TU)
   OFF=INACTIVE
   ON=ACTIVE
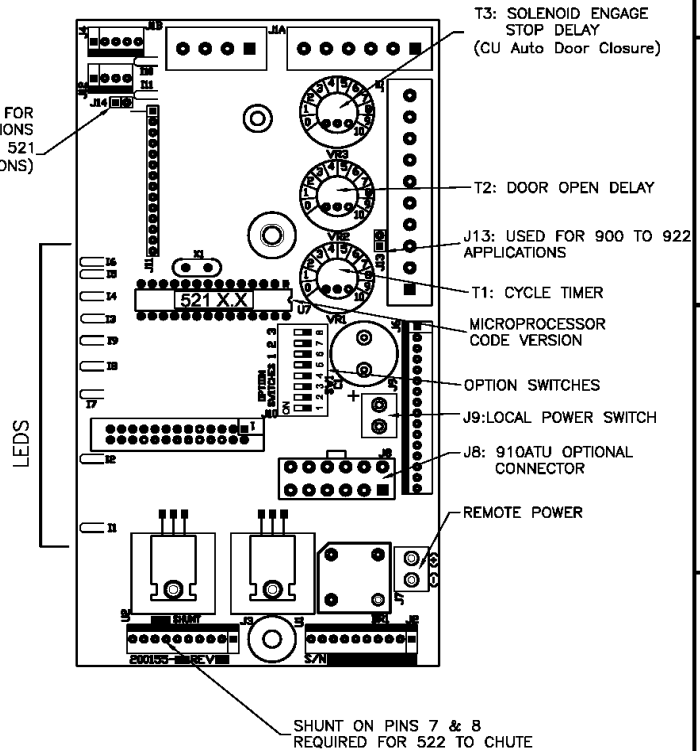 (CHIP VER. PRIOR TO 2.0) NOT USED:

CONNECTORS

(J1) FIELD WIRES: ALL SIGNALS FROM REMOTE UNIT

(J2) CONTROL SWITCHES: TELLER UNIT CONTROLS

(J3) MOTOR/LIMIT SWITCHES: TELLER UNIT OPERATIONS

(J4) REMOTE DOOR: JUMPER ON PINS 4-5 IF NO REMOTE DOOR, OTHERWISE REMOTE DOOR SIGNALS

(TB1) REMOTE POWER: USED TO CONTROL POWER RELAY AT CVM OR OTHER REMOTE ACCESSORY

RELAY/LED FUNCTIONS

(RLY5) LOCAL DOOR: CONTROLS TELLER UNIT AUTOMATIC DOOR (IF PRESENT). LEDs INDICATE DOOR OPEN/CLOSED STATE-CONTROLLED BY RELAY.

(RLY4) VACUUM: CONTROLS VACUUM BLOWER. LED INDICATES VACUUM SIGNAL ACTIVE.

(RLY3) PRESSURE: CONTROLS PRESSURE BLOWER. LED INDICATES PRESSURE SIGNAL ACTIVE.

(RLY2) SOLENOID: CONTROLS STOP SOLENOID. LED INDICATES SOLENOID SIGNAL ACTIVE.

(RLY1) REMOTE DOOR: CONTROLS CUSTOMER UNIT AUTOMATIC DOOR (IF PRESENT). LEDs INDICATE DOOR OPEN/CLOSED STATE-CONTROLLED BY RELAY.

JUMPER REQUIRED FOR ALL APPLICATIONS (ONLY REMOVE FOR 521 DIVERTER APPLICATIONS)

T3: SOLENOID ENGAGE STOP DELAY (CU Auto Door Closure)

T2: DOOR OPEN DELAY

J13: USED FOR 900 TO 922 APPLICATIONS

T1: CYCLE TIMER

MICROPROCESSOR CODE VERSION

OPTION SWITCHES

J9: LOCAL POWER SWITCH

J8: 910ATU OPTIONAL CONNECTOR

REMOTE POWER

SHUNT ON PINS 7 & 8 REQUIRED FOR 522 TO CHUTE

LEDS

521.X.X

LED LEGEND
(I1): Local Door Closed
(I2): Local Door Open
(I3): Send
(I4): Recall
(I5): All Doors Closed
(I6): Decel Switch
(I7): Solenoid
(I8): Vacuum
(I9): Pressure
(I10): Remote Door Closed
(I11): Remote Door Open

REVISIONS

REV	DESCRIPTION / REFERENCE	DATE	BY
NC	INTIAL RELEAS - NEW REV K CONTROLLER	12-13-2007	JNB
A	PCB LAYOUT REVISED, ADDED LED LEGEND	12-15-2007	JNB
B	ADDED NOTE FOR SHUNT ON PINS 7 & 8 (522 TO CHUTE)	01-22-2007	SJM
C	ADDED J14 JUMPER SHUNT	04-01-2008	BLB
D	ADDED NOTE FOR J-13	08-05-2008	SJM
E	UPDATED J13	01-14-2015	NDJ

GUIDE, ADJUSTMENT, CONTROLLER, 521-K

DOCUMENT NO	REVISION	PAGE	SCALE	SHEET
500356	E	1 OF 1	2=1	A

FILE: INTERNAL\\500K\500356.DWG

TOLERANCES	
LINEAR	DIAMETERS
.X = ±0.1	±0.005
.XX = ±0.01	ANGLES
.XXX = ±0.005	±1.0°

THIRD ANGLE PROJECTION

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