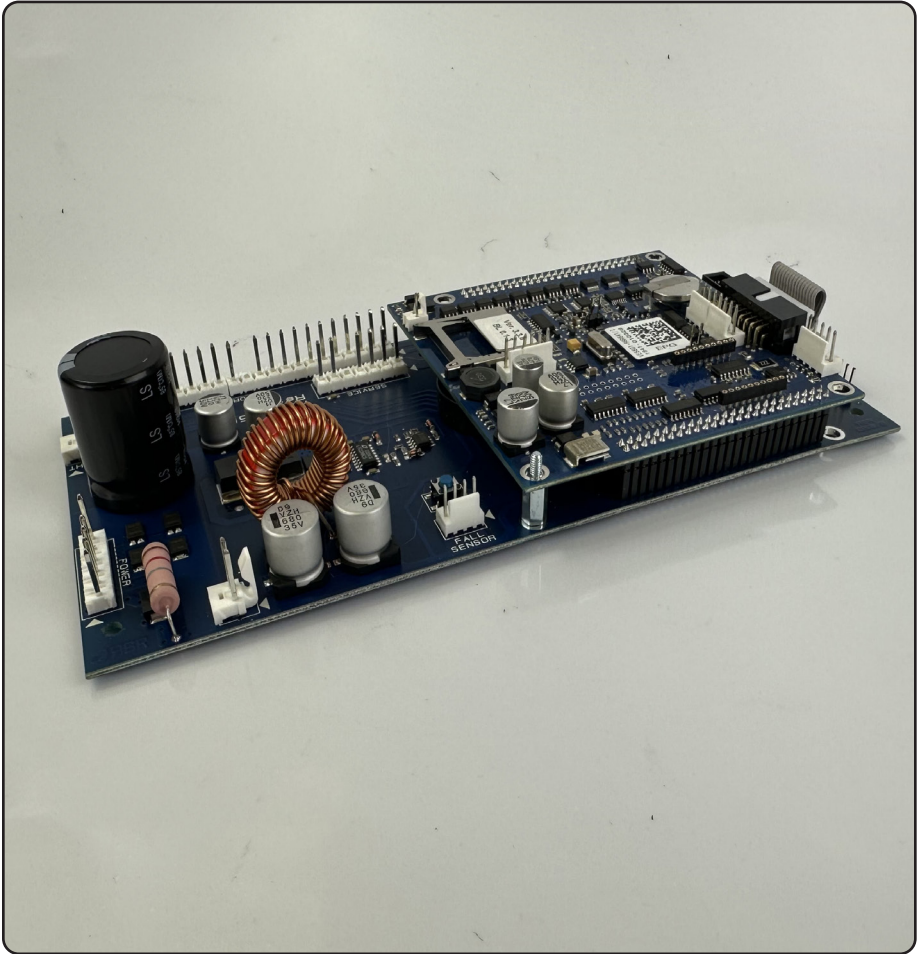


STUDIO ST SNACK MACHINES
KIT NUMBER *VE5820ST / VE5820STD*



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Tools Required 3

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PRECAUTIONARY STATEMENTS

Dear Valued Customer,

Thank you for purchasing the Universal Control Board (UCB™) from Vendors Exchange International®.

This manual outlines how to install the UCB on Studio SL snack machines.

Please read all instructions thoroughly before installation. If you need any assistance, call **1-800-321-2311**.

We appreciate your business and thank you again for making Vendors Exchange your choice for innovative vending solutions.

WARNING and NOTE statements are used in this installation manual to stress important information. The statements are defined below.

Please refer to our website <https://www.veii.com/terms-and-conditions> for details about warranties

⚠ WARNING ⚠

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

****NOTE****

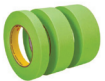
NOTE: A NOTE statement is to notify the user of installation, operation, programming, or maintenance information that is important, but not hazard related.



UCB™ CONTENTS

KIT CONTENTS FOR UCB ST KIT (VE1022136)		
Part Number	DESCRIPTION	QTY.
VE5801	UCB (UNIVERSAL CONTROL BOARD)	1
VE5816	MDB HARNESS, FOR ALL UCB	1
VE5817	DEX HARNESS, FOR ALL UCB	1
VE5877	KEYPAD LABEL	1
VE1020974	HARNESS BOARD, FOR AP STUDIO 3 ST	1
VE1016119	4-LINE DISPLAY	1
VE1021177	4-LINE DISPLAY BRACKET RIGHT, STUDIO ST	1
VE1021221	4-LINE DISPLAY BRACKET LEFT, STUDIO ST	1
VE1016224	SCREW, 8-32 X .25 HWHTS SLOT TC TYPE F	4
VE1021301	UCB DISPLAY EXTENSION HARNESS, STUDIO ST	1
VE5834	RIBBON CABLE, CPU TO HARNESS BOARD	1
VE1016307	SCREW, 6-32 X .250 PHIL ROUND HD	2
VE1021185	ASM, DROP SENSOR FOR STUDIO SL / ST	1
DROP SENSOR ASM - VE1021185 (ONLY INCLUDED IN KIT VE5820STD)		
VE1021192	SENSOR BRACKET	1
VE9300SBUSA2	DROP SENSOR BOARD	1
VE9308	MAGNETIC POSITION STRIP	1
VE9308A	.19 X .75 X 1 MAGNET	1
VE9300SBLABEL	LABEL FOR DROP SENSOR BOARDS	1
VE9314	PLASTIC DEFLECTOR	1
VE9300RTAP7M	REFLECTIVE TAPE	1
VE7207K	#8-32 KEPS NUTS	1
VE4601K	6" BAR LOCK CABLE TIE	8
VE46050K	4 - WAY ADHESIVE TIE MOUNT	8
VE5901AH	DROP SENSOR HARNESS	1
VED5778	4-40 X 5/16 PHIL SCREW	2
VE7378	#4-40 KEP NUT	2
VE1016307	6-32 X .250 PHIL ROUND SCREW	2

TOOLS REQUIRED



- Tape (Green preferably)



- Flathead Screwdriver



- Nut Driver Set

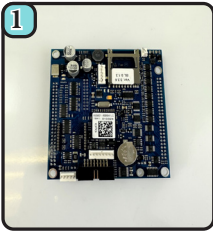


- Phillips Screwdriver (Magnetic Preferably)

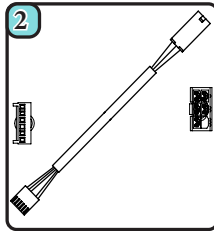


- Cordless Drill

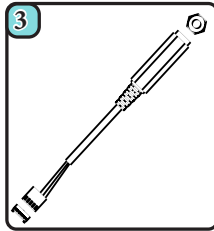
INDIVIDUAL PARTS BREAKDOWN - VE5820ST



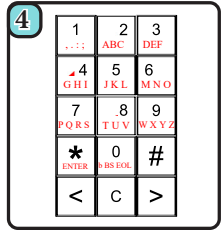
UCB
VE5801



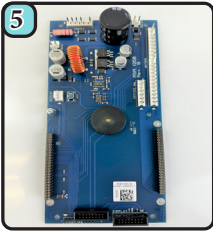
MDB HARNESS
VE5816



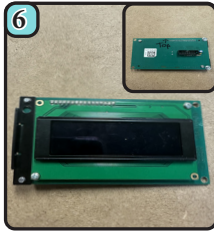
DEX HARNESS
VE5817



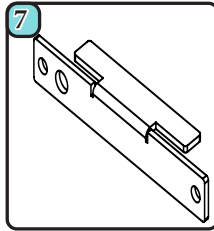
KEYPAD LABEL
VE1022098



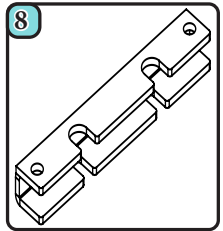
HARNESS BOARD
VE1020974



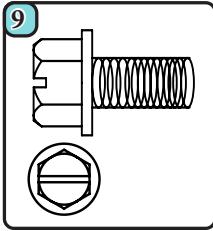
4-LINE DISPLAY
VE1016119



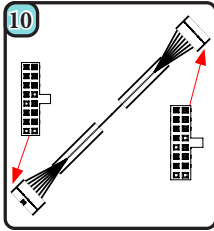
RIGHT DISPLAY BRACKET
VE1021177



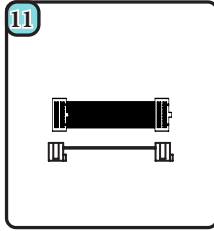
LEFT DISPLAY BRACKET
VE1021221



8-32 x .25 TYPE F
SCREW
VE1016224



DISPLAY EXTENSION
HARNESS
VE1021301

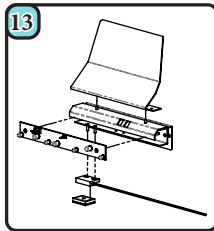


RIBBON CABLE
VE5834



6-32 x .250 PHIL
SCREW
VE1016119

DROP SENSOR ASM - VE1021185 (ONLY IN VE5820STD)



DROP SENSOR
ASSEMBLY
VE1021301



⚠ WARNING ⚠

To prevent personal injury and equipment damage, turn machine off and disconnect electrical cord from the wall outlet before installing UCB. Failure to do so could result in electrical shock.

NOTE

Before you begin, remove the first tray for easier access to the cabinet

1.) REMOVE EXISTING PARTS



1.1) Unplug all harnesses from existing controller PCB. Remove the four screws holding the PCB to the power supply. Set all components aside for future use.

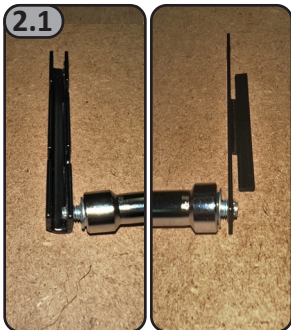


1.2) You can either remove the bill validator that is present above the display, or leave it present. You can complete the install either way.

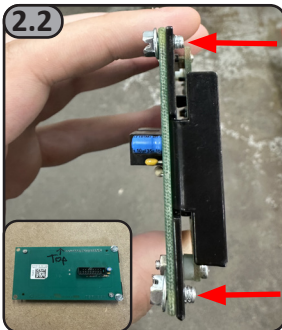


1.3) Remove the (2) 6-32 X .250 PHIL Screw (**VE1016307**) holding the display in place and remove the current display.

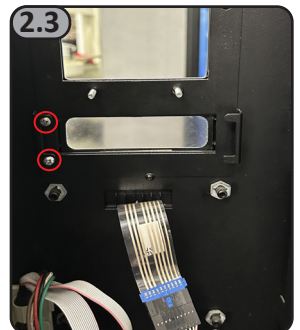
2.) INSTALL 4 LINE DISPLAY



2.1) Before you install the 4 Line Display you will need to pre-thread the Left Display Bracket For Studio ST (**VE1021221**) and the Right Display Bracket for Studio ST (**VE1021174**) as shown using the 8-32 X .25 HWHTS Slot TC Type F Screws (**VE1016224**).



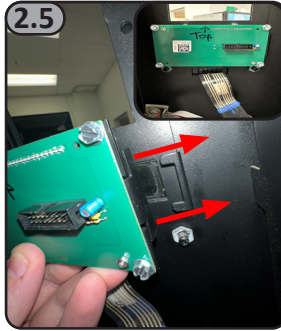
2.2) Take the pre threaded Right Display Bracket (**VE1021174**) and align the holes on the bracket with the holes on the display board as shown. Use (2) Screw, 8-32 X .25 HWHTS Slot TC Type F (**VE1016224**) to secure the two together.



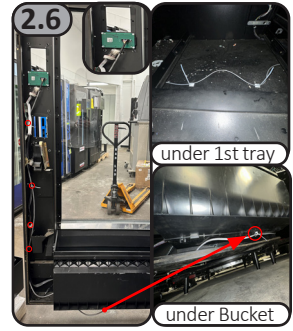
2.3) Re-install the (2) 6-32 X .250 Phil Screw (**VE1016307**) you previously used to remove the old display. Do not tighten all the way as you will need to secure a bracket underneath.



2.4) Secure the Left Four Line Display Studio ST Bracket (**VE1021221**) under the two bolts you Installed in the previous step. Then tighten the screws to secure the bracket.

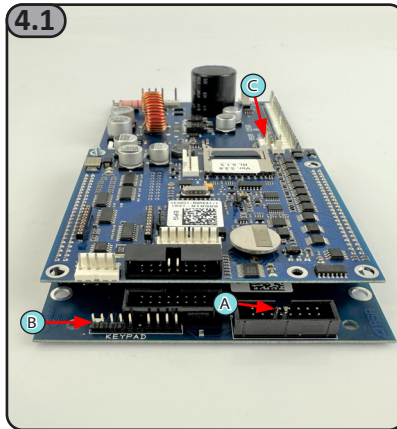


2.5) Slide the 4 line display with the right side bracket over top of the bracket on the door as shown above. Then Insert (2) 8-32 X .25 HWHTS Slot TC Type F Screws (**VE1016224**) into the holes on the left side mounting bracket. Use a Nut driver to secure in place and tighten.

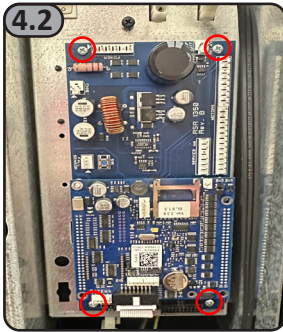


2.6) Plug the Studio ST Display Extension Harness into the back of the display. Then route the harness down the channel of the door, under the bucket, and into the cabinet as shown. Utilize cable clips and ties to then secure the harnessing like it is above.

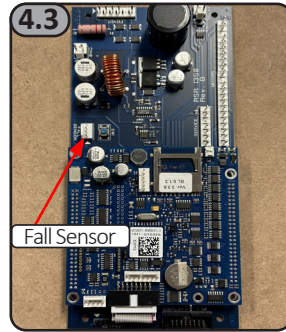
4.) CONNECT NEW UCB



4.1) Plug display harness (**A**) and OEM selection pad harness (**B**) into board before pressing UCB onto standoffs. Door switch harness (**VE5853A**) plugs into the service port (**C**).



4.2) Locate the 4 standoffs that you previously used to remove the OEM UCB. Secure the new UCB and Harness Board (VE1020974) onto the standoffs and ensure it is secure.

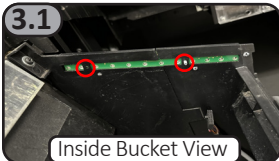


4.3) Locate the Drop Sensor Harness (VE5901AH) and plug the open end into the designated location on the UCB labeled "Fall Sensor".

****NOTE****

If you are installing Kit VE5820ST skip the next section and proceed to **INSTALL HARNESSING**

3.) INSTALL DROP SENSOR



Inside Bucket View

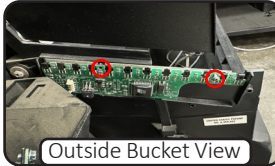


Outside Bucket View

3.1) Locate the first OEM Drop Sensor shown above. Remove the two screws circled and save them for future install.

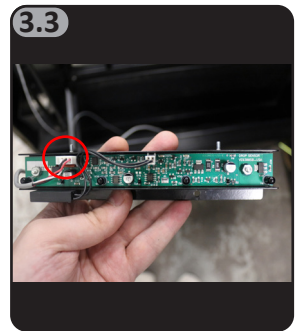


Inside Bucket View



Outside Bucket View

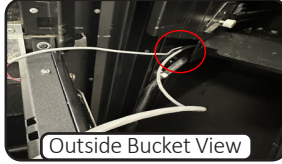
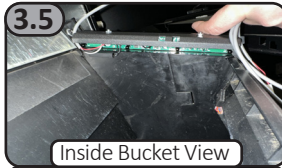
3.2) Locate the second OEM Drop Sensor shown above. Remove the two screws circled and save them for future install. Ensure the reflective tape stays installed. If not already installed, do it now.



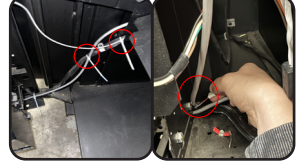
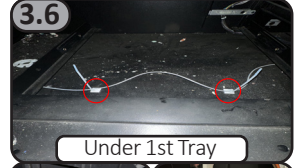
3.3) Locate the Drop Sensor Assembly (VE1021185) shown above. Plug the Drop Sensor Harness (VE5901AH) into the designated location indicated above if not done already.



3.4) Insert (2) 6-32 X .250 PHIL screws (**VE1016307**) into the designated holes on the outside of the bucket in order to secure the bracket to the bucket.



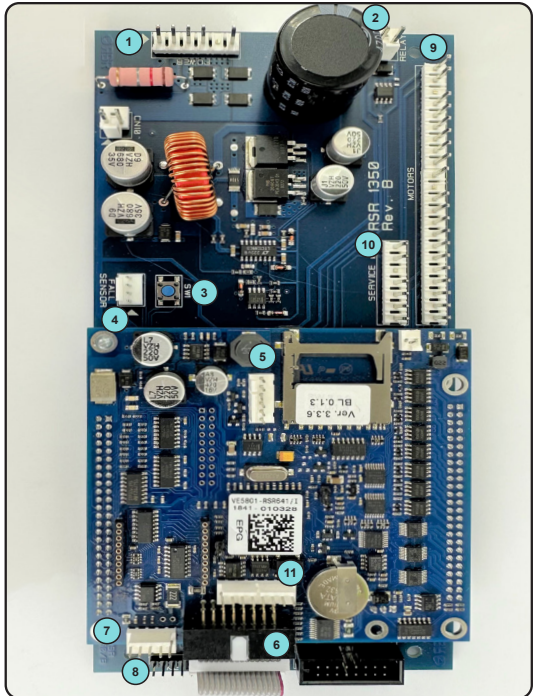
3.5) Reference the above image. Channel the drop sensor harness (**VE5901AH**) like it is above. Feed the harness through the indicated passage into the back of the machine.



3.6) Route the Drop Sensor Harness through the back of the cabinet into the right side of the cabinet. Ensure the cable clips and ties are present in the correct locations shown above. If not please add them.

5.) INSTALL HARNESSING

- ① POWER
- ② OEM LIGHTS
- ③ PROGRAMMING BUTTON
- ④ DROP SENSOR HARNESS
- ⑤ MDB HARNESS
- ⑥ JUMPER RIBBON
- ⑦ DEX HARNESS
- ⑧ KEYPAD HARNESS
- ⑨ MOTOR SELECTIONS
- ⑩ DOOR SWITCH HARNESS
- ⑪ DISPLAY EXTENSION HARNESS



NOTE: Keypad label (**VE5877**) is provided as a reference tool. Keep it with the machine as a guide to assist in programming navigation for UCB software.

WARRANTY INFORMATION

Limited Warranty and Disclaimer. VE warrants that the Products, including without limitation, their component Part(s), sold will be of the kind and quality described herein and will be free of defects in workmanship or material. This Warranty shall extend for the Warranty Period set forth below following the date of delivery of such Products to Buyer. VE MAKES NO WARRANTY, EXPRESS, IMPLIED (INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR INTENDED PURPOSES), OR STATUTORY, OTHER THAN THE FOREGOING EXPRESS WARRANTY.

PRODUCT	WARRANTY PERIOD
A. REPLACEMENT PARTS	
New Replacement Parts	90 DAYS
UCB Kits	1 YEAR
Rowe Bill Changer Kits	1 YEAR
CleanLife® LED Bulbs	5 YEARS
New MEI/CPI Mechs and Validators	2 YEARS
Reconditioned Mechs and Validators	6 MONTHS
Reconditioned Control Boards	6 MONTHS
B. REPAIR SERVICES	
Standard Warranty	6 MONTHS
Flat Rate Repairs	1 YEAR
C. EQUIPMENT	
REVISION™ Door	1 YEAR
CURVE™ Door	1 YEAR
Café CURVE™ Door	1 YEAR
CURVE PANEL™ Door	1 YEAR
VE Kiosk™	1 YEAR
A-1 Remanufactured Machine	90 DAYS
Clean, Checked and Working Machine	30 DAYS
As-Is Machine	NO WARRANTY
New	MFG WARRANTY

a.) Failure of the Buyer to submit any claim hereunder within ten (10) days following expiration of the Warranty Period applicable to such Products shall be an admission by the Buyer and conclusive proof that such articles are in every respect as warranted and shall release VE from any and all claims for damage or loss sustained by the Buyer. In the event the Buyer timely submits a claim for breach of WARRANTY, the parties agree that, at VE's option, the Buyer's sole and exclusive remedies shall be the repair or replacement of the defective Products or Part(s) or a refund of the price of the defective Products or Part(s).

b.) The Buyer acknowledges that it alone has determined that the Products purchased hereunder shall suitably meet the requirements of its intended function. It is expressly understood that any technical advice or recommended operating practices furnished by VE with respect to the use of the Products is given without charge, and VE assumes no obligation or liability for the advice or recommended operating practices given, or results obtained, all such advice or recommended operating practices being given and accepted at the Buyer's risk.

c.) This Warranty does not apply to (i) electrical components, wiring, circuits and/or mechanical parts or assemblies damaged as a result of operating the Products at other than 115 volts, 60 Hertz current, (ii) Products damaged due to vandalism, fire, flood or other casualty, (iii) Products not maintained in accordance with the manufacturer's or VE's recommendations, and/or (iv) Products not serviced by VE authorized service personnel or which contain replacement parts not furnished by VE or its authorized service personnel.

For additional information please review the Terms and Conditions of Sale.