



# CRANE NATIONAL VENDORS

FACTORY TEST PROCEDURES  
TWIN DRINK CENTER - FINAL TEST

**PURPOSE:** The purpose of this qualification test is to ensure the mechanical and electrical operation, and physical appearance of the Twin Drink Center merchandiser.



**ASSEMBLY AFFECTED:** Twin Drink Center merchandiser, model 363, 364, 365, 366.



**USAGE:** This procedure is used to fill out the Twin Drink Center inspection sheets, part number 3630029.

REVISION DATE:	
ISSUED BY:	DATE ISSUED:
PROCEDURE WRITTEN BY: <i>John S. ...</i>	DATE APPROVED: <i>11/1/98</i>
APPROVED BY: <i>[Signature]</i>	DATE APPROVED: <i>11/1/98</i>
APPROVED BY: <i>[Signature]</i>	DATE APPROVED: <i>10/7/98</i>
APPROVED BY: <i>[Signature]</i>	DATE APPROVED: <i>10-9-98</i>

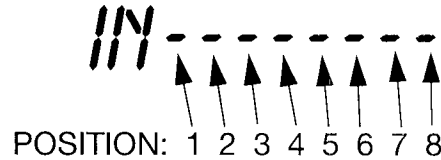
## NOTE

**If the unit is equipped with the printer, DEX, or exec. mech option, it must be checked by the final tester.**

1. Perform the continuity/dielectric test. This test must be performed and successful before continuing further in this test.
2. Compare the work order to the machine. Verify that the machine is built and equipped as ordered.
3. Check the alignment of the cabinet door to the machine as well as its proper function.
4. Install the water filter.
5. Install the coin mechanism as required. If a “dumb” coin mech is installed preload the tubes with 2 coins of each denomination.
6. Connect the cold water line to the machine. Turn on the water tap.
7. With the machine power switch set to OFF (and foreign interlock switch pushed in), connect the machine to the appropriate voltage.
8. With the machine turned ON, verify that the credit display is illuminated, and that led1 is ON and led2 is flashing on the main controller.
  - For foreign machines verify that the fluorescent lights are OFF and all high voltage fans are OFF, when the interlock is in the middle (door open) position.
  - Pull out the foreign interlock switch. Verify on both foreign and domestic machines that the fluorescent lamp(s) are ON and any fans are ON.
  - Load the cup turret(s) with a minimum of 20 cups each. Load the turrets in such a way that the turrets will have to advance.
  - With the door open, the service light and door light should both be illuminated at this time.
  - Press and hold the cabinet interlock switch. Verify that the exhaust fan (optional) is operating and that the service light goes out.
  - Press the monetary door switch and verify that the cup turrets index and cups fall properly into the cup rings.
  - Pull the interlock switch out to the ON position. The service light should go out, the exhaust fan should operate and the door light should be illuminated.
  - **Machines with Millennia™ styling only:** Close and lock the door. Check for any interference on the door trim. Press each of the keys on the selection pad and listen for a beep to indicate a keypress, or watch the display for the keys to be displayed. Drop several coins in the coin slot and verify all are credited properly. Press the coin return and check that all coins are returned and that they hit the coin cup properly.
9. Press .
10. Press . The display shows *TEST 00*.

11. Press  twice. The display shows *IN-----*. **(Some dashes will be replaced by letters.)** This is input test screen #1. It shows the state of various switches and sensors in the machine. Press  to switch to an alternate screen (#2) with different inputs.


## Position Diagram







































### Input Screen #1

- Position 1: Mug switch. If the machine is so equipped, actuating the mug switch will cause the - to be replaced by an *M*.
- Position 2: Key switch. If the machine is so equipped, actuating the free vend key switch will cause the - to be replaced by a *K*.
- Position 3: Waste pail. Raising the waste pail float will cause the - to be replaced by a *P*.
- Position 4: High level switch. If the water tank is full, the display will show *IN---H---*. If the *H* is already displayed in position 4, drain water from the water tank and observe the display to see the three (3) states of the float: As water is being drained, the *H* is replaced by a - . As water continues to drain, the - at position 5 will be replaced by an *L*. Once the *L* appears, stop draining water and allow the tank to refill.
- Position 5: Low level switch. If the water tank is not filled with water and the *L* is still displayed, watch the transition from low water to full. The display will then show *IN---H----*.
- Positions 6, 7, and 8: number appear in the display. These indicate cup sold outs. Lift the cup stack and see the ring

### Input Screen #2



















- Position 1: = H = The feeder cup is full.
  - Position 2: = L = The feeder cup is empty.
  - Position 3: = I = The ice maker is full.
  - Position 4: = C = The CO<sub>2</sub> pressure is on.
  - Position 5: = P = The carbonator water level is full (will display "**P**" if low).
  - Position 6: = R = The recirculation tank is full.
12. Verify the carbonator pump has filled the carbonator (the display shows a dash in position 4).
13. Press . The display shows *IN----L--*.
14. Verify that the hot water tank has filled. The **L** in the display at position 5 changes to a dash (-) and the dash at position 4 changes to an **H**: *IN---H---*.

15. Press .
16. Verify that all canisters are installed and correct. Check that canister labels are correct.
17. Check the money box for proper fit.
18. Visually check the machine for any damaged or missing parts. Make note of this on work in process hold form.
19. Press and hold . While holding, press . The display shows the software version number.
20. Press . The display should show the correct time. Use the number keys to enter the correct time in 24 hour format.
21. Press . The display should show the days-of-week with the present day flashing.  
Press  to select the correct day of the week.
22. Press . The display should show the correct date.
  - Use the number keys to enter the correct date as month, day, and year. Include leading zeros when entering the month and day.
23. Press . The display shows *CLEAR ALL*.
24. Press and hold . The display shows *CLEARRING*. This means that the RAM is being cleared. The display will show *FINISHED* when complete.
25. Press . The display shows *DUMB MECH*. Use  to select the coin mech.
26. Press . The display shows *NOVALIDTR*. Use  to enable the validator.
27. Press . The display shows *NOCARD*. Use  to enable the card reader.
28. Press . The display shows *D|J|XXXX*. (The | symbol will either be a plus sign or a dash, as explained below.)
  - Press  to select *D+* (door on) or *D-* (door off)
  - Press **J** to select *J+* (drinks whipped) or *J-* (drinks not whipped).
  - Use the selection pad and enter the correct configuration code from the configuration code sheet.


29. Press . The display shows *COUNTRY US*. Use  to select the country of destination.
30. Press . The display shows *DSPLY TEST*.
- Press . All characters on the display should be illuminated.
  - Press the service keys **1** through **0** and “**#**” on the function pad and press each selection key in turn. A beep should occur on every press.
31. Press . The display shows *CUP TEST*. Press  to drop one cup from each position. , , and  control the individual rings. Adjust the rings as necessary. Drop a minimum of 3 cups from each ring when adjustments are complete.
32. Press . The display shows *DOORTEST*. Use  to check that the automatic delivery door opens and closes correctly. Adjust if necessary.
33. Press . The display shows *WHIPTEST*. Use the selection keypad to check each whipper (1 - 4) right to left.
34. Press . With the machine low on water, cups installed, and the waste pail empty, the display should read *IN----L---*. (Refer to the position diagram on page 3 for an explanation of these position numbers.) Test all inputs on this screen.
35. Press . The display should read *IN-----*. The dashes represent the 6 positions of the cold system. (Refer to the position diagram on page 3 for an explanation of these position numbers.) Test all inputs on this screen.
36. Press . The display shows *AUGERTEST*. Use the selection keypad to select the desired auger. Verify that all product augers and canisters function.
37. Press . The display shows *COND TEST*. Check the augers as follows: Press  to check sugar,  to check lightener, and  to check sugar sub.



## NOTE


If a freeze dry machine is under test, skip steps 38 through 40.

38. Press . The display shows *AIRTEST*. Press  to check that the air compressor functions. Pinch the tubing between the "Y" and the barrel, and adjust the air pressure to 10 - 12 psi. (while pinched).
39. Press . The display shows *BREWTEST*. Press  to check brewer operation. Place the brewer in the brew position.
40. Press . The display shows *BREW RinSE*. Press . The brewer will cycle, the filter paper will advance, and the brewer will clamp. Watch (as the air compressor runs) for leaks around the brewer barrel. When the brewer cycles, check that the filter paper does not travel in reverse.
41. Press . The display shows *COLD 12.00*. Press  to do a test throw and calibrate. Set the non carb cold water valve to  $250 \pm 5$  c.c.
42. Press . The display shows *CARB 12.00*. Press  to do a test throw and calibrate. Set the carb cold water valve to  $250 \pm 5$  c.c.
43. Press . The display shows *SYRUP*. Press . The display shows *SYRUP 18.00*. Press  to do a test throw. Set the syrup valve to obtain  $50 \pm 2$  c.c. of syrup. Make a minimum of three test throws. Press  to set syrup valves 2 through 4 in the same manner. Press . The display shows *SYRUP*.
44. Press . The display shows *ICETEST*. Press  to do a test throw. If the ice maker has been running for about 30 minutes or longer, the test throw should produce about 42 grams (1.5 ounces)  $\pm$  10 grams (.4 ounces) of good hard clear ice. Check the water level in the feeder cup. Install the adapter "sight window" tubing. Verify that the level is between the lines on the evaporator label. Reinstall the normal tubing.
45. Press . The display shows the cold and hot temperatures. The first number should be between 35 and 38. The last number should be between 201 and 203 (if the hot water tank is fully heated). **EXAMPLE:** *35 °F 202*. If the water temperature is at least 150° F, adjust the hot water valves.

46. Once the tank is hot, verify that the clamps on the water inlet line (at the tank lid and inlet water valve) are tight. Tighten the clamps as necessary to prevent leakage.


47. Press . The display shows *SET VALVE*.


48. Press . The display shows *VALVE1*. Press  to do a test throw and calibrate.

Make a minimum of three test throws per valve. Press  to select the other valves.

Adjust the following valves to these amounts,  $\pm 5\text{cc}$ :

Valve 1 - 220/200cc	Valve 4 - 180cc
Valve 2 - 220/200cc	Valve 5 - 180cc
Valve 3 - 200cc	Valve 6 - 170cc

49. Press . The display shows *SET VALVES*. Try to insert one \$1 bill; the bill should not be accepted. Insert two coins of any denomination. They should not be accepted.

50. Press . The display shows *TEST. 00*.



51. Insert 2 quarters, 3 dimes, and 4 nickels for a credit of \$1.00. Press the coin return. Verify the correct change is returned (2 quarters, 3 dimes, 4 nickels).

52. Insert 1 \$1 bill for a credit of \$1.00, then press the coin return. One of two things will happen:


- If a serial validator is installed, the dollar bill will be returned and credit cancelled.
- If a pulse validator is installed, the dollar bill will be stacked and the coin mechanism will attempt to pay out a dollar in coins.

### NOTE











**If the machine is equipped with Debitex, DEX, printer, or any other option, those options must be verified functionally before signing off the machine.**

53. Press . The display shows *ENGLISH*. Press  to select the language for the destination country.



54. Press and hold the door switch to end the test. Verify that display eventually shows an operational standby message.

55. Release the door switch and press  if necessary to enter the diagnostics mode. There should be no error messages.

56. Install the cup station in the machine. Adjust the mug sensor accordingly (optional). Manually verify the operation of the delivery door. Check the alignment of the cup station to the door.

57. Press . Insert one \$1 bill, 2 quarters, 3 dimes, and 4 nickels for a credit of \$2.00. (If the machine has no validator, substitute 2 quarters, 3 dimes, and 4 nickels for the dollar bill.)
58. Make a small buy from the "F" selection. Verify that the selection performs correctly. \$1.40 in change should be returned. Verify that the correct change is received and falls properly into the coin cup.
59. If the machine is equipped with an optional mug sensor, insert your dark mug and make a selection. Verify the display shows that a mug is "seen".
60. View any diagnostic messages. Correct any errors that are listed.
61. Press , then press and hold the door switch. Vend selection **A3**. Confirm that the machine functions properly. Repeat this step two more times.
62. Remove the cups from the cup drop, filter paper, etc.
63. Payout the remaining coins in the coin mechanism. While paying out, verify that the correct coin pays out for the key pressed. If the unit is equipped with a dumb or MDB coin mech press  then "1", "2", "3" as necessary to recover all coins from the coin mechanism.
64. Check the money box and remove any coins.
65. Remove dollar bill(s) from the validator.
66. Remove the test coin mechanism and test validator as required.
67. **IF EQUIPPED WITH COOL SAN:** After the ice maker fills and turns off with the ice hopper full switch, start a Cool San cycle:
- Press , then press  until the display shows *COOL SAN*.
  - Press and hold . The Cool San cycle starts.
- During the Cool San cycle, check the pumps for recirculation, and check the feeder cup to see that all water is dumped during cleaning and flush cycles.
68. Disconnect the water line and remove the water filter.
69. **IF NOT EQUIPPED WITH COOL SAN:** Re-enter the production test, then press  until the display shows *ICETEST*. Press  to dump the ice maker hopper.
70. Press  until the display shows *BLOCKTEST*. Press  to remove water from the cold plate.



71. Confirm that the shutoff valve is open. Go to the *TANK.FILL* screen and press  to activate inlet valves and allow them to drain. After 30 seconds, press . Close the shutoff valve.
72. If a foreign machine is under test, connect the exec simulator and verify the simulator display reads *Comm*. Be sure to shut off the machine before connecting or disconnecting the simulator.
73. Complete all additional steps listed on the checkoff sheet.