

**P/N 1470049**

**INCORPORATE THIS SUPPLEMENT**

**IN**

**The 147/148 PROGRAMMING GUIDE**

**(Part Number 1470059 Rev. D)**

**INSTRUCTIONS FOR INCORPORATING  
THIS SUPPLEMENT  
IN YOUR 147/148 - 474/475/476 - 461/462  
PROGRAMMING GUIDE**

**REMOVE THESE PAGES  
FROM YOUR GUIDE**

**REPLACE THEM WITH THESE PAGES  
FROM THE SUPPLEMENT PACKAGE**

1 and 2	1 and 2
63 and 64	63 and 64
73 and 74	73 and 74
75 and 76	75 and 76
95 and 96	95 and 96
99 and 100	99 and 100

**THE PROCEDURES IN THIS PROGRAMMING GUIDE  
ARE FOR USE WITH:**

**MODEL 147, 148, 461, 462 & 474 SOFTWARE VERSION**

**RC3-7**

**MODEL 475 & 476 MAIN CONTROLLER SOFTWARE VERSION**

**RC3-7**

**MODEL 475: FRESH BREW HOT DRINK MODULE SOFTWARE  
VERSION**

**503A6**

**MODEL 476: FREEZE DRY HOT DRINK MODULE SOFTWARE  
VERSION**

**503A6**

**Complete the Software Version retrieval  
procedure on page 94 of this  
PROGRAMMING GUIDE.**

**The version number/numbers in the  
display should be the same as the version  
number listed above.**

**If the version number in the display is NOT  
the same as the version number listed  
above, contact National Vendors' Service  
Department at 1-800-325-8811.**

**SOFTWARE COVERED BY THIS PROGRAMMING GUIDE**

**PROGRAMMING DIRECTORY**

FUNCTION	IF YOU WANT TO ...		COMPLETE THIS PROCEDURE	ON THIS PAGE	
CODE	Access functions/procedures reserved for the Supervisor		P0-1	26	
	Print the data list or print what is on the display		P0-2	27	
	Assign a new Master User Code		P0-3	29	
	Water Time		P0-4	30	
	Dry Ingredient Time		P0-5	31	
	Steep Time		P0-6	32	
	Air Compressor Time		P0-7	33	
PRICE	Price an individual selection		P1-1	35	
	Set a tray to one price		P1-2	36	
	Set entire machine to one price		P1-3	37	
	Check the price of an individual selection		P1-1	35	
DATA	COUNTS (Volume)	TOTAL VENDS	For the machine	P2-2	38
			For a tray	P2-2	38
			For a selection	P2-2	38
		FREE VENDS	For the machine	P2-3	39
			For a tray	P2-3	39
			For a selection	P2-3	39
		TEST VENDS	For the machine	P2-15	40
			For a tray	P2-15	40
			For a selection	P2-15	40
	WIN VENDS	For the machine	P2-17	41	
		For a tray	P2-17	41	
		For a selection	P2-17	41	
	DISCOUNT VENDS	For the machine	P2-18	42	
		For a tray	P2-18	42	
		For a selection	P2-18	42	
	SALES (Value)	TOTAL SALES	For the machine	P2-7	43
			For a tray	P2-7	43
			For a selection	P2-7	43
		FREE VEND SALES	For the machine	P2-8	44
			For a tray	P2-8	44
			For a selection	P2-8	44
		WIN SALES	For the machine	P2-19	45
			For a tray	P2-19	45
			For a selection	P2-19	45

Set the validator for ESCROW or for NO ESCROW:

STEP	ENTER THIS KEYSTROKE...	AND THE DISPLAY INDICATES	COMMENTS
1	CONF	CONFIGURE	Configure mode entered.
2	➡	CNFG MACH	
3	➡	Current coin mech option is Displayed	
4	Press ↓ 5 times	Current bill validator option is displayed	
5	Press ➡ - Serial validator only	1-2-5-10-20	Not shown for pulse validators.
6	Press ↓ - Serial validator only Press ➡ - Pulse validator only	OPT IONS NO ESCROW	Forces a purchase and returns change due at end of vend.
		ESCROW	Pressing coin return button will allow full refund of the credit when no purchase is made.
7	OPT IONS Press ENTER/ACTION to change from ESCROW to NO ESCROW	NO ESCROW	Skip to step 12.
	Press ENTER/ACTION to change from NO ESCROW to ESCROW	ESCROW	Continue to step 8 for serial validator; step 10 for pulse validator.
	Do nothing and select the displayed option		
8	↓	--- PAY	Allows returning a bill in escrow or giving change when the coin return button is pressed.
9	Press the 1, 2, or 5 keys on the selection switch panel to allow change for that bill. <b>OR</b> Do nothing and all bills in escrow will be returned with the coin return button is pressed.	1 -- PAY	In this example, the merchandiser will give change for a \$1 bill only. All others will be returned.
10	↓	The display shows: \$INH < 1.00	Rejects dollar bills when less than a dollar's worth of change is in the coin tubes.
		OR: \$ACC < 1.00	Accepts dollar bills when less than a dollar's worth of change is in the coin tubes. <b>NOTE</b> The customer may be short changed in this case.
11	Press ENTER/ACTION to switch between \$INH < 1.00 and \$ACC < 1.00	Your choice is displayed.	
12	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

Set DECLINING BALANCE feature to ON or OFF

STEP	ENTER THIS KEYSTROKE...		AND THE DISPLAY INDICATES	COMMENTS	
1	CONF		CONFIGURE	Configure mode entered.	
2	→		CNFG MACH		
3	→		Current coin mech option is Displayed		
4		Press ↓ 6 times	O P T I O N S	DECLINE OFF	The normal change return rules are in effect.
				DECLINE ON	The following happens: 1. Selection is made 2. Product delivered 3. Price of vended selection is subtracted from initial credit 4. Remaining credit is displayed 5. Customer can enter another selection <b>OR</b> Customer can press coin return to retrieve change. ESCROW RULES ARE IN EFFECT.
5	O P T I O N S	Press ENTER/ACTION to change from DECLINE ON to DECLINE OFF.	DECLINE OFF		
		Press ENTER/ACTION to change from DECLINE OFF to DECLINE ON.	DECLINE ON		
6	O P T I O N S	Repeat the prior step.			
		Continue		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options	

PAYOUT a single quarter:

STEP	ENTER THIS KEYSTROKE...	AND THE DISPLAY INDICATES	COMMENTS
1	PAYOUT	PAYOUT	Payout mode entered.
2	➔	SGL COIN	Enters individual coin payout sequence.
3	➔	QUARTER	
4	Options: Quickly press and release ENTER/ACTION	QUARTER	A single quarter is paid out.
	Press and hold ENTER/ACTION	QUARTER	Quarters are paid out until ENTER/ACTION is released.
5	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

P5-1

**ALTERNATE PROCEDURE**

ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
PAYOUT	PAYOUT	Payout mode entered. The TEST VEND function switch can now be used to payout a single quarter
TEST VEND		A single quarter is paid out. Hold the switch to payout additional quarters.
CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

PAYOUT a single dime:

STEP	ENTER THIS KEYSTROKE...	AND THE DISPLAY INDICATES	COMMENTS
1	PAYOUT	PAYOUT	Payout mode entered.
2	→	SGL COIN	Enters individual coin payout sequence.
3	→	QUARTER	
4	↓	DIME	
5	O P T I O N S  Press ENTER/ACTION one time	DIME	A single dime is paid out.
		DIME	Dimes are paid out until ENTER/ACTION is released.
6	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

**ALTERNATE PROCEDURE**

ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
PAYOUT	PAYOUT	Payout mode entered. The DATA function switch can now be used to payout a single dime
DATA		A single dime is paid out. Hold the switch to payout additional dimes.
CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options



PAYOUT a single nickel:

STEP	ENTER THIS KEYSTROKE...		AND THE DISPLAY INDICATES	COMMENTS
1	PAYOUT		PAYOUT	Payout mode entered.
2	→		SGL COIN	Enters individual coin payout sequence.
3	→		QUARTER	
4	↓		DIME	
5	↓		NICKEL	
6	O P T I O N S	Press ENTER/ACTION one time	NICKEL	A single nickel is paid out.
		Press and hold ENTER/ACTION	NICKEL	Nickels are paid out until ENTER/ACTION is released.
7	CONTINUE			Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

P5-3


**ALTERNATE PROCEDURE**

ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
PAYOUT	PAYOUT	Payout mode entered. The PRICE function switch can now be used to payout a single nickel
PRICE		A single nickel is paid out. Hold the switch to payout additional nickels.
CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

PAYOUT all of the quarters in tube inventory:

STEP	ENTER THIS KEYSTROKE...	AND THE DISPLAY INDICATES	COMMENTS
1	PAYOUT	PAYOUT	Payout mode entered.
2	→	SGL COIN	
3	↓	DUMP TUBE	Allows unloading of entire tube inventory
4	→	QUARTER	Allows unloading of Quarter tube.
5	ENTER/ACTION		Controller pays out all quarters that it has in tube inventory.
6	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

TEST THE DISPLAYS:

STEP	ENTER THIS KEYSTROKE	AND THE DISPLAY INDICATES	COMMENTS
1	...		
	SERVICE	SERVICE	Service mode entered
2	→	VERS XXXX	The software version number is displayed
3	Press ↓ 1 time	DISPL TEST	Allows testing the displays to verify that all segments will light
4	ENTER/ACTION		All segments in all of the displays should light
5	Repeat prior step	DISPL TEST	Segments will remain lit for a short time then the prior display will return
	Continue	READY	Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

P7-2

TESTING FOR FAULT CONDITIONS:

STEP	ENTER THIS KEYSTROKE ...		AND THE DISPLAY INDICATES	COMMENTS
1	SERVICE		SERVICE	Service mode entered
2	→		VERS XXXXX	
3	Press ↓ 2 times		FAULT TST	You may now retrieve a list of detected faults.
4	ENTER/ACTION		O P T I O N S	The display goes blank and then returns to FAULT TST
				Three "beeps" are sounded and one of the fault messages is displayed
5	O P T I O N S	Repeat prior step		No faults have been detected  Fault messages: COM LINK WASTE PAIL LOW WATER NO CUPS TEMP FAULT CPL ERROR * TC ERROR ** SERIAL VAL  * TC = Selection ID Where: T = Tray ID C = Column ID ** See note below
		Continue		

NOTE: To uncouple all positions on all trays, complete the following procedure when CPL Error is shown as a Fault message:

STEP	ENTER THIS KEYSTROKE ...		AND THE DISPLAY INDICATES	COMMENTS
1	CONF		CONFIGURE	Configure mode entered
2	→		CNFG MACH	
3	→		Current coin mech option is displayed.	
4	Press ↓ 4 times		SET COUPLE	Allows coupling and uncoupling of adjacent positions
5	→		CPLT 02468	T = Tray ID Options: ABCD EFGH
6	Press ENTER/ACTION		CPLA	Everything is uncoupled.
7	O P T I O N S	Go to procedure P4-5 to reset coupling		
		Go to next step to leave all positions uncoupled.		
8	Continue			

Use COIN TEST to check communications with coin mechanism:

STEP	ENTER THIS KEYSTROKE...	AND THE DISPLAY INDICATES	COMMENTS
1	SERVICE	SERVICE	Service mode entered.
2	→	VERS XXXXX	
3	Press ↓ 4 times if configured for SNK/COF or SNK/CANDY  OR  Press ↓ 5 times if configured for SNK/CAN or SNK/CAN/COF	COIN TEST	Allows completion of coin test procedure
4	→	OPT I O N S ACCEPT ON	Coin mechanism will accept coins while in coin test mode
		ACCEPT OFF	Coin mechanism will not accept coins while in coin test mode
5	ENTER/ACTION	OPT I O N S ACCEPT OFF	Switch between Accept OFF and Accept ON modes.
		ACCEPT ON	
	↓	Last message received from coin mechanism is displayed  EXAMPLE:  XQT YYY TB	Keeps current ACCEPT option in effect while in coin test mode.  See next page for explanation of codes.
CONTINUED ON THE NEXT PAGE			

P7-6

CONTINUED FROM PREVIOUS PAGE			
STEP	ENTER THIS KEYSTROKE...	AND THE DISPLAY INDICATES	COMMENTS
6	Deposit a coin.		Coins are rejected if in Accept OFF mode.
		XTT NDQ MM	Coins are accepted if in Accept ON mode. ----- X = Status of quarter switch Options: 1. H = High quarter sensor 2. L = Low quarter sensor ----- TT = Type of coin seen by coin mechanism Options: 1. NI = Nickel 2. DI = Dime 3. QT = Quarter 4. DO = Dollar (Mars TRC) ----- NDQ = Tube Inventory Options: 1. N = nickel tube at or above sensor 2. D = dime tube at or above sensor 3. Q = quarter tube at or above sensor 4. The letters NDQ not displayed when inventory in the respective tube is below sensor. ----- MM = Messages 1. TB = coin went to the tube 2. CB = coin went to the cash box
7	Repeat prior step with another coin.	O P T I O N S	
			Continue