

ENGINEERING CHANGE ORDER

E.C.O. NO. 473-178

473 FRENCH/GERMAN
(SERVICE KIT)
MODELS AFFECTED

DATE: 5-24-90
EFFECTIVITY: SEE REMARKS

SHEET 1 OF 1

DISTRIBUTION:

<u>NAME</u>	<u>PRINTS</u>	<u>NAME</u>	<u>PRINTS</u>	<u>NAME</u>	<u>PRINTS</u>
BAUER	4	HOEPER	-	MILSTER	-
COOPER	-	KUESER	1	REED	1
CUMMINS	-	MATTHEWS	1	REED	1
EBELING	4	GARVELS	-	WATKINS	-
EWING	-	HART	-	WILSON	-
				MICRO FILM	1

SPECIAL DISTRIBUTION: ALBRECHT, GARAVAGLIA AND SMITH 1-ECO.

DESCRIPTION OF CHANGE:

NEW KIT ASSEMBLY BEING ESTABLISHED FOR "FRENCH AND GERMAN 473 MERCHANDISERS" TO INCORPORATE A HOT CHOCOLATE SELECTION.

ARTWORK IS BEING RELEASED TO PURCHASING WITH THIS ECO. ARTWORK IS TO BE RETURNED TO AL GRETHEY, ENGINEERING DESIGN.

NEW SERVICE PART NUMBERS (NEW DRAWINGS ARE REVISION "A", DATED 5-22-90).

4731333 KIT-HOT CHOCOLATE-FRENCH/GERMAN ("A" SIZE MA7-P)
4730034 BAG ASSY.-HOT CHOC.KIT-FRENCH/GERMAN ("B" SIZE MA7-P)
4730017 INSTR.-HOT CHOC.-FRENCH/GERMAN ("N/D" PC7-7)
4731330 IC ASSY.-MCU-PROG.(U6)-FRENCH ("A" SIZE MA7-P)
4731331 IC ASSY.-PROG.-FR.-CHOC.KIT #1 ("A" SIZE MA7-P)
4731332 IC ASSY.-PROG.-FR.-CHOC.KIT #2 ("A" SIZE MA7-P)
4732054 LABEL-HOT CHOC.-GERMAN ("A" SIZE PC7-P)
4732055 LABEL-CHOCOLATE-FRENCH ("A" SIZE PC7-P)
4732056 LABEL-HOT WHIPPED-FRENCH ("A" SIZE PC7-P)

PLATE COST TO BE CHARGED TO ENGINEERING ACCOUNT #64300-16010.

DEMAND TO BE PLACED BY SALES DEPARTMENT WHEN KIT IS REQUIRED.

DISPOSITION OF STOCK:

NOT APPLICABLE.

STRUCTURE REVISIONS:

STRUCTURE NEW KIT AND ALL ASSEMBLIES PER DRAWINGS.

ADD ALL NEW PARTS AND ASSEMBLIES TO ITEM MASTER FILE.

APPROVALS:

S. Fisher
ENGINEERING MANAGER

R. Garavaglia
ENGINEER

P. Garvels

ENGINEERING
REQUESTED BY

J. GARVELS
PREPARED BY

COLDTRON 1

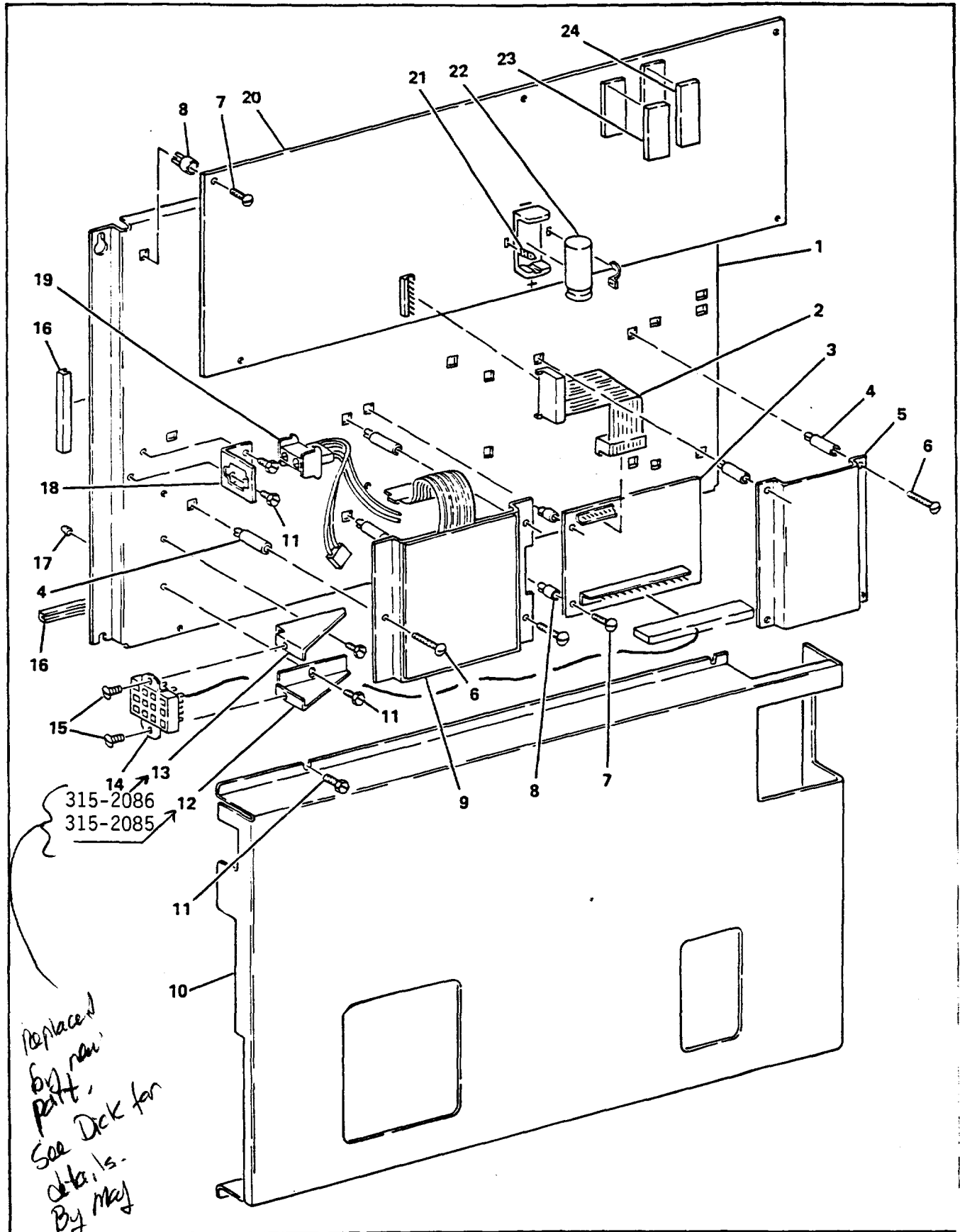
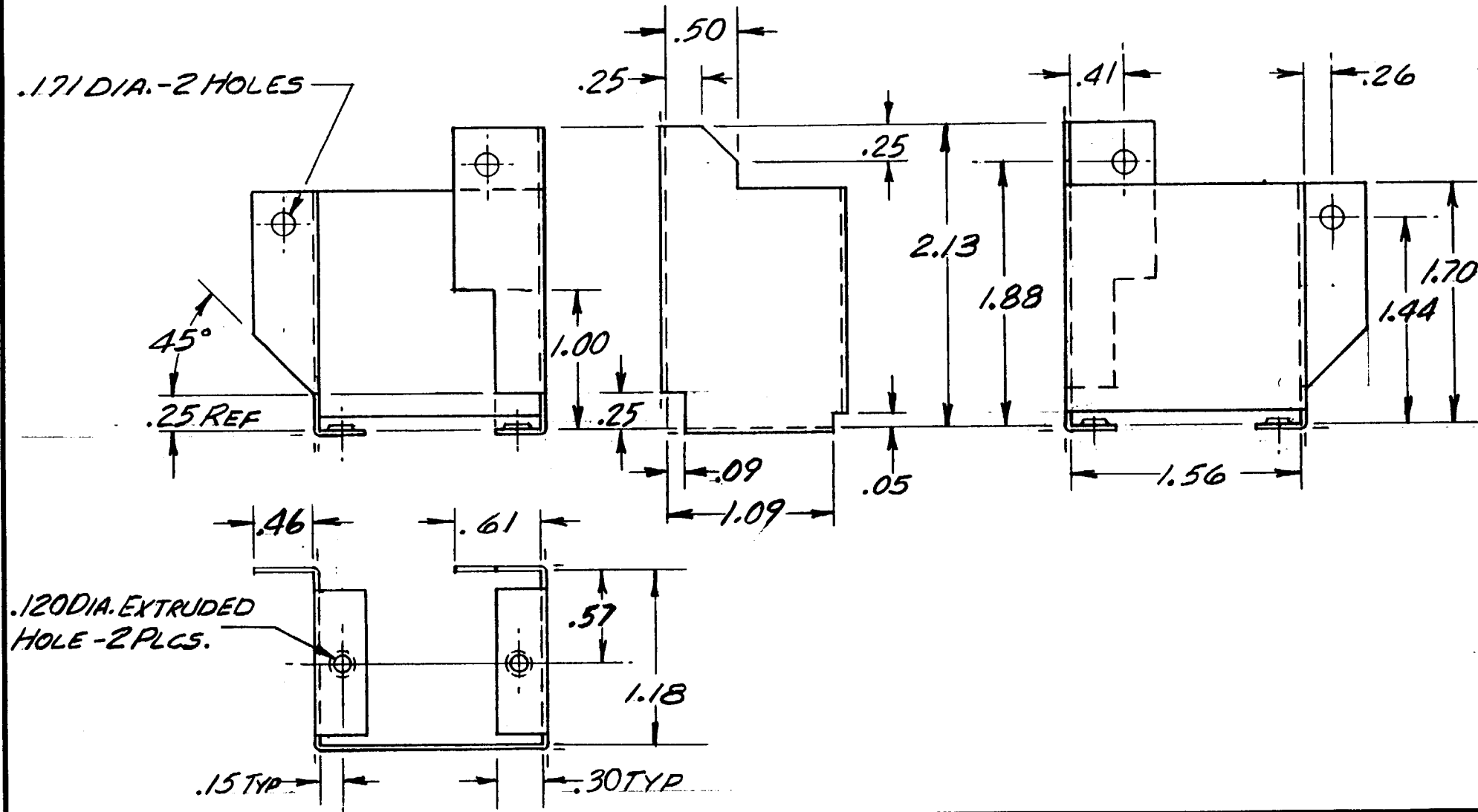


Figure 4-10. PCB & Component Assembly

PART NO. 3152202	PART NAME BRACKET - CONNECTOR	DATE 9-6-89	REVISION				
MATERIAL #20 GA. (.0359 ± .0035) C.R. STL.	FINISH ZINC PLT. .00025-.0004 IRIDITE 8P IRIDESCENT YELLOW	Drawn by [Signature]	LTR A	DESCRIPTION ECO No. M-4242	ECO NO. -	DATE 1-12-90	Approved by [Signature]
NATIONAL VENDORS® A DIVISION OF CRANE CO. ST. LOUIS, MO. 63115		TOLERANCES • 2 PLACE DECIMAL ± .02 UNLESS • 3 PLACE DECIMAL ± .005 OTHERWISE • ANGLES ± 1/2° EXCEPT SPECIFIED • FORMED ANGLES ± 1° CONCENTRICITY T.I.R. .010	SCALE 1/1	Checked by Approved by			



T9000 976

① ADDITIONS TO PARTS LIST FOR FOREIGN

5989507	SKIRT - 2 PIN	1	BAG
4732055	LABEL - HOT CHOC. - FR	1	BAG
4732056	LABEL - HOT WHIPPED - FR	1	BAG

② INCORPORATE INSTALLATION OF SKIRT
(Illustration is complete)

⑦ Revise page numbers to include skirt installation.

③ Revise parts list as marked

④ Revise instruction part numbers in page footers.

⑤ Change Kit P/N to 4731333

⑥ Change Kit Title to include FRENCH / GERMAN APPLICATION on the second line.

KIT PART NUMBER 4731313

INSTRUCTIONS FOR INSTALLING A HOT CHOCOLATE KIT IN A REFERESHTRON 3 MERCHANDISER

CHECK THE PARTS RECEIVED IN THE KIT WITH THE PARTS LIST IN THESE INSTRUCTIONS. IF ANY PARTS ARE MISSING, CONTACT NATIONAL VENDORS' PARTS DEPARTMENT IMMEDIATELY.

Read these instructions carefully before installing the kit.
Retain these instructions for part numbers and for future reference.

This kit contains the following:

PART NUMBER	DESCRIPTION	QUANTITY
2366055 ✓	Speed Clip, Compression Ring	2 BAG
3106155 ✓	Bushing, Snap	1 BAG
3157060 ✓	Screw, #8-32 x .31 Hex W/Hd - T/F	5 BAG
3617032 ✓	Locator, Canister, Foreign	1 BAG
3617033 ✓	Vent Assembly	1 BAG
4730010 ✓	Instructions, Installation	4730017 1 BAG
4731059 ✓	Motor Assembly, 200 RPM	1 KIT
4731105 ✓	Shelf, Canister	1 KIT
4731285 ✓	Bracket, Pressure Gauge	1 BAG
4731306 ✓	Harness, Hot Chocolate	1 BAG
4731307 ✓	IC, Programmed, 7 7 oz. 4731331 KIT #1	1 BAG
4731308 ✓	IC, Programmed, 8 8 oz. 4731332 KIT #2	1 BAG
4731311 ✓	Canister Assembly, Chocolate	1 KIT
4732052 ✓	Label, Hot Chocolate	4732054 1 BAG
4751027 ✓	Bracket, Mounting, Bowl	1 KIT
4751029 ✓	Shelf, Canister	1 KIT
6107194 ✓	Seal, Bushing	1 BAG
6107195 ✓	Housing, Impeller	1 BAG
6107197 ✓	Impeller	1 BAG
6107198 ✓	Spring Assembly, Thrust, Impeller	1 BAG
6111054 ✓	Clamp, Hose 19/32	1 BAG
6117010 ✓	Spout, Dispensing	1 BAG
6117011 ✓	Caplug, Spout	1 BAG
6137074 ✓	"CHOCOLATE" Label	1 BAG
6137076 ✓	"SUGAR" Label	1 BAG
6137077 ✓	"LIGHT" Label	1 BAG
6137114 ✓	Funnel, Impeller	1 BAG
6157054 ✓	Motor and Plate Assembly, Chocolate Whipper	1 KIT
6157057 ✓	Screw, Shoulder	4 BAG
6207003 ✓	Retainer, Canister, Right Hand	1 BAG
6508053 ✓	Tube, .38 ID x .56 OD x 8.25 long	1 BAG
9900138 ✓	Screw, #8-32 x 1/4 PHS	3 BAG
9900081 ✓	Nut, #8-32 W L/W	2 BAG
9900168 ✓	Screw, #8-32 x 3/8 - THS	2 BAG

5-17-90 PER FERRIS: ADDITIONAL MILSTER IS RECEIVING AN ECO MAKING THE AGENT FOR PART OF THE TUBE ASSEMBLY - THERE WILL BE NO NEED TO REVISE THESE INSTRUCTIONS. ECO: M1-A260 6137101 CANISTER KEYPICK

REMOVING THE OLD PRESSURE GAUGE MOUNTING BRACKET

Refer to Figure 1.

1. Disconnect the tube from the bottom of the air pressure gauge.
2. Remove the pressure gauge.
3. Remove the screw that secures the bracket to the coffee module panel.
4. Remove the bracket.

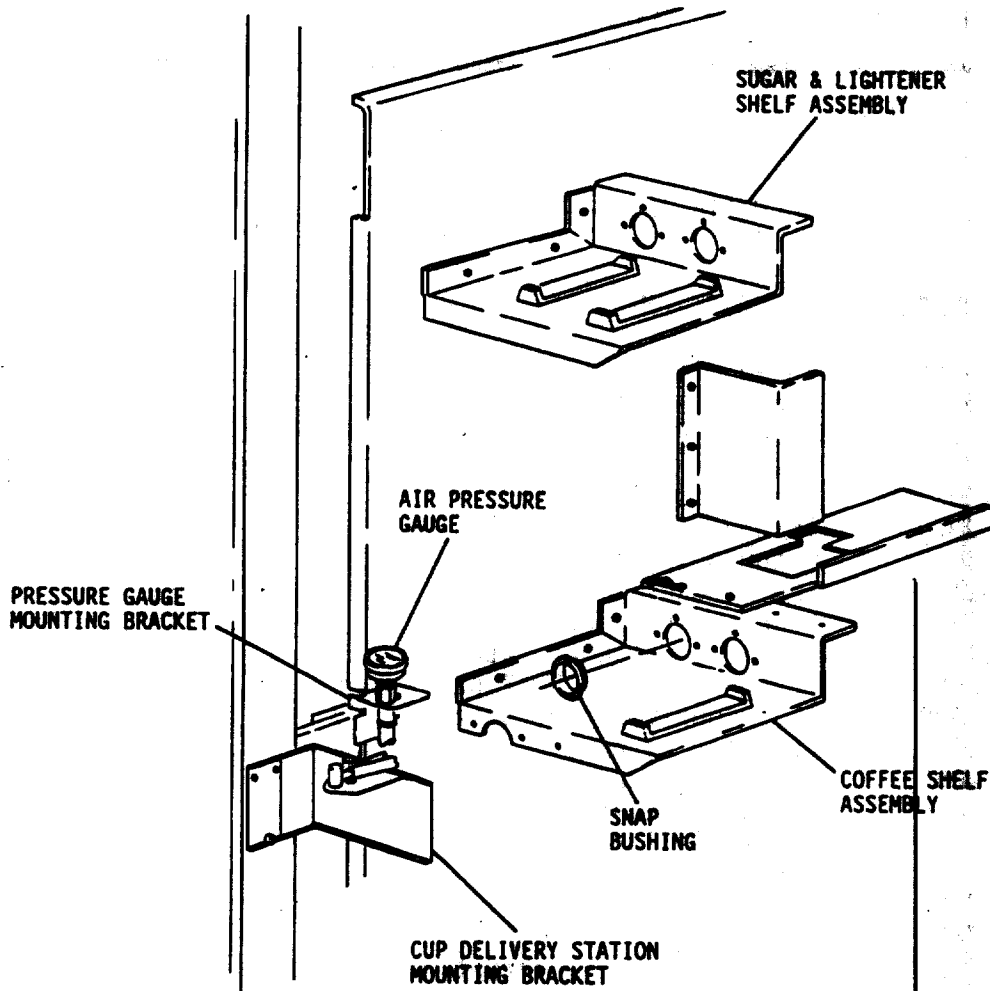


FIGURE 1. Original Assembly Locations

INSTALLING THE NEW SUGAR AND LIGHTENER SHELF

Refer to figure 2.

1. Remove the sugar and lightener canisters.
2. Disconnect the vent hose from the sugar and lightener vent assembly.
3. Disconnect the water inlet tube from the vent assembly.
4. Remove the vent assembly.
5. Remove the two knurled screws that secure the mixing bowl to the mounting bracket.

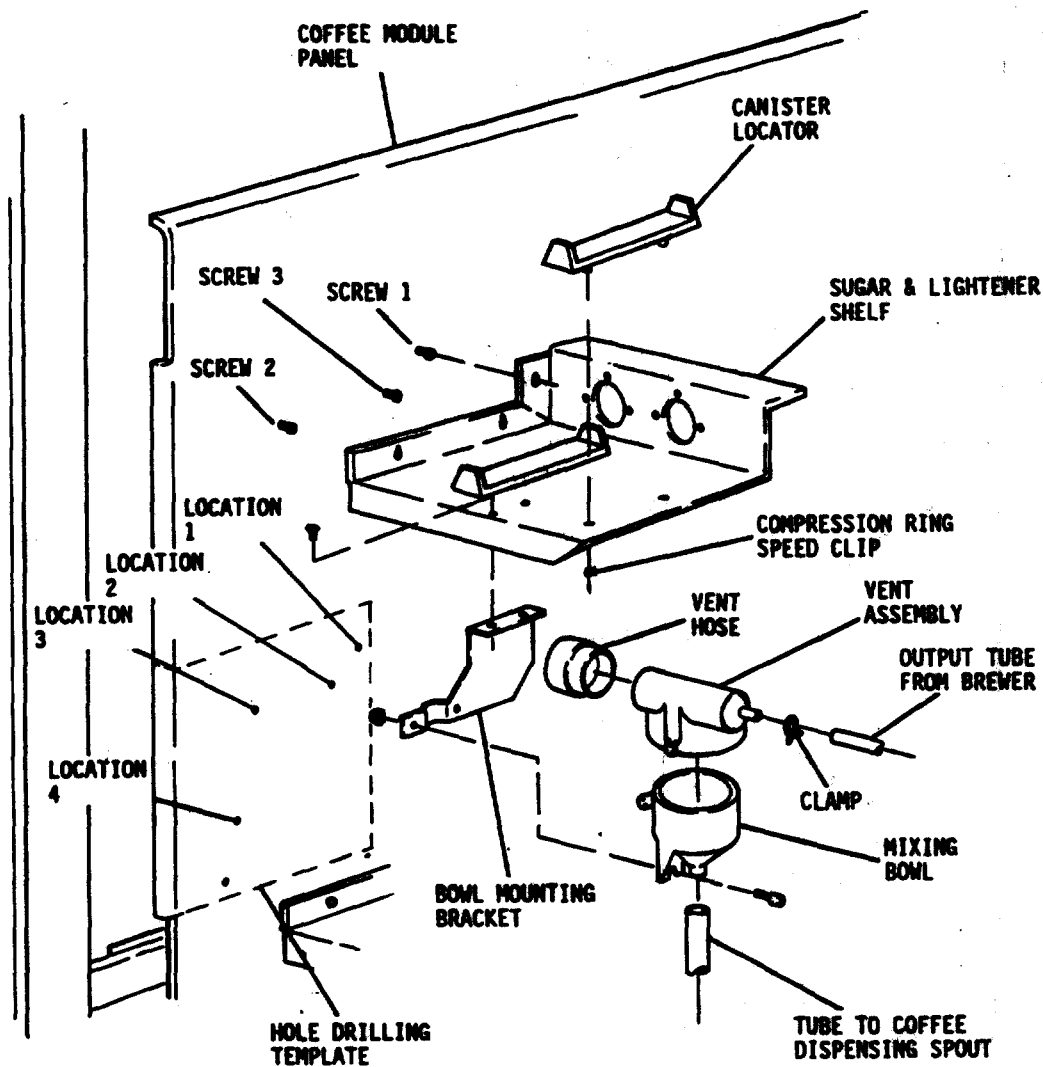


FIGURE 2. Assembly of New Sugar & Lightener Shelf

6. Remove the sugar and lightener mixing bowl.
7. Disconnect the sugar and lightener dispenser motors from the coffee module harness.
8. Remove the screw and clamp that secure the "Y" and tube assembly to the front right corner of the sugar and lightener canister shelf.
9. Loosen screws 1 and 2 and remove screw 3.
10. Lift up and remove the shelf and motor assembly.
11. Remove the lightener motor from the old shelf and install it on the new shelf.
12. Remove the sugar motor from the old shelf and install it on the new shelf.
13. Secure the bowl mounting bracket to the new shelf. Use the #8-32 x 3/8 - THS screws included in the kit.
14. Remove the sugar canister retainer from the old shelf and install it on the new shelf.
15. Remove the lightener canister retainer from the old shelf and install it on the new shelf.

16. Remove the sugar canister locator after removing the two compression ring speed clips that secure it to the old shelf. Install this canister locator on the new shelf.
17. Remove the lighter canister locator after removing the two compression ring speed clips that secure it to the old shelf. Install the canister locator on the new shelf.
18. Place the new shelf assembly over the two mounting screws on the coffee module panel and lower into position.
19. Replace screw 3 and tighten all three screws.
20. Secure the "Y" and tube assembly to the new shelf. Position the assembly in a location similar to the original location.
21. Reconnect the sugar and lighter motors to the coffee module harness.
22. Secure the mixing bowl to the new bowl mounting bracket.
23. Install the new vent assembly on the mixing bowl.
24. Connect the vent hose to the new vent assembly.
25. Connect the tube from the output of the brewer to the new vent assembly. Secure the tube to the vent assembly using the clamp removed previously.

ASSEMBLING THE HOT CHOCOLATE SHELF UNIT

Refer to Figure 3.

1. Secure the chocolate dispenser motor to the hot chocolate shelf. Use the three #8-32 x 1/4 pan head screws included in the kit.
2. Secure the canister locator to the shelf. Use the two compression ring speed clips included in the kit.
3. Secure the whipper motor and plate assembly to the shelf. Use the four shoulder screws included in the kit.
4. Install the seal bushing, impeller, impeller thrust spring assembly and the impeller housing as shown.
5. Install the canister retainer in the position shown.
6. Insert the impeller funnel in the top of the impeller housing.

INSTALLING THE HOT CHOCOLATE SHELF

1. Tape the hole drilling template to the coffee module panel. Place it in the position shown. Refer to Figure 2.
2. Center punch the panel at the four hole locations marked on the template.
3. Drill a 9/64 (.1406) hole at each location.
4. Remove the tape and the template.
5. Carefully examine the cabinet and remove all of the metal chips created by the drilling.
6. Partially install screws at locations 1 and 3 as shown. Use two of the #8-32 x .31 hex, washer head, thread forming screws.
7. Mount the chocolate dispenser motor as shown.
8. Mount the whipper motor assembly as shown.
9. Connect the hot chocolate kit harness to the whipper motor and to the chocolate dispenser motor.
10. Secure the whipper motor ground lead to the chocolate shelf at the location shown in Figure 3. Use one of the #8-32 x .31 Hex W/Head screws.
11. Place the chocolate shelf over the two mounting screws and lower into position. Refer to Figures 2 and 3.
12. Install the remaining #8-32 x .31 Hex W/Head screw at location 2.
13. Tighten all four shelf mounting screws.

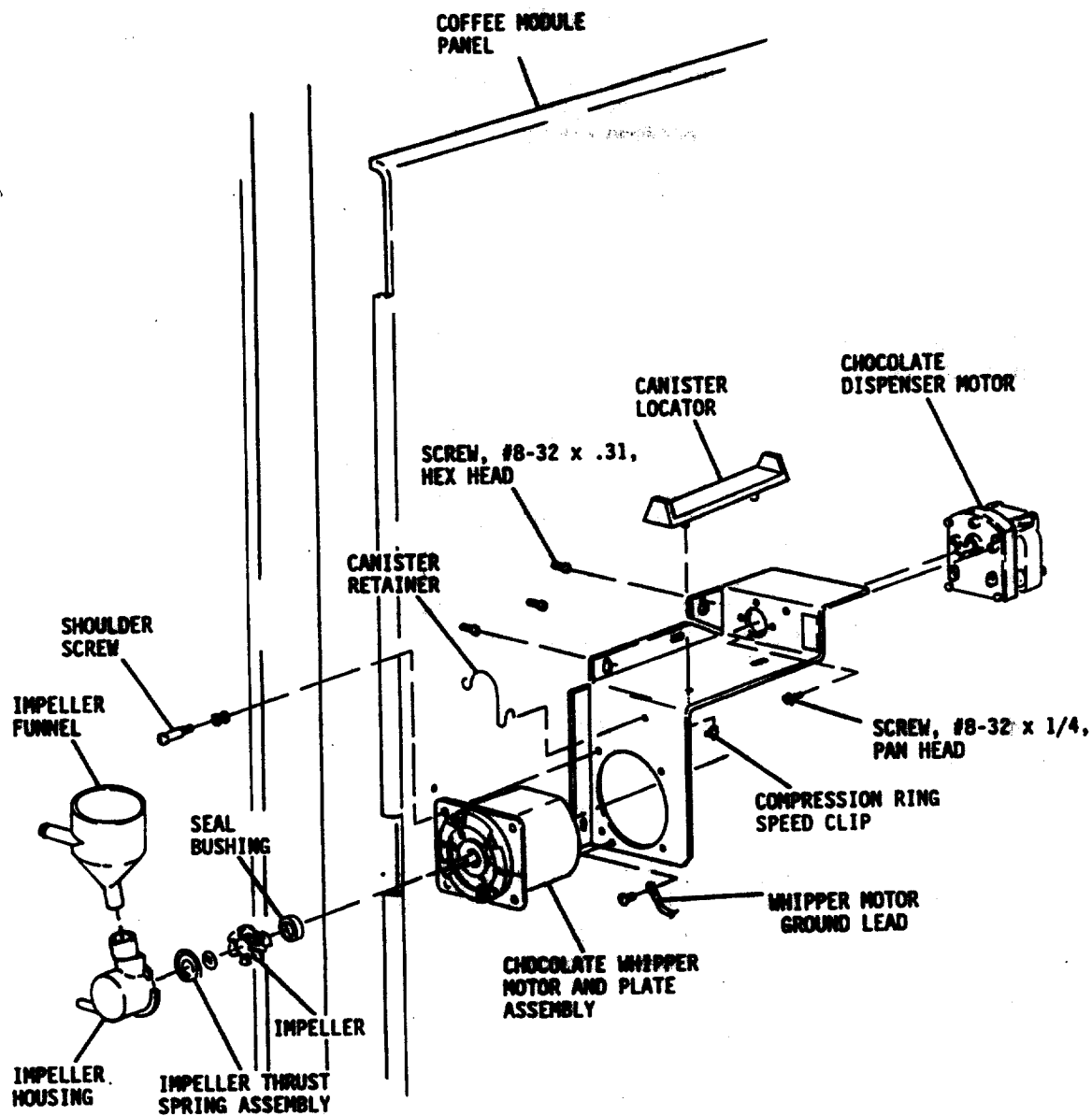


FIGURE 3. Assembly of Hot Chocolate Shelf Module

CONNECTING THE HOT CHOCOLATE KIT HARNESS

1. Disconnect the coffee and hot water dispensing spouts from the cup delivery station mounting bracket assembly.
2. Remove the cup delivery station.
3. Remove the cup delivery station mounting bracket assembly.
4. Disconnect all tubes from the brewer.
5. Remove the brewer from the cabinet.
6. Install the snap bushing in the large hole to the left of the coffee dispenser motor.

WARNING

Disconnect the merchandiser from its power source before you complete the rest of this installation procedure. Failure to do so may result in personal injury.

7. One of the remaining ends of the hot chocolate harness has only one connector. Feed this connector through the hole with the new bushing.

NOTE

The coffee module harness was designed to accommodate a second brewed selection. This second selection has never been used. As a result, there is an unused connector behind the coffee shelf.

8. Join the unused connector with the end of the harness which was passed through the coffee shelf in step 7.

NOTE

There is an orange and a yellow lead in the remaining branch of the harness. Each of these leads ends in two connectors.

WARNING

Allow the water tank to cool down before you complete the harness installation. Failure to do so may result in personal injury.

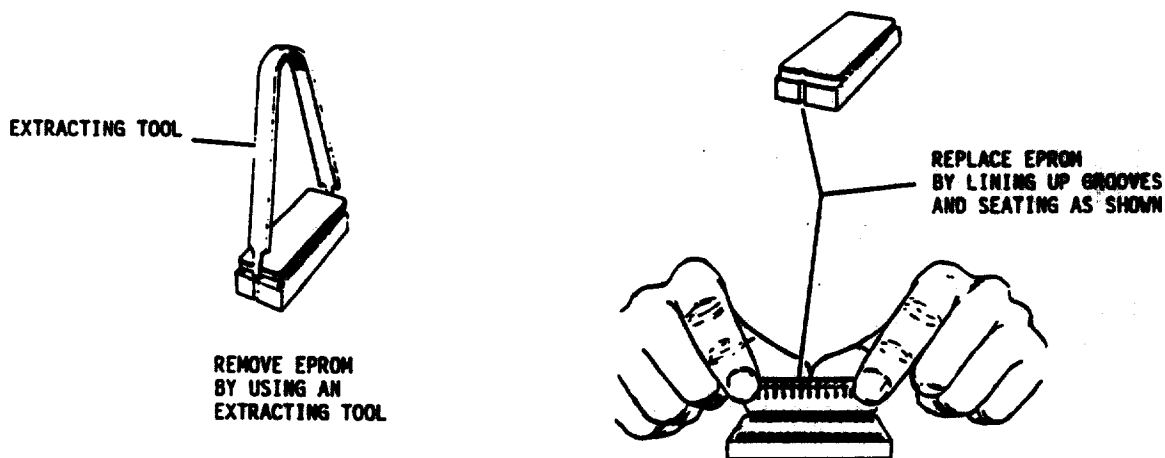
9. Disconnect one of the leads from the top water valve.
10. Join this lead to the mating connector for the wire of the same color in the hot chocolate harness.
11. Join the other connector for this wire color to the available terminal on the water valve.
12. Repeat steps 9-11 for the other lead connected to the top water valve.
13. Replace the brewer.
14. Replace the cup delivery compartment mounting bracket assembly.

INSTALLING THE NEW EPROM

CAUTION

Electro-Static-Discharge control procedures should be followed when handling and installing the EPROM. Failure to do so may damage the EPROM.

1. Loosen the screw to the left of the service panel.
2. Slide the service panel forward.
3. Remove the two outer screws on the front of the panel.
4. Remove the two screws from the back of the panel.
5. Carefully remove the service panel cover.
6. Remove EPROM U6.



NOTE

Two EPROMS are supplied with this kit. Part number 4731307 is used for 7 oz. cup applications. Part number 4731308 is used for 8.25 oz. cup applications.

7. Install the new EPROM for the desired cup size.
8. Carefully replace the service panel cover and secure it with the four screws removed previously.
9. Slide the service panel back into place and secure by tightening the screw on the left side.

INSTALLING THE NEW PRESSURE GAUGE BRACKET

1. Install the new pressure gauge bracket in the place previously occupied by the old bracket. Use the screw previously removed to secure the new bracket to the coffee module panel.
2. Insert the gauge through the front hole in the bracket.
3. Rotate the gauge until the face of the dial is in an easy to read position.
4. Reconnect the vacuum tube to the bottom of the gauge. Secure the tube with the clamp used previously.

COMPLETING THE INSTALLATION

1. The tube from the top water valve should be routed to the chocolate impeller funnel.

CAUTION

The tube must be routed so there are no traps which could retain water between vend cycles.

2. Cut the tube to length as required by the routing.
3. Slide the hose clamp over the free end of this tube.
4. Connect the tube to the funnel and slide the clamp into position so the tube is held in place.
5. A length of tubing is included in the kit. Connect one end of this tube to the bottom of the chocolate impeller housing.
6. Connect the other end of this tube to the dispensing spout included in the kit.
7. Install this dispensing spout in the dispensing spout mounting bracket.
8. Install the coffee dispensing spout in the bracket also.
9. Install the spout capplug in the top of the hot chocolate dispensing spout.
10. Connect the brew water tube to the top of the brew barrel.
11. Connect the vacuum tube to the top of the brew barrel.
12. Replace the cup station.
13. Install the *SUGAR* and *LIGHT* labels on the new sugar and lightener shelf. Use the old shelf as a guide for placing these labels on the new shelf.
14. Similarly, install the *CHOCOLATE* label on the hot chocolate shelf.
15. Install the *HOT CHOC* label on the front of the door. It should be placed over the words "HOT WATER".
16. Load the canisters with the appropriate products and place them on their shelves.

SETTING DRY INGREDIENT TIMES

The amount of dry ingredient dispensed is controlled by using the DIP switches on the service panel. The switches control the amount of time that the dispensing motors operate. The amount of ingredient dispensed increases as the time increases. Different brands of ingredient require different amounts to produce the desired taste. Therefore it is necessary to experiment in order to identify the best time for your installation. For both of the cup sizes, each ingredient has a set of four times. The correct switch settings for these times are shown in the tables that follow.

7 oz CUP INGREDIENT TIMES

COFFEE

SWITCH 1

		UP	DOWN
		2.00	2.50
SWITCH 2	UP	2.00	2.50
	DOWN	2.35	2.70

8.25 oz CUP INGREDIENT TIMES

COFFEE

SWITCH 1

		UP	DOWN
		2.50	2.90
SWITCH 2	UP	2.50	2.90
	DOWN	2.70	3.20

CHOCOLATE

SWITCH 3

		UP	DOWN
		2.70	4.50
SWITCH 4	UP	2.70	4.50
	DOWN	2.90	5.30

CHOCOLATE

SWITCH 3

		UP	DOWN
		3.10	5.30
SWITCH 4	UP	3.10	5.30
	DOWN	3.35	6.20

SUGAR

SWITCH 5

		UP	DOWN
		1.50	1.95
SWITCH 6	UP	1.50	1.95
	DOWN	1.65	2.30

SUGAR

SWITCH 5

		UP	DOWN
		1.50	1.95
SWITCH 6	UP	1.50	1.95
	DOWN	1.65	2.30

LIGHTENER

SWITCH 7

		UP	DOWN
		1.60	2.35
SWITCH 8	UP	1.60	2.35
	DOWN	1.95	2.70

LIGHTENER

SWITCH 7

		UP	DOWN
		1.60	2.35
SWITCH 8	UP	1.60	2.35
	DOWN	1.95	2.70

AIR COMPRESSOR TIME

The air compressor operating cycle time is now fixed at 10 seconds.

SETTING WATER VOLUME

The water valves remain open for a fixed amount of time. This time is controlled by the software. The volume can be adjusted within a narrow range by adjusting the water valve. Refer to "Adjustment of the In-Cup Water and Coffee Beverage Throw" in the REFRESHTRON 3 Set-Up Manual. Water volume should be set as follows:

	CUP SIZE	
	7 oz	8.25 oz
COFFEE	165-175 ml	195-205 ml
CHOCOLATE	140-150 ml	165-205 ml

TEST THROW PROCEDURE FOR CHOCOLATE INGREDIENT AND CHOCOLATE WATER

Two of the membrane switches on the service panel have new functions.

- * The *HOT WATER* switch is now used to test the volume of water dispensed for hot chocolate.
- * The *DECAF PRODUCT* switch is now used to test the throw weight of the chocolate ingredient.

SETTING THE HOT CHOCOLATE PRICE

Follow the price setting procedure in the REFRESHTRON 3 Set-Up Manual. Use G5 as the selection number for hot chocolate.

HOLE DRILLING TEMPLATE

HOLE LOCATION
NUMBER 1



HOLE LOCATION
NUMBER 3



HOLE LOCATION
NUMBER 2



USE A 9/64 DRILL BIT FOR ALL HOLES

FOLD UNDER ALONG THIS LINE

HOLE LOCATION
NUMBER 4



CENTER OVER HOLE USED TO SECURE
PRESSURE GAUGE MOUNTING BRACKET
TO THE COFFEE MODULE PANEL



CUT ALONG THIS LINE

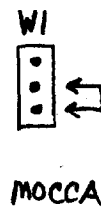
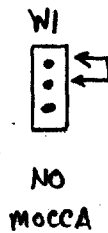
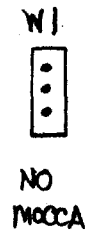
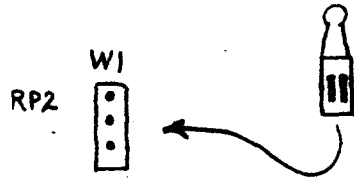
INSTRUCTION SHEET

2-Pin Shunt Jumper P/N

Kit P/N 4731333

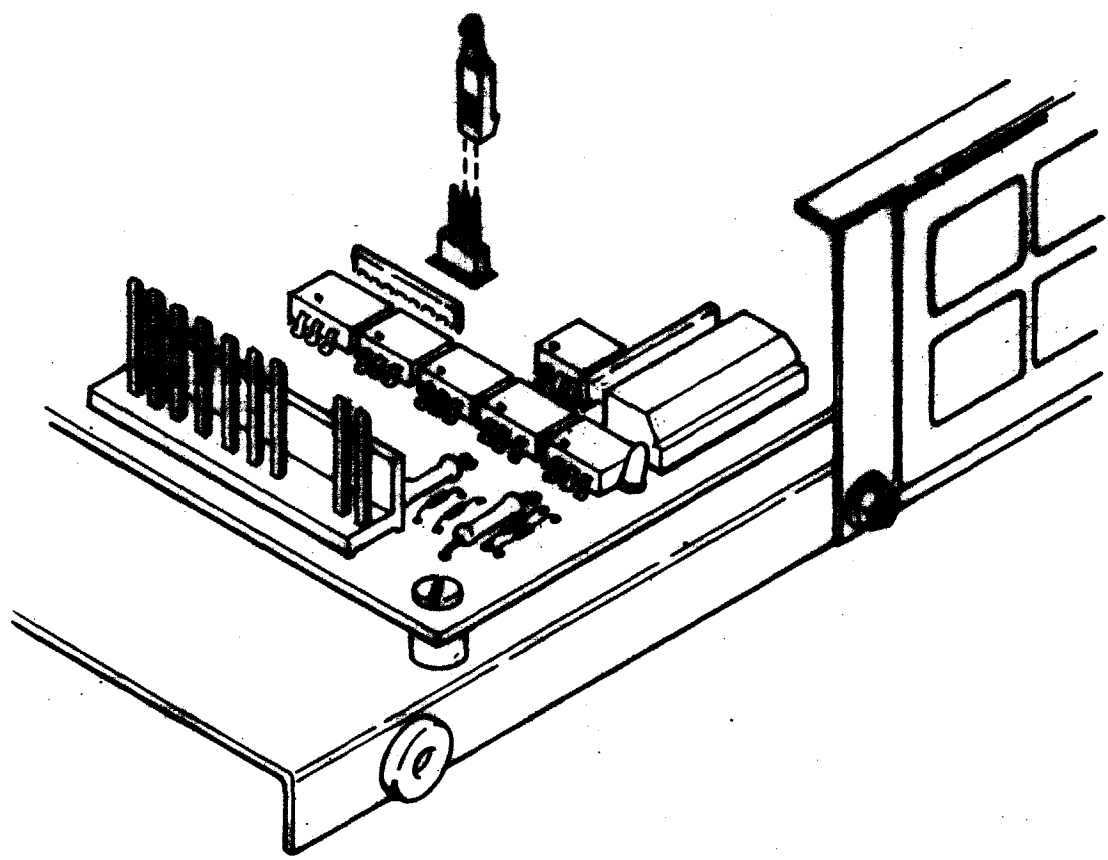
Instruction P/N

E



473

2. B & S



SERVICE PART

ORG. NO. KEY

PART NO. 4731333		PART NAME KIT-HOT CHOCOLATE-FRENCH/GERMAN		DATE 5-22-90	REVISION			
MATERIAL -----		FINISH -----		Drawn by JVG	LTR A	DESCRIPTION NCA 4-13-178	ECO NO.	DATE
NATIONAL VENDORS® A DIVISION OF CRANE CO. ST. LOUIS, MO. 63115		TOLERANCES • 2 PLACE DECIMAL ± .02 UNLESS OTHERWISE SPECIFIED UNLESS OTHERWISE SPECIFIED ANGLES ± 1/2° EXCEPT FORMED ANGLES ± 1° CONCENTRICITY ± 1/16"		SCALE ---	Checked by RGG			

THIS KIT CONSISTS OF THE FOLLOWING:

<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	4731059 ✓	MOTOR ASSY.-200 RPM
1	4731105 ✓	SHELF-CANISTER
1	4751027 ✓	BRACKET-MOUNTING-BOWL
1	4751029 ✓	SHELF-CANISTER
1	6157054 ✓	MOTOR & PLATE ASSY.-CHOC. WHIPPER
1	4731311 ✓	CANISTER ASSY.-CHOC. ← PART OF THIS
1	6137101	AGITATOR-CANISTER
1	4730034	BAG ASSY.-HOT CHOC. KIT-FRENCH/GERMAN

SERVICE PART

PART NO. 4730034		PART NAME BAG ASSY.-HOT CHOC. KIT-FRENCH/GERMAN		DATE 5-22-90	REVISION				
MATERIAL		FINISH		Drawn by JVG	LTR A	DESCRIPTION ECO-473-178	ECO NO.	DATE 5-22-90	Approved by RGG
NATIONAL VENDORS A DIVISION OF CRANE CO. ST. LOUIS, MO. 63115		TOLERANCES • 2 PLACE DECIMAL ± .02 UNLESS OTHERWISE SPECIFIED ANGLES ± 1/2° EXCEPT FORMED ANGLES ± 1° CONCENTRICITY T14.010		SCALE ---	Checked by RGG	Approved by			

THIS ASSEMBLY CONSISTS OF THE FOLLOWING:

<u>QUANTITY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	-----	PLASTIC BAG (PACKING MAT'LS.)
2	2366055 ✓	SPEED CLIP-COMP. RING
1	3106155 ✓	BUSHING
5	3157060 ✓	SCREW-#8-32 X .31 HEX W/HD. SLOT-T/F
1	3617032 ✓	CANISTER LOCATOR-FOREIGN
1	3617033 ✓	VENT ASSEMBLY
1	4730017 ✓	INSTRUCTIONS-HOT CHOC.-GER./FR.
1	4731285 ✓	BRACKET-PRESSURE GAGE
1	4731306 ✓	HARNESS-HOT CHOC.
1	4731331 ✓	IC ASSY.-PROG.-FR.-CHOC. KIT #1
1	4731332 ✓	IC ASSY.-PROG.-FR.-CHOC. KIT #2
1	4732054 ✓	LABEL-HOT CHOC.-GER.
1	6107194 ✓	BUSHING-SEAL
1	6107195 ✓	HOUSING-IMPELLER
1	6107197 ✓	IMPELLER
1	6107198 ✓	SPRING ASSY.-THRUST
1	6111054 ✓	CLAMP-HOSE-19/32
1	6117010 ✓	SPOUT-DISPENSING
1	6117011 ✓	CAPLUG-SPOUT
1	6137074 ✓	LABEL-CHOC.
1	6137076 ✓	LABEL-SUGAR
1	6137077 ✓	LABEL-LIGHTENER
1	6137114 ✓	FUNNEL
4	6157057 ✓	SCREW-SHOULDER
1	6207003 ✓	RETAINER-CANISTER-R.H.
1	6508053 ✓	TUBE-.38 I.D. X .56 O.D. X 8.25 LG.
2	9900081 ✓	NUT-#8-32 KEPS
3	9900138 ✓	SCREW-#8-32 X 1/4 PHS W/L.W.
2	9900168 ✓	SCREW-#8-32 X 3/8 THS
1	9989507 ✓	SHUNT 2 PIN
1	4732055 ✓	LABEL-HOT CHOC.-FR.
1	4732056 ✓	LABEL-HOT WHIPPED-FR.

DWG. NO.

SH. REV.

SERVICE PART

DWG. NO.

SH

PART NO. 4731330		PART NAME IC ASSY. -MCU-PROG. (U6) FRANCE		DATE 5-22-90	REVISION			
MATERIAL SEE BELOW		FINISH -----		Drawn by JVG	LTR A	DESCRIPTION ECO # 473-178	ECO NO.	DATE
NATIONAL VENDORS® A DIVISION OF GRANE CO. ST. LOUIS, MO. 63115		UNLESS OTHER WISE SPECIFIED DIMENSIONS ARE IN INCHES		TOLERANCES • 2 PLACE DECIMAL ± .02 UNLESS • 3 PLACE DECIMAL ± .005 OTHERWISE • ANGLES ± 1/2° EXCEPT SPECIFIED • FORMED ANGLES ± 1° CONCENTRICITY T.I.R. .010	SCALE ---	Checked by RGG	Approved by	

THIS DRAWING PROVIDES FOR THE PROGRAMMING OF
 PART NUMBER 9980004 (MEMORY LOCATIONS 80/FFF).

1. USE N.V. ENGINEERING PRIMARY STANDARD IDENTIFIED AS: MASTER 4731330.
2. SOFTWARE REFERENCES: AL473-502B1.
3. AFTER PROGRAMMING, AFFIX LABEL, P/N 9985248 (PRINTED AS SHOWN BELOW), SO AS TO COMPLETELY COVER WINDOW.
4. PACKAGE FOR STORES AND PRODUCTION USING SUITABLE "STATIC PROTECTION METHODS".

LABEL TO BE PRINTED AS FOLLOWS:

4731330
 VER502B1
 U6

SERVICE PART

DWG. NO.

PART NO. 4731331	PART NAME IC ASSY. -PROG. -FR. -CHOC. KIT #1	DATE 5-22-90	REVISION			
MATERIAL SEE BELOW		FINISH -----	LTR A	DESCRIPTION ICB 4-13-17B	ECO NO.	DATE
NATIONAL VENDORS® A DIVISION OF CRANE CO. ST. LOUIS, MO. 63115		TOLERANCES • 2 PLACE DECIMAL ± .02 UNLESS • 3 PLACE DECIMAL ± .005 OTHERWISE • ANGLES ± 1/2° EXCEPT SPECIFIED • FORMED ANGLES ± 1° CONCENTRICITY TLR .010	Drawn by JVG			
			Checked by RGG			
		SCALE ---	Approved by			

THIS DRAWING PROVIDES FOR THE PROGRAMMING OF
PART NUMBER 9980004 (MEMORY LOCATIONS 80/FFF).

1. USE N.V. ENGINEERING PRIMARY STANDARD IDENTIFIED AS: MASTER 4731331.
2. SOFTWARE REFERENCES: AL473-CHOC. FR. #1.
3. AFTER PROGRAMMING, AFFIX LABEL, P/N 9985248 (PRINTED AS SHOWN BELOW), SO AS TO COMPLETELY COVER WINDOW.
4. PACKAGE FOR STORES AND PRODUCTION USING SUITABLE "STATIC PROTECTION METHODS".

LABEL TO BE PRINTED AS FOLLOWS:

4731331
VER CHOC. FR. #1
U6

SERVICE PART

PART NO. 4731332		PART NAME IC ASSY.-PROG.-FR.-CHOC. KIT #2		DATE 5-22-90	REVISION			
MATERIAL SEE BELOW		FINISH -----		Drawn by JVJ	LTR A	DESCRIPTION ECO-473-178	ECD NO.	DATE
NATIONAL VENDORS® A DIVISION OF GRANE CO. ST. LOUIS, MO. 63115		TOLERANCES • 2 PLACE DECIMAL ± .02 UNLESS • 3 PLACE DECIMAL ± .005 OTHERWISE • ANGLES ± 1/8" EXCEPT SPECIFIED • FORMED ANGLES ± 1" CONCENTRICITY T.I.R. .010		SCALE ---	Checked by RGG	Approved by		

THIS DRAWING PROVIDES FOR THE PROGRAMMING OF
PART NUMBER 9980004 (MEMORY LOCATIONS 80/FFF).

1. USE N.V. ENGINEERING PRIMARY STANDARD IDENTIFIED AS: MASTER 4731332.
2. SOFTWARE REFERENCES: AL473-CHOC. FR. #2.
3. AFTER PROGRAMMING, AFFIX LABEL, P/N 9985248 (PRINTED AS SHOWN BELOW), SO AS TO COMPLETELY COVER WINDOW.
4. PACKAGE FOR STORES AND PRODUCTION USING SUITABLE "STATIC PROTECTION METHODS".

LABEL TO BE PRINTED AS FOLLOWS:

4731332
VER CHOC. FR. #2
U6

4732054

LABELS - HOT CHOCOLATE - GER.

5-21-90

REVISION

NO.	DESCRIPTION	DATE	BY

x

x

JJC

NATIONAL VENDORS
A DIVISION OF CRANE CO.
ST. LOUIS, MO. 63118

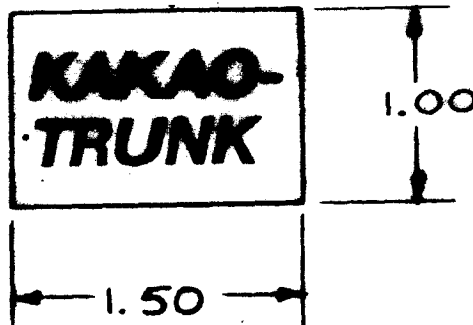
UNLESS OTHER-
WISE SPECIFIED
CONSTRUCTION
AND MATERIALS

TELEPHONE : 636-2200
FAX : 636-2200
ADDRESS : 1001 N. 1ST
ST. LOUIS, MO. 63102

FULL

MATERIAL:

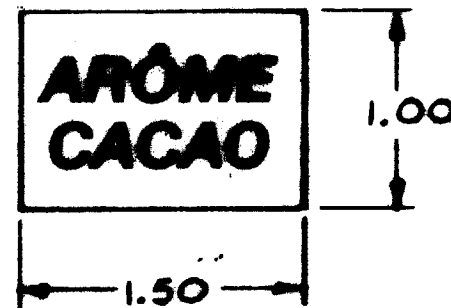
1. 3M-7331 MATTE WHITE POLYESTER OR
ENG. APPROVED EQUIV.
2. LABELS TO BE PRINTED OR SILKSCREENED ONE
COLOR BLACK, REVERSE COPY. ARTWORK TO BE
SUPPLIED BY NATIONAL VENDORS.
3. LABELS TO BE SUPPLIED ON CONTINUOUS PAPER
BACKING. MUST RETAIN GOOD ADHESIVE
CHARACTERISTICS AS PACKAGED FOR UP TO 18
MONTHS STORAGE AND MUST PEEL FREE OF BACKING.



4732055	PART NAME LABEL - CHOCOLATE - FR	DATE 5-21-90	REVISION		
		DESIGNED BY JJO	DESIGNED	CHECKED	
NATIONAL VENDORS A DIVISION OF CRANE CO. ST. LOUIS, MO. 63115		RELEASED USE OF TRADE CHARACTERS ARE IN THESE	TRADEMARKS: • 3-PLATE GENERAL & CO • 4-PLATE GENERAL & CO • 5-PLATE GENERAL & CO • 6-PLATE GENERAL & CO • 7-PLATE GENERAL & CO • 8-PLATE GENERAL & CO • 9-PLATE GENERAL & CO • 10-PLATE GENERAL & CO • 11-PLATE GENERAL & CO • 12-PLATE GENERAL & CO • 13-PLATE GENERAL & CO • 14-PLATE GENERAL & CO • 15-PLATE GENERAL & CO • 16-PLATE GENERAL & CO • 17-PLATE GENERAL & CO • 18-PLATE GENERAL & CO • 19-PLATE GENERAL & CO • 20-PLATE GENERAL & CO • 21-PLATE GENERAL & CO • 22-PLATE GENERAL & CO • 23-PLATE GENERAL & CO • 24-PLATE GENERAL & CO • 25-PLATE GENERAL & CO • 26-PLATE GENERAL & CO • 27-PLATE GENERAL & CO • 28-PLATE GENERAL & CO • 29-PLATE GENERAL & CO • 30-PLATE GENERAL & CO • 31-PLATE GENERAL & CO • 32-PLATE GENERAL & CO • 33-PLATE GENERAL & CO • 34-PLATE GENERAL & CO • 35-PLATE GENERAL & CO • 36-PLATE GENERAL & CO • 37-PLATE GENERAL & CO • 38-PLATE GENERAL & CO • 39-PLATE GENERAL & CO • 40-PLATE GENERAL & CO • 41-PLATE GENERAL & CO • 42-PLATE GENERAL & CO • 43-PLATE GENERAL & CO • 44-PLATE GENERAL & CO • 45-PLATE GENERAL & CO • 46-PLATE GENERAL & CO • 47-PLATE GENERAL & CO • 48-PLATE GENERAL & CO • 49-PLATE GENERAL & CO • 50-PLATE GENERAL & CO • 51-PLATE GENERAL & CO • 52-PLATE GENERAL & CO • 53-PLATE GENERAL & CO • 54-PLATE GENERAL & CO • 55-PLATE GENERAL & CO • 56-PLATE GENERAL & CO • 57-PLATE GENERAL & CO • 58-PLATE GENERAL & CO • 59-PLATE GENERAL & CO • 60-PLATE GENERAL & CO • 61-PLATE GENERAL & CO • 62-PLATE GENERAL & CO • 63-PLATE GENERAL & CO • 64-PLATE GENERAL & CO • 65-PLATE GENERAL & CO • 66-PLATE GENERAL & CO • 67-PLATE GENERAL & CO • 68-PLATE GENERAL & CO • 69-PLATE GENERAL & CO • 70-PLATE GENERAL & CO • 71-PLATE GENERAL & CO • 72-PLATE GENERAL & CO • 73-PLATE GENERAL & CO • 74-PLATE GENERAL & CO • 75-PLATE GENERAL & CO • 76-PLATE GENERAL & CO • 77-PLATE GENERAL & CO • 78-PLATE GENERAL & CO • 79-PLATE GENERAL & CO • 80-PLATE GENERAL & CO • 81-PLATE GENERAL & CO • 82-PLATE GENERAL & CO • 83-PLATE GENERAL & CO • 84-PLATE GENERAL & CO • 85-PLATE GENERAL & CO • 86-PLATE GENERAL & CO • 87-PLATE GENERAL & CO • 88-PLATE GENERAL & CO • 89-PLATE GENERAL & CO • 90-PLATE GENERAL & CO • 91-PLATE GENERAL & CO • 92-PLATE GENERAL & CO • 93-PLATE GENERAL & CO • 94-PLATE GENERAL & CO • 95-PLATE GENERAL & CO • 96-PLATE GENERAL & CO • 97-PLATE GENERAL & CO • 98-PLATE GENERAL & CO • 99-PLATE GENERAL & CO • 100-PLATE GENERAL & CO CONDENSED MILK T.I.R. 910	FULL	

MATERIAL:

1. 3M-7331 MATTE WHITE POLYESTER OR ENG. APPROVED EQUIV.
2. LABELS TO BE PRINTED OR SILKSCREENED ONE COLOR BLACK, REVERSE COPY. ARTWORK TO BE SUPPLIED BY NATIONAL VENDORS.
3. LABELS TO BE SUPPLIED ON CONTINUOUS PAPER BACKING. MUST RETAIN GOOD ADHESIVE CHARACTERISTICS AS PACKAGED FOR UP TO 18 MONTHS STORAGE AND MUST PEEL FREE OF BACKING.



4732056

LABEL - HOT WHIPPED - FR

5-21-90

DATE 10

X

X

J J G

DATE	DESCRIPTION	QTY	UNIT

NATIONAL VENDORS
A DIVISION OF CRANE CO.
ST. LOUIS, MO. 63115

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

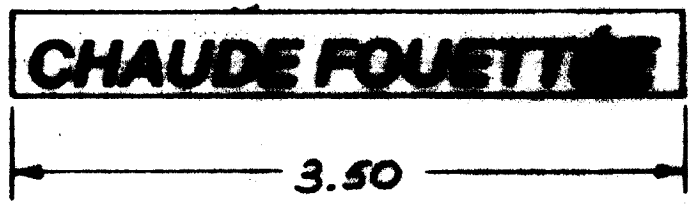
TOLERANCES • 2 PLACE DECIMAL ± .02
• 3 PLACE DECIMAL ± .005
OTHERWISE AS NOTED

ANGLES ± 1/2° EXCEPT FORMED ANGLES ± 1° CONCENTRICITY I.A. 010

FULL

MATERIAL:

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CHAUDE FOUETTE

3.50

.43