

SIMPSONS
Sears

TECHNICAL FLASH

Department 731A Toronto

T.F. 46-25
March 5, 1984

DIV. 46
SOURCE C646
ICE MAKER # 92077
SERVICE MANUAL & INSTALLATION GUIDE

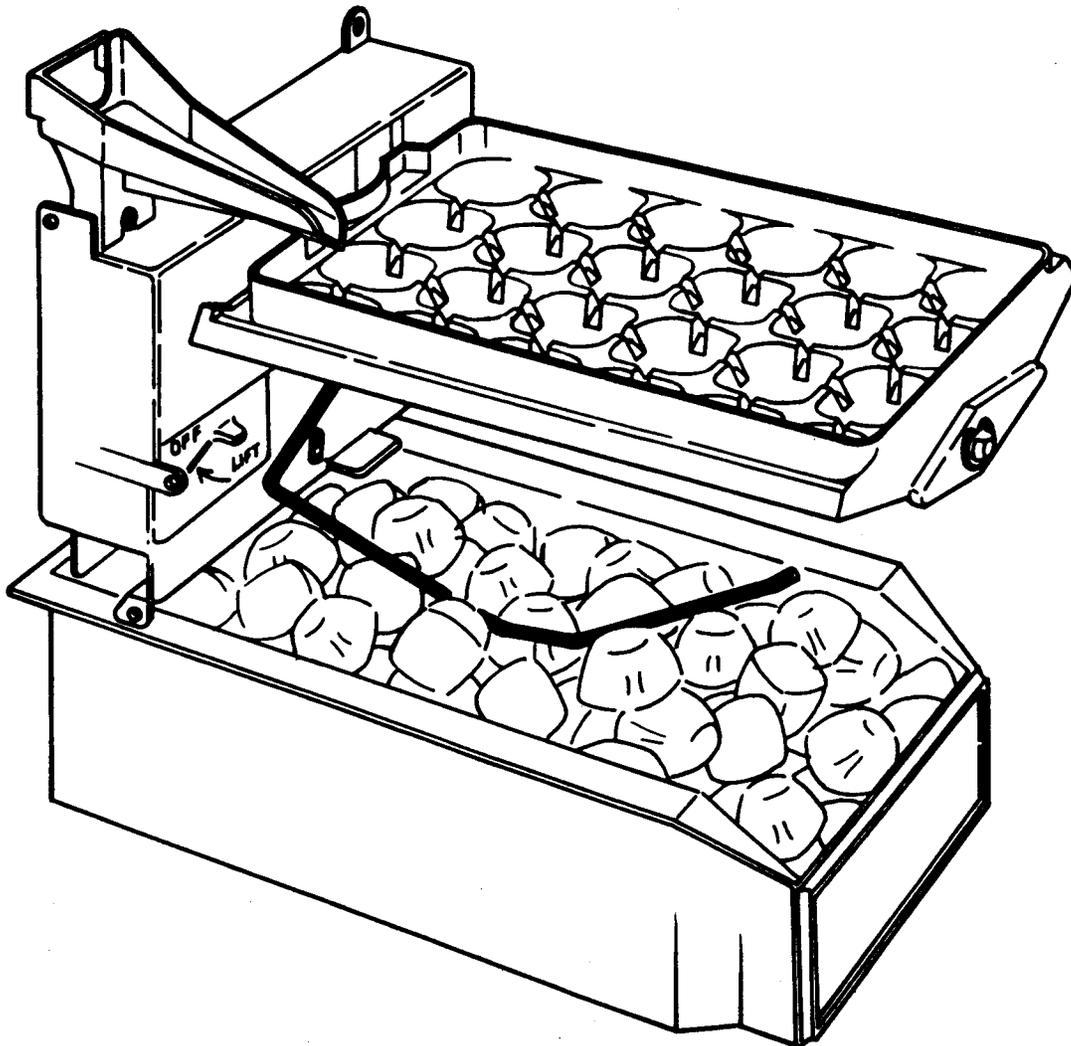


Table of Contents

CHAPTER 1	How The Ice Maker Works	1
	Freeze Time	1
	Harvest Time	1
CHAPTER 2	Ice Maker Components	5
CHAPTER 3	Troubleshooting The Ice Maker	8
	Checking Ice Maker	10

Introduction To Automatic Ice Maker

The automatic ice maker operates on a timed cycle and will harvest at regular intervals if the temperature of the freezer compartment is below +13°F. A sensor arm senses the level of ice cubes in the storage bin and stops the harvest when the bin is full. The cycle can also be terminated manually by placing the sensor arm in the OFF position.

The water valve, located at the cabinet back, is a solenoid valve which, when energized, allows water to flow to the ice mold. It features a built-in constant flow device that allows the correct amount of water to enter the ice mold, as long as the water pressure is maintained between 18 and 100 pounds.

NOTE **DO NOT REPAIR THIS HEAD MECHANISM.**
RETURN DEFECTIVE IN WARRANTY HEAD TO D222 TORONTO.

CHAPTER 1

How The Ice Maker Works

To simplify the description of the ice maker operation, we have divided the complete cycle into two sections, "FREEZE TIME" and "HARVEST TIME".

Freeze Time

As soon as the freezer compartment temperature descends to approximately +13°F., a thermostat, acting on a lever arm, energizes the timer motor switch and starts the motor. See *figure 1*. The timing gear is thus slowly turned through a high reduction gear train. The ice maker is now operating in the **FREEZE TIME** part of the cycle.

Harvest Time

Near the end of the timing gear revolution, the wire sensor arm moves down into the cube storage bin. See *Figure 2*. This is the beginning of the **HARVEST TIME** part of the cycle which lasts approximately 8 minutes. If the storage bin is not full and the sensor arm is permitted to continue unobstructed, it will return to its original position and the cycle will continue.

At this time, the cube tray begins to rotate. After a few degrees of rotation, the motor control switch is "LOCKED IN" and the **HARVEST** is allowed to continue, regardless of any type of shut-off (manual or through motor control thermostat).

After rotating approximately 140 degrees, one corner of the tray engages a stop which prevents that part of the tray from rotating further. See *Figure 3*. As the shaft continues to turn, the tray is twisted approximately 40 degrees which loosens the cubes from the tray surface. The tray stop is then retracted and the tray is rapidly released, thus shucking all ice cubes into the storage bin.

The tray continues to turn to approximately 341° - 350°, at which time the fill switch is energized and the tray pockets are filled with the correct measure of water. See *Figure 4*.

Water fill timing is provided by the ice maker head mechanism. Normal fill time interval is approximately 12 seconds, ±1 second.

The ice maker is now ready to start a new cycle.

NOTE: Because the cycle of this ice maker is based on time, it is possible to experience a time lapse of more than five hours after the freezer compartment temperature descends to +13°F., before the first harvest of ice cubes takes place. The length of time it takes to harvest the first ice cubes will depend on how much time it takes to complete the "dry" cycle, fill tray with water, plus the normal cycle. It is possible to initiate a manual harvest cycle. However, this procedure is not recommended for initial installation because it is possible to have a normal harvest begin shortly after the manual harvest is completed. This, of course, would result in water or partially frozen cubes being dumped into the storage tray. Note: The manual harvest does not reset the normal cycle time, it merely interrupts it.

MOTOR SHAFT TURNING
CLOCKWISE APPROXIMATELY
1 R.P.M.

SENSOR ARM IN
"ON" POSITION

MOTOR SWITCH ACTUATOR
TAB DOWN

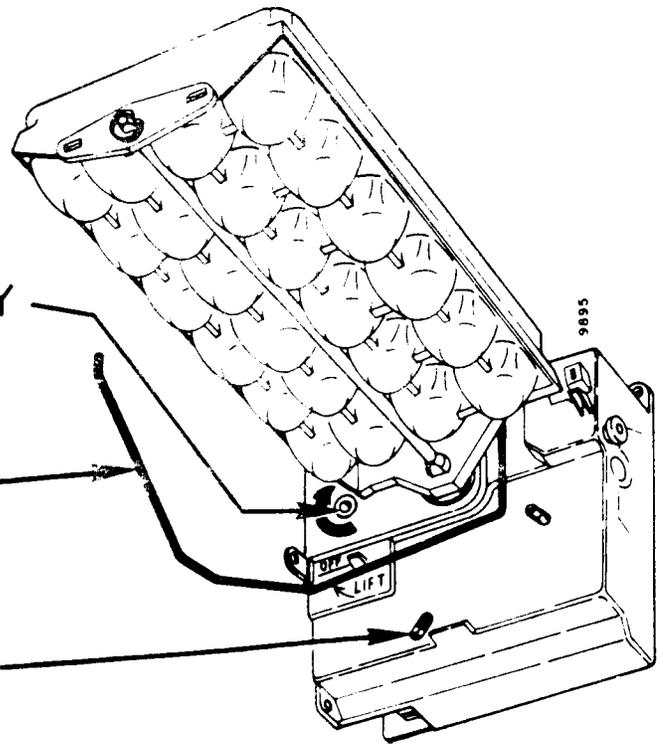


Figure 1.
Cuber in freeze cycle.

MOTOR SHAFT TURNING
CLOCKWISE APPROXIMATELY
1 R.P.M.

SENSOR ARM SWEEPING
ACROSS ICE STORAGE BIN

MOTOR SWITCH ACTUATOR
TAB DOWN

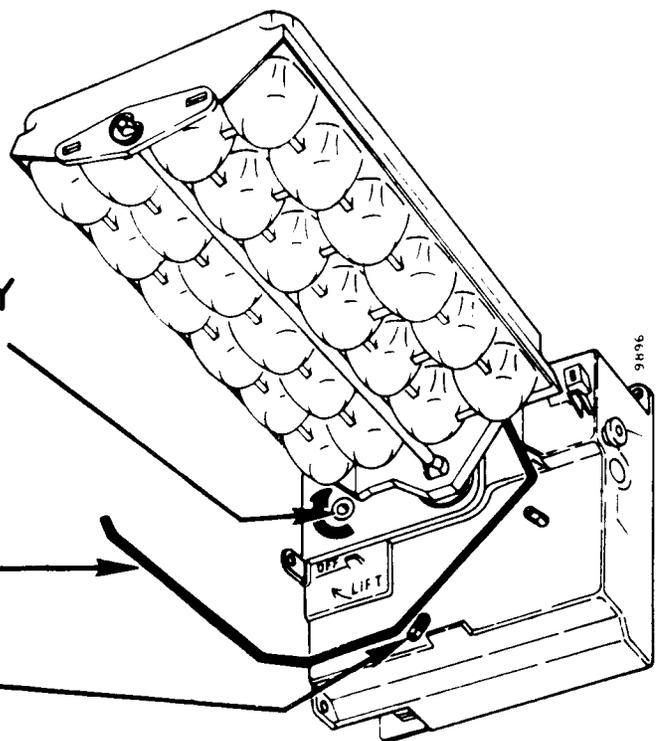
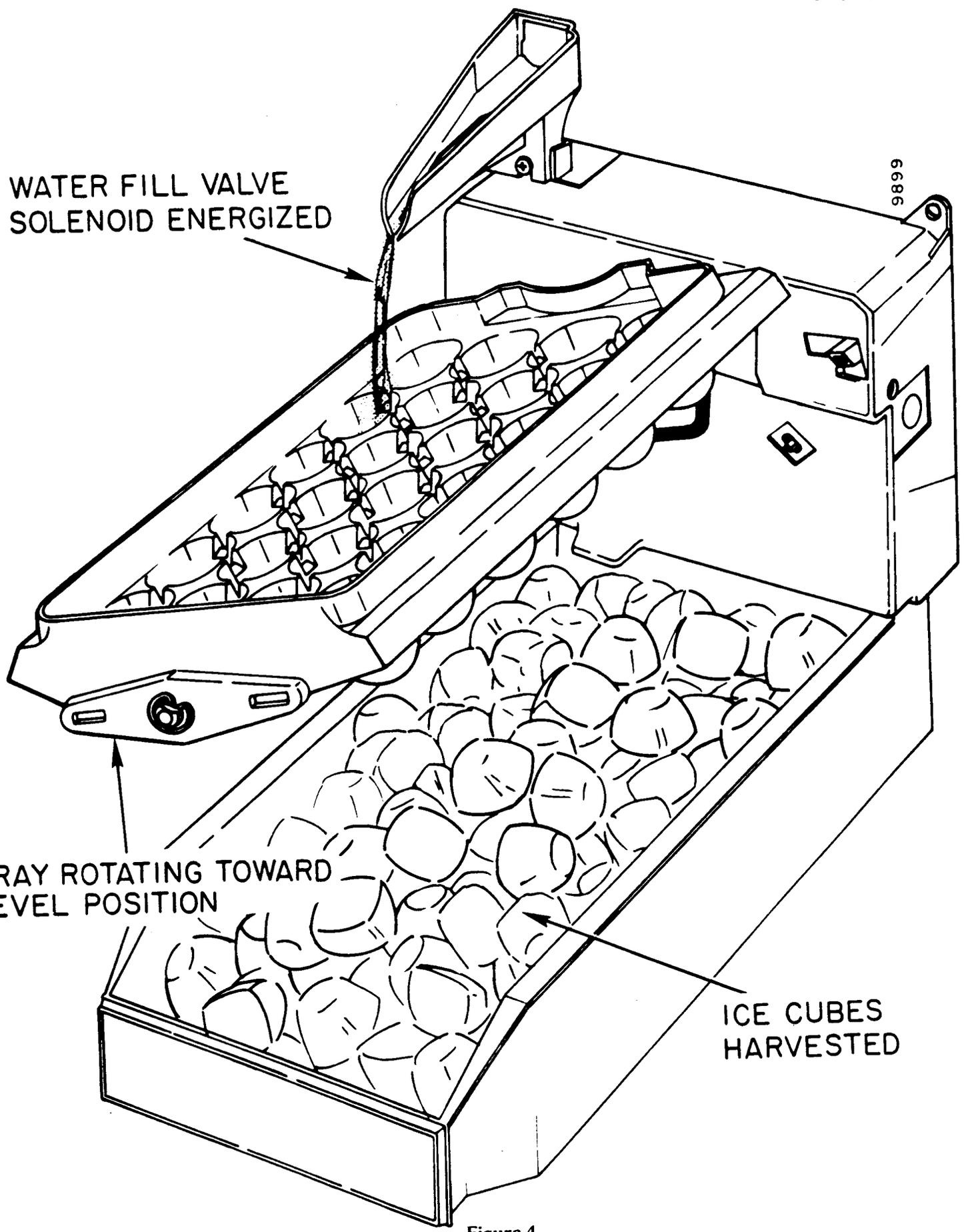


Figure 2.
Beginning of automatic harvest cycle.

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WATER FILL VALVE
SOLENOID ENERGIZED

TRAY ROTATING TOWARD
LEVEL POSITION

ICE CUBES
HARVESTED

Figure 4.
Water fill cycle.

TIME PER CYCLE

The current ice maker mechanism with a plastic housing is produced at the factory with a freeze time cycle of 146 minutes and a harvest time cycle of 8 minutes for a total cycle time of 154 minutes.

The automatic ice maker produced with a die cast case is designed to operate at three different freeze time speeds by shifting a lever at the rear of the mechanism, to change the gear ratio inside the housing. The unit as shipped from the factory is set on the nominal cycle speed and only under unusual conditions should the cycle be changed.

TIME PER CYCLE		
SHIFT LEVER POSITION	FREEZER TIME CYCLE	HARVEST TIME CYCLE
+ Time	206	8 Minutes
Normal Time	146	8 Minutes
- Time	106	8 Minutes

After initial installation, or after the cabinet has been inoperative for an extended period of time, it is possible to experience a time lapse of more than 3-1/2 hours before the first water fill. This is normal and is dependent upon the position in the cycle the ice maker was left in previously.

The length of time it takes to harvest the first ice cubes will depend on how much time is left on the ice maker timing gear plus the normal cycle time.

CHAPTER 2

Ice Maker Components

ICE TRAY

The ice tray is of molded polyethylene with either 12 or 24 separate molds. The tray is put into a severe twist and quickly released to shuck the ice cubes free.

SENSOR ARM

The sensor arm controls the level of ice cubes in the storage pan. When the pan is full and the sensor arm cannot complete a full sweep across the storage pan, it will shut the ice maker off until the pan is emptied or until some ice cubes are removed. See Figure 5.

This arm can be placed and locked in the "OFF" position for manual termination by placing it above the support tab molded on the case. See Figure 6. Putting the sensor arm in the "OFF" position will not shut the motor off immediately. The motor will continue to run until the beginning of a harvest cycle when the sensor arm tries to move down into the pan, because the arm is locked in the "OFF" position and cannot move, the sensor arm slide shuts the motor off.

FILL SPOUT

This part is molded Delrin® and is used to support the inlet tube and direct the water into the ice tray.

HEAD MECHANISM

The complete head mechanism, as seen in Figure 5, contains the necessary components to operate the tray. This head mechanism is replaceable as a complete unit and should never be dismantled in the field. **Note: Do not remove tape covering the back retaining screw — removal voids the ice maker mechanism warranty.**

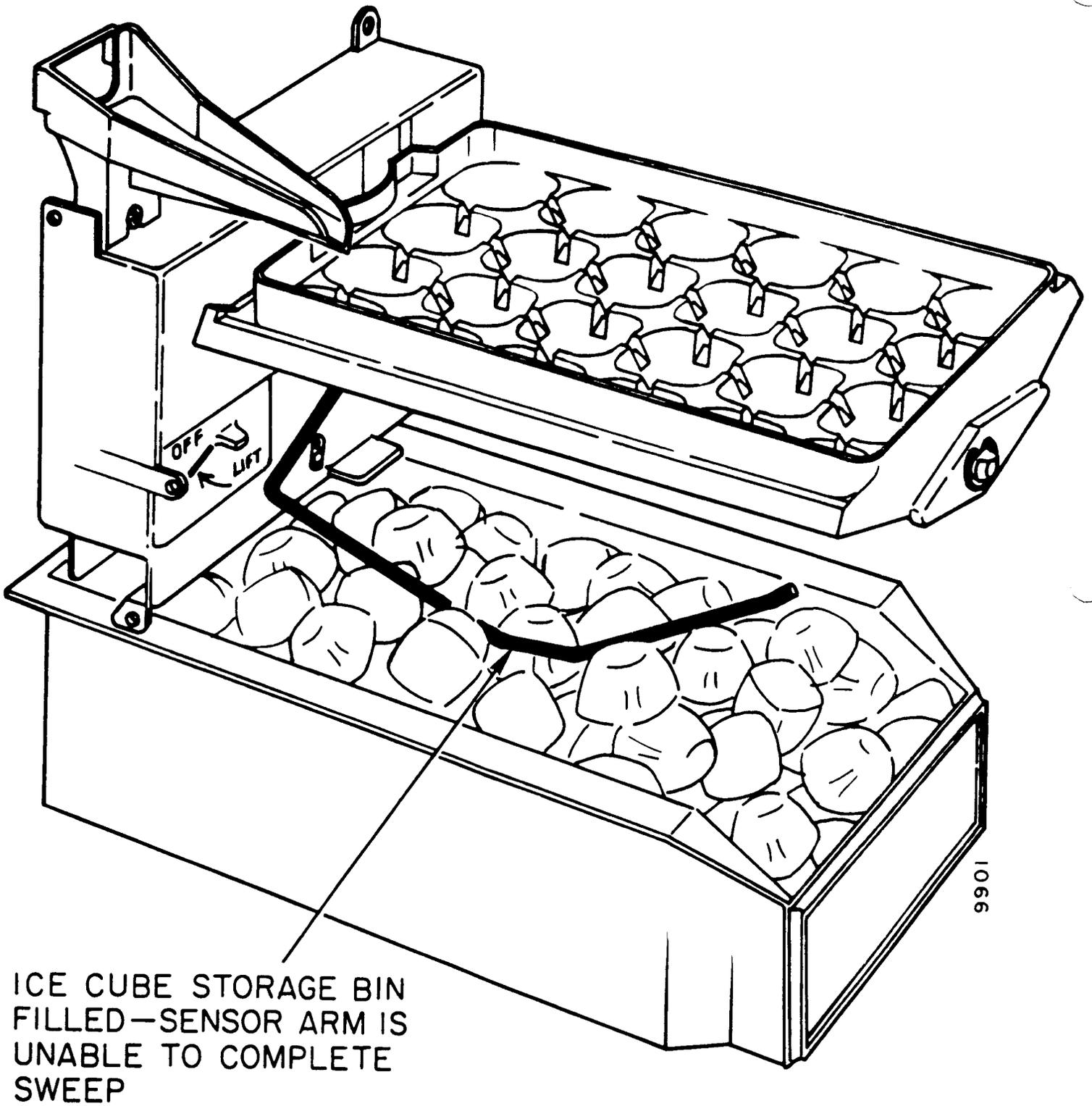


Figure 5.
Cuber in maximum harvest off position.

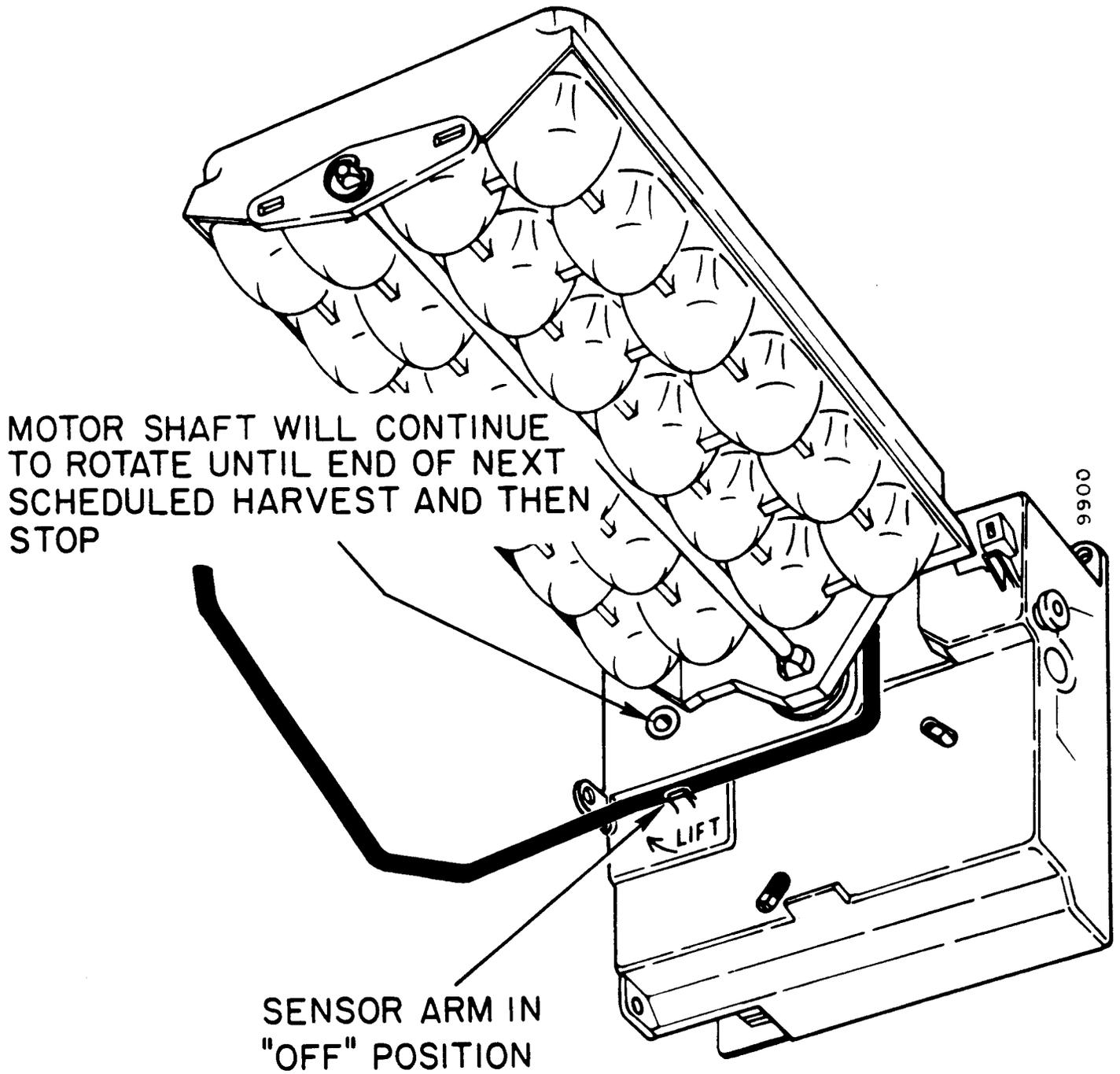


Figure 6.
Cuber in the off position.

TRAY SHAFT

The metal tray shaft is the connecting link between the mechanism and tray. The removable clip at the shaft end allows for removal of the tray.

WATER FILL VALVE.

The water fill valve is a solenoid shut-off valve utilizing a flow-washer and time control to fill the ice tray with water. The flow-washer is so designed to provide a satisfactory fill over a water pressure range of 18 to 100 P.S.I.

CHAPTER 3

CHECK FREEZER TEMPERATURE IS 13°F OR LESS BEFORE TROUBLESHOOTING

Troubleshooting The Ice Maker

The troubleshooting will be devoted to analyzing the problem with the ice maker prior to removing the mechanism. It is our intention to familiarize you with the problems that can happen that are not connected directly to the mechanism itself.

Certain sounds may accompany the various cycles of the ice maker. The motor may have a slight hum — a dull thump may be noticed as cubes are ejected — the cubes will rattle as they fall into an empty storage pan — the water valve may click or “buzz” occasionally. All of these sounds are normal and should be ignored.

If the ice cubes seem to be sticking in the tray, it is possible the water contains an abundance of mineral deposits and is leaving a film of residue on the tray surfaces. Remove the tray and fill it with red vinegar. Let it soak until the film can be cleaned out. If, however, the deposit is extremely heavy, it may be necessary to replace the tray.

Cubes that are stored in the storage pan for an extended period of time may shrink in size, acquire a food taste or fuse together. To avoid either condition, replenish the entire supply of ice cubes occasionally.

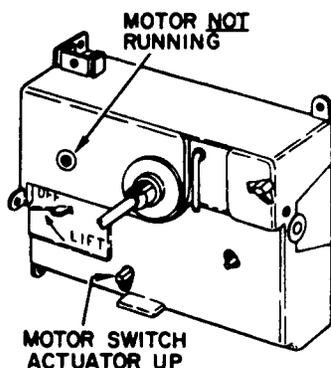
The ice maker water valve is equipped with a built-in water strainer. If the installation is on sandy well water or if local water conditions require periodic cleaning or replacement, a second water strainer should also be installed in the 1/4" water line.

Because the ice maker head is a complex mechanism, the head mechanism is replaced as an assembly in the field. The following troubleshooting procedure should be followed before replacing the head mechanism.

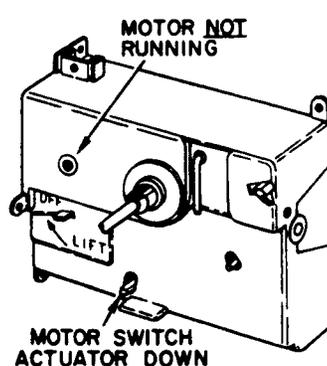
Important

Do not replace the head mechanism until you have checked for Condition I, II or III.

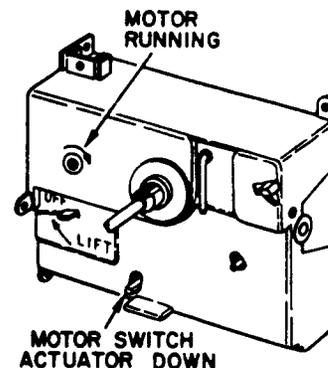
CONDITION I



CONDITION II



CONDITION III



CONDITION I

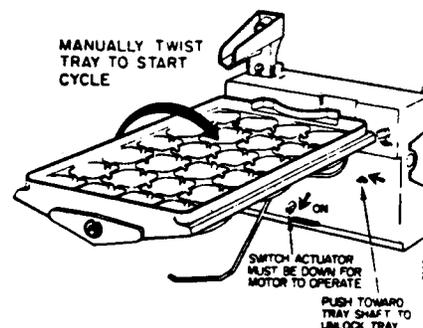
1. Pull motor switch actuator down. If motor runs, you may have a freezer compartment temperature problem.
2. Check the refrigerator for proper operation. Freezer temperature must be below +13°F for motor to start.
3. If freezer temperature is correct, the head mechanism is defective.
4. If motor will not run with motor switch actuator down, see Condition II.

CONDITION II

1. Check for arm in "OFF" position, binding on case or storage pan full of ice.
2. Check wiring to head mechanism. Use volt meter; should read 110V across red and white refrigerator harness leads.
3. If voltage checks okay, replace head mechanism.

CONDITION III

1. Manually cycle the ice maker (see illustration). Requires approximately 8 minutes to complete.
 - (a) Push and hold motor switch actuator down.
 - (b) Push and hold tray lock toward tray shaft to unlock tray.
 - (c) Manually twist tray to start cycle until tray is 30° into rotation, then motor switch actuator tab and tray lock tab can be released.
2. During manual cycle you check the following:
 - (a) Tray loose on shaft (front and rear screws or clips).
 - (b) Tray hitting tray stop correctly. If not, and screws or clips are tight, replace tray if split. Replace head mechanism if tray stop is rounded off.
 - (c) Water fill with tray up-side-down. Replace head mechanism.
 - (d) Near end of cycle check for proper water fill (see chart following).
 - (e) Receive no water or partial fill at end of cycle, check the following points; all tubing for kinks or restrictions, water supply (saddle valve), clean screen, water supply solenoid operation, fill tube heater operation (if used), wiring to valve, and water fill time interval.
 - (f) If all these points check okay and fill is below (see chart following), replace the water valve.
 - (g) If water fill is more than (see chart following), replace the water valve.
 - (h) If the fill time interval is not correct in either step f or g, replace the head mechanism.
3. If, after manual cycling the ice maker and the ice maker operates properly through Step 2 but the complaint is no ice, replace the head mechanism.
4. Ice maker continues to eject cubes when bin is full, replace head mechanism.
5. After manually cycling the ice maker, **be sure** and empty the tray to prevent water being dumped into the storage pan at the time of the next automatic harvest sequence.



WATER FILL CHART	
12 Cavity Tray — 6-3/4 oz ± 2/3 oz. or 200 cc ± 20 cc	24 Cavity Tray — 6 oz. ± 2/3 oz. or 180 cc ± 20 cc

Checking Ice Maker

It may be necessary on occasion to test cycle on ice maker to check its operation. This can be done on the repair bench or while mounted in the cabinet.

To manually start a cycle, place the sensor wire in the sensing or ON position. **PULL THE MOTOR CONTROL ACTUATOR TAB, NEAR THE BOTTOM OF THE HOUSING, DOWN AND BLOCK IT. PUSH AND HOLD TRAY LOCK TAB TOWARD TRAY SHAFT TO UNLOCK TRAY. MANUALLY TWIST TRAY UNTIL TRAY IS 30° INTO ROTATION TO START CYCLE. THEN, TRAY LOCK TAB CAN BE RELEASED. IT IS IMPORTANT MOTOR CONTROL ACTUATOR TAB BE BLOCKED DOWN IF YOU ARE CHECKING THE TRAY FOR RETURNING TO LEVEL. THIS ENABLES THE TRAY TO COMPLETE A FULL 360° ROTATION.** You can determine if the ice maker motor is operating by observing the motor shaft on the front of the housing.

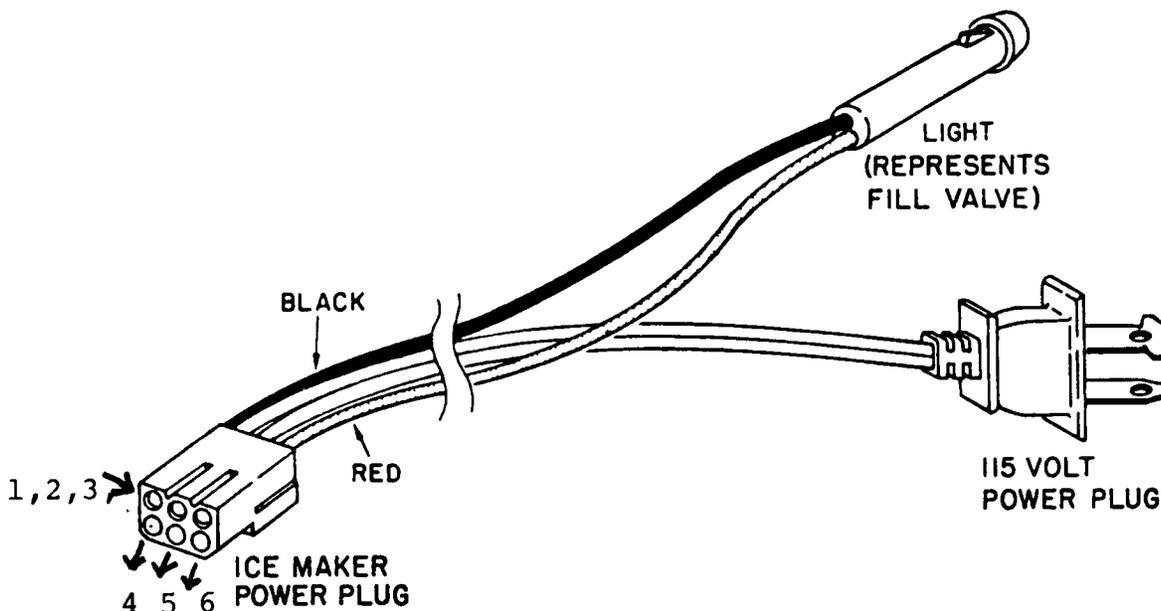


Figure 7.

Special Ice Maker Test Cord.

TO MAKE TEST CORD

- 1.) Use a 120 volt range pilot lamp.
- 2.) Ice maker plug available from ice maker kit.
- 3.) Black lead from pilot and live lead from power plug to #1 on ic maker plug.
- 4.) Neutral lead from power plug to #2 on ice maker plug.
- 5.) White lead from pilot to #3 on ice maker plug.

INSTALLING AUTOMATIC ICE MAKER 92077 AND CIK 79 IN REFRIGERATORS

TOOLS YOU WILL NEED

PHILLIPS HEAD SCREWDRIVER
ROBERTSON HEAD SCREWDRIVER
TABLE KNIFE
DRILL WITH 1/4" BIT
ADJUSTABLE OPEN END WRENCH
PLIERS

MATERIALS YOU WILL NEED

1/4" O.D. COPPER TUBING 64 IN.

BEFORE YOU BEGIN

Compare this kit number with the specified kit number in your Operating Instruction booklet. If this kit does not have the same number, check with your sales outlet.

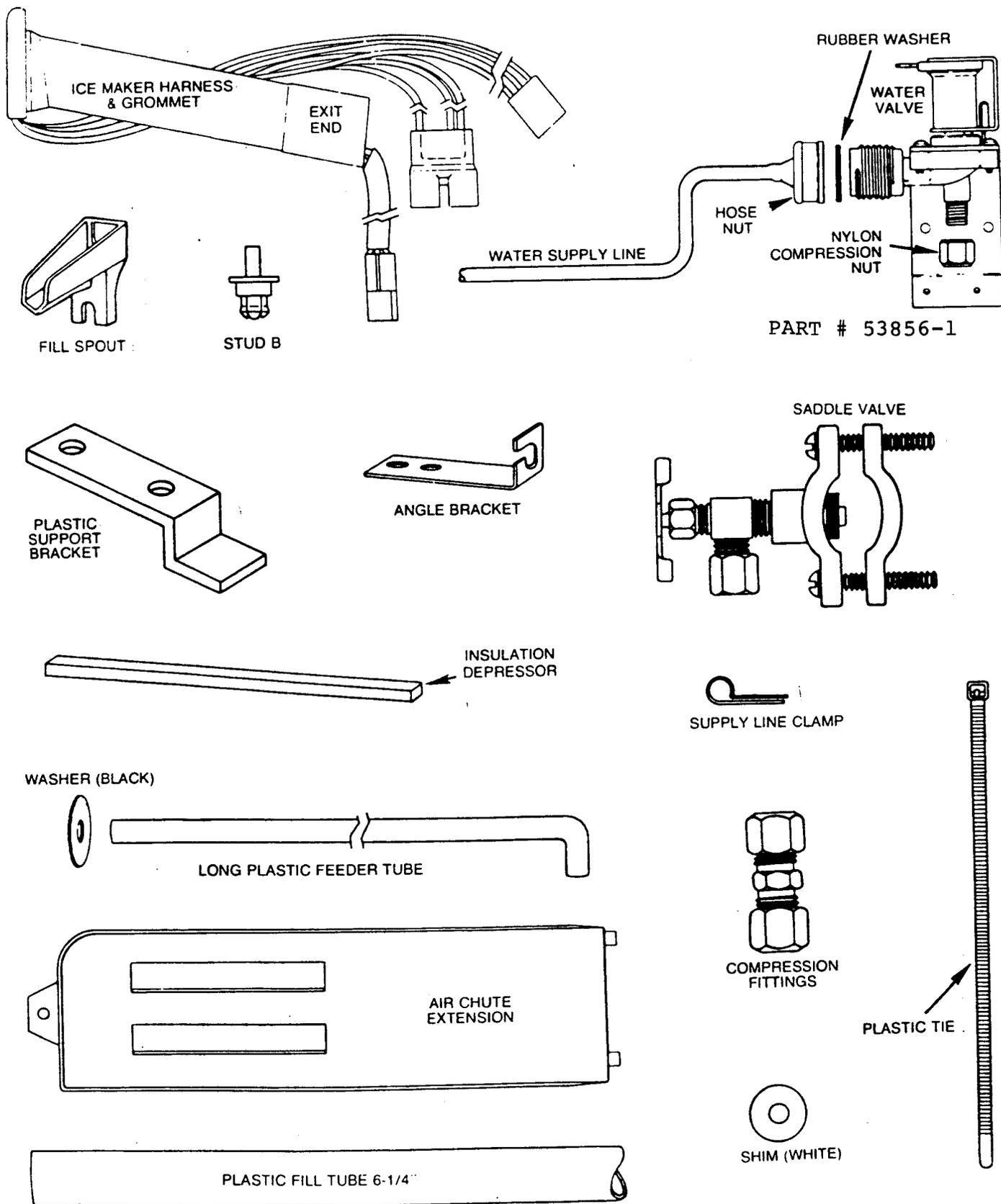
This manual includes installation instructions for the following three models; Top Mount Refrigerator, 2-Door Side by Side and 3-Door Side by Side Refrigerator.

Section	Page
Section 1. TOP MOUNT REFRIGERATOR	
a. Parts required for installation	13
b. Preparing freezer.....	14
c. Installing electrical harness & fill tube	14 & 15
d. Installing ice maker mechanism	15 & 16
Section 2. TWO DOOR SIDE BY SIDE REFRIGERATOR	
a. Parts required for installation	17
b. Preparing freezer.....	18
c. Installing electrical harness & fill tube	18
d. Installing ice maker mechanism	19
Section 3. THREE DOOR SIDE BY SIDE REFRIGERATOR	
a. Parts required for installation.....	20
b. Preparing freezer	21
c. Installing electrical harness & fill tube	21
d. Installing ice maker mechanism	22
Section 4. ALL MODELS	
a. Installing water valve and connecting tubing.....	23
b. Connecting ice maker to water supply	24
c. Typical ways to connect water supply	25
Section 5. FACTS ABOUT YOUR AUTOMATIC ICE MAKER.....	26

This kit contains parts enabling one to install the ice maker in any of the above three refrigerators. Upon completion of installation several parts will be left over. These may be discarded when your refrigerator produces suitable ice cubes.

SECTION 1

1A Parts required for top mount refrigerator



TOP MOUNT REFRIGERATOR

1B Preparing freezer

TYPES OF SCREWS

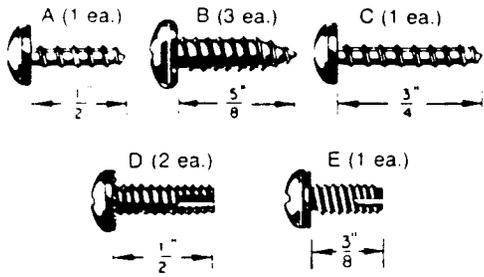


Figure 2. Screw identification

1. Unplug the refrigerator power cord from the wall outlet.
2. Move the refrigerator out from the wall so you can work at the rear of the cabinet.
3. Temporarily remove the freezer shelf.

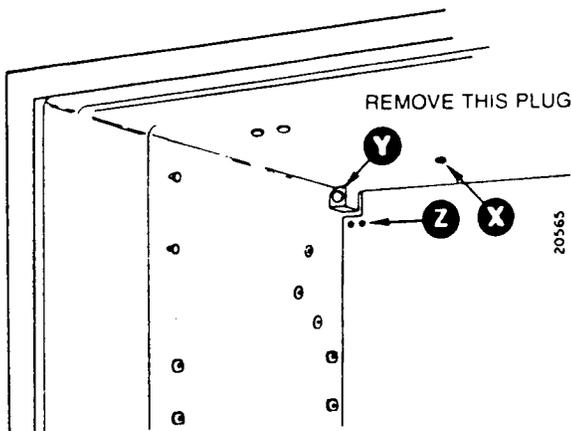


Figure 3. Inside view of freezer compartment

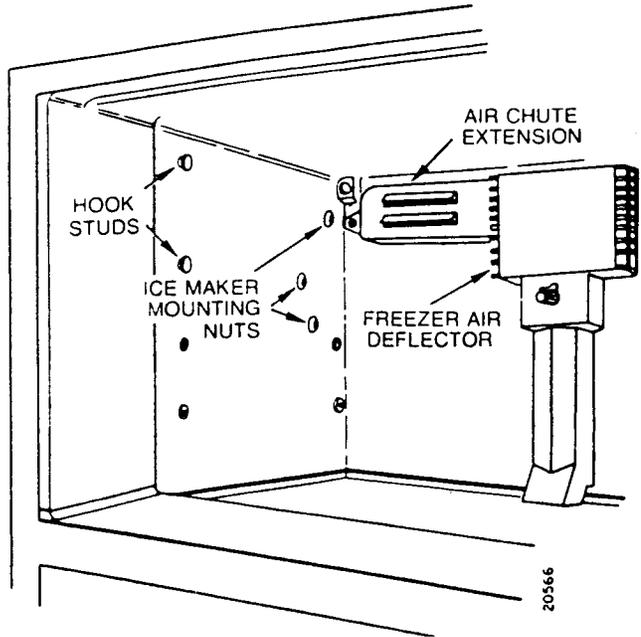


Figure 4. Air chute extension properly installed

4. Remove screw 'Z' from the upper left corner of the freezer (see figure 3). Save the screw for use later.
5. Loosen screw 'X' two or three turns. This screw may be a little difficult to turn at first.
6. Using a table knife or similar instrument, pry out plug button 'Y' (see figure 3).
7. Position the air chute extension against the left side of the freezer air deflector, making sure the hooks on the right end of the extension fit behind the front of the deflector (see figure 4). Secure the left end of the extension with the screw 'Z' removed in step B4.

1C Installing electrical harness and fill tube

1. Wet the end of the plastic fill tube and push it into the exit end of the ice maker wire harness grommet as far as it will go, approximately 1 inch (figure 7 shows these items installed in the cabinet).
2. Carefully unwrap the tape from the fill tube. Then tightly tape the end of the fill tube to the wire harness (see figure 7). Straighten the harness so it extends straight out beyond the end of the fill tube.
3. Working at the cabinet rear, pry out the plug button 'D' and temporarily remove the upper right and middle right condenser screws (see figure 5).

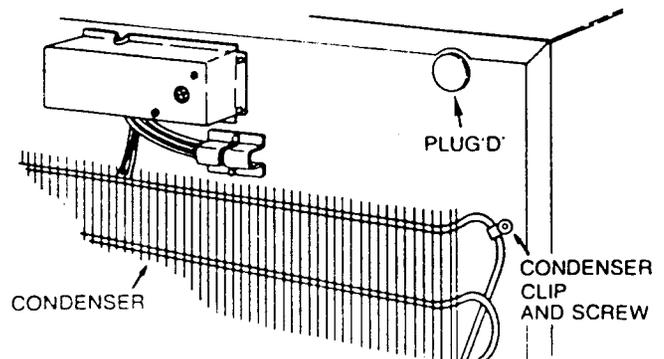


Figure 5 View of cabinet back

4. If the refrigerator is a foam model use the insulation depressor to clear a path the size of the hole all the way through to the interior. If the refrigerator is a fiberglass model push approximately 2 inches of the flat insulation depressor, at a downward angle, through the bottom of the hole in the cabinet (see figure 6) and carefully lift the fiberglass insulation up until you can see through the hole in the freezer liner back. Then press bagged insulation down until a passage, the size of the hole, is made all the way through.

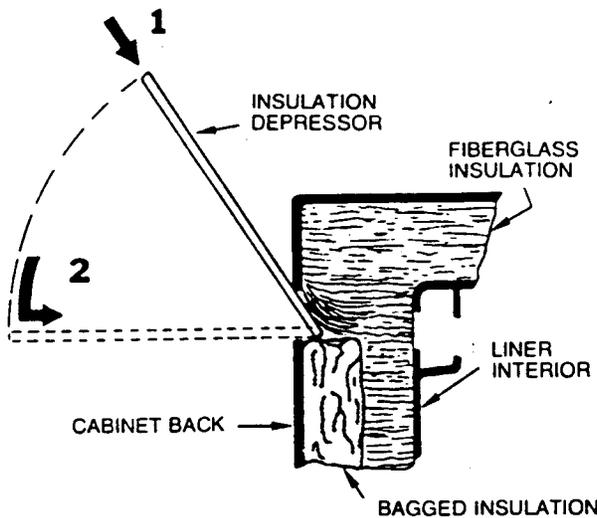


Figure 6 Making passage in insulation for fill tube and grommet

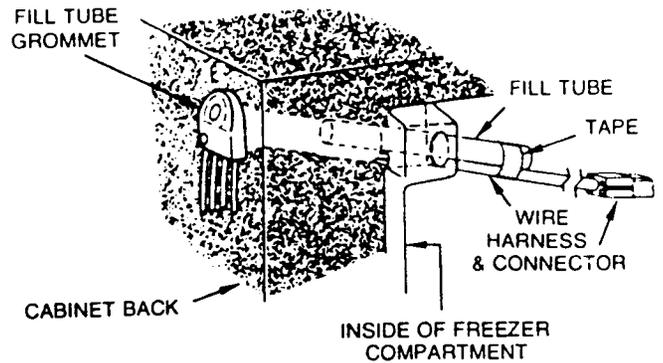


Figure 7 Cross-section view of fill tube grommet and associated parts properly installed

5. Using the insulation depressor as a temporary guide, push the ice maker harness and fill tube through the passage and into the freezer (see figure 7). Then, using a twisting motion, seat the rubber grommet in the cabinet hole, making sure the small hole in the grommet is aligned with the one in the cabinet. NOTE: the grommet is intended to fit very tightly to provide a good seal against the cabinet back.
6. Secure the grommet to the cabinet back with a type 'C' screw.

1D Installing ice maker mechanism

1. Working inside the cabinet, remove the tape from around the fill tube and ice maker harness.
2. Loosely attach the angle bracket to the ice maker mechanism with a type 'A' screw (see figure 8). Use the lower hole in bracket.
3. Plug the ice maker harness connector onto the ice maker electrical prongs at the lower left end of the mechanism. Observe the shape of the plug. It must be positioned properly to fit the ice maker receptacle. With a type 'F' screw, attach fill spout to ice maker (see figure 8).

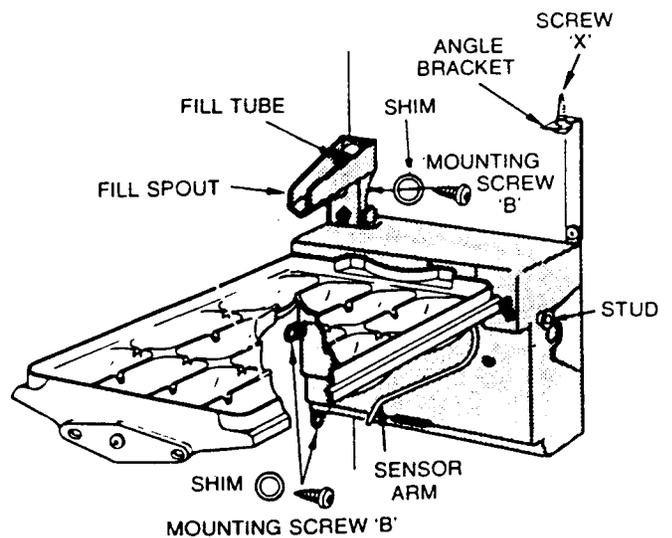


Figure 8 Ice maker mounting screws

4. Move ice maker into position (see figure 8) while guiding the fill spout onto the fill tube. **NOTE:** when positioning the mechanism, slide your left hand between the ice maker and the freezer wall to push the wire harness toward the centre of the ice maker back. Cut tube if it protrudes more than 1 inch into the spout. Hook the top of the angle bracket under the head of the screw 'X' (see figures 3 and 8).
5. Mount the ice maker to the side wall fasteners with 3 type 'B' screws (see figure 8). **NOTE:** starting these screws will require extra pressure to pierce the sealing web over the screw hole in the fasteners. To insure quality ice cubes, the ice maker must be level within 1/8" side to side and level within 1/8" front to back. Place shim(s) (1/8" thick and/or 1/16" thick) as required behind lug at mounting screws 'B' to level the tray right to left. Place half as many at 'C' to eliminate the gap. Bring cube tray to level front to back by using the clearance around the screws. Tighten all screws.

6. Tighten the angle bracket screws.
7. Turn the ice maker on by pulling the sensor arm toward you a fraction of an inch and allowing it to drop into the ON position (figure 8 shows arm in ON position).
8. Remove the 2 screws from the left front of the freezer top. Save these screws for later use.
9. Attach the plastic support bracket to the top with 2 screws removed in step D8 (see figure 9).
10. Insert stud B as shown on figure 8.
11. Hook the rear of the ice maker enclosure on the stud on the ice maker side (see number 1 in figure 10). Then hook it onto the 2 studs on the freezer side (2). You can adjust it up or down until it is level, then hook onto the plastic angle bracket (3).
12. Install the freezer shelf in the original position.
13. Position the ice cube storage pan directly under the ice maker.
14. Turn to **SECTION 4** page 13 for remainder of installation.

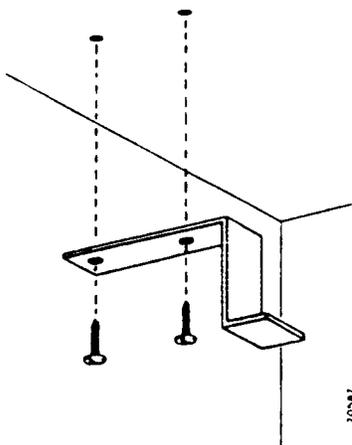


Figure 9 Securing plastic support bracket

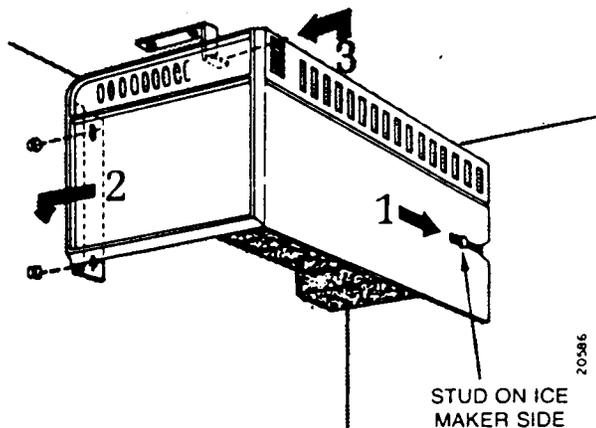
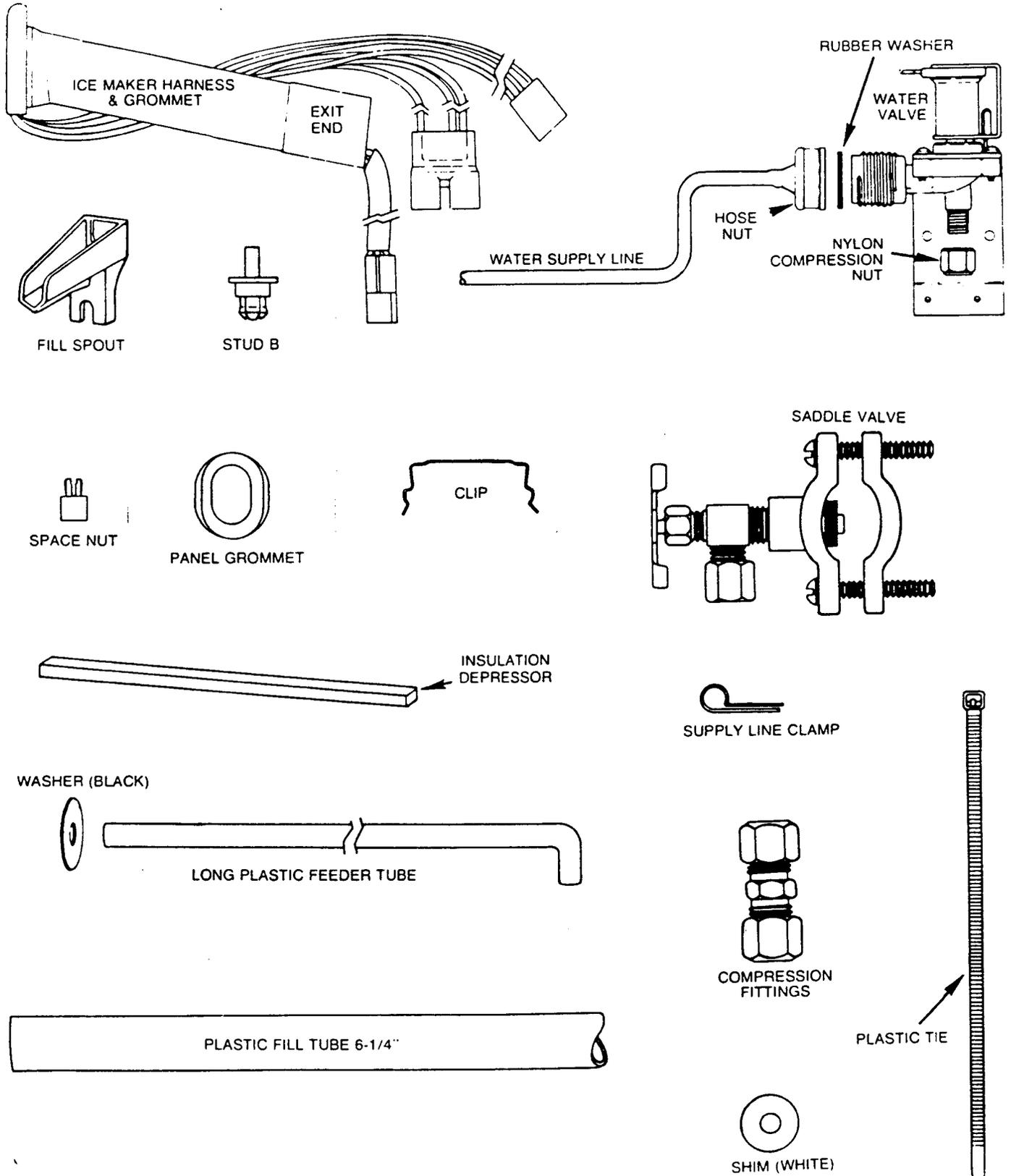


Figure 10 Installing ice maker enclosure

SECTION 2

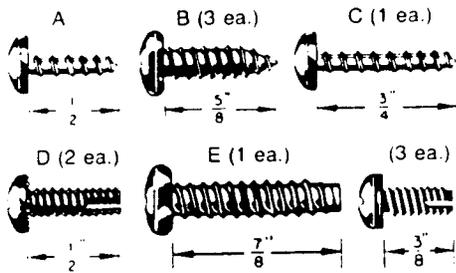
2A Parts required for two door side by side refrigerator



TWO DOOR SIDE BY SIDE REFRIGERATOR

2B Preparing freezer

TYPES OF SCREWS



1. Unplug the refrigerator power cord from the wall outlet.
2. Move the refrigerator out from the wall so you can work at the rear of the cabinet.
3. Remove the upper freezer shelf by lifting straight up and pulling out.
4. Using a screwdriver or putty knife, remove the oval shaped plug 'D' and install the white panel grommet (see figure 3).
5. Pry out plug button 'Y' and install the spacer nut as shown in figure 3. To install a spacer nut, press the prongs into the hole and tap the nut until it locks in place.

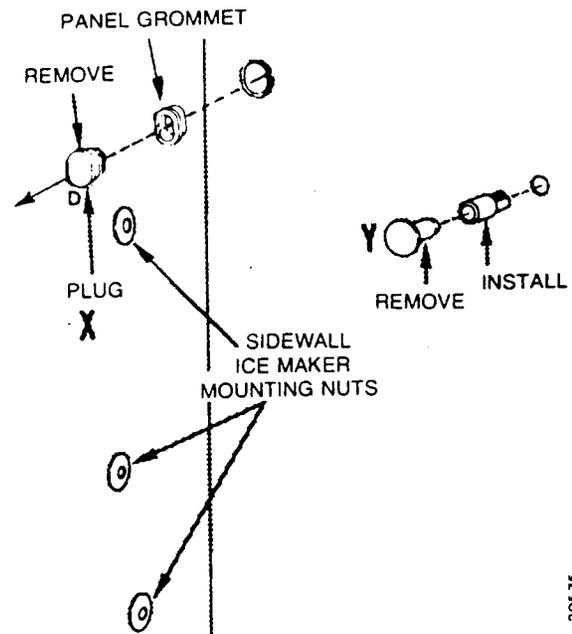


Figure 3 Inside view of freezer compartment

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2C Installing electrical harness and fill tube

1. Wet the end of the plastic fill tube and push it into the exit end of the ice maker wire harness grommet as far as it will go, approximately 1 inch (figure 4 shows these items installed in the cabinet).
2. Working on the exterior cabinet at rear, pry out the lower plug button near the upper right corner.
3. Push a screwdriver or similar tool through the large hole, at a slight downward angle, until you break the tape which covers a matching hole in the freezer liner. Rotate the tool to enlarge the opening to the size of the hole.
4. Straighten the ice maker harness and connector so it extends straight out beyond the end of the plastic fill tube. Tape the tube and wire harness together in order to facilitate installation into the opening.
5. Push the short end of the ice maker harness and rubber grommet, including the plastic fill tube, through the opening (see figure 4). Then, using a twisting motion, seat the rubber grommet in the cabinet hole, making sure the small hole in the grommet is aligned with the small one in the cabinet back. NOTE: the grommet is intended to fit very tightly to provide a good seal against the cabinet back.
6. Secure the grommet to the cabinet back with a type 'C' screw.

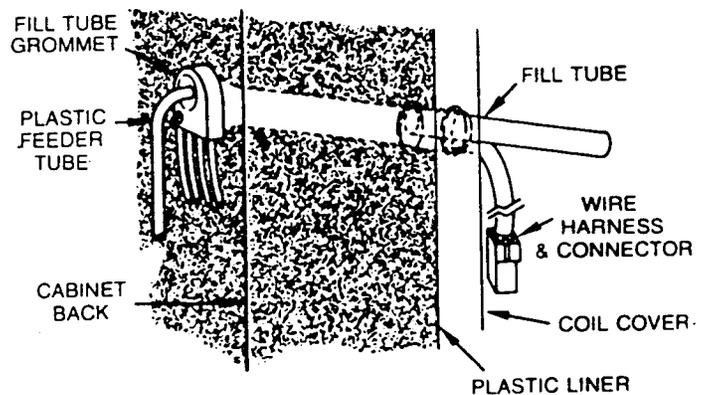


Figure 4 Cross-section view of fill tube & ice maker harness properly installed

2D Installing ice maker mechanism

- Working inside the cabinet, plug the ice maker electrical harness connector onto the ice maker electrical prongs at the lower left end of the mechanism. Observe the shape of the plug. It must be positioned properly to fit the ice maker receptacle.
With a type 'F' screw, attach fill spout to ice maker (see figure 5).
- Move the ice maker into position (see figure 5) while guiding the fill spout into the fill tube. Cut tube if it protrudes more than 1 inch into the spout. NOTE: when positioning the mechanism, slide your left hand between the ice maker and the freezer wall to push the wire harness toward the centre of the ice maker back.
- Mount the ice maker to the side wall fasteners with 3 type 'B' screws (see figure 5). NOTE: starting these screws will require extra pressure to pierce the sealing web over the screw hole in the fasteners.
To insure quality ice cubes, the ice maker must be level within 1/8" side to side and level within 1/8" front to back.

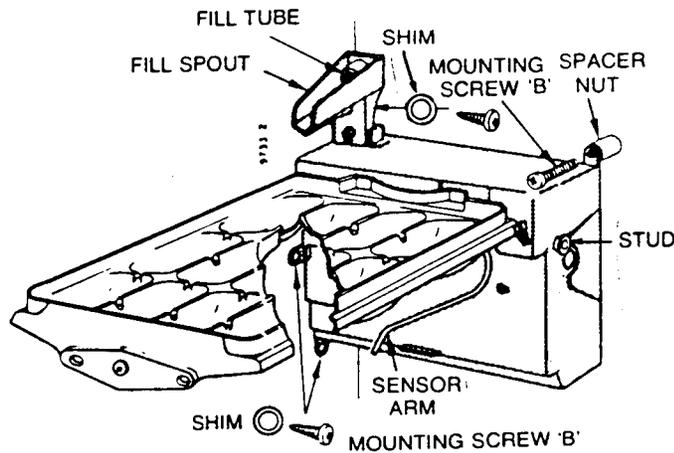


Figure 5 Ice maker mounting

- Place shim(s) (1/8" thick and/or 1/16" thick) as required behind lug at mounting screw 'A' or 'B' to level the tray right to left. Place half as many at 'C' to eliminate the gap. Bring cube tray to level front to back by using the clearance around the screws. Tighten all screws.
- Insert one type 'E' screw through the rear mounting lug and fasten to the rear spacer nut installed in step B5 (see figure 5).
- Insert stud B as shown on figure 5.
- Turn the ice maker on by pulling the sensor arm toward you a fraction of an inch and allowing it to drop into the ON position (figure 5 shows arm in the ON position).
- Observe the shelf you removed from the freezer. If it is made of aluminum, proceed to step 10. If the shelf is made of plastic, invert it and secure the ice maker enclosure with 2 type 'F' screws as shown in figure 8. Then place the shelf and enclosure in position in the freezer.
- Hook the rear of the ice maker enclosure on stud B on the ice maker side (see figure 5). Proceed to steps 10 and 15.
- Turn the ice maker on by pulling the sensor arm toward you a fraction of an inch and allowing it to drop into the ON position (figure 5 shows arm in ON position).
- Attach the spring clip to the shelf as instructed in step 12.
- Insert one prong of the clip through one of the slots and slide the clip left or right until the other prong can be inserted into the other slot. Then slide the clip back so it is centred on the shelf (see figure 6).

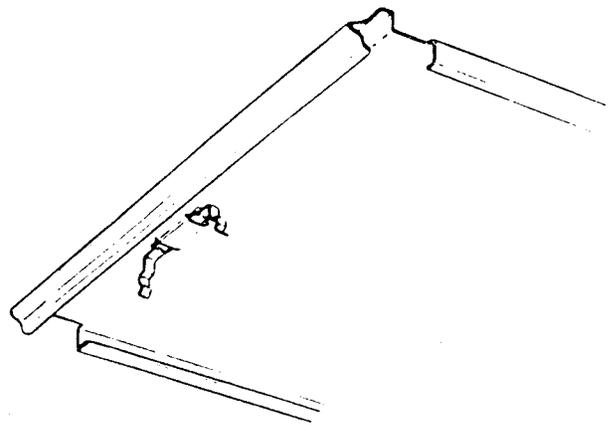


Figure 6 Clip attached to freezer shelf

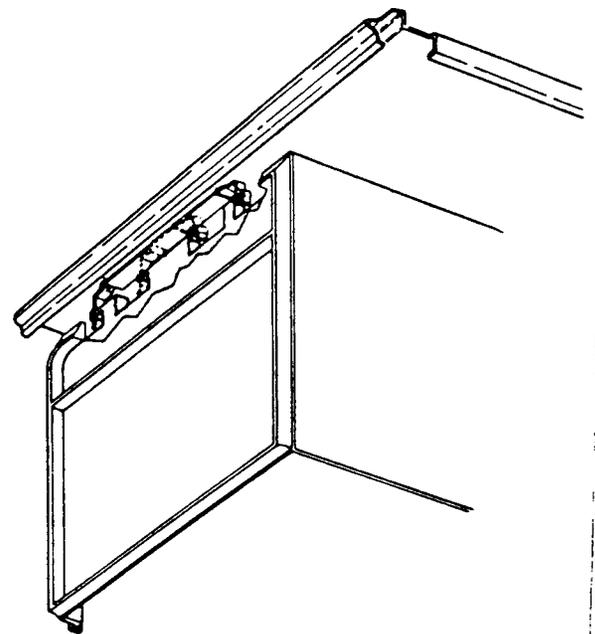


Figure 7 Ice maker enclosure hooked to shelf clip

- Place the shelf in position in the freezer. Move the ice maker enclosure into position and attach it to the spring clip as shown on figure 7.
- Attach the right side of the ice maker enclosure on stud B.
- Position the ice cube storage pan directly under the ice maker.
- Turn to SECTION 4 for remainder of installation.

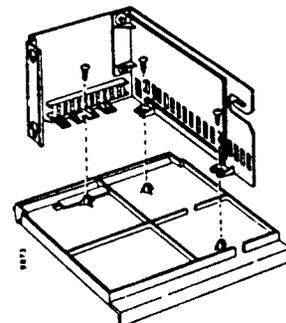
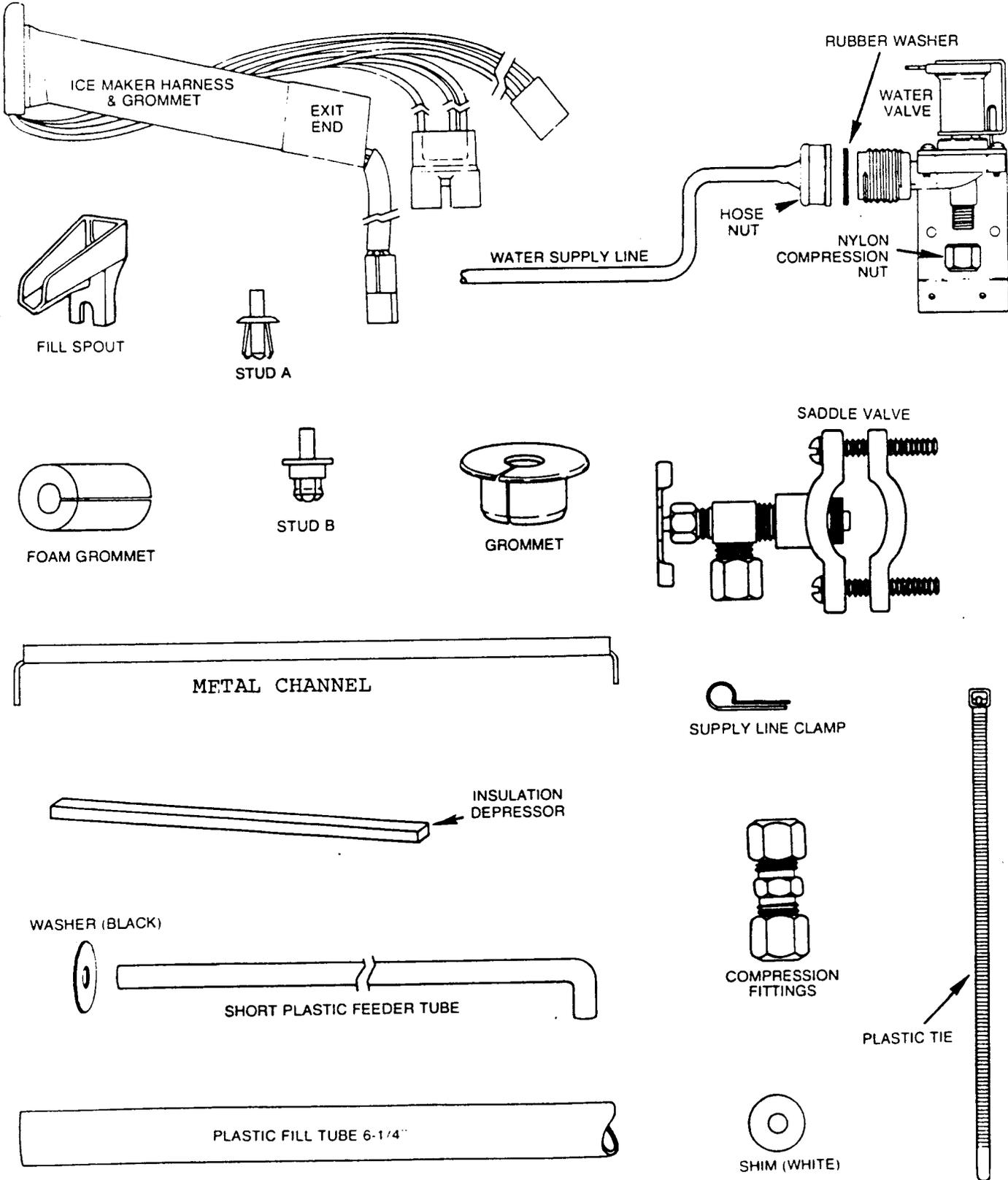


Figure 8 Securing ice maker enclosure to underside of plastic shelf

SECTION 3

3A Parts required for three door side by side refrigerator



3 DOOR SIDE BY SIDE REFRIGERATOR

TYPES OF SCREWS

3B Preparing freezer

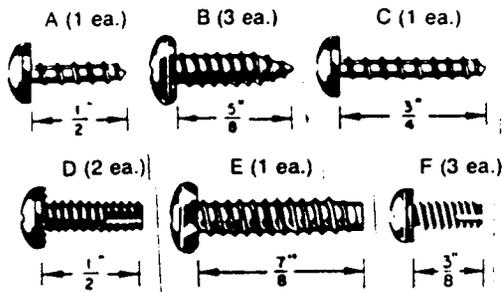


Figure 2 Screw identification

1. Unplug the refrigerator power cord from the wall outlet.
2. Move the refrigerator out from the wall so you can work at the rear of the cabinet.
3. Remove the shelf from the upper freezer compartment by lifting straight up and pulling out.

3C INSTALLING ELECTRICAL HARNESS AND FILL TUBE

1. Wet the end of the plastic fill tube and push it into the exit end of the ice maker wire harness grommet as far as it will go, approximately 1 inch (figure 4 shows these items installed in the cabinet).
2. Working on the exterior cabinet at rear, pry out the top plug button from the upper right corner.
3. Push a screwdriver or similar tool through the large hole, at a slight downward angle, until you break the tape which covers a matching hole in the freezer liner. Rotate the tool to enlarge the opening to the size of the hole.
4. Straighten the ice maker harness and connector so it extends straight out beyond the end of the plastic fill tube.

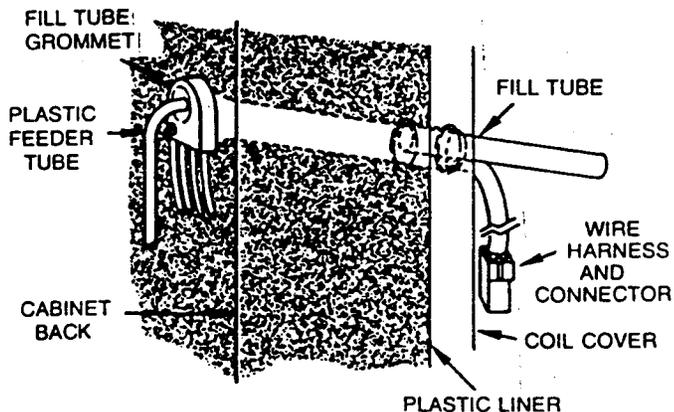


Figure 4 Cross-section view of fill tube and ice maker harness properly installed

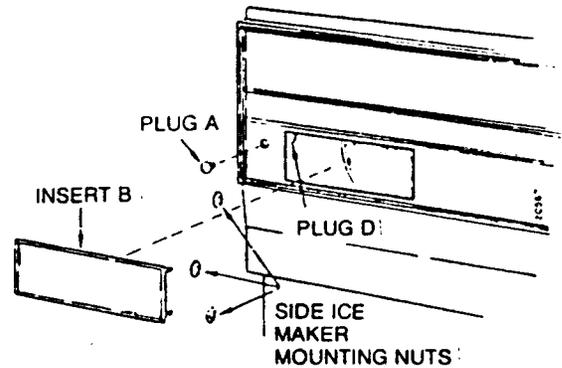


Figure 3 Inside view of freezer compartment

4. Remove the light shield from the freezer by grasping at both ends and pulling the bottom out until the shield pulls free of the retainer tabs, then pry the round plug 'A' and the rectangular insert 'B' from the shield (see figure 3).
5. Using a screwdriver or putty knife remove the two large white plugs from the fan shroud.

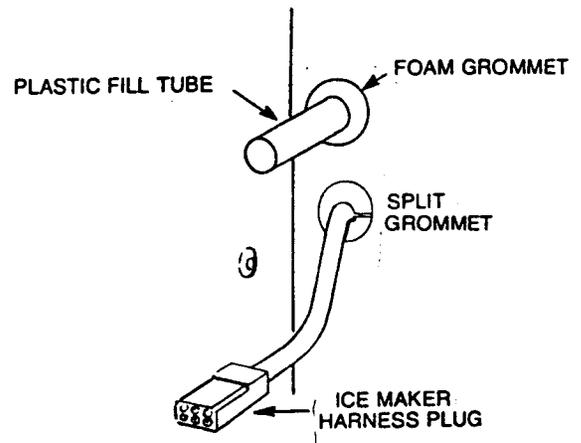


Figure 4A Split ring grommet and foam grommet installed
INSIDE VIEW

5. Push the short end of the ice maker harness and rubber grommet, including the plastic fill tube, through the opening (see figure 4). Then, using a twisting motion, seat the rubber grommet in the cabinet hole, making sure the small hole in the grommet is aligned with the small one in the cabinet back. NOTE: the grommet is intended to fit very tightly to provide a good seal against the cabinet back.
6. Secure the grommet to the cabinet back with a type 'C' screw.
7. Working at the cabinet front on the three door refrigerator push the wire harness through the lower hole of the fan shroud and the fill tube through the upper hole of the fan shroud. Fit the split grommet over the harness and the foam grommet around the fill tube into the openings in the fan shroud (see figure 4A).
8. Install the light shield making sure the fill tube passes through the round hole at the lower left.

3D Installing ice maker mechanism

- Working inside the cabinet, plug the ice maker electrical harness connector onto the ice maker electrical prongs at the lower left end of the mechanism. Observe the shape of the plug. It must be positioned properly to fit the ice maker receptacle.
With a type 'F' screw, attach fill spout to ice maker (see figure 6).
- Move the ice maker into position (see figure 5) while guiding the fill spout into the fill tube. Cut tube if it protrudes more than 1 inch into the spout. NOTE: when positioning the mechanism, slide your left hand between the ice maker and the freezer wall to push the wire harness toward the centre of the ice maker back.
NOTE: before securing ice maker behind fill spout ensure that the metal channel is in place before driving in the screw in step 3.
- Mount the ice maker to the side wall fasteners with 3 type 'B' screws (see figure 5). NOTE: starting these screws will require extra pressure to pierce the sealing web over the screw hole in the fasteners.
To insure quality ice cubes, the ice maker must be level within 1/8" side to side and level within 1/8" front to back.

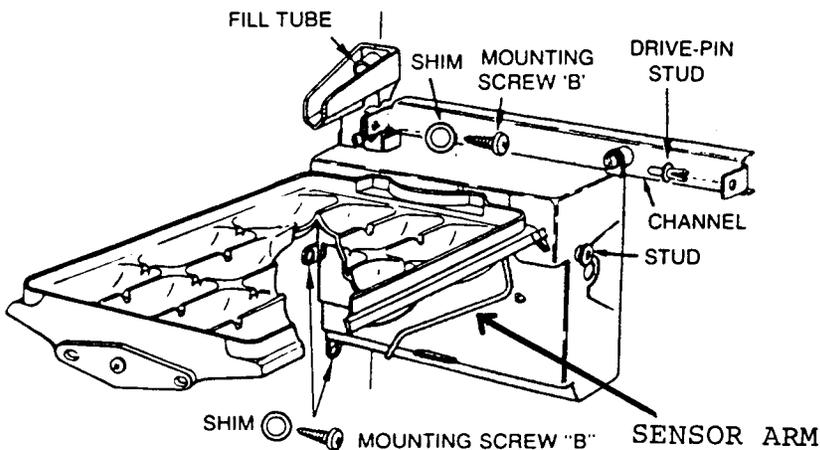


Figure 5 Ice maker mounting

- Place shim(s) (1/8" thick and/or 1/16" thick) as required behind lug at mounting screw 'A' or 'B' to level the tray right to left. Place half as many at 'C' to eliminate the gap. Bring cube tray to level front to back by using the clearance around the screws. Tighten all screws.
- Using screw 'C' attach the ice maker to the metal channel, making sure to place the plastic spacer between the screw lug and the channel. Then mount the channel to the right side wall with a drive pin stud.
- Insert stud B as shown on figure 5.
- Turn the ice maker on by pulling the sensor arm toward you a fraction of an inch and allowing it to drop into the ON position (figure 5 shows arm in the ON position).
- Observe the shelf you removed from the freezer. If it is made of aluminum, proceed to step 10. If the shelf is made of plastic, invert it and secure the ice maker enclosure with 2 type 'F' screws as shown in figure 8. Then place the shelf and enclosure in position in the freezer. Proceed to steps 9 to 14.
- Hook the rear of the ice maker enclosure on stud B on the ice maker side (see figure 5).
- Attach the spring clip to the shelf as instructed in step 11.

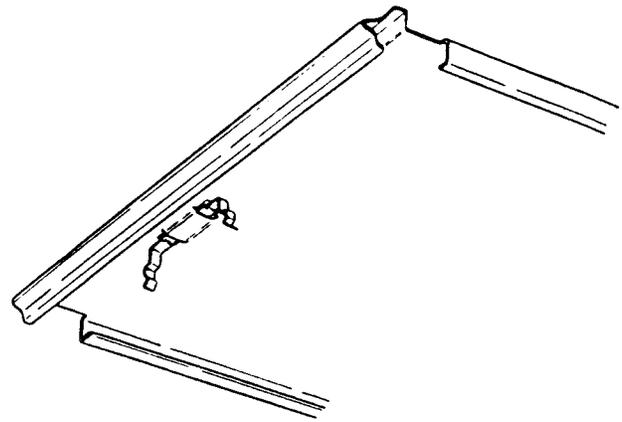


Figure 6 Clip attached to freezer shelf

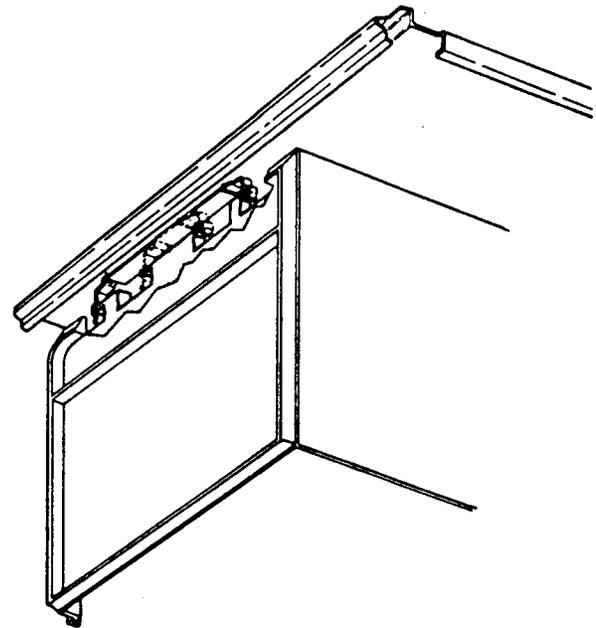


Figure 7 Ice maker enclosure hooked to shelf clip

- Insert one prong of the clip through one of the slots and slide the clip left or right until the other prong can be inserted into the other slot. Then slide the clip back so it is centred on the shelf (see figure 6).
- Attach the ice maker enclosure to the clip on the shelf (see figure 7).
- Place the shelf in position in the freezer ensuring that the slot on the right hand side slides around stud B.
- Position the ice cube storage pan directly under the ice maker.

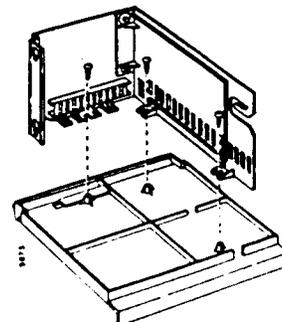


Figure 9 Securing ice maker enclosure to underside of plastic shelf

SECTION 4

A Installing water valve and connecting tubing on all refrigerator types

1. Temporarily remove the two upper right condenser mounting screws (see figure 11). Spring the top of the condenser out an inch or two to allow working room.
2. Locate the 3-pronged plug on the ice maker harness. Connect it to the receptacle located under the metal clamp on the cabinet back (see figure 12). The plug must be inserted all the way in to insure electrical contact.
3. Locate the flat receptacle on the ice maker harness. Connect it to the water valve (see figure 11).
4. Attach the water valve to the cabinet back with 2 type 'D' screws (see figure 11).

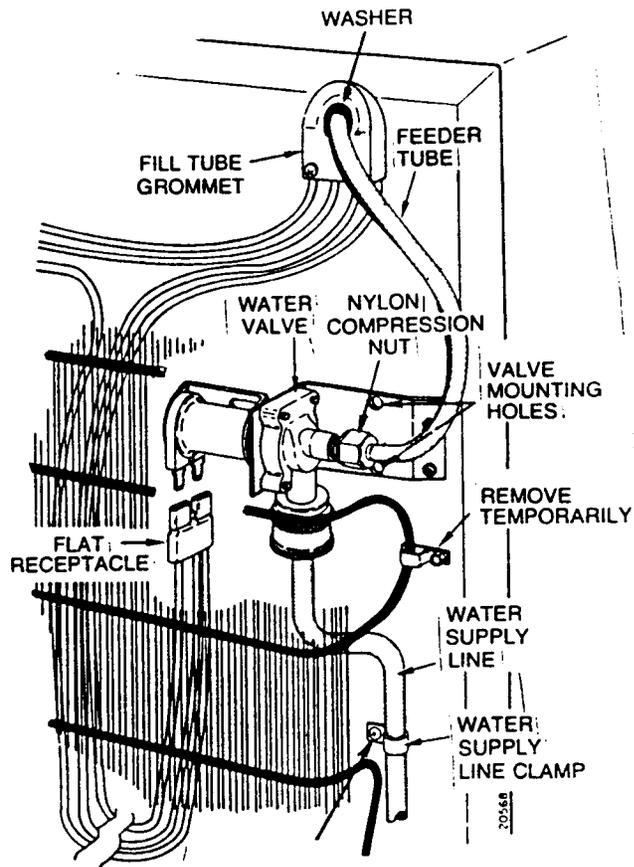


Figure 11 Water valve and feeder tube hook-up

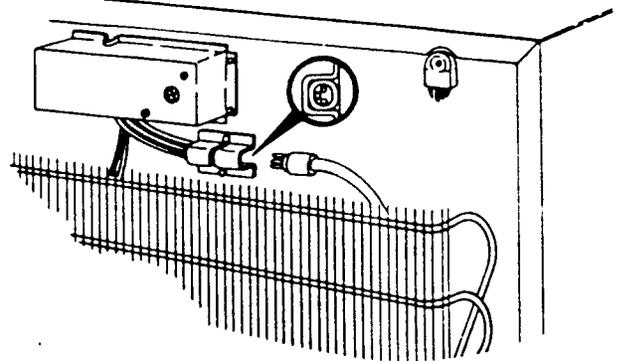


Figure 12 Ice maker wiring harness connection

5. Slide the nylon compression nut onto the curved end of the plastic feeder tube (see figure 13).
6. Fit the curved end of the feeder tube into the water valve as far as it will go and tighten the nylon compression nut (see figure 11). Slide the black washer over the straight end of the feeder tube up to the raised stops.
7. Wet the end of the feeder tube and push it into the fill tube grommet (see figure 11).
8. Loosely attach the water supply line clamp with a type 'A' screw (see figure 11).
9. Slide the water supply line into the water supply line clamp and screw the hose nut to the water valve making sure that the rubber washer is in place.
10. Tighten the water supply line clamp.
11. The use of the tie to secure the water supply line is optional.

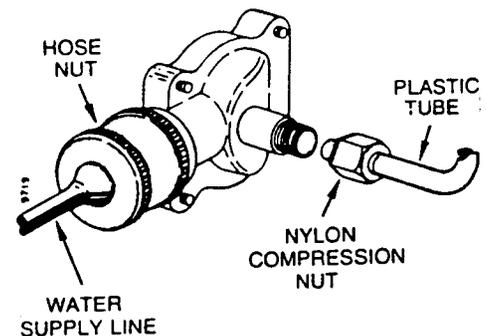


Figure 13 Tubing connections to water valve

4B Connecting ice maker to water supply

1. Find a 3/8" to 1" vertical COLD water pipe near the refrigerator. Vertical pipe is preferable but horizontal pipe will work.
2. Turn OFF the main water supply and drain the selected pipe, if possible.
3. Drill a 1/4" hole in the side of the pipe. GROUND the drill.
4. Press the rubber washer onto the hollow core of the saddle valve clamp.
5. Assemble the two parts of the valve clamp around the water pipe, making sure the hollow core enters the 1/4" hole in the pipe. Tighten both screws evenly to compress the washer enough to make a water tight seal (see figure 16).

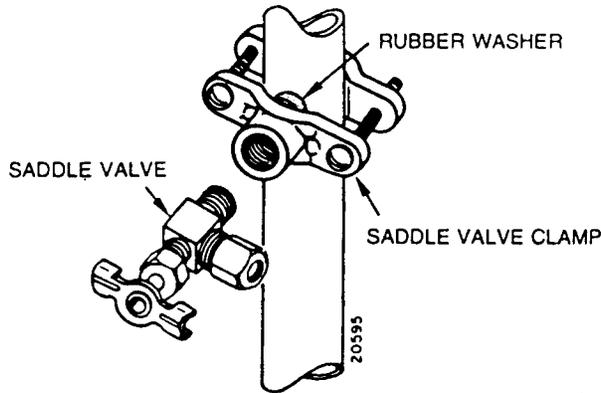


Figure 16 Installing saddle valve

6. Screw the saddle valve into the valve clamp.
7. Slide the brass nut and sleeve onto the 1/4" copper tubing (see figure 17). Insert the end of the tubing into the saddle valve as far as it will go and tighten the nut with an open end wrench.
8. Making sure the tubing is routed to a catch basing or drain, turn ON the main water supply and saddle valve and flush out the tubing until the water runs clear. Turn OFF the saddle valve.

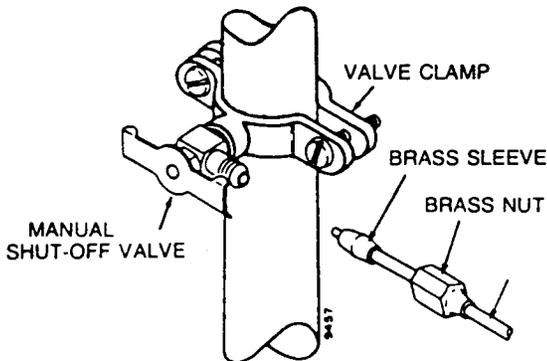


Figure 17 Connecting supply line to saddle valve

9. Route the tubing through the floor or wall to the refrigerator location. Form the excess tubing into a large coil as shown in figure 18. This will allow movement of the refrigerator without having to disconnect the tubing. If, after forming the coil, you still have an abundance of tubing left over, you can form another coil or cut off the extra tubing.
10. Assemble the nuts and sleeves onto the water supply tubing and the water valve tubing. Then connect them to the compression union as shown in figure 19.
11. Install the two upper right condenser mounting screws removed in steps A1.

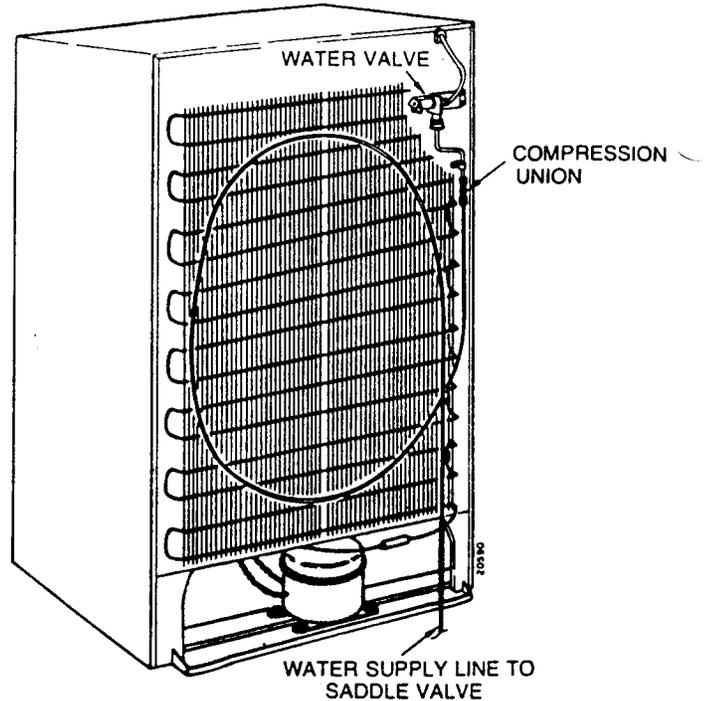


Figure 18 Supply line connection to water valve (note loop of tubing necessary for cabinet movement)

12. Tighten the water valve clamp screw.
13. Turn the saddle valve on. Tighten any connections that leak.
14. Plug in the power cord and push the refrigerator into place.

IMPORTANT: because the refrigerator and ice maker are warm, it may take up to 24 hours before the ice maker produces the first supply of ice cubes. Then you can discard the extra parts supplied in the kit. PLEASE READ the ice maker operating literature supplied.

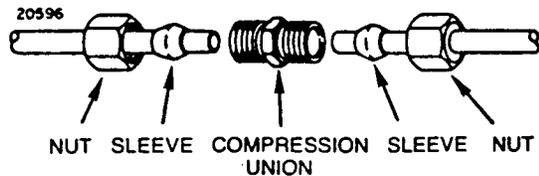
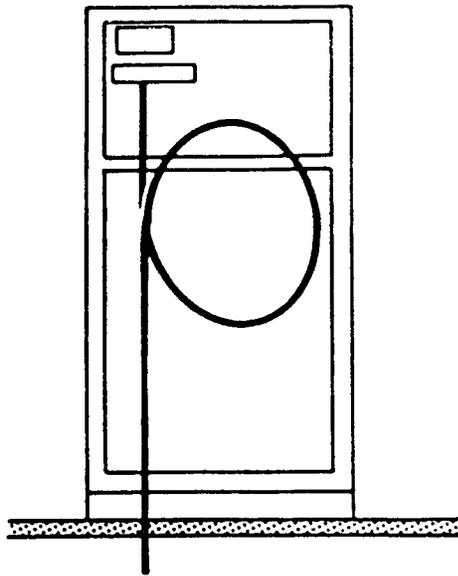


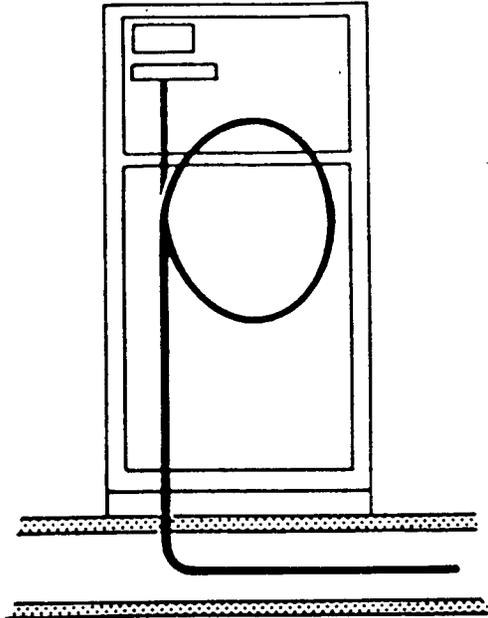
Figure 19 Compression fitting

IMPORTANT
IT IS THE RESPONSIBILITY
OF THE
INSTALLER TO ENSURE
THERE ARE NO LEAKS IN
THE WATER SUPPLY.

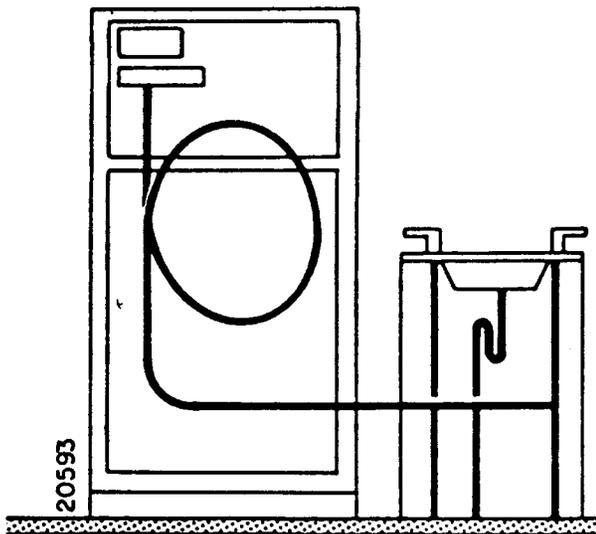
TYPICAL WAYS TO CONNECT TO WATER SUPPLY



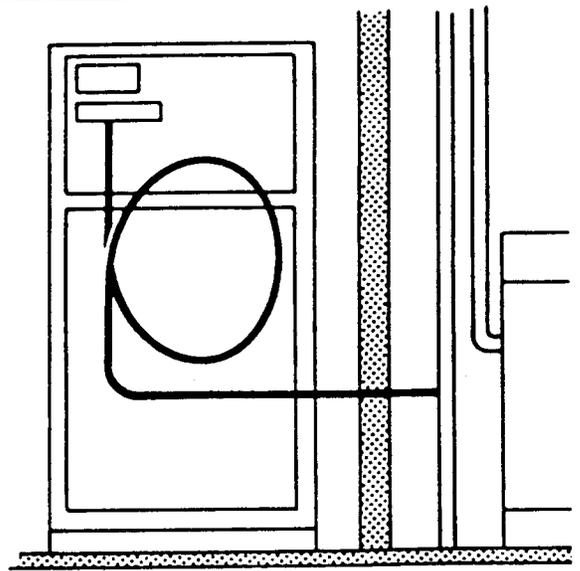
Through the floor to basement cold water pipe



In the crawl space under your home



Under the sink to the cold water pipe



Through the wall to the utility room cold water pipe

CAUTION: Ice maker tubing should not be installed where temperature may fall below freezing.

SECTION 5

Facts About Your AUTOMATIC ICE MAKER

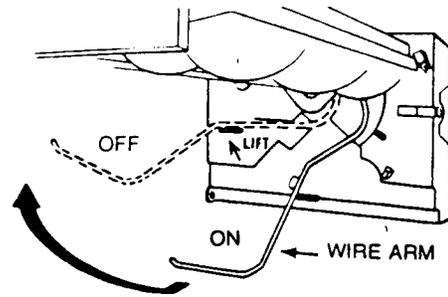
The automatic ice maker is designed to furnish a continual supply of ice cubes. With this useful feature, you no longer have the inconvenience of filling ice cube trays, or the frustration of running out of ice.

After your model has been installed and the water supply connected to the ice maker, it may be 8 to 24 hours before the ice maker furnishes any usable ice cubes. The first one or two harvests will probably contain undersized and irregular cubes because of a certain amount of air in the supply line.

The initial harvests may also contain impurities from the new water supply piping. Therefore, all cubes from the first two or three harvests should be discarded. Once this initial starting period is past, your ice maker will perform steadily and dependably.

Certain sounds may accompany the various cycles of the ice maker. The motor has a slight hum - a dull thump may be noticed as cubes are ejected - the cubes will rattle as they fall into an empty storage pan - the water valve may click or 'buzz' occasionally. All of these sounds are normal and should be ignored.

The ice maker has a wire stop arm that is connected to a shut-off switch. This arm stops the mechanism when the ice cube storage pan is full, and restarts it after several ice cubes have been used. You can use the stop arm to stop all production of ice at any time. All you need to do is pull the arm forward slightly and raise it into the OFF notch. If you plan to turn the ice maker off for some time, during an extended vacation for instance, it is best to also shut off the water supply, if practical.



If the ice cubes seem to be sticking in the tray, it is possible that the water in your community contains an abundance of mineral deposits and is leaving a film of residue on the tray surfaces. Wipe the tray pockets with a cloth soaked in vinegar until the film is cleaned out. If the residue seems heavy, you will probably want to clean the tray each time you clean your refrigerator.

To remove the enclosure from around the ice maker, examine the shelf above it and determine which removal procedure, described below, to follow.

If the shelf is made of plastic, you can remove it and the enclosure as a unit by simply lifting the shelf out.

If the shelf is made of metal, pull the front of the enclosure down to disengage it from the spring clip, fastened to the shelf. Then pull the rear of the enclosure toward you to disengage it from the hook on the side of the ice maker mechanism. Reverse this procedure when replacing the enclosure.

An unlevel refrigerator may result in non-uniform ice cubes which could stick together in the storage pan.

Cubes that are stored in the storage pan for an extended period of time may shrink in size or acquire a food taste. To avoid either condition, replenish the entire supply of ice cubes occasionally.

REMOVING ICE CUBE TRAY

If ice cubes seem to be sticking in the tray, it is possible that the water in your area contains an abundance of mineral deposits and is leaving a film residue in the tray. Wipe the tray pockets with a cloth soaked in vinegar until the film is cleaned out. If the residue seems heavy, you will probably want to clean the tray each time you clean your refrigerator.

In order to remove the tray for cleaning, do the following:

1. Check to see if the tray is level.
2. If the tray is not level, the ice maker is in the dumping cycle. Wait until the tray is level before proceeding (about 8 minutes).
3. If the tray is level move the wire arm to the 'OFF' position. (1)
4. Check the cube pockets to determine whether the water is frozen, if not be sure you keep the tray level so as not to spill the water while removing the tray.
5. Remove the plastic clip as shown on the clip. (2)
6. Pull the tray straight out off of the shaft. (3)
7. To reinstall the tray reverse the removal procedure.

