

INSTALLATION DATA 3030/3040 SERIES COLD CONTROL UNI-KITS®

The new 3030/3040 Series Cold Control Uni-Kits are designed and engineered specifically for the replacement market. These new Uni-Kits are available with a wide variety of temperature ranges to cover the majority of replacement applications.

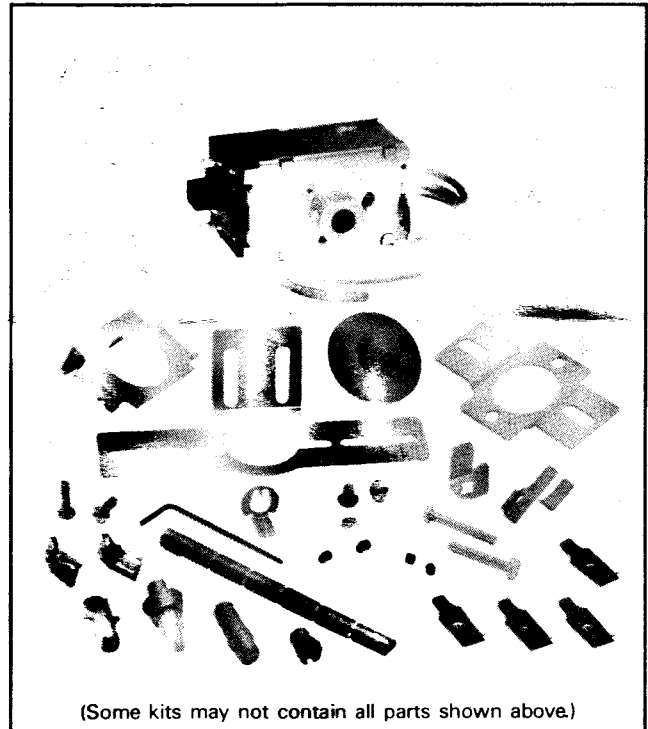
All Uni-Kits include the necessary mounting brackets and universal shafts to allow for fast and easy installation.

3030-400/3040-500 Series Uni-Kits feature a built-in constant cut-in. This constant cut-in on every cycle provides automatic defrost while maintaining food temperature at a safe level. Turning the dial will change the differential between the cut-in and cut-out temperatures with cut-in always remaining fixed.

3030-500/3040-100 Series Uni-Kits feature a built-in constant differential between the cut-in and cut-out temperatures. Turning the dial changes the operating temperature but the differential remains the same. Designed specifically for replacement of controls used in "frostless" refrigerators as well as standard U-type evaporator models.

3030-600/3040-300 Series Uni-Kits are identical to the 3030-500/3040-100 Series except they have capillary lengths and temperature ranges suited for freezer applications. These Uni-Kits feature a built-in constant differential between the cut-in and cut-out temperatures. Turning the dial changes the operating temperatures but the differential remains the same. Designed specifically for replacement of controls used in "frostless" freezers as well as standard U-type evaporator models.

3030-900/3040-200 Series Uni-Kits are designed as universal replacements for virtually all water and beverage cooler applications. They provide the greatest possible O.E.M. application replacement coverage with a minimal amount of stock. No problem selecting a replacement with the wide range of temperature and capillary specifications.



SPECIFICATIONS

Electrical rating FL = 20 amps, 120/240 VAC
LR = 96 amps, 120/240 VAC

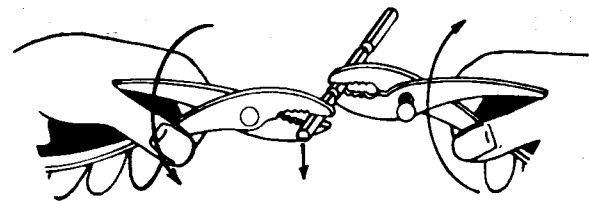
CAUTION

THIS DEVICE SHOULD BE INSTALLED BY A QUALIFIED SERVICE TECHNICIAN WITH DUE REGARD FOR SAFETY. AS IMPROPER INSTALLATION COULD RESULT IN A HAZARDOUS CONDITION.

INSTALLATION INSTRUCTIONS

Turn off power to the appliance before servicing.

- Note the position of the capillary and bulb spacers before removing the capillary. If the capillary is inserted in a tube or well, mark the capillary so that the replacement control can be installed to the correct depth.
- Disconnect the electrical leads from the defective control and remove the unit. **NOTE:** If the capillary is routed through the cabinet insulation, before removing it, attach a pull wire to the end of the capillary as described in step #3.
- Using a pair of needle-nose pliers, put a small loop in the end of the sensing element. Securely attach a piece of strong, but flexible, wire to this loop. This wire should be at least 12" longer than the capillary of the replacement control. If possible, attach the loose end of the wire to some part of the refrigerator to keep from pulling it into the equipment. Once the sensing element is free from the insulation, remove the pull wire from the end of the capillary.
- If a plastic sleeve was used on the capillary of the defective control, it should be used on the replacement control. Slip the old sleeve, or the new one included with some kits, onto the capillary of the replacement control. Position the sleeve so that the same amount of capillary at the sensing end is exposed as was exposed on the defective control. If using a new sleeve, it may be necessary to cut it for proper positioning. Tape the sleeve, if necessary to keep it in place.
- Select a shaft and driver combination which matches the one of the defective control. If the break-off shaft is being used, make the break before assembling it to the control to avoid damage. Place a pair of pliers on either side of the appropriate notch and snap for a clean break as shown in Figure 1 below.



STEM FLAT DOWN

FIGURE 1

INSTALLATION INSTRUCTIONS (Cont'd.)

- Turn the defective and replacement controls to the "NORMAL" or mid-scale position. (See Figure 4.) Assemble the shaft and driver to the replacement control as shown in Figure 2 below using the defective control as a guide for proper positioning. Tighten the set screws to secure the shaft.

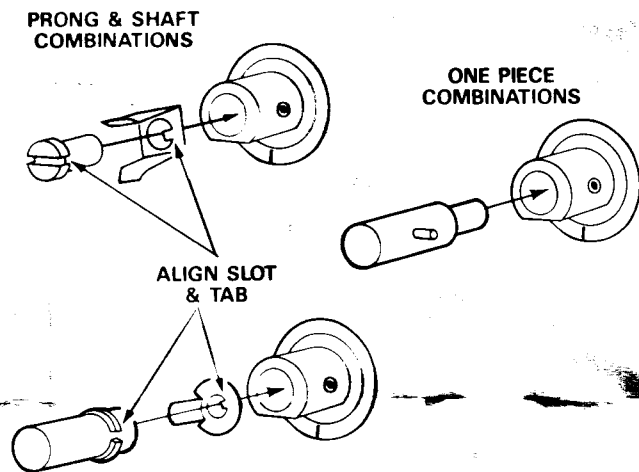


FIGURE 2

- Some Frigidaire controls have a serpentine shape capillary. When replacing these, form the sensing end of the capillary of the replacement control into a "paper clip" design rather than the serpentine shape. See the instructions on the next page.
- Assemble the appropriate mounting bracket to the replacement control as per instructions beginning on the next page.
- Install the capillary of the replacement control. (Mounting is in the same manner as the original unit.) For tube or well application, be sure to transfer the mark on the capillary of the defective control to the new control before installing it. If a pull wire is being used, form a small loop as before. **CAUTION;** Do not crimp, kink, or damage the capillary or control will not operate properly. Attach the wire and pull it and the capillary back through the insulation until the end of the sensing element can be mounted in the proper location.
- Coil any excess capillary and store it behind the control away from electrical terminals and liner. SEE CAUTION NOTED IN STEP #9.

- Reconnect the electrical leads to the spade terminals on the new control. Use the spade to screw adaptors if necessary. For those applications which require the control to be grounded, use the grounding terminal as shown in Figure 3 below. Use electrical tape around terminals if needed for electrical safety.

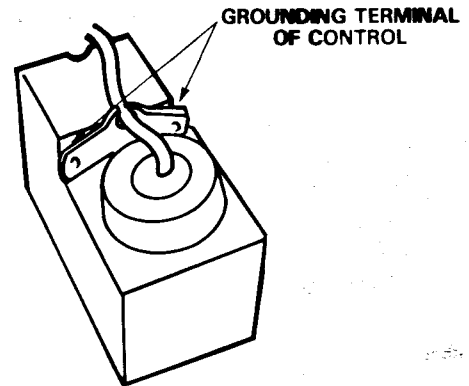
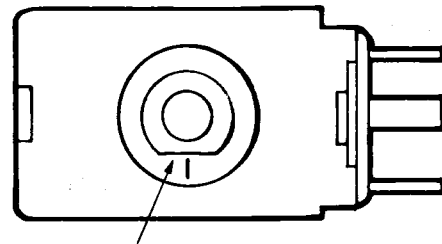


FIGURE 3

- Mount the replacement control in the same manner as the original. If using universal brackets, make any necessary adjustments to assure proper knob alignment.
- Attach the panel cover. Push the dial onto the shaft with pointer indicating "NORMAL" or mid-scale position. See Figure 4 below.



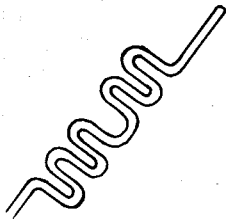
NOTE POSITION OF FLAT

MID-SCALE POSITION

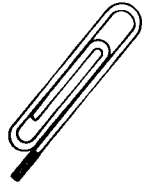
FIGURE 4

- Turn on electrical power to the equipment and check operation. Allow sufficient time for unit to reach "NORMAL" operating temperature.

FRIGIDAIRE SERPENTINE CAPILLARY REPLACEMENT



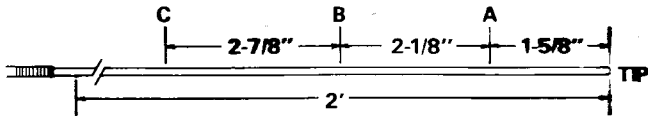
FRIGIDAIRE SERPENTINE DESIGN



REPLACEMENT "PAPER CLIP" DESIGN

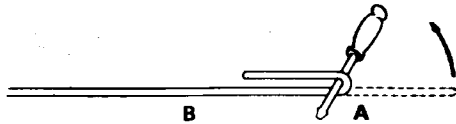
CAUTION
DO NOT CRIMP, KINK, OR DAMAGE THE CAPILLARY OR CONTROL WILL NOT OPERATE PROPERLY. MAKE ALL BENDS BY WRAPPING CAPILLARY AROUND A CYLINDRICAL OBJECT.

1. Uncoil about 2 feet of capillary and slide the plastic sleeve out of the way towards the control. Mark the capillary at Point A, 1-5/8" from capillary tip; Point B, 2-1/8" from Point A; and Point C, 2-7/8" from Point B.

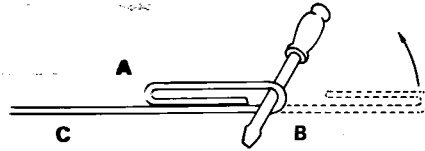


CAPILLARY FREE OF PLASTIC SLEEVE

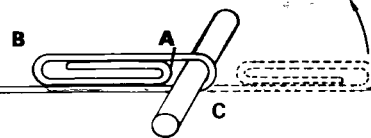
2. Using a 1/4" diameter rod or medium size screwdriver, bend the capillary back on itself at Point A.



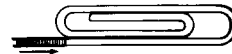
3. At Point B, repeat step 2 using a 5/16" diameter rod or large screwdriver.



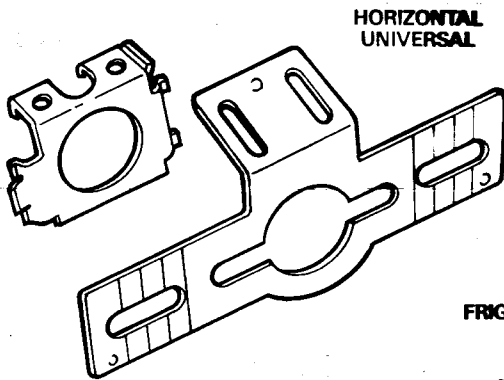
4. At Point C, repeat step 2 using a 3/8" diameter rod.



5. Slide the plastic sleeve up to the newly formed configuration.

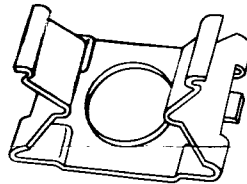


MOUNTING BRACKET ASSEMBLY

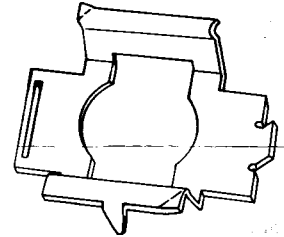


HORIZONTAL UNIVERSAL

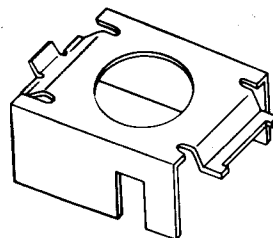
KELVINATOR, FRANKLIN, ETC.



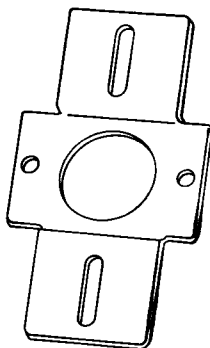
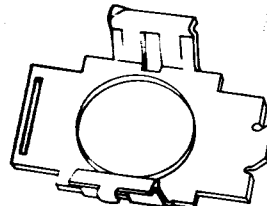
KELVINATOR, ETC.



FRIGIDAIRE SNAP

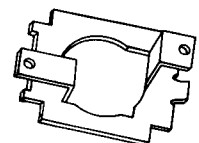


FRANKLIN, ETC.



VERTICAL UNIVERSAL

FRIGIDAIRE "YR"



MOUNTING BRACKETS
FIGURE 5

NOTE: Some kits may not contain all of the specialized brackets.

MOUNTING BRACKET ASSEMBLY (Cont'd.)

1. Select the appropriate mounting bracket(s). See Figures 5 and 10.
2. The horizontal universal bracket consists of two parts as shown in Figure 5. Attach the smaller bracket to the control as shown in Figures 6 and 7. With the control facing front and the terminals to the right, place the tab of the bracket into the left slot of the control. Keeping the bracket against the face plate, use needle-nose pliers to bend the other slot to secure the bracket. If necessary, the bracket may be removed by reversing this procedure.

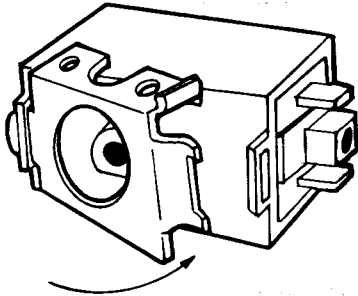


FIGURE 6

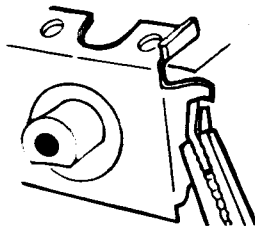


FIGURE 7

3. Using the two short mounting screws, attach the larger bracket to the smaller one as shown in Figure 8 above. The larger bracket should be positioned so that the proper shaft length is achieved as compared to the defective control. Place the speed nuts on the bracket.

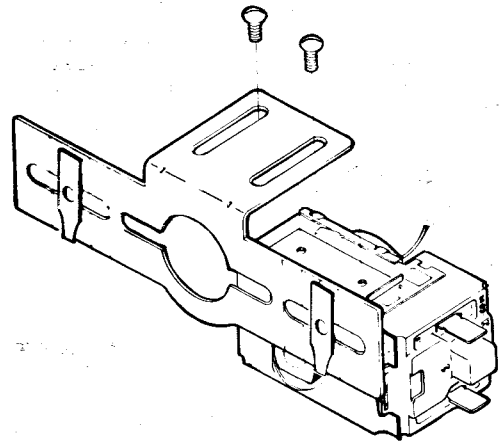


FIGURE 8

4. If vertical mounting is necessary, attach the vertical universal bracket as shown in Figure 9 below using the speed nuts and mounting screws.

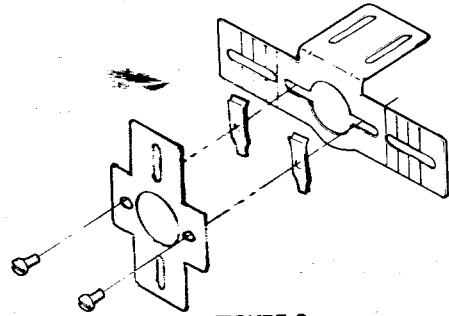
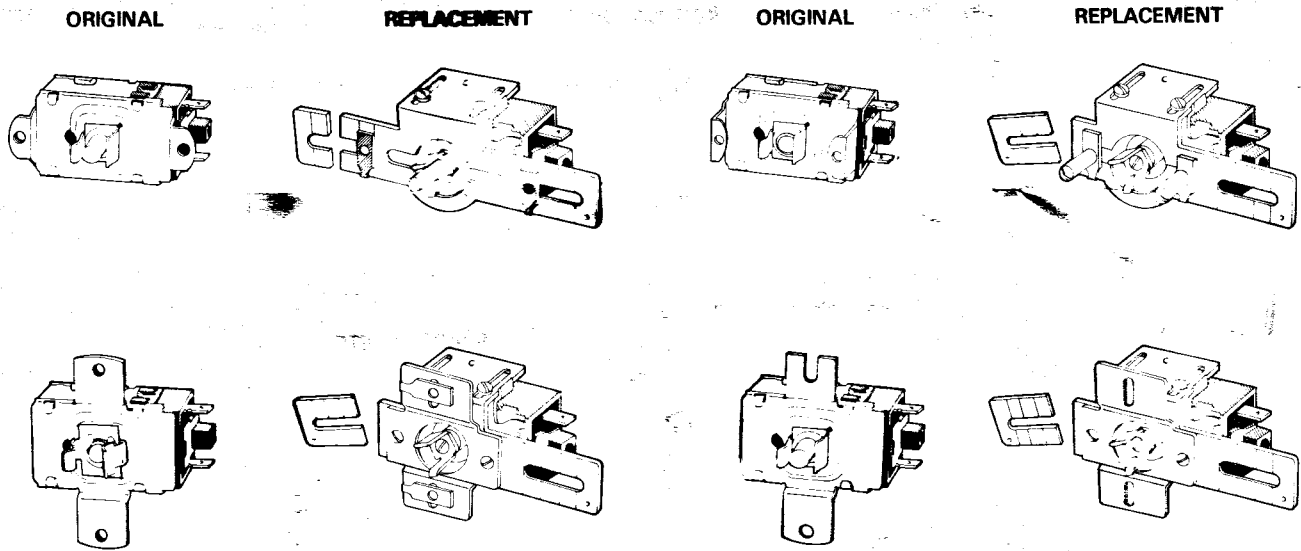


FIGURE 9

5. It may become necessary to shorten the length of either of the mounting brackets due to space requirements. If so, the bracket can be easily broken off at one of the serrations to give the desired length by placing a pair of pliers on either side of the serrations and snapping the bracket apart.
6. If one of the specialized brackets is to be used, mount it to the control in the manner used to mount the small part of the horizontal universal bracket. See step 2.



TYPICAL USE OF UNIVERSAL PARTS
FIGURE 10