



STOKES

Appliance Parts

Service Manual

Refrigeration Section J

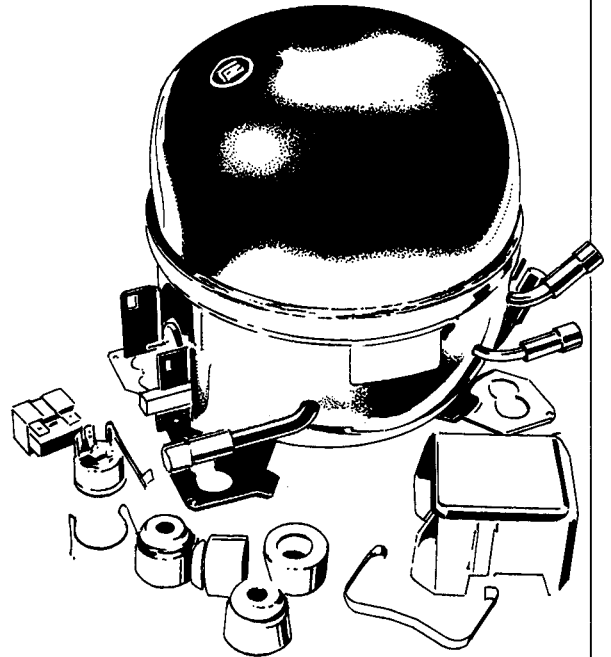
Includes:

Compressors, Thermostats, Defrost
Elements, Timers, Fans & Motors

Stokes Appliance Parts - National Administration Centre
24 Palmerston Road West, Ringwood, Victoria 3134, Australia
Ph: 61 3 9872 7474 Fax: 61 3 9872 7400 Freecall: 1800 333 191
E-mail: parts@stokes-aus.com.au Web: www.stokesap.com.au

Compressors

Compressor PW3.5A 70W 1/10 HP	RC001
Compressor PW4.5A 99W 1/8 HP	RC002
Compressor PW5.5A 133W 1/6 HP	RC003
Compressor FF6BKW 162W 1/5 HP	RC004
Compressor FF7.5BKW 183W 1/4 HP	RC005
Compressor FF8.5BKW 209W 1/4 HP	RC006
Compressor FF11.5BKW 284W 1/4 HP	RC007
Compressor FFI 12BKW 336W 1/3 HP	RC008
Compressor FN126 307W 1/4HP	RC019
Compressor FN110Q 267W 1/4HP	RC020
Compressor D122 255W 1/4HP R12 or 134a	RC020A
Compressor FN91Q 210W 1/4HP	RC021
Compressor FN73Q 175W 1/4HP	RC022
Compressor FN66Q 157W 1/5HP	RC023
Compressor FN51 128W 1/6HP	RC024
Compressor FN43 111W 1/7HP	RC025
Compressor FN35 87W 1/8HP	RC026
Compressor AE1411A 338W 1/3HP	RC040



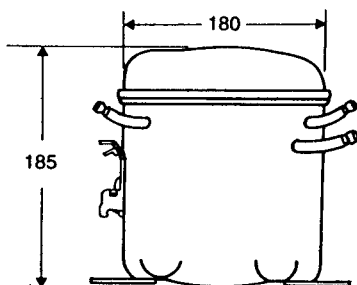
Embraco Compressors	RC001-RC008
Matsushita Compressors	RC019-RC026
Kirby Compressors	RC040

***For Embraco Compressors a "W" on the end of its part number indicates the unit is fitted with an oil cooler.**

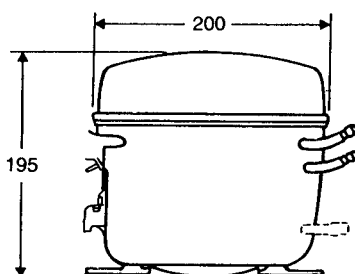
NOTE: See Following Pages for Compressor Cross Reference Chart and Compressor Dimensions

COMPRESSOR DIMENSIONS

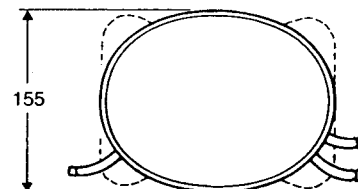
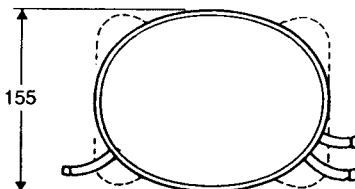
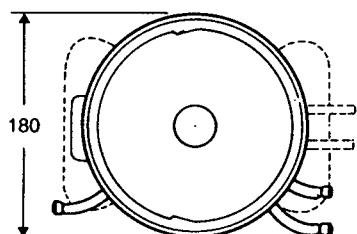
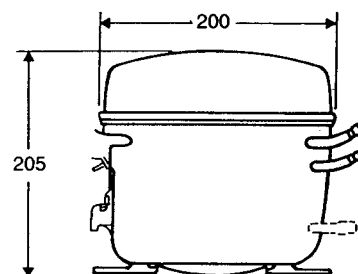
RC001 / RC002 / RC003



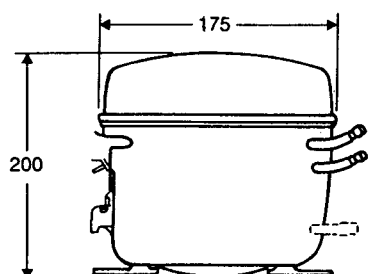
RC004 / RC005 / RC006 / RC007



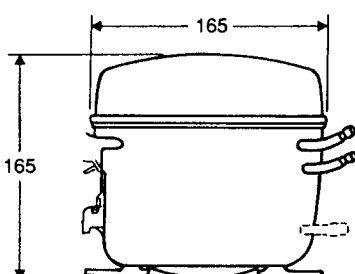
RC008



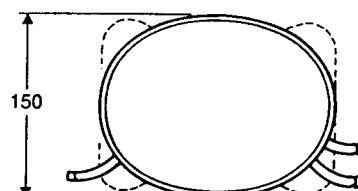
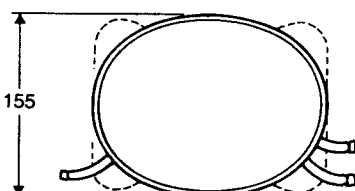
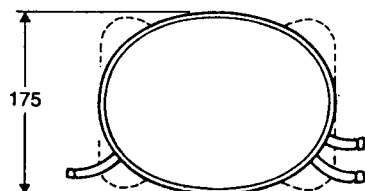
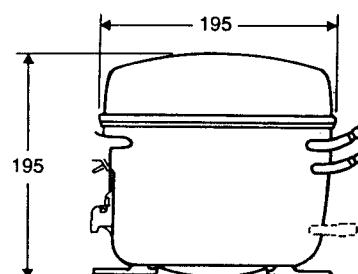
RC019 / RC020 / RC021 /
RC022 / RC023



RC024 / RC025 / RC026



RC040



RANCO UNIVERSAL THERMOSTATS

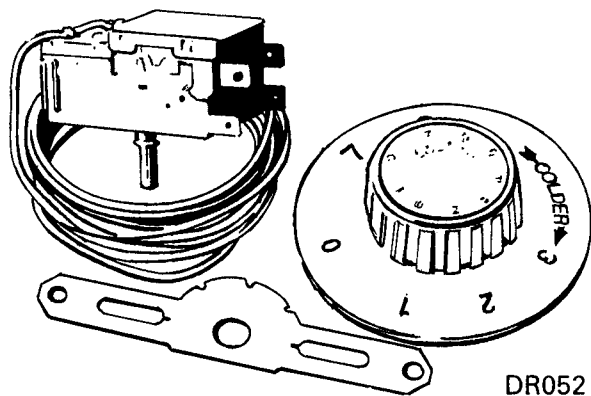
RANCO No.	COMMON APPLICATIONS	REPLACES DANFOSS No.
VC1	Compressor Refrigerator Single Door	No. 1
VA2	Absorption Refrigerator	No. 4
VF3	Freezer and Ice Cream Cabinet	No. 5
VP4	Push-button Defrost Refrigerator	No. 2
VS5	Freezer – Standard Signal	No. 6
VR6	Freezer – Reverse Signal	No. 7
VB7	Bottle Cooler	No. 8
VW8	Window Air Conditioner – Cooling Only	–
VT9	Two Door Cyclic Defrost Refrigerator	No. 3

STOKES PART No.	RANCO PART	CAPILLARY LENGTH	TEMP MINIMUM	RANGE °C MAXIMUM	DEFROST TERMINATION	SIGNAL OPERATION
DR050	VC1	1200mm	– 23	+ 2		
DR050B	VC1	1200mm	– 23	+ 2		
DR051	VA2	2000mm	– 18	+ 3.5		
DR052	VF3	2000mm	– 34	– 12		
DR053	VP4	1200mm	– 25	– 4	+ 5.5°C	
DR054	VS5	2000mm	– 34	– 12		CUT IN 5°C ABOVE CUT IN
DR055	VR6	2000mm	– 34	– 12		CUT IN 5°C ABOVE CUT IN
DR056	VB7	1200mm	– 3	+ 12.5		
DR057	VW8	1200mm	+ 15	+ 34		
DR058	VT9	1200mm	– 26	– 11		CONSTANT CUT-IN +3.5°C
DR058B	VT9	1200mm	– 26	– 11		CONSTANT CUT-IN +3.5°C

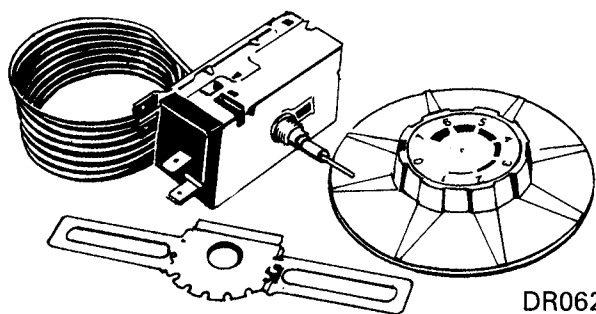
NOTE:

- (a) DR050B and DR058B DO NOT have the accessories included, ie are a bare thermostat.
- (b) Wiring Diagrams are included in pack or call us for information.

Thermostats



DR052



DR062

RANCO

DR050B	Ranco Thermostat	VC1 - No knob etc.
DR050	Ranco Thermostat	VC1
DR051	Ranco Thermostat	VA2
DR052	Ranco Thermostat	VF3
DR053	Ranco Thermostat	VP4
DR054	Ranco Thermostat	VS5
DR055	Ranco Thermostat	VR6
DR056	Ranco Thermostat	VB7
DR057	Ranco Thermostat	VW8
DR058	Ranco Thermostat	VT9
DR058B	Ranco Thermostat	VT9 - No knob etc.

DANFOSS

DR061	Danfoss Thermostat	No. 1
DR062	Danfoss Thermostat	No. 2
DR063	Danfoss Thermostat	No. 3
DR064	Danfoss Thermostat	No. 4
DR065	Danfoss Thermostat	No. 5
DR066	Danfoss Thermostat	No. 6
DR067	Danfoss Thermostat	No. 7
DR068	Danfoss Thermostat	No. 8

EQUIVALENT LISTINGS

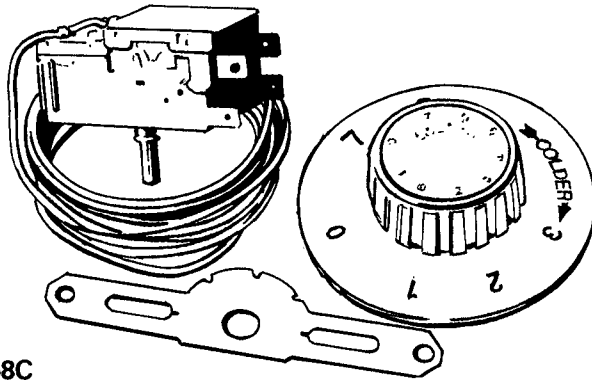
Stokes	Ranco No.	Common Applications	Stokes	Danfoss No.
DR050	VC1	Compressor Refrigerator	DR061	No. 1
DR051	VA2	Absorption Refrigerator	DR064	No. 4
DR052	VF3	Freezer and Ice Cream Cabinet	DR065	No. 5
DR053	VP4	Push-button Defrost Refrigerator	DR062	No. 2
DR054	VS5	Freezer - Standard Signal	DR066	No. 6
DR055	VR6	Freezer - Reverse Signal	DR067	No. 7
DR056	VB7	Bottle Cooler	DR063	No. 8
DR057	VW8	Window Air Conditioner	-	-
DR058	VT9	Two Temp. Refrigerator	DR063	No. 3

SPECIFICATION DATA

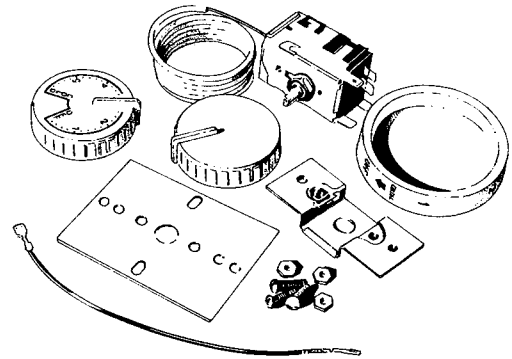
Stokes Part No.	Ranco Part	Capillary Length	Cold Out C°	Cold In C°	Warm Out C°	Warm In C°	Defrost Termination	Signal Operation
DR050	VC1	1200mm	-23	-14.5	+2			
DR051	VA2	2000mm	-18	-14.5	+3.5			
DR052	VF3	2000mm	-34		-16.5	-12		
DR053	VP4	1200mm	-25		-10.4	-4	+5.5°C	
DR054	VS5	2000mm	-34		-16.5	-12		Cut In 5°C Above Cut In
DR055	VR6	2000mm	-34		-16.5	-12		Cut In 5°C Above Cut In
DR056	VB7	1200mm	-3	+2		+12.5		
DR057	VW8	1200mm	+15	+18		+34		
DR058	VT9	1200mm	-24		-11		+3.5°C	

Stokes Part No.	Ranco Part	Capillary Length	Cold Out C°	Cold In C°	Warm Out C°	Warm In C°	Defrost Termination	Signal Operation
DR061	No. 1	1300mm	-25	-13.5	-5.5	+2		
DR062	No. 2	1300mm	-21	-11	-7.5	0	+6°C	
DR063	No. 3	1600mm	-27.5	+3.5	-11	+3.5		
DR064	No. 4	1500mm	-11	-5	-1	+3.5		
DR065	No. 5	2300mm	-32.5	-21	-15	-7.5		
DR066	No. 6	2300mm	-34.5	-24	-17	-10		-6°C
DR067	No. 7	2300mm	-34.5	-24	-17	-10		-6°C
DR068	No. 8	2000mm	-8.5	-1	+6	+11.5		

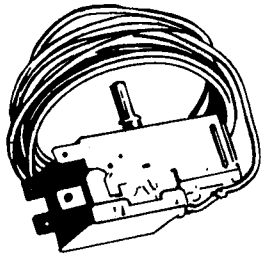
Thermostats



DR058C
Thermostat-Robertshaw equivalent
equivalent to VT9



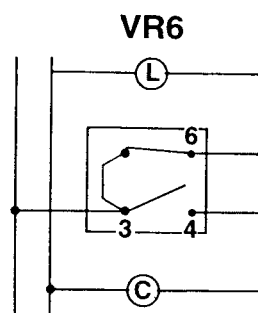
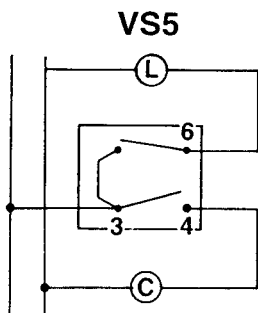
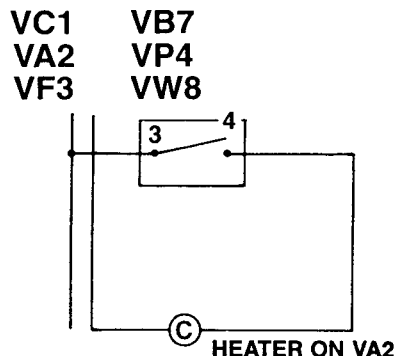
DR100
Thermostat
Moist Cold Westinghouse



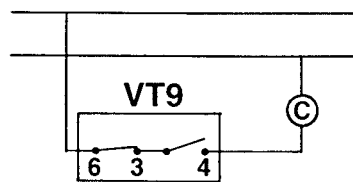
DR102
Thermostat - Frost Free
Westinghouse/Philips

Thermostats – Wiring Information

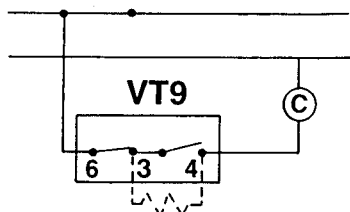
Connection Diagrams C COMPRESSOR L LIGHT



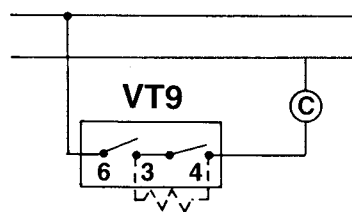
VT9 Replacement for Two-Temperature Domestic Refrigerators (Circuit Options)



CONTROL WITH "OFF" POSITION FOR HEAT LEAKAGE DEFROST



CONTROL WITHOUT "OFF" USING HEATER ASSISTED DEFROST



CONTROL WITH "OFF" USING HEATER ASSISTED DEFROST

Electrical Ratings:

6 A inductive at 250V ~ except VW8.

VW8 16 A inductive at 250V ~

(Note that VS5/VR6 controls are rated 6 A 250V ~ inductive on mains switch (terminals 3-4) and 1 A inductive 250V ~ on signal switch contacts (terminals 6-3))

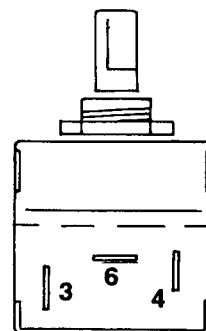
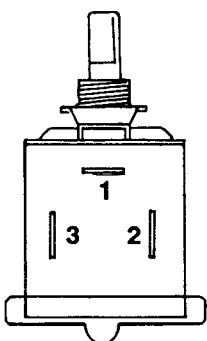
Settings:

All controls leave the factory in the cold position (fully clockwise). The temperature within the appliance can be increased by turning the dial knob in a counter clockwise direction (All Varifix are packed with instructions for use and are printed in six languages).

CONNECTIONS IF REPLACING ROBERTSHAW RC-94852-2 WITH RANCO VT9

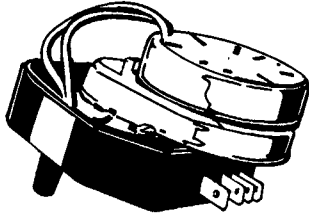
	ROBERTSHAW	RANCO
LINE	3	4
COMPRESSOR	2	3

ROBERTSHAW
DRO58C

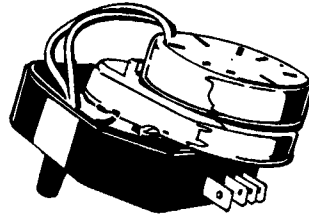


RANCO
DRO58
DRO58B

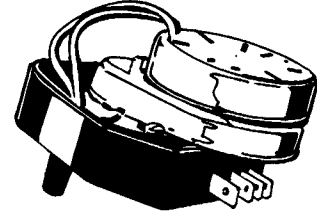
Timers



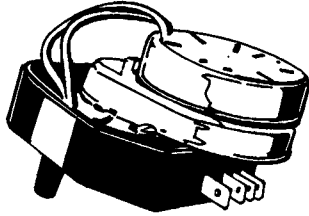
DR115
Defrost Timer GE 110 Volt



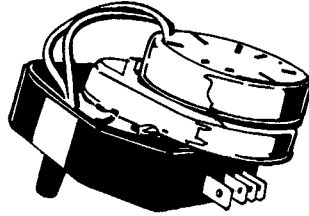
DR116
Defrost Timer Paragon 6 hr 21 min
To convert to 3 pin see following page



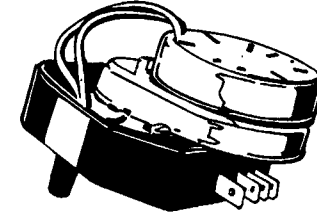
DR117
Defrost Timer Paragon 12 hr 21 min
To convert to 3 pin see following page



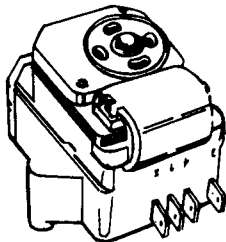
DR118
Defrost Timer Paragon 6 hr 25 min
new style



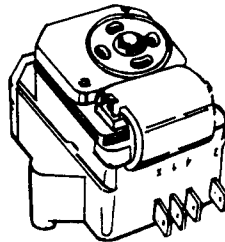
DR119
Defrost Timer Paragon 8 hr 20 min
new style



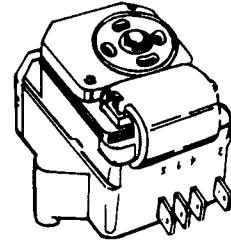
DR120
Defrost Timer Westinghouse
(759802)



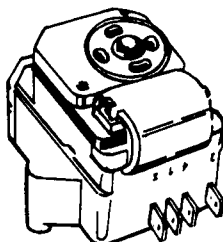
DR127
Defrost Timer Sankyo 8 hr 20 min
GE Kirby 8-01000515-601



DR128
Defrost Timer Sankyo 12 hr 30 min
Frigidaire 7445336



DR129
Defrost Timer Sankyo 6 hr 25 min
Westinghouse 744321
1406995

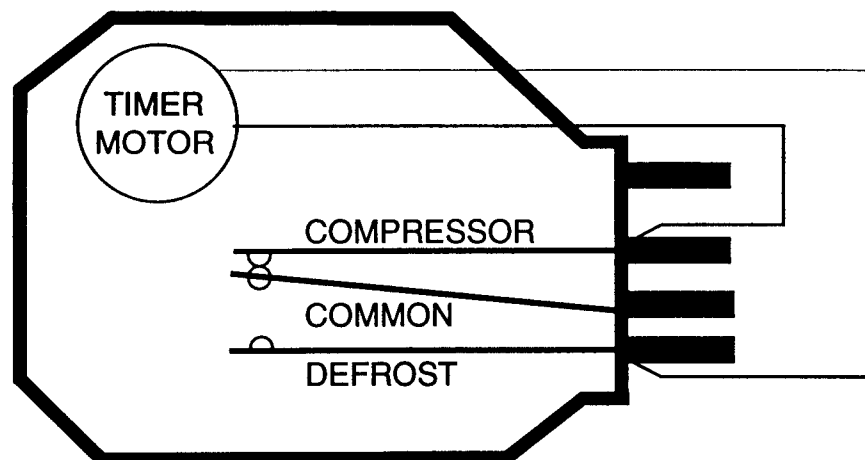


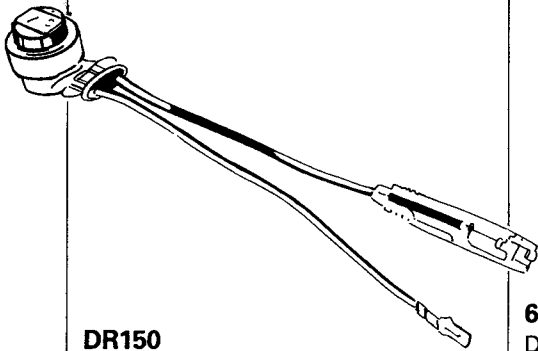
DR130
Defrost Timer Sankyo 12 hr 30 min
Westinghouse 743022
759802

DR116/DR117

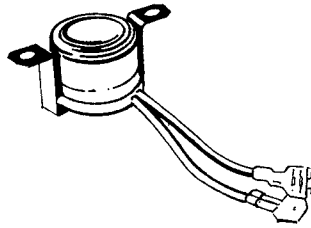
These timers can be converted for use on Whirlpool Refrigerators that have a 3 pin timer.

1. Remove plastic cover over terminals.
2. Move timer motor connections as shown below.
3. Replace plastic cover over terminals.

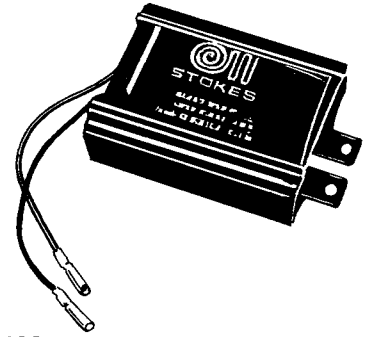




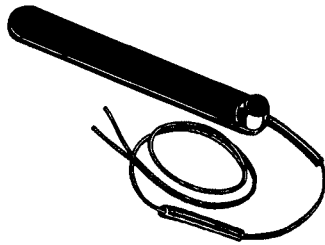
DR150
Defrost Termination Thermostat



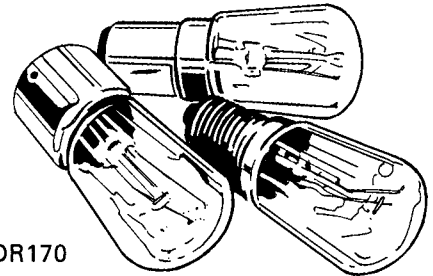
6035
Defrost Termination Thermostat
with Bracket



8132
Transformer 32 volt



8130
Pan Heater 32 volt Whirlpool

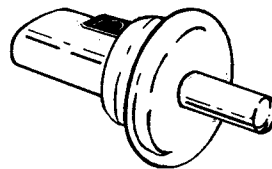


DR170 Globe B.C. 15W
DR171 Globe E.S. 15W
DR172 Globe S.E.S. 15W
DR173 Globe S.B.C. 15W

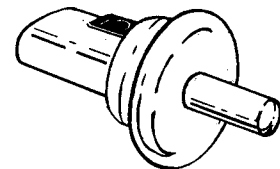
DR173

DR170

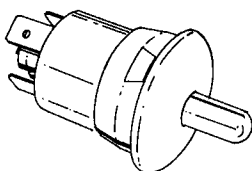
DR172



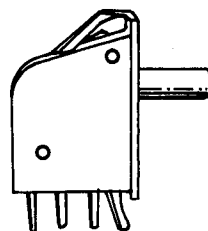
A69
Switch Light



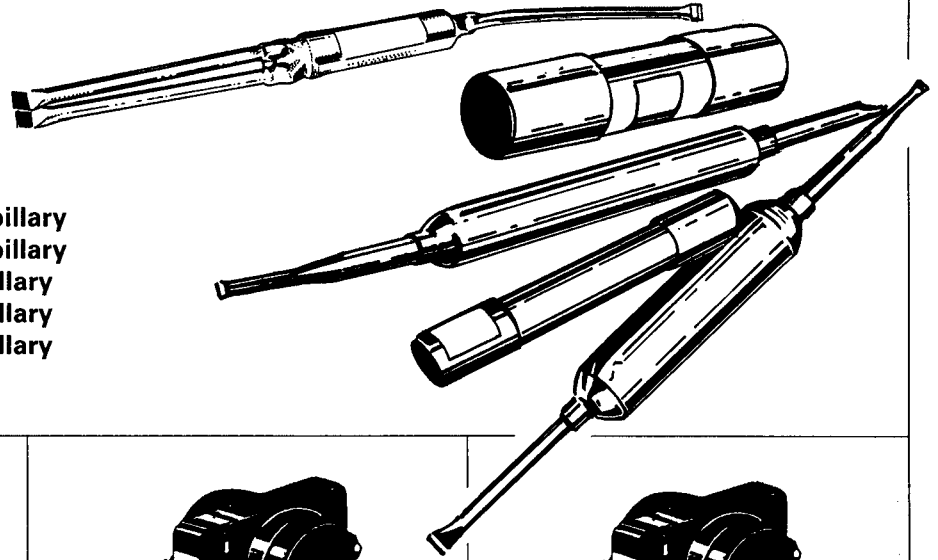
DR176
Switch Fan



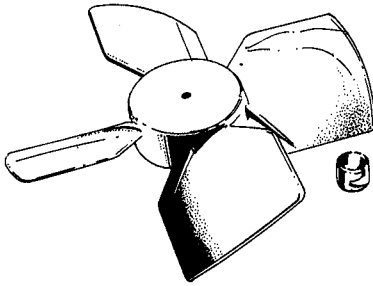
DR177
Switch Light and Fan



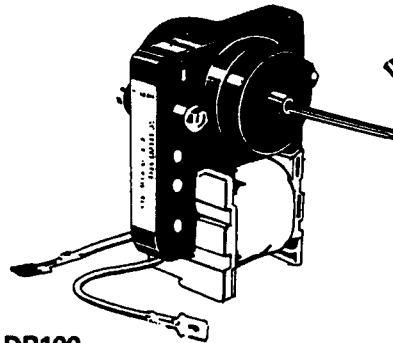
DR178
Switch Light and Fan Metters



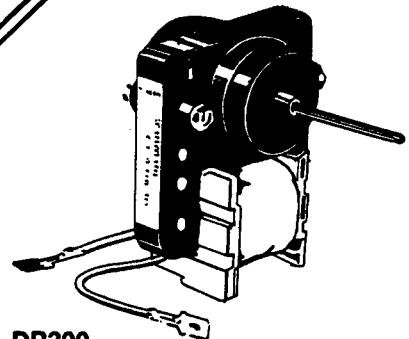
- DR186** Drier XH9 12 gm
- DR188** Drier 15 gm 3/16" to Capillary
- DR189** Drier 20 gm 3/16" to Capillary
- DR190** Drier 10 gm 1/4" to Capillary
- DR191** Drier 15 gm 1/4" to Capillary
- DR192** Drier 20 gm 1/4" to Capillary
- DR193** Drier 15 gm 1/4" Tails
- DR194** Drier 20 gm 1/4" Tails



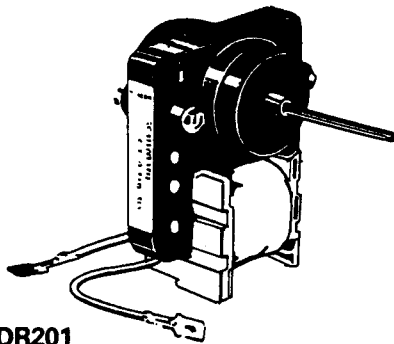
DR197
Fan Blade



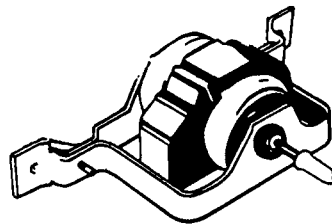
DR199
Black Leads CW
Fan Motor Frost Free



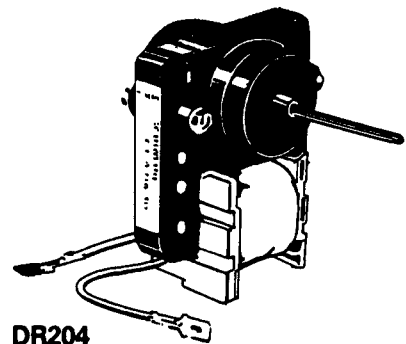
DR200
Blue Leads ACW
Fan Motor Frost Free



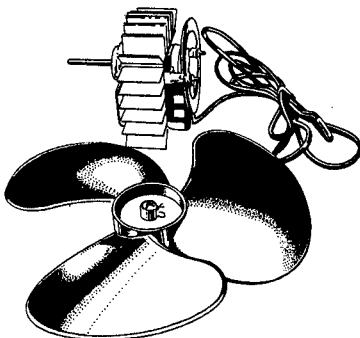
DR201
Reversible
Fan Motor Frost Free



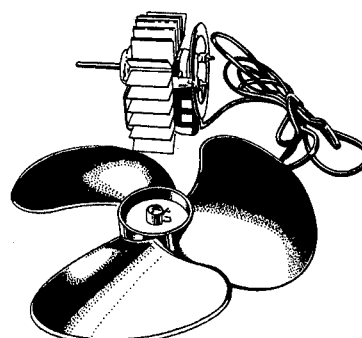
DR203
Fan Motor Frost Free
Westinghouse



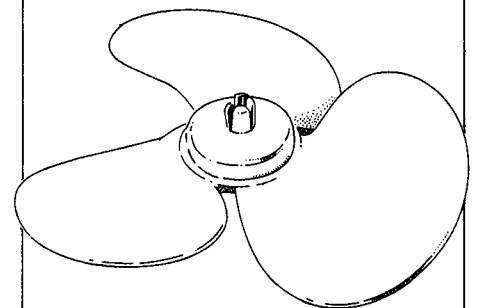
DR204
Fan Motor Frost Free
GE 110 volt



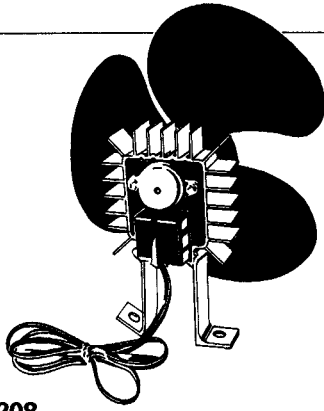
DR206
Reversible 18W and 7" Blade
Fan Motor Condenser



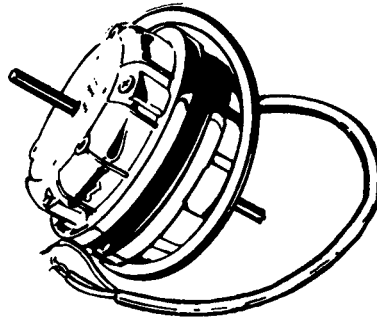
DR207
Reversible 42W and 10" Blade
Fan Motor Condenser



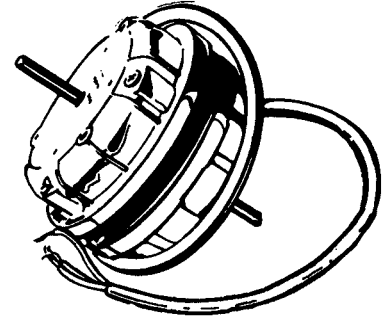
DR207A
Fan Blade 8"/200 mm
for DR206, DR207



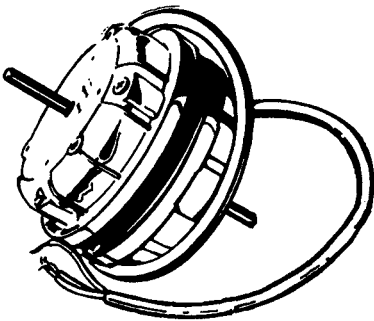
DR208
Fan Motor, Condenser
Reversible with Blade



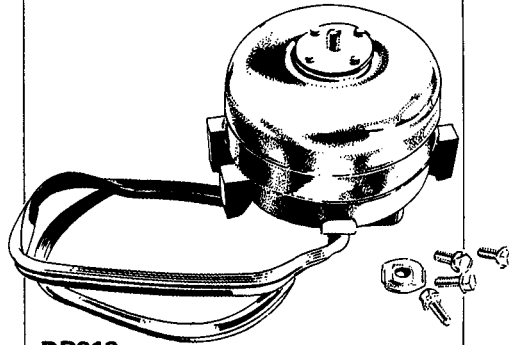
DR209
Fan Motor Condenser 10W



DR210
Fan Motor Condenser 20W



DR211
Fan Motor Condenser 40W



DR212
Fan Motor Condenser
GE 110 volt CW

DR201

Fan Motor - Frost Free

** Note: This Fan Motor is assembled to run clockwise.*

DR206 / DR207 / DR208

Fan Motor Condenser

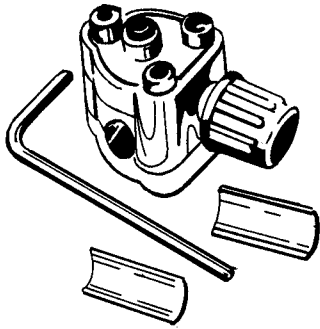
** Note: These Fan Motors are assembled to run anti-clockwise.*

INSTRUCTIONS TO CHANGE MOTOR TO RUN OPPOSITE DIRECTION

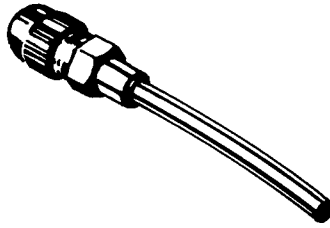
1. Remove bolts and nuts.
2. Remove end caps - being careful not to lose the endplay washers / spacers.
3. Remove rotor.
4. Refit rotor so that the shaft faces opposite direction.
5. Refit end caps - ensuring the endplay washers / spacers are correct.
6. Refit bolts and nuts.
7. Refit mounting plate.

CAUTION

**CHECK MOTOR DIRECTION BEFORE AND AFTER ANY
CHANGE AND ENSURE SMOOTH RUNNING**

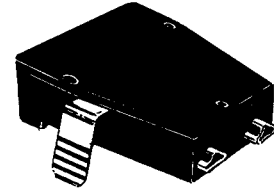


DR220
Bullet Valve

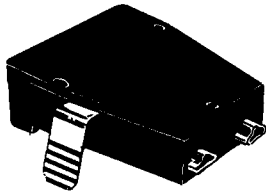


DR224
Schrader Valve 3/16" with Tail

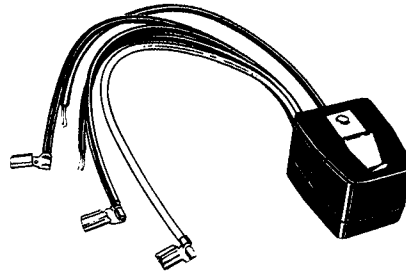
DR225
Schrader Valve 1/4" with Tail



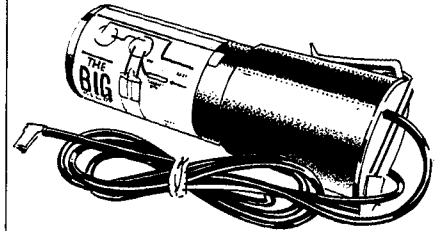
DR230
Push On
Relay Solid State 1/12 to 1/2 hp



DR231
Relay Solid State - wire on



Relay Overload -
DR232 1/12 to 1/8 hp
DR233 1/6 to 1/5 hp
DR234 1/4 to 1/3 hp



DR236
Start Relay and Capacitor
1/12 to 1/2 hp

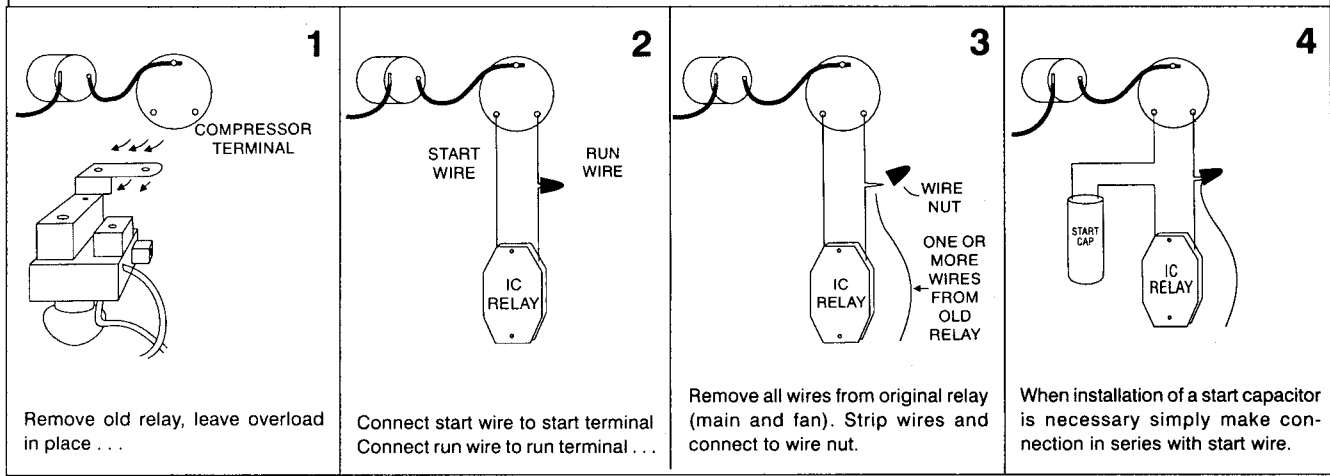
Relay Wiring Installations next Pages

DR231 WIRING DIAGRAM

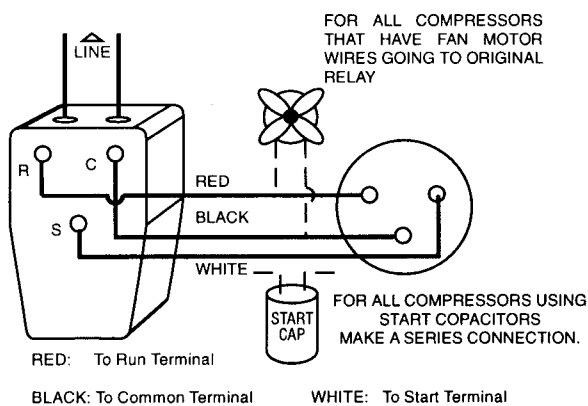
“SNAP ON” FENCE OF COMPRESSOR

“SCREW ON” USING CONVENIENT MOUNTING HOLES

WIRED WITH PUSH ON CLIPS FOR A REALLY FAST INSTALLATION

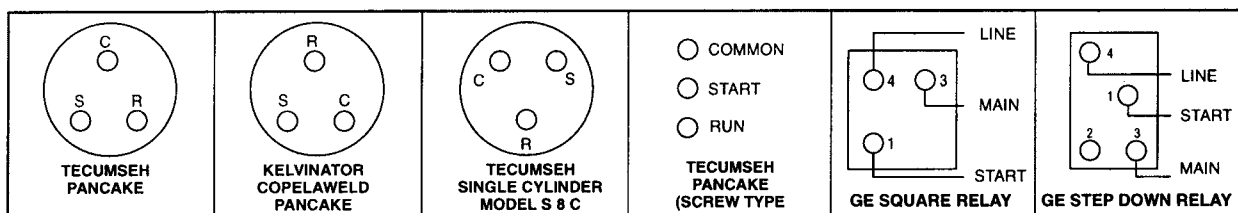


DR232, DR233 & DR234 WIRING DIAGRAM



FAST AND EASY TO INSTALL
INSTALLS IN SECONDS . . . Just clip the RO RELAY/OVERLOAD unit onto the compressor and gently but firmly push on the three connectors.

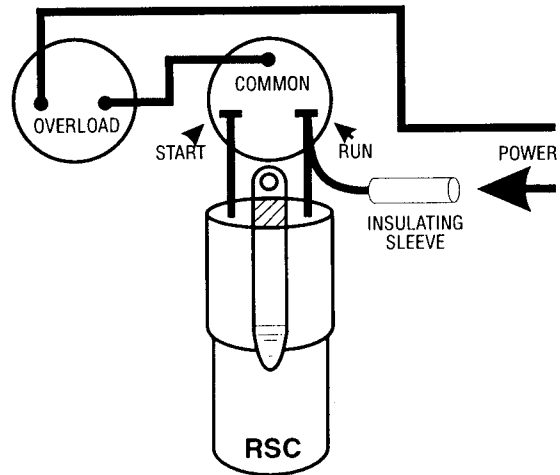
MOST COMMON TERMINAL AND RELAY ARRANGEMENTS



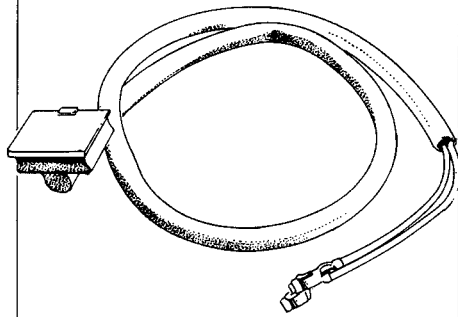
DR236 WIRING DIAGRAM

INSTALLATION INSTRUCTIONS

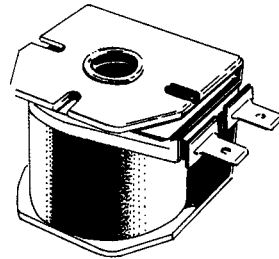
1. Remove power supply cord from outlet.
2. Remove old relay, leaving overload in place.
3. Push the wire with the one single pin terminal on to the start terminal of the compressor (see diagram).
4. Push the other wire with the pin terminal on to the run terminal of the compressor.
5. Connect the line from the old relay to the spade terminal on the run wire (insulating sleeve).



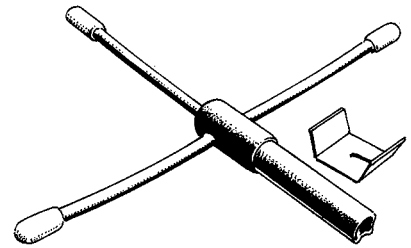
Start Relay and Capacitor 1/12 to 1/2 hp



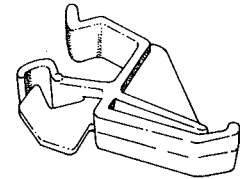
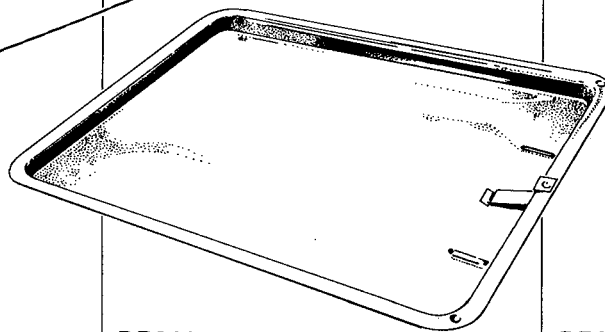
DR239
Block Heater Westinghouse



DR240
Defrost Coil 10W



DR241
Defrost Valve 3 Way

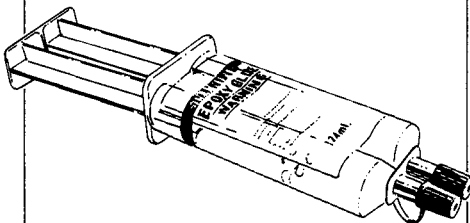


DR242
Silver Solder Brown Tip 15%

DR243
Silver Solder Blue Tip 45%

DR244
Defrost Pan - Whirlpool

DR246
Kick Plate Clip - Whirlpool

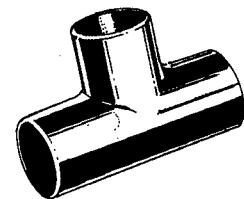


DR247B
Epoxy Repair Kit - No Heat

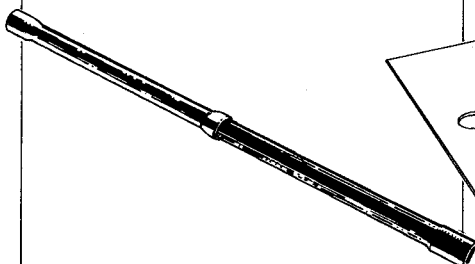
DR247R
Epoxy Repair Kit - Heat Required



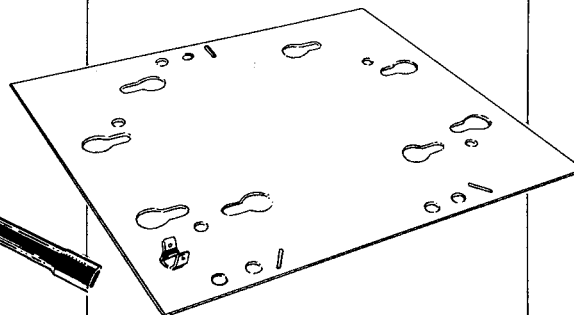
DR248
Brazing Flux 250 gm



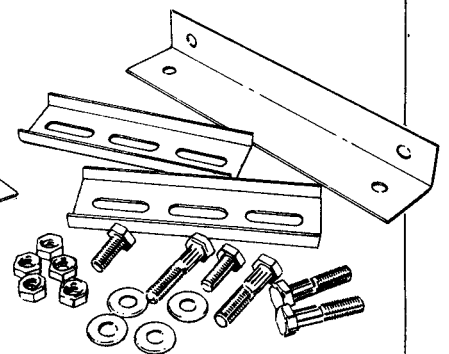
DR253
1/4" Tee - Copper



DR254 1/4"
DR255 5/16"
Aluminium to Copper Connector



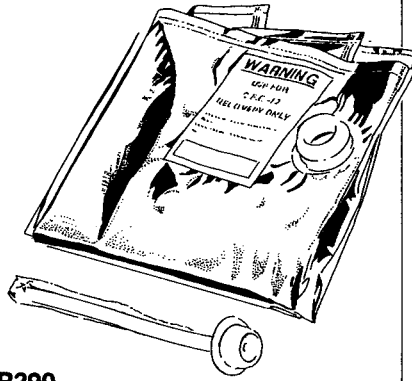
DR285
Adaptor Plate for Compressor



DR286
Adaptor Brackets for Compressor

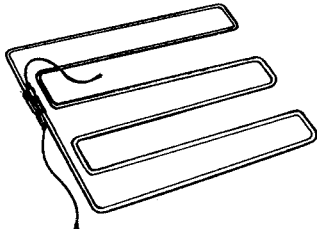
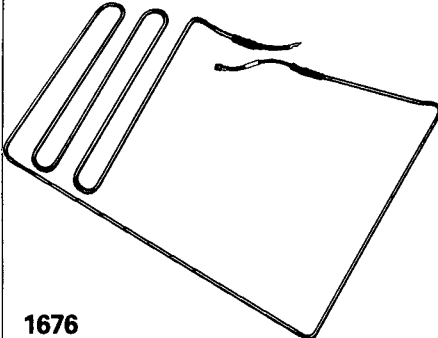
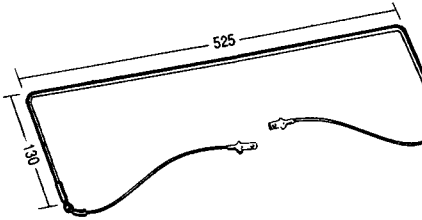
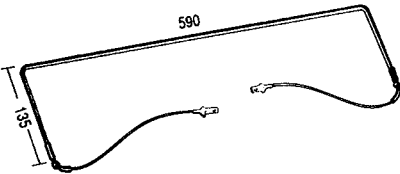
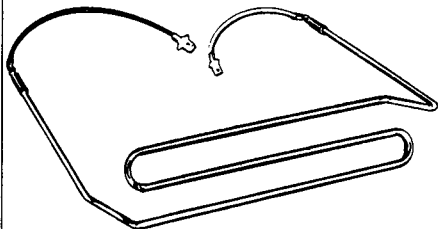
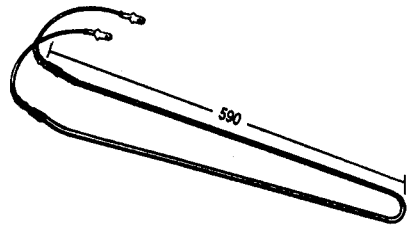
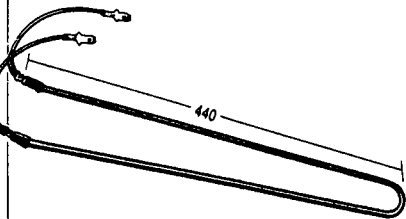
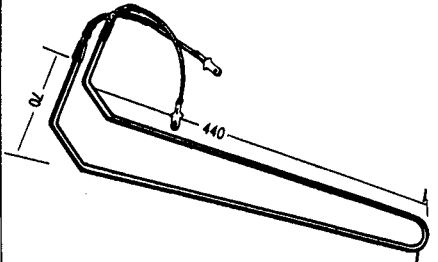
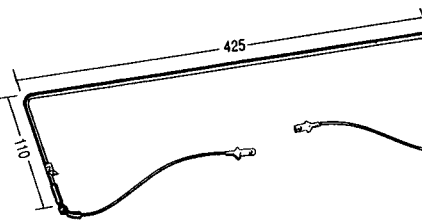
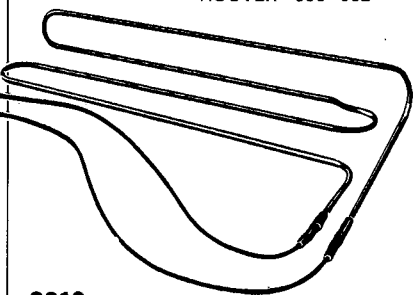
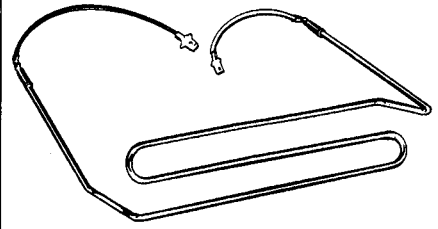
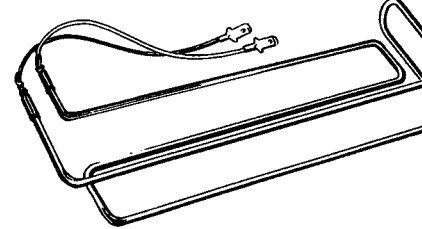


DR288
Foam Kit – 2 Part Mix 1.25kg

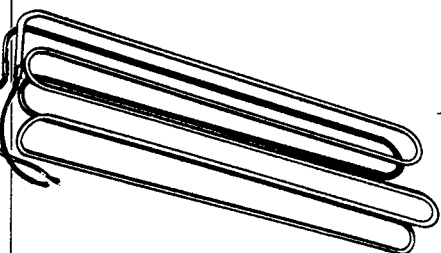
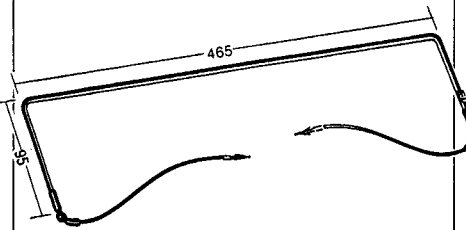
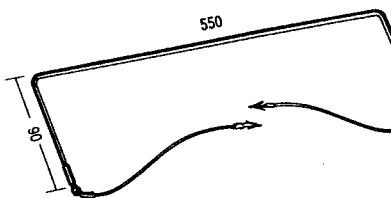
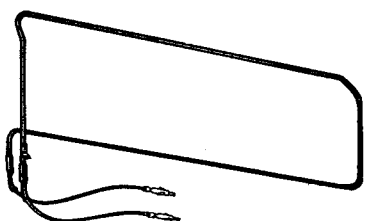
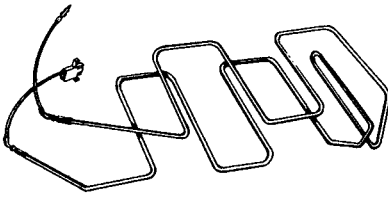


DR290
Collection Bag for R12

Defrost Elements

<p>Replaces: EMAIL - VJ620000 EMAIL - 3806 - 582 - 000 ANLIN - RF046</p>  <p>1261 Defrost Heater - 700w Whirlpool</p>	<p>Replaces: EMAIL - 729896</p>  <p>1676 Defrost Heater - 360w Westinghouse, Frigidaire</p>	<p>Replaces: EMAIL - VB070000 WESTINGHOUSE - 1400908 ANLIN - RF109</p>  <p>1825 Defrost Heater - 450w Westinghouse, Frigidaire</p>
<p>Replaces: EMAIL - VB07A000 WESTINGHOUSE - 1401208 ANLIN - RF110</p>  <p>1845 Defrost Heater - 500w Westinghouse, Frigidaire</p>	<p>Replaces: EMAIL - BY77E000 KELVINATOR - KH1463 ANLIN - RF112</p>  <p>2484 Defrost Heater - 600w Kelvinator</p>	<p>Replaces: EMAIL - VJ43B000 KELVINATOR - KH325 ANLIN - RF114</p>  <p>2584 Defrost Heater - 475w Kelvinator</p>
<p>Replaces: EMAIL - VJ43A000 KELVINATOR - KH599 ANLIN - RF113</p>  <p>2585 Defrost Heater - 350w Kelvinator</p>	<p>Replaces: EMAIL - VK430000 KELVINATOR - KH1709 ANLIN - RF115</p>  <p>3429 Defrost Heater - 500w Kelvinator</p>	<p>Replaces: EMAIL - VB07E000 WESTINGHOUSE - 1407845 ANLIN - RF111</p>  <p>3496 Defrost Heater - 350w Westinghouse, Kelvinator</p>
<p>Replaces: EMAIL - VD450000 PHILIPS - 4202 - 500 - 17830 HOOVER - 500 - 002</p>  <p>3610 Defrost Heater - 250w Hoover, Philips</p>	<p>Replaces: EMAIL - BY77B000 WESTINGHOUSE - 1408197</p>  <p>9684 Defrost Heater - 500w Westinghouse</p>	<p>Replaces: EMAIL - VA160000 EMAIL - 747844</p>  <p>9685 Defrost Heater - 330w Westinghouse</p>

Defrost Elements

<p>Replaces: EMAIL - VL190000 KELVINATOR - K1231817</p>  <p>9686 Defrost Heater - 400w Kelvinator</p>	<p>Replaces: EMAIL - 520001 FISHER PAYKEL - 872868</p>  <p>9687 Defrost Heater - 260w Fisher Paykel</p>	<p>Replaces: EMAIL - 520002 FISHER PAYKEL - 882307</p>  <p>9688 Defrost Heater - 310w Fisher Paykel</p>
<p>Replaces: EMAIL - 520000 FISHER PAYKEL - 887499</p>  <p>9689 Defrost Heater - 500w Fisher Paykel</p>	<p>Replaces: EMAIL - VK730000 KELVINATOR - K1231900</p>  <p>9691 Defrost Heater - 450w Kelvinator</p>	

DEFROST HEATER APPLICATION		
MAKE	MODEL	PART No.
Admiral	NT41F	3610
Hoover	B41TF	3610
Norge	9T41F	3610
Frigidaire	FF47A, B, E FP39A, B, C 50E SFP15P,17P	1676 1825 1845 1825
Kelvinator	450 NG3 – 500 NG3 620 NG3 FN 291T 340P, S, SD – 360T, V	9686 9691 3496 3429
	N 330P, S, SD – 350T, V – 351V – 380FME, P, S, SD 381S, SD – 400T, V – 401TA, V 450GC – 500GC	2585 2585 9686
	480FME, P, S, SD – 500T, V – 501V 609PE – 610 PA, PE, S, SD 620GC	2584 2484 9691
	630T, V – 640S, T, V NE 480S, SD, – 500T 610S, SD – 630S, T, V	2484 2584 2484
Westinghouse	FJ 291E, F – 303F, G 351D, E – 383F, G FV 431S, T	3496 1825 9685
	FVH 525 – FVJ525 – FVL525 – FVM525 FVP 525, /01, /04	9685 9685
	RJ 361S 382V, – 392B, D, E	9685 1825
	401S, T, T/01, V 412F, G, – 442F, FA, G, – 445F, FA, G 422B, D, E, EA, V, W, – 425EA	9685 1825 1825
	461S, T, T/01, – 462T, V 501B, D, E, W, – 503B, D, W, – 505EA 522F, G, – 525F, FA, G	9685 1845 1845
	RJF 140, – 142, – 145, RJG154, – 155 RJH 133, – 142, /1, – 154, /1, – 156, /1, – 173	9685 9685
	RJJ 142, /1, – 153, /1, /2, /3, /5, /01, /21, /31 156, /1, – 173, /5 RJL 142, – 153, – 156, – 172, – 174	9685 9685 9685
	RJM 142, – 153, – 155, – 156, – 172, – 174 RJP 142, /01, /04, – 156, /01, /04, – 174, /01, /04	9685 9685
	RS 471S, T, V, – 511B, S, T, V, W 512S, T, – 513B, V, W, – 514B 614D, – 615EA, – 631D, E 632F, FA, – 633F, G, – 651F, – 625F, G	1676 1676 9684 9684
	RSP 184, – 204, – 208	1676