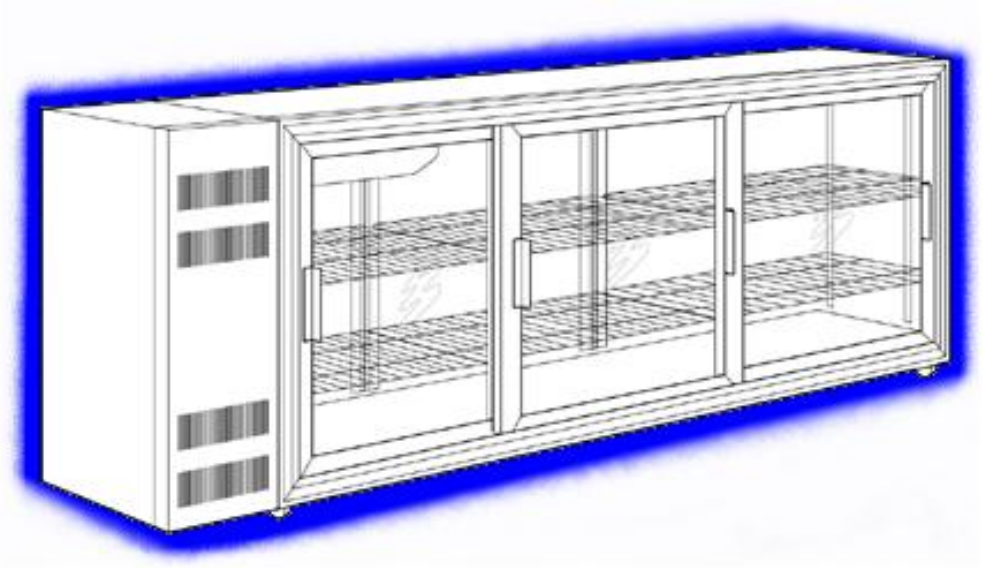
SKOPE®
Refrigeration

BACKBAR



SKOPE BACKBAR

BC410i-2, BC640i-3 & BC860i-4
Integral Underbench Chillers

Operating and Service Manual

October 2002 Edition: Rev. 2.0 MAN9811

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MAN9811

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ISO 9002

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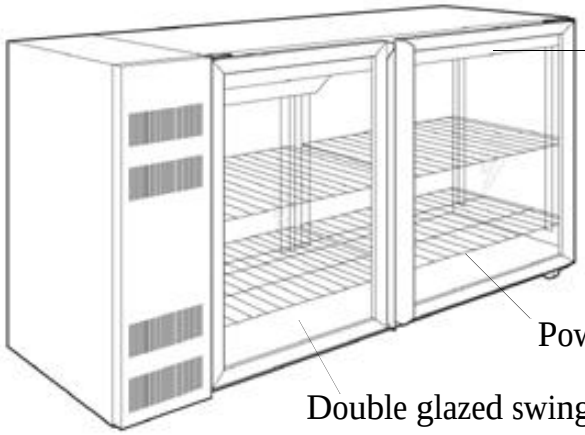
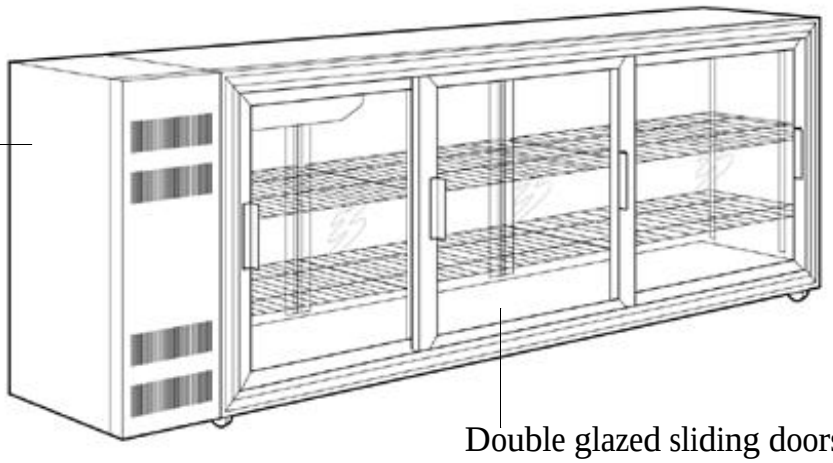
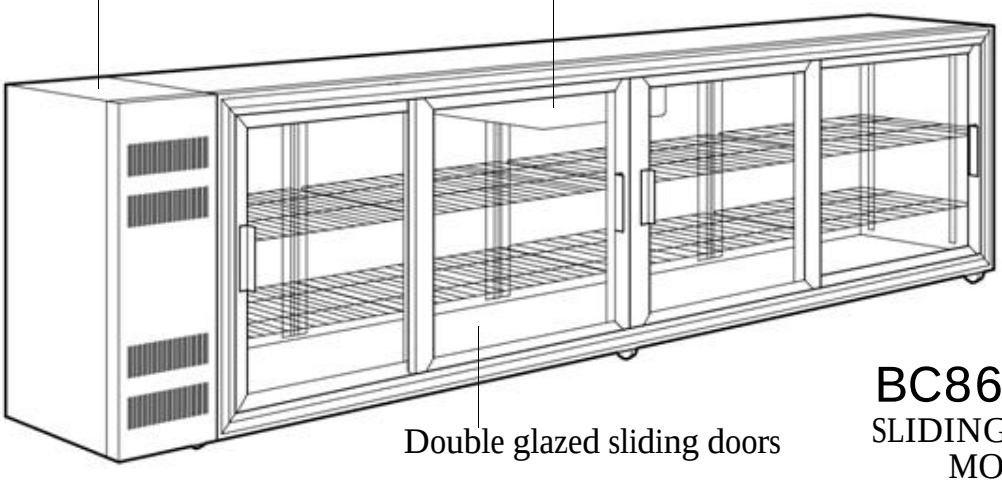


BC410i-2SW
SWING 2 DOOR
MODEL



BC640i-3SL
SLIDING 3 DOOR
MODEL



BC860i-4SL
SLIDING 4 DOOR
MODEL

SPECIFICATIONS

CABINET CONSTRUCTION						
Finish:	Stainless steel or powdercoat on galvanised steel.					
Insulation:	Polyurethane foam, R141b blowing agent.					
DIMENSIONS						
Models:	BC410i-2		BC640i-3		BC860i-4	
	2 Door Integral		3 Door Integral		4 Door Integral	
	External	Internal	External	Internal	External	Internal
Length:	1500mm	1090mm	2100mm	1690mm	2700mm	2290mm
Height:	900mm	785mm	900mm	785mm	900mm	785mm
Depth:	600mm	475mm	600mm	475mm	600mm	475mm
Floor area:	0.90m^2		1.26m^2		1.62m^2	
Volume:	412 litres		640 litres		866 litres	
REFRIGERATION						
Evap. Capacity:	411 W @ 6KTD		608 W @ 9KTD		780 W @ 6KTD	
Evap. Assembly:	Kirby KC401		Kirby KC401		Kirby KCT800	
Compressor:	Danfoss SC12G		Danfoss SC12G		Danfoss SC15G	
Product Temp:	2°C to 5°C.		2°C to 5°C.		2°C to 5°C.	
Refrigerant:	R134a		R134a		R134a	
Charge:	300 grams		300 grams		350 grams	
ELECTRICAL						
Power Supply:	220-240 Volts a.c. 50 Hz, single phase power supply.					
Rated Input:	495 Watts		520 Watts		570 Watts	
Interior Light:	1 x 36 W		1 x 58 W		2 x 36 W	
Mains Flex:	3-core flexible cord. Exits from under condensing unit.					
DOORS						
Sliding Door:	SKOPE double glazed, toughened safety glass (Low E).					
Glass Swing Door:	Self-closing, SKOPE double glazed, toughened safety glass.					
Solid Swing Door:	Self-closing, insulated, solid swing door.					

SKOPE Industries Limited reserve the right to alter specifications without notice.

INSTALLATION

POSITIONING OF MACHINE

The mains flex exits below the unit front cover. The flex should be retrieved before the machine is positioned, when walls and partitions may make access difficult.

Adequate ventilation must be provided in front of the refrigeration condensing unit for efficient operation. Maximum recommended ambient temperature 32°C.

Heat dispersion and ventilation of the SKOPE Cyclone® unit cannot be overstressed.

When sitting the machine, adequate allowance should be made for door opening. The swing doors have internal torsion bars which are pretensioned at the factory. The machine must be positioned on a level surface for the doors to shut and seal correctly, and to prevent the condensate tray from overflowing.

Avoid direct sunlight, warm draughts etc.

Remove all packaging material from the shelves, fit shelf support brackets at the desired heights and relocate shelves.

WARNING !

Never store cardboard cartons or other items in font of the refrigeration condensing unit.

ADEQUATE VENTILATION IS ESSENTIAL.

OPERATION

SAFETY INFORMATION

When using any electrical appliance, basic safety precautions should always be observed.

READ THESE INSTRUCTIONS CAREFULLY. Do not use this appliance for other than its intended use.

DO NOT OVERLOAD POWER SUPPLY.

- Use this appliance only on the voltage specified on the rating plate, or in these instructions.
- Ensure ventilation of SKOPE refrigeration unit.
- Condenser coil must be kept clean. To ensure trouble free performance, it is recommended that on a regular basis the unit be isolated from the power supply and a vacuum cleaner used to remove dust and fluff from the condenser.
- Be very careful not to touch moving parts.
- Do not cover the grilles or block the entry or exhaust of airflows.
- Do not probe any opening.
- Disconnect machine mains power supply before attempting to perform any electrical service or maintenance.
- Regulations require that all electrical work be carried out only by authorised persons. For your own safety and that of others, ensure this is done.
- If the refrigeration unit is required to be installed or removed from the cabinet, ensure all necessary safety precautions are observed.

OPERATION

OPERATION OF MACHINE

Plug in machine and check operation of the refrigeration unit and lights. Compressor, evaporator and condenser fans should all operate initially. This may be verified by listening for compressor switch on, checking air movement out of the top front unit panel slots. Compressor and condenser fan should switch off when cabinet internal temperature reaches 2°C to 5°C. The internal cabinet air will continue to circulate at all times. The cabinet interior light is permanently on, unless fitted with the optional light switch.

Ensure the door gaskets form a good seal with the cabinet.

LOADING

Shelves may be positioned at different heights to suit various products. Always ensure that the shelf clips are securely engaged in each of the four shelf support strips. Support strips are marked © + ª for easy location of shelf clips.

For even cooling and efficient operation, allow air space around packages etc.

Do not allow products to overhang the front of the shelf as this could prevent the door from shutting or cause glass breakage. Leave an airspace of at least 75mm (3") above packages etc. on the top shelf.

CLEANING

When necessary, wash both interior and exterior of cabinet with soapy water. Exterior of cabinet may be waxed with automobile polish for extra protection.

The machine must be disconnected from the mains supply before cleaning the condenser.

IMPORTANT:

Condenser coil MUST be kept clean for efficient and reliable operation. Clean with a brush and vacuum cleaner regularly.

SWING DOORS - Solid & Glass

Door Alignment

This can be achieved by releasing the bottom hinge fixing bracket. The bracket is provided with slots allowing alignment adjustment.

Door Gasket Replacement Clearence

The door gaskets simply clip into the door frame extrusion and may be removed for repair or replacement simply by peeling from frame, starting at corner. New gaskets, when fitted, may be lightly lubricated with a clear silicone grease or similar compound. This will lessen the possibility of the gasket rolling. Should the gasket be out of shape when in place, use hot air (i.e. from hair drier) to realign.

Solid Door Removal

Remove bottom hinge screw from pivot point. Unbolt bottom hinge plate and slide door down to remove from top hinge.

Solid Door Tension

The door hinge mechanism has a preset tension and is non-adjustable. Insure that the square notch in the hinge plate mates with the door hinge when replacing.

Glass Door Removal

Slacken off door tension and remove pin. Unbolt bottom hinge and drop door clear of top pivot.

Glass Door Repair

To repair torsion bar assembly, turn door upside down and pull out old torsion bar. Angle torsion bar to clear the hook at end. Replace parts as required and refit.

NOTE:

Glass replacement is not considered economical as the glass is fixed to the frame for integral strength. Door replacement is recommended.

Glass Door Tension

The door tension can be adjusted by rotating the capstan, mounted in the bottom hinge bracket. To achieve this, the split pin must firstly be removed. Two rods of approx. 2.5mm diameter should be aquired to aid this operation. Using these rods, the capstan can be rotated to provide the required tension. At this point the split pin can be re-inserted to lock torsion position.

SLIDING DOORS

Doors

The sliding doors run on rollers that engage with an extruded aluminiunm 'T' section in the door assembly. Automatic closure is by means of an adjustable tension spring at the top of the door. Note: these springs are optional and are only fitted to the two outer doors.

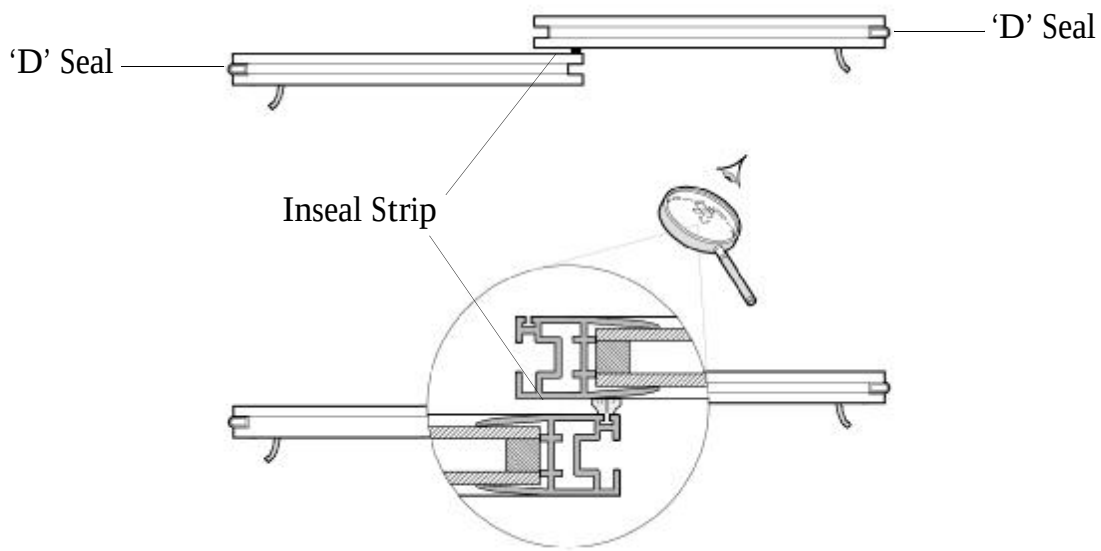
Door Removal

- Lift up the outer door, swing out the bottom and lower down.
- Disconnect door tension spring from adjustable rack in the top of door guide assembly (if fitted).
- Lift up inner door, swing out bottom and lower down.
- Disconnect door tension spring (if fitted).

Door Gasket Replacement

The vertical door gasket which seals in the side guide simply slots into place.

Between doors ann inseal strip provides the seal. This can be peeled off and replaced if damaged.



Door Gaskets

SLIDING DOORS

Door Rollers

These are located in the recess in the bottom of the door extrusion.

- Replacement is by unscrewing the roller and removing from the recess.
- Fit replacement roller and screw into place.

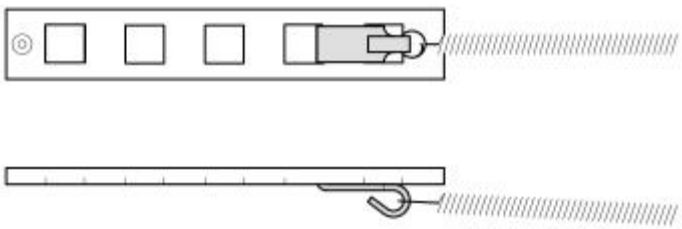
Door Tracks

- Following removal of doors, lift out inverted 'T' section.

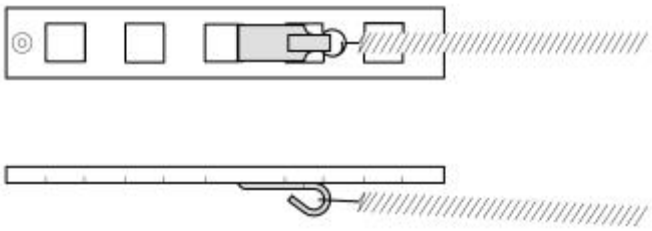
Door Closing Tension (optional)

Automatic closing outer doors can be adjusted if required. Remove door as described on previous page and move spring to the next slot.

Original Position



Increased Tension



Door Spring

INTERIOR LIGHT

Replacement

Fluorescent tube replacement is possible by rotating the tube around so that it disengages from the lamp holders.

Fluorescent starters can be found at the left hand end of each tube. Rotate to replace.

Remove evaporator housing to access the ballast/s.

The lighting circuits are protected by a 3 Amp fuse, located inside the evaporator unit. Remove evaporator housing to access.

An optional interior light switch is available and when fitted is located inside the cabinet.

REFRIGERATION UNIT

The refrigeration unit is a split integral unit, with a Kirby evaporator inside the cabinet and a SKOPE condensing unit.

Access to Refrigeration Unit

- Disconnect power supply.
- Remove the two screws on the bottom of the unit cover and loosen the two screws at the top of the cover. It will be necessary to remove the two caps on the unit cover top so as to get access to the two top screws. Slide cover down to remove.
- Four screws on the unit side can be removed and this cover removed to gain better access. Same as unit back.
- To remove evaporator cover, pull out drain and remove the fixing screws. Slide cover down.

Condenser Fan/Motor Replacement

- Disconnect power supply.
- Remove cover from control box and withdraw motor flex.
- Undo two top screws from mounting bracket, and remove complete assembly.

Evaporator Fan/Motor Replacement

- Disconnect power supply.
- Remove evaporator cover.
- Remove cover from control box and withdraw motor flex.
- Undo screw from mounting bracket, and remove complete assembly.

Thermostat

- This is pre-set to give an internal air temperature of 2°C to 5°C and in normal circumstances should not be adjusted.
- To make colder, turn clockwise. To make warmer, turn anti-clockwise.

REFRIGERATION UNIT

Thermostat Replacement

- Disconnect power supply.
- Remove evaporator cover.
- Withdraw the thermostat capillary from the evaporator, noting the length and position in the coil.
- Remove control box cover.
- Remove thermostat and replace ensuring that the capillary is in the same position as the original.
- Run cabinet and check operating temperatures.

Defrost Timer

The defrost timer is located on the control box behind the unit cover. It is factory set to provide a half hour defost every 6 hours.

To alter the number of defrosts and time of defrost, pull or push out the 15 minute segments around the timer control, as required.

REFRIGERATION UNIT

Recommended Service Procedures

Short of refrigerant:

A leak test (refrigerant / dry nitrogen mix, up to 250 psig) should be performed to locate the leak. If no leak is found, a pressure test should be performed (dry nitrogen only, up to 250 psig) if there is no pressure drop over 24 hours, the fault should be treated as a capillary restriction.

Compressor not pumping efficiently:

Where the frosting effect is not as cold as it should be. Symptoms include: compressor body hotter than normal, condenser cooler than normal, and the compressor may make an unusual hissing sound. All of these symptoms depend on the severity of the problem.

The only way to prove a pumping problem is to perform a compressor pump-down test: Remove refrigerant, braze closed compressor suction line, open discharge line; then run the compressor to pull a vacuum on a vacuum gauge.

The compressor should pull down to approximately 30" (inches) vacuum then turn the compressor off and this vacuum must be held without any loss for 5 minutes. If the Compressor does not pass these tests; it is not pumping efficiently and must be replaced.

There are different methods to proving pumping efficiency. If the test is performed with a system charged with refrigerant, a deep vacuum will not be achieved.

Capillary restriction:

With a totally blocked capillary, there will be no refrigeration effect. A partially blocked capillary may have similar symptoms to a system being short of refrigerant. Flush a restricted capillary with dry nitrogen. If the capillary will not clear, it must be replaced.

Every time the refrigeration system is opened the drier must be replaced with a solid core type drier (SKOPE Part No. DRY6110), to remove contaminants which may have entered the system due to a system failure or during service.

The unit must be fully evacuated and charged to the volume of refrigerant indicated on the unit serial label. All service lines must be purged.

Finally, pinch-off the gauge process lines (or remove line piercing valves) and braze the system closed. SKOPE recommend against leaving service valves in the system as these are prone to leak (and are open to abuse). Perform a final system leak test.

REFRIGERATION UNIT

Refrigerant R134a Handling Precautions

It it necessary to maintain dedicated HFC service equipment and parts:

- Refrigeration gauges
- Service lines / Fittings
- Vacuum Pump
- Charging equipment
- Driers
- Compressors
- Temperature / Pressure chart

HFC (R134a) refrigeration systems require special service procedures because of the highly hygroscopic (moisture sensitive) polyolester compressor oil:

- The system (especially compressor) must only be open for the very minimum time (to prevent moisture ingression). All parts required for servicing must be at hand; before the system is opened, and there should be no interruption until the system is on the vacuum pump (or hermetically sealed). The system must not be open for longer than 20 minutes maximum.
- The drier must be replaced every time the system is opened.
  SKOPE Part No. DRY6110.
- Clean work practices are essential.
- SKOPE recommend brazing the system closed after service; as valves are prone to leak due to the nature of R134a.

REFRIGERATION UNIT

High Pressure Switch

SKOPE R134a refrigeration units now feature a High Pressure Switch as standard. The purpose of the new pressure switch is to protect the refrigeration system from damage due to over pressure (temperature) conditions.

The pressure switch is recommended for cabinets in high ambient conditions.

This pressure switch is manually resettable, non-adjustable type. It is mounted in the condenser control box, beside the 24 hour timer, being visually obvious by its resetting red button.

The pressure switch is factory set to cut out at 2400kPa (350psig); and will not reset unless its red button is depressed.

The cabinet can be identified by a pressure switch warning label in the cabinet. It is important that the customer is aware of this label, and what it means.

If all cabinet lighting turns off, a refrigeration fault exists.

1. Check and confirm power supply to chiller (check circuit breakers etc.).

2. Once power supply is confirmed; call in a service technician who will remedy fault and reset the High Pressure Switch.

The condenser radiator must be:

- Regularly cleaned (from dust etc.).
- Not restricted (from boxes, paper, bags etc. on top of cabinet).
- Adequately ventilated: minimum of 700mm unobstructed clearance in front of the condenser unit, and maximum ambient air temperature should not exceed 32°C.

The customer will be quickly alerted to a fault by the fact the lights are not working.

The cause of the fault can be determined by the refrigeration technician who, once eliminating the fault, will rest the pressure switch.

Note:

The part number for the High Pressure Switch is ELS8505.

PRESSURE TEMPERATURE CHART

TEMPERATURE		R134a	
°F	°C	KPa	psig
-29.2	-34	-32	9.4
-27.4	-33	-28	8.4
-25.6	-32	-25	7.3
-23.8	-31	-21	6.2
-22.0	-30	-17	5.0
-20.0	-29	-13	3.8
-18.4	-28	-9	2.6
-16.6	-27	-4	1.3
-14.8	-26	0	0.0
-13.0	-25	5	0.7
-11.2	-24	10	1.4
-9.4	-23	15	2.2
-7.6	-22	20	2.9
-5.8	-21	26	3.7
-4.0	-20	31	4.5
-2.2	-19	37	5.4
-0.4	-18	43	6.3
1.4	-17	49	7.2
3.2	-16	56	8.1
5.0	-15	63	9.1
6.8	-14	69	10.0
8.6	-13	77	11.0
10.4	-12	84	12.0
12.2	-11	91	13.0
14.0	-10	99	14.0
15.8	-9	107	16.0
17.6	-8	116	17.0
19.4	-7	124	18.0
21.2	-6	133	19.0
23.0	-5	142	21.0
24.8	-4	151	22.0
26.6	-3	161	23.0
28.4	-2	171	25.0
30.2	-1	181	26.0
32.0	0	192	28.0
33.8	1	202	29.0
35.6	2	213	31.0
37.4	3	225	33.0
39.2	4	237	34.0
41.0	5	249	36.0
42.8	6	261	38.0
44.6	7	274	40.0
46.8	8	287	42.0
48.2	9	300	44.0
50.0	10	314	46.0

TROUBLE SHOOTING CHART

Complaint	Possible Cause	Repair
1. Compressor will not start - no hum.	Fuse removed or blown, no power.	Replace fuse, Check reason.
	Overload protector tripped.	Refer to electrical section.
	Thermostat stuck in open position.	Repair or replace control.
	Thermostat off due to cold location.	Relocate control.
	Wiring improper or loose.	Check wiring against diagram.
2. Compressor will not start - hums but trips on overload protector.	Improperly wired.	Check wiring against diagram.
	Low voltage to unit.	Determine reason and correct.
	Start capacitor defective on CSIR or CSR motor.	Determine reason and replace.
	Run capacitor defecive on PSC motor.	Determine reason and replace.
	Relay failing to close,	Determine reason and correct, replace if necessary.
	Compressor motor has a winding open or shorted.	Check resistance values. Replace compressor if necessary.
	Internal mechanical trouble in compressor.	Replace compressor.
3. Compressor starts, but does not switch off - starts winding.	Improperly wired.	Check wiring against diagram.
	Low voltage to unit.	Determine reason and correct.
	Relay failing to open, due to welded contacts or relay incorrectly mounted.	Determine reason and correct, replace if necessary.
	Run capacitor defective on CSR motor.	Determine reason and replace.
	Excessively high discharge pressure.	Clean condenser.
		Check power input watts.
		Possible overcharge, insufficient condenser cooling, or non-condenible gasses.
	Compressor motor has winding open or shorted. Check continuity and resistance.	Replace compressor if faulty.
	Internal mechanical trouble in compressor (tight). May be lubrication.	Replace compressor.

TROUBLE SHOOTING CHART

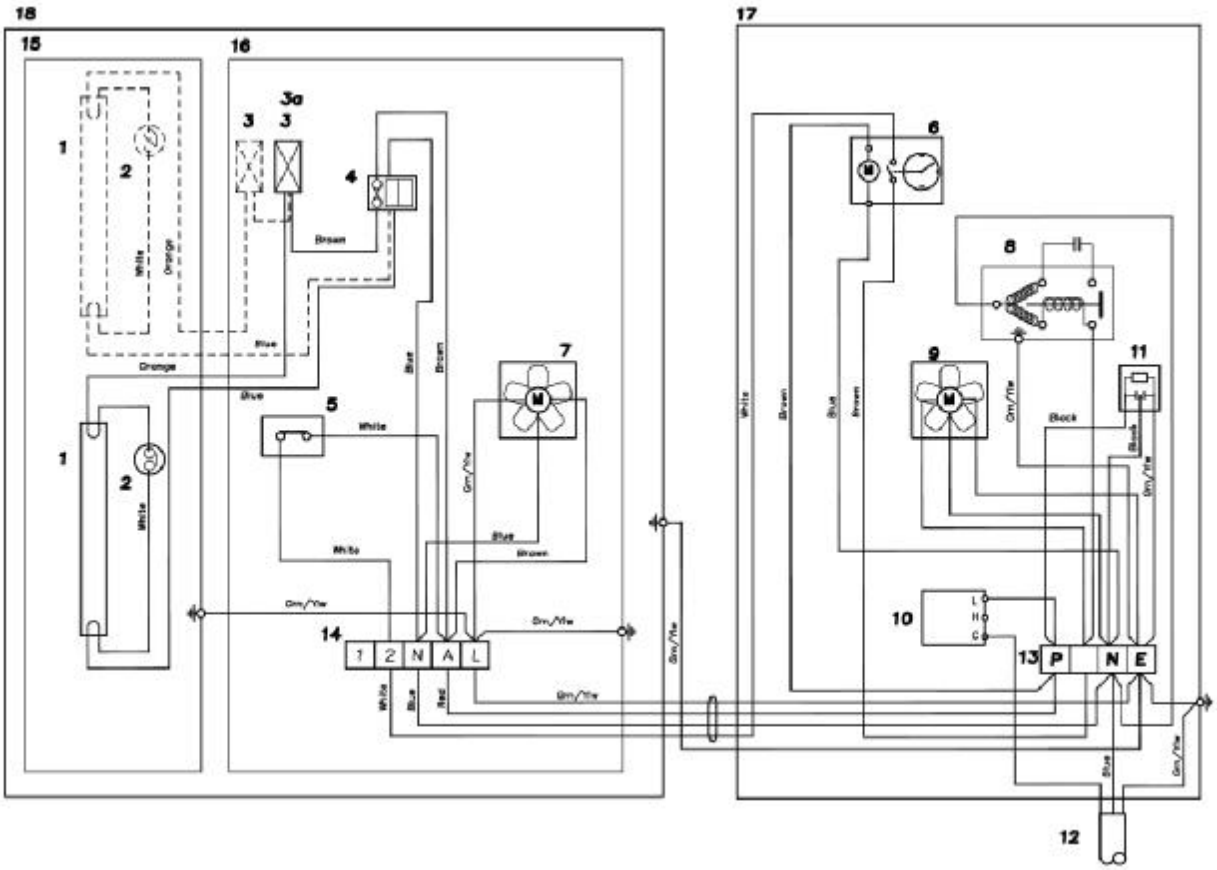
Complaint	Possible Cause	Repair
4. Compressor starts and runs but short cycles on overload protector (relay may chatter on RSIR, CSIR and CSR motors).	Additional current passing through overload protector.	Check wiring diagram. Check for added fan motors etc., connected to wrong side of protector.
	Low voltage to unit.	Determine reason and correct.
	Overload protector defective.	Check current, replace protector.
	Run capacitor defective on CSR motor.	Determine reason and replace.
	Excessive discharge pressure.	Clean condenser, check ventilation, check for restrictions in refrigeration system.
	Suction pressure too high.	Check for possibility of misapplication.
	Compressor too hot - insufficient suction gas cooling.	Check refrigerant charge (fix leak), add if necessary. Check return vapour temperature and suction superheat.
	Compressor motor has a winding shorted.	Replace compressor.
5. Unit runs OK, but short cycles.	Overload protector.	See 4 above.
	Thermostat: requires adjustment or incorrectly positioned.	Adjust or relocate thermostat.
	Incorrect refrigerant charge.	Adjust refrigerant charge.
6. Unit operates long or continuously. Unsatisfactory cabinet temperature.	Short of refrigerant.	Fix leak, add charge.
	Overcharge of refrigerant.	Remove refrigerant to correct charge.
	Thermostat not cooling correctly.	Adjst thermostat (clockwise colder).
	Chiller has excessive load.	Establish load within limits.
	Evaporator coil iced.	Defrost evaporator, check refrigeration.
	Restriction in refrigeration system.	Determine location and clear restriction. Flush with dry nitrogen. Replace component if blockage will not clear.
	Dirty condenser.	Clean condenser. Advise client how to regularly clean condenser.

TROUBLE SHOOTING CHART

Complaint	Possible Cause	Repair
6. (continued) Unit operates long or continuously. Unsatisfactory cabinet temperature.	Inadequate air circulation.	Internal: Improve air movement, allow airflow around stock. External: Remove any restrictions to condensing ventilation.
	Compressor not pumping efficiently.	Replace compressor.
	Filter dirty (if applicable).	Clean or replace.
	Faulty fan motor.	Check rotation. Replace if necessary.
7. Start capacitor open, shorted or blown.	Relay contacts not opening properly.	Clean contacts or replace relay if necessary.
	Prolonged operation on start cycle due to: (a) Low voltage to unit.	(a) Determine reason and correct.
	(b) Improper relay.	(b) Replace.
	Excessive short cycling.	Determine reason for short cycling (see 5 above), and correct.
	Improper capacitor.	Determine correct size and replace.
8. Relay defective or burned out.	Incorrect relay.	Check and replace.
	Line voltage too high or too low.	Determine reason and correct.
	Excessive short cycling.	Determine reason for short cycling (see 5 above), and correct.
	Relay being influenced by loose vibrating mount.	Remount rigidly.
9. Suction line frosted.	Evaporator fan not running.	Determine reason and correct.
	Overcharge of refrigerant capillary systems.	Correct charge.
10. Unit noisy.	Loose parts or mountings.	Find and tighten.
	Tubing rattle.	Reform to be free of contact.
	Bent fan blade causing vibration.	Replace blade.
	Fan motor bearings worn.	Repalce motor.

WIRING DIAGRAM

All Models



WIRING DIAGRAM

All Models

Item	Part Description
1	36 Watt Fluorescent Tube
2	Fluorescent Starter
3	36 Watt Ballast - 2 & 4 door
3a	58 Watt Ballast - 3 door
4	3 Amp Fuse
5	Thermostat
6	24 Hour Timer
7	Evaporator Fan
8	Compressor
9	Condenser Fan
10	High Pressure Switch
11	R.F.I. Suppression Capacitor
12	Mains Supply Flex
13	4-way Terminal Block
14	Danfoss Terminal Box
15	Cabinet Light Assembly
16	Evaporator Assembly
17	Unit Assembly
18	Cabinet Assembly

Note: Lighting circuit shown dotted indicates additional light used on 4 door model only.

DOORS

Part Description	BC410i-2	BC640i-3	BC860i-4
SLIDING DOORS			
Outside Door Assembly - L/H	B9702/D23L	B9702/D23L	B9702/D23L
Outside Door Assembly - R/H	B9702/D23R	B9702/D23R	B9702/D23R
Centre Door Assembly	n.a.	B9703/D23	2 x B9704/D23
Door Wheels	SXX7078	SXX7078	SXX7078
Door Seal Gasket	RUE7122-0760	RUE7122-0760	RUE7122-0760
Wiper Seal	RUE8849	RUE8849	RUE8849
GLASS SWING DOORS			
Glass Door Assembly - L/H	B9702/D01L	B9702/D01L	B9702/D01L
Glass Door Assembly - R/H	B9702/D01R	B9702/D01R	B9702/D01R
Glass Door Gasket	GKT8659	GKT8659	GKT8659
Torsion Bar	REF5679	REF5679	REF5679
SOLID SWING DOORS			
Solid Door Assembly - L/H	B9702/D40	B9702/D40	B9702/D40
Solid Door Assembly - R/H	B9702/D41	B9702/D41	B9702/D41
Solid Door Gasket	GKT9222	GKT9222	GKT9222
Bottom Hinge Mechanism	HIN5780	HIN5780	HIN5780

Note: Specify finish when quoting part numbers. i.e. White, Black etc.

CABINET

Part Description	BC410i-2	BC640i-3	BC860i-4
INTERIOR LIGHT			
Fluorescent Tube	ELL5420	ELL8103	2 x ELL5420
Ballast	ELZ1238	ELZ6267	2 x ELZ1238
Starter	ELZ2840	ELZ2840	2 x ELZ2840
Lamp Holder	ELZ6270	ELZ6270	2 x ELZ6270
Starter Holder	ELZ5485	ELZ5485	2 x ELZ5485
3 Amp Ceramic Fuse	ELZ6467	ELZ6467	ELZ6467
Fused Connector Block	ELZ6461S	ELZ6461S	ELZ6461S
Fuse Holder	ELZ6462	ELZ6462	ELZ6462
CABINET			
Outer Wire Shelf	2 x B9702/160	2 x B9702/160	2 x B9702/160
Centre Wire Shelf	n.a.	B9703/160	2 x B9703/160
Shelf Clip	V0973-99	V0973-99	V0973-99
Standard Castors	SXX4339	SXX4339	SXX4339
Lockable Castors	SXX4539	SXX4539	SXX4539
Bench Top	B9722/125	B9723/125	B9724/125

Note: Specify finish when quoting part numbers. i.e. White, Black etc.

SPARES

REFRIGERATION UNIT

Part Description	BC410i-2	BC640i-3	BC860i-4
CONDENSER UNIT			
Compressor	CPR6108	CPR6108	CPR7344P
Condenser Fan Motor	ELM5304	ELM5304	ELM5304
Condenser Fan	FAN4512	FAN4512	FAN4100
Condenser Coil	CLS4496	CLS4496	CLS8140
Drier - Production	DRY8783	DRY8783	DRY8783
Drier - Service	DRY6110	DRY6110	DRY6110
Start Capacitor	ELC2369NC	ELC2369NC	ELC2369NC
Relay	ELR2729NC	ELR2729NC	ELR2729NC
R.F.I. Suppression Capacitor	ELC8068	ELC8068	ELC8068
High Pressure Switch	ELS8505	ELS8505	ELS8505
EVAPORATOR UNIT			
Thermostat	ELO2284	ELO2284	ELO2284
Kirby Evaporator	REF8389	REF8389	REF8970
24 Hour Timer	ELZ7168	ELZ7168	ELZ7168