



SMC Chiller Service and Support Strategy

Product information and support stream for Chep Australia

June, 2016



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1. Purpose of Document

The intent of this document is to outline the aftersales service support offered for the SMC Chiller range. This strategy includes the SMC process workflow, information collection check list, names of ANZ service agencies, spare parts lists, installation and operations manuals, and maintenance schedules.

This information is provided to ensure continuous and reliable chiller operation with the purpose of minimising production disruption.

2. Servicing Work Flow

The following workflow represents the SMC processes associated with Thermo-Chiller servicing and repair. This workflow considers the steps associated with the warranty status of the product.

Note:

This workflow is intended for internal (SMC) use and is used in conjunction with documents 1) QA013 (Product Failure) and 2) QA097 (Items for Repair or Service)



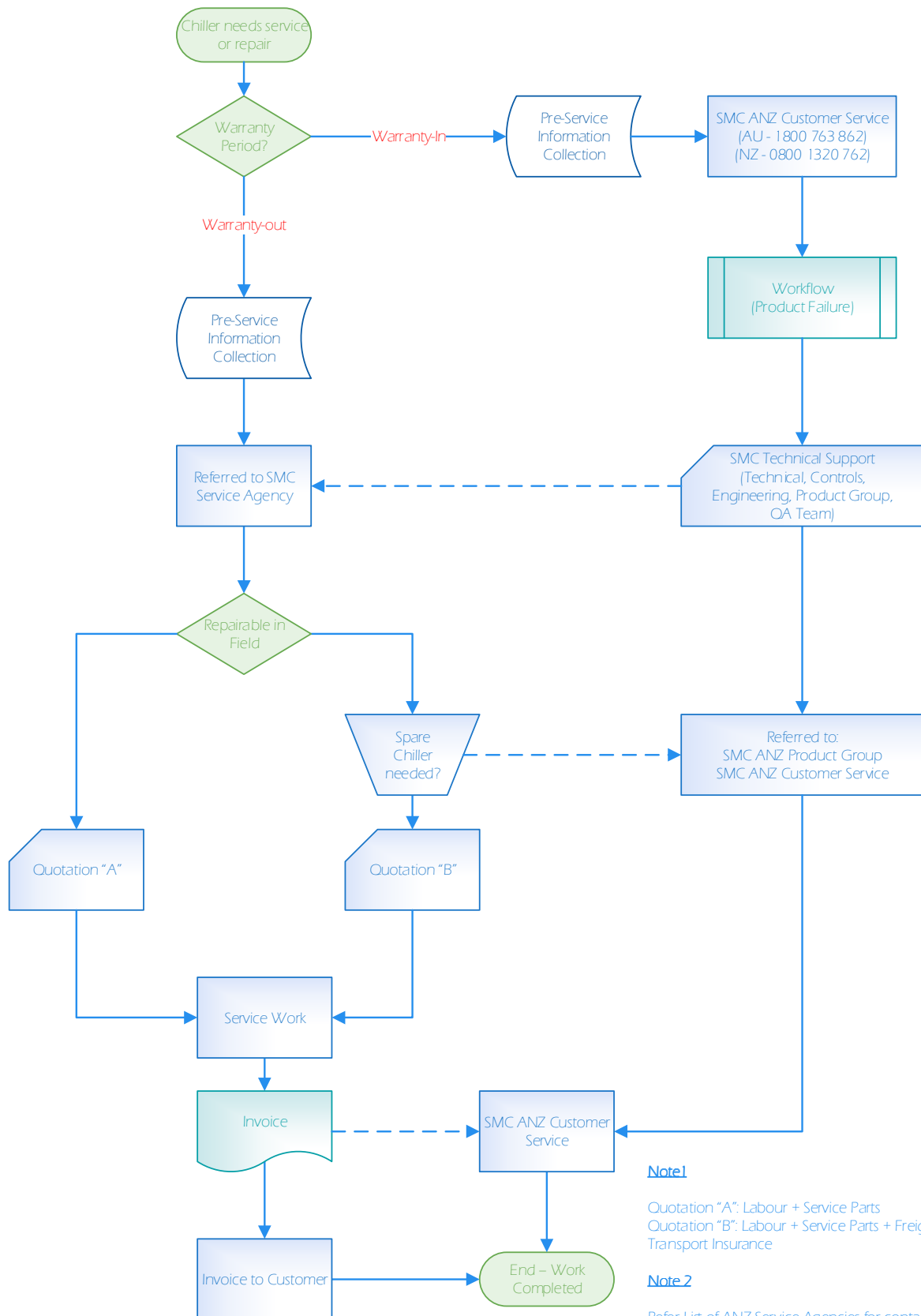
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SMC ANZ

Thermo-Chiller Service Work Flow



Note 1

Quotation "A": Labour + Service Parts
Quotation "B": Labour + Service Parts + Freight + Transport Insurance

Note 2

Refer List of ANZ Service Agencies for contact details



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3. Definition of Warranty for SMC Temperature Control Equipment

Conditions of warranty

When a non-conformance should take place to our temperature control equipment, we will repair the unit without charge in accordance with our current terms and conditions. This free repair covers the replacement of all nonconforming parts, their adjustment, and checks. Please note that the disassembled parts will be the property of SMC.

Period of warranty

The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.

Items out of warranty

The following cases are not subject to warranty.

- a. Non-conformance caused by implementing no check-up (daily check-up, regular check-up) specified by SMC.
- b. Non-conformance caused by the usage other than stipulated in the operating manual or outside the specification designated by SMC.
- c. Non-conformance caused by remodelling which is not permitted by SMC.
- d. Non-conformance caused by the usage other than the specified circulating fluid or facility water.
- e. Non-conformance caused by elapsing. (painted surface, plated surface discoloured naturally)
- f. Sensuous phenomenon which is not affected functionally (sound, noise, vibration, etc.)
- g. Non-conformance caused by natural disasters such as earthquake, typhoon, water disaster, accidents, or fire hazard.
- h. Non-conformance caused by the installation environment stipulated in the operating manual.
- i. Non-conformance caused by no observation to the following 5, "Items to be observed by customer".

Exemption from liability

- a. Cost for daily check-up, regular check-up.
- b. Cost for repair by a third party other than the designated distributors or agents.
- c. Cost for moving this unit and installation or dislocation.
- d. Cost for replacement or replenishment of the component parts or liquid other than specified.
- e. Cost for inconvenience or loss caused by not being able to use the unit. (Telephone charge, warranty for job suspension, commercial loss, etc.)
- f. Cost or compensation, etc. stipulated other than the above 1. "Conditions of warranty."

Items to be observed by customer

In order to use this product safely, the correct usage and check-up by customer are necessary. Please be sure to observe the following things. Please note that we may decline the repair request upon warranty in case that the following things are not observed.

- a. Use the unit in accordance to the proper handling as mentioned in the Operation Manual.
- b. Conduct inspection and maintenance (daily check-up, regular check-up) as mentioned in the Operation Manual.
- c. Record the inspection and maintenance results as mentioned in the Operation Manual.

How to ask a repair upon warranty

When a warranty repair is requested, please contact the nearest sales distributor. With this, we will repair the unit upon warranty.

We promise a repair for free on the basis of the above mentioned periods or terms. Therefore, non-conformance occurred after the warranty period will be charged in principle.

4. Pre-Service Information Collection Checklist

The implementation of a data collection checklist provides reduced response time in actioning your servicing requirements for select chillers. This checklist considers operating parameters and fault indication; which provides for a planned response. This checklist is to be used in conjunction with documents 1) QA013 (Product Failure) and 2) QA097 (Items for Repair or Service)



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Pre-Service Information Collection

Date: _____ Person: _____

Company name:	
Contact person:	
SMC Sales branch:	
Salesperson:	

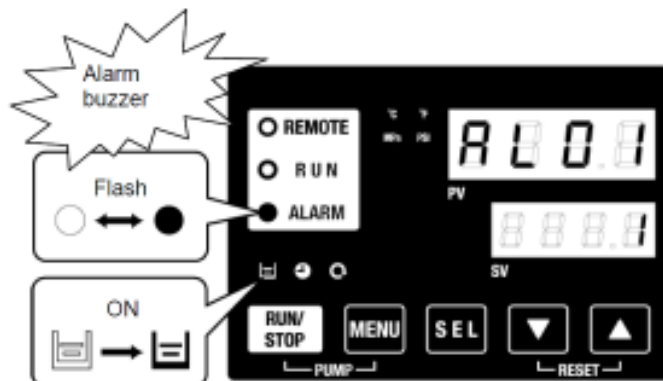
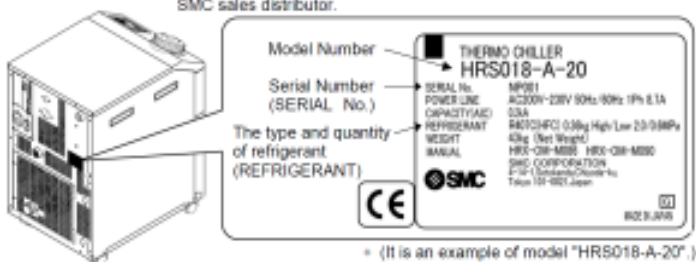
Chiller model:	
Serial number	

Alarm code:	
Failure description:	

Ambient temp:	
Circulating fluid type:	
Set temp:	
Flow rate:	
Outlet pressure:	

Cooling object (application)	
Duration of service:	
Repair history:	
Other info if have:	

Information about the product, such as Serial No. and Model No. can be found on the model label. This information is needed when contacting an SMC sales distributor.



The display panel provides alarm No. indication and can be identified in the PV window.

When multiple alarms are generated, the alarms are displayed one by one by pressing the [SEL] key



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5. List of ANZ Service Agencies

	SMC - ANZ Customer Service	SMC Technical support		SMC recommended Service Companies (Refrigeration & Mechanical Service companies)			
State	Contact 1	Contact 2	Tel	Name	Contact	Tel	Address
NSW	Customer Service: 1800 763 862	Ming LIU	+61 2 9354 8222	Tempest Solutions Air & Mechanical Pty Ltd	DAVE SALMON	0414 901 290 (02) 9838 9811	25/14-16 Stanton Rd, Seven Hills, NSW, 2147
				Airflow Mechanical Services	Scott Prideaux	0450 745 366	Rouse Hill, NSW, 2155
				Hawkesbury Refrigeration	Clayton	02 4577 5233	514 George Street, South Windsor, NSW, 2756
VIC	Customer Service: 1800 763 862	Stuart Quenette	+61 3 8540 6838	Arconn Refrigeration Pty Ltd	Rod Conn	039742 6424 0418337384	Werribee VIC 3030
QLD	Customer Service: 1800 763 862	Les Clark	+61 7 3623 5362	Dewars refrigeration	Andrew and Erin Ison	(07) 3277 4199	14 Leeds Street, Rocklea, QLD 4106
SA	Customer Service: 1800 763 862	Stuart Quenette	+61 3 8540 6838				
WA	Customer Service: 1800 763 862	Darryl Knaap	+61 8 9475 1030	SRA Commercial Refrigeration	Darren Dwyer	1300772669	3/7 Collingwood St, Osborne Park 6017
				Melvyn Chandy	Melvin Chandy	0420936763	
AK	Customer Service: 0800 1320 762	Ali Babaei	+64 9 573 7007				

6. HRS Thermo Chiller Installation and Operation Manual

Figure 1 provides detailed information on Chiller installation and operating instructions. The key areas outlined in this document include Safety Instructions, Name / Function of parts, Transporting and Set-up, Start-up procedures, Display / Setting functions and Alarms.

Note: SMC is of the understanding that the existing HRS Thermo-chiller installations are in accordance to these guidelines.



Figure 1: HRS Chiller Installation & Operation Manual (Embedded Document)

7. Scheduled Maintenance Service Manual

To ensure optimum performance of the SMC HRS Thermo Chiller, it is important that inspection and maintenance is performed as outlined in figure 2. This document provides content and timeline guidelines for the maintenance of the thermo-chiller to keep the product operable.

Note: This data does not indicate guaranteed period of operation for the thermo-chiller.



Figure 2: Maintenance Schedule (Embedded Document)

8. Parts Committed To Be Stocked by SMC

In providing Chep with ongoing support and uninterrupted supply of service parts, SMC commits to hold minimum stock levels as outlined in table 1. These items will be stored in our Castle Hill “National Warehouse” facility which is the home to approximately \$25M in stocked items.

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HRS050-A Service Parts		
Part Number	Description	Quantity
HRS-S0001	Dustproof filter	1
HRS-S0007	Temperature Sensor	1
HRS-S0011	Pressure sensor(for circulating fluid)	1
HRS-S0012	Pressure sensor(for low pressure)	1
HRS-S0014	Level Switch	1
HRS-S0024	Fuse(5pcs)	2
HRS-S0088	Pump	2
HRS-S0099	Fan	2
HRS-S0183	Pressure sensor(for high pressure)	1
HRS-S0340	Electronic Expansion Valve(For heating)	1
HRS-S0341	Electronic Expansion Valve(For Cooling)	1
HRS-S0382	Condenser(For air-cooling type)	1
HRZ-S0227	Filter Drier	1

Table 1: Stocked Parts Committed to by SMC

9. Suggested Inventory to be Stocked by Chep

The recommended parts to be stocked by Chep are identified in table 2. These items will provide Chep with parts to conduct self-servicing or utilise one of the SMC service agencies. By carrying these service parts at your facility provides immediate access to component which minimises operational delays.

Note: SMC is able to provided updated pricing for these items upon request.

HRS050-A Service Parts(recommended)		
Part Number	Description	Qty
HRS-S0001	Dustproof filter	1
HRS-S0024	Fuse(5pcs)	1
HRS-S0088	Pump	2
HRS-S0099	Fan	2

Table 2: List of service parts to be stocked by Chep

10. HRS Thermo-Chiller Service and Repair Manual

The Thermo-chiller service manual (Figure 3) provides detailed step by step instructions on servicing the Thermo-chiller. This includes; safety instructions, component identification, alarm indications and troubleshooting.

Note: Thermo-chiller servicing should be conducted by technically competent and licensed personnel.



HRS050 and HRS060
Service Manual(HRX-I

Figure 3: Thermo-Chiller Service Manual (Embedded Document)

11. HRS Thermo-Chiller Catalogue Information

The product catalogue figure 4 provides additional information which may not be available in the previous documents. This document provides information on product range, typical features, schematic and general operation, variations, options, application examples, how to order, specifications and model selection guide.



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Figure 4: Thermo-Chiller catalogue information (Embedded Document)