

CD 150

RACK CONVEYOR DISHWASHER



Operator Manual

Foreword

User documentation

Please read this manual and keep it in a safe place for future reference.



WARNING

Before installation and commissioning, you must read the safety instructions and warnings carefully and all the warning labels attached to the equipment.



IMPORTANT

Failure to comply (even partially) with the instructions given in this manual will invalidate the product warranty and relieves the manufacturer of any responsibility.



IMPORTANT

The alteration of machine operation, design or the replacement of parts not approved by the manufacturer may void warranties and approvals.

Warranty Registration

Complete the information below for quick reference.

Model Number _____ Serial Number _____

Purchased from _____ Date of Purchase _____

If you require further information regarding authorised service providers or recommended detergent suppliers in your region, or have any other queries, please do not hesitate to contact us.



IMPORTANT

TO VALIDATE YOUR WARRANTY, PLEASE COMPLETE AND RETURN THE WARRANTY REGISTRATION CARD WITHIN 30 DAYS FROM THE DAY OF PURCHASE.

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Manufactured in
New Zealand by

WASHTECH®

24HR Service 09 829 0923

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PO Box 90548, Auckland

Safety Instructions



WARNING

Equipment contains dangerous voltages and can be hazardous if installed or operated incorrectly. Non-compliance with **Warnings** or failure to follow the instructions contained in this manual can result in loss of life, severe personal injury or serious damage to property.

Installation

- ◆ Use qualified, skilled personnel
- ◆ Follow installation instructions
- ◆ Connect to correct voltage and supply current
- ◆ Provide fully accessible Electrical Isolation Switch & water supply valves

Training and Supervision

- ◆ Read and Understand the Operating instructions and train all staff
- ◆ This appliance must not be operated by children or infirm persons
- ◆ Machine panels must only be removed by suitably qualified and trained personnel – internal hazards include live electrics and very hot surfaces
- ◆ This appliance is not intended for use as a stepladder

Hot Surfaces

- ◆ Some surfaces may be hot or very hot

Chemicals

- ◆ Commercial dishwashing detergents are hazardous – handle with care
- ◆ Read and follow the safety information found on the labels of detergent containers and Material Safety Data Sheets
- ◆ Use protective eyewear and clothing if decanting containers

Hot Water

- ◆ Do not put hands in wash water which may be over 60°C and contain hazardous caustic detergent
- ◆ Rinse water can be over 90°C
- ◆ Door safety switches are designed for emergency use only

Cleaning

- ◆ Do not hose down the machine or splash water over the exterior
- ◆ Watch for broken glass etc when cleaning the inside of the machine

Service/Repair

- ◆ Under no circumstances the user should attempt to carry out repairs
 - ◆ All service/repair work must be carried out by qualified personnel only
-

Installation



WARNING

Installer must be suitably qualified and ensure compliance with all local codes and standards including AS/NZS 3500.1.



Failure to comply even partially with installation instructions may void the warranty.

Positioning

Unpack machine, check for damage and complete delivery. Install machine on sound waterproof self-draining floor and use adjustable feet to level machine. Allow room for detergent to one side of machine or in adjacent cupboard. 20litre container requires about 450H x 250W x 350D, but smaller containers are available from many suppliers.

Water Supply

Hot water temperature	65°C ± 5°C
Connection	20 mm (3/4" BSP)
Hot water consumption	300 litres per hour approximately
Pressure	200-400 KPa = 30-60 Psi
Cold water supply	the same pressure and connection as above

Above this range fit pressure limiter. Don't use small diameter plastic supply lines. FLUSH supply line before connection. Poor quality supply or excessive water hardness may affect performance or damage machine – filtration and/or softening is recommended.

Waste

40 mm gravity drain – run waste directly behind the machine or through open base.

Power

Machine requires 3 Phase, Neutral and Earth, 400/415V, 30A/ph, 50Hz, permanent wiring via wall switch to point C on installation diagram. Wash pump rotation must be checked after installation to ensure correct direction (excessive noise and damage with incorrect direction).

Ventilation

10 m³/min = 170 l/sec – refer points F on installation diagram – extraction via connected ducts or overhead canopy.

Commissioning Procedure

Connect all services as above. Turn on water and switch on power. Close machine door and switch machine on, machine will fill. When water sprays from rinse arms inside machine, switch machine off at wall. Remove lower front panel and switch commissioning switch by breaking label over same.

Detergent

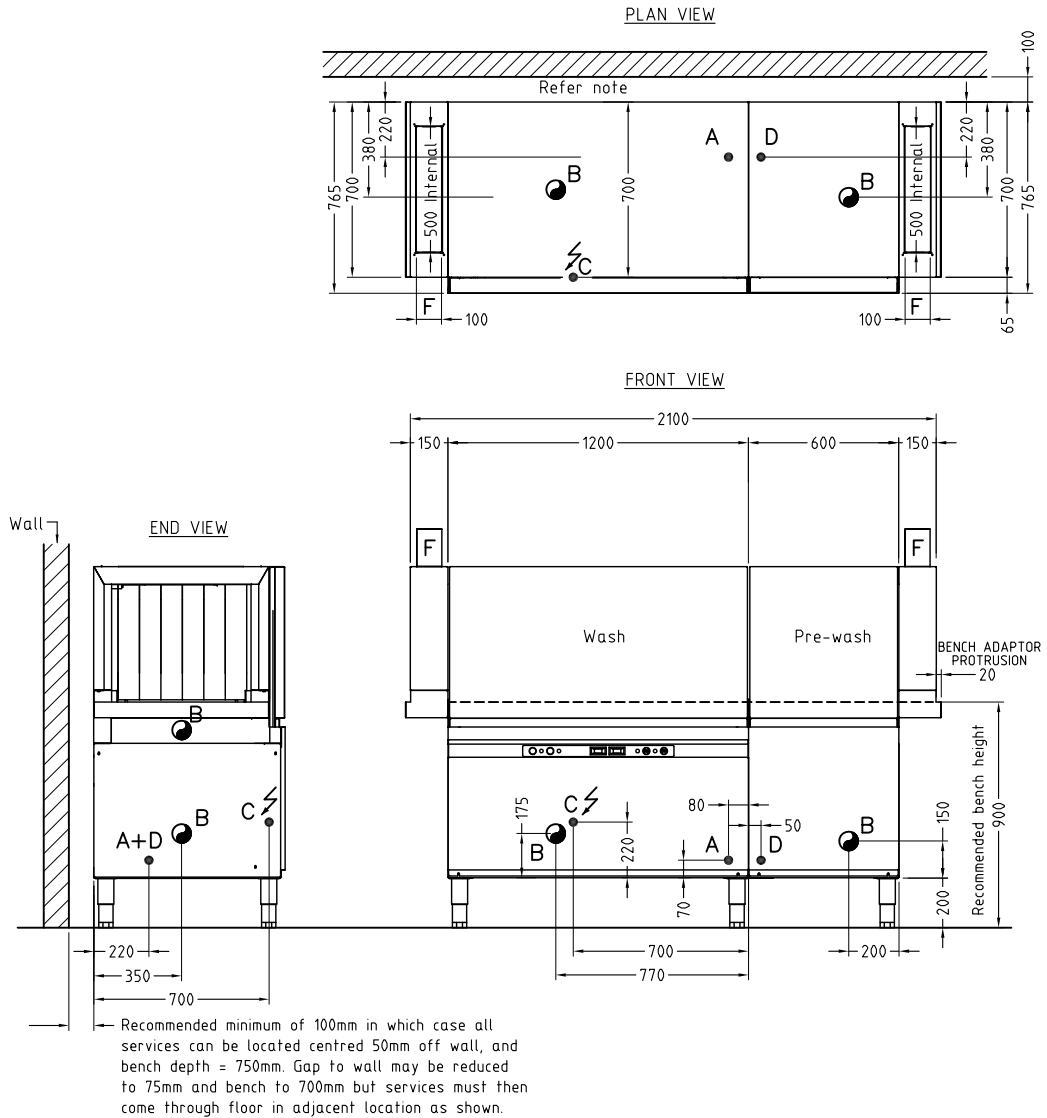
Refer your professional chemical supplier for advice on wash and rinse chemicals and dispensers.

Installation Checklist

Complete attached Installation Checklist to ensure machine is installed and running correctly, and operator is familiar with operating procedures.

CD150 R-L INSTALLATION DIAGRAM

CD150 R-L MK2 23-07-09 1A



CONNECTIONS			Ø
A	HOT WATER INLET = 65°C	>200-400 kPa	AUS = 3/4" NZ = 1/2"
B	TANK DRAINAGE POINT IS RECOMMENDED MINIMUM WASTE PIPE	1.5" BSP = 2" BSP =	40mm 50mm
C	ELECTRICAL CONNECTION 400/415V, 3-N+E~	CD150 =	30A
D	COLD WATER INLET	>200-400 kPa	3/4"
⊗	SHOWS RECOMMENDED FLOOR PENETRATION. POSITION FOR WASTE AND SUPPLY		
F	EXTRACTION VIA VENT DUCTS. Split specified airflow between inlet & outlet and allow for steam. Provide & adjust good damper controls. Consult with a Ventilation Engineer particularly when an overhead canopy is fitted in which case requirement for the general area is much greater than specification for the machine.		15m ³ /min 250l /sec

Installation Checklist

CHECK		OK / NOTES				
Delivery Position	Supplied complete		no transit damage			
	Level and stable		on sound, waterproof, self draining floor			
Water	Benchwork		secure with smooth rack path			
	Isolator valve fitted		accessible, all fittings sound, no leaks			
	DCVs fitted		correct direction			
	Temperature		65 ± 5°C			
	Flow rate		minimum 15 litres per minute			
	Pressure		200-400kpa, limiter fitted if above this range			
	Cold water if required		booster fitted if below this range			
Power	Hardness		pressure not above 400 kpa			
	Isolating switch		filter or softening if required			
Waste	Supply as specified		fitted, functional and accessible			
	Usually 40 mm		voltage, current, circuit breaker			
Ventilation			sound, no leaks			
	Appropriate/not excessive		curtains fitted correctly			
Commissioning						
	Commissioning switch		activated - when fitted			
	3 phase pump		wrong direction causes excess noise			
Chemicals			container	no leaks	primed	conc.OK
	Detergent					
Elements	Rinse Aid					
			Temp. C°	Amps		
	Wash		65			
	Ecorinse		55			when fitted
	Rinse		80			
Pumps	Drier		85			when fitted
	Pre-wash		n/a			when fitted
	Wash		n/a			correct rotation
	Rinse		n/a			
Motors	Drive		n/a			
	Drier Fan		n/a			when fitted
Electrical	Safety Test		if required			
	Wash system		jets clear, baffles adjusted			
	Rinse system		arms fitted, jets clear			
			actuator and timer functional			
	Fill levels		pressure switch settings			
	Upstands		water cascading correctly			
	Drive system		secure, chain OK, clutch effective			
	Accessories		fitted and functional			
	Noise		sounds OK			
	Controls	Door switch/s		functional		
Performance	Stop switch		functional when fitted			
	Wash and Rinse		effective			
Operation	Run several racks		confirm correct and effective operation			
Operator training – check Operator has copy of Operator Manual and is familiar with procedures						
	Start-up		Model / Serial			
	Pre-rinse and		Owner			
	Machine operation		Location			
	Drain		Technician			
	Clean		Date			
	Shut-down		Signed			

Operation

Description of Controls



Operating Instructions

Start up

Fit drain upstands, wash pump filters, scrap trays and shut doors.
Turn wall and machine power switches on.
Power light glows red and machine fills automatically.
When machine is full, filling automatically stops.
Ready light glows amber when the machine is up to required temperature.

Operation

Press Start button to operate machine.
Green Cycle light glows during an operation.
When Ready light is illuminated racks can be fed into the machine.

NOTE:

Conveyor will not operate unless amber Ready light is illuminated.

Shut down every night

Press Stop button. Turn machine and wall power switches off.
Remove scrap trays and rinse clean.
Remove drain upstands to drain tanks.
Remove wash pump inlet filters and rinse clean.
Replace drain upstands, filters and scrap trays.

Performance

Hot Water Supply

An adequate supply of water at the correct temperature and pressure is essential for effective operation of your machine. Refer Installation information for detail. Water softening is recommended in hard water areas - especially for glasswashing.

Pre-rinsing

Pre-scraping of dishes is required by Food Hygiene Regulations. The best method is to pre-rinse with warm water with a Fisher Pre-rinse Unit - or alternatively by scraping or dunking in water. Cutlery should be pre-soaked in warm water, preferably containing cutlery pre-soak compound - refer your chemical supplier.

Racking Procedures

Do not overload racks or cutlery containers, minimise the overlap of crockery. Cycle times are short and water consumption per cycle low - so there is no advantage in overloading racks.

Cycle Times

For multi-cycle machine use the longest cycle whenever possible. Note that water consumption does not increase with longer cycles. Only switch to faster cycles when it is necessary.

Detergent

Use of correct type and quantity of detergent is essential to the performance of the machine. Low foam specialty products are recommended. We strongly recommend that you use a professional dishmachine chemical supplier - and will be pleased to recommend a supplier in your region. Discuss with them the use of cutlery pre soak solution, detergent and drying agent.

Drying

Single tank commercial dishwashers do not have a drying cycle. However, the machines do rinse at high temperatures which promote fast drying particularly when drying agents are used. We recommend prompt removal of the rack from the machine - leave the rack on the bench for 2 to 3 minutes before emptying. This time will be reduced with correct use of drying agent (rinse fluid) which reduces water surface tension and allows water to drain quickly from wash ware. For advice on drying agents and injectors refer to your chemical supplier.

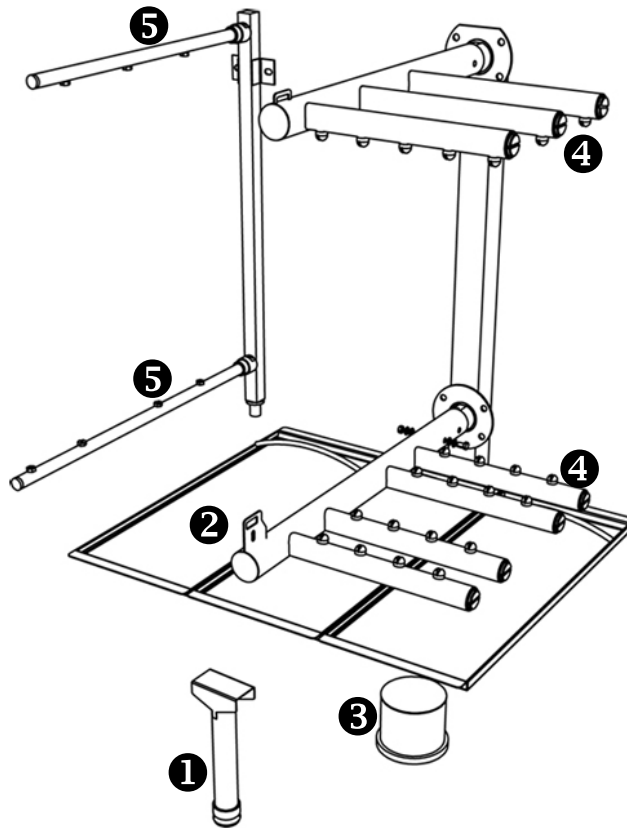
Daily Cleaning

It is essential that the machine is drained and cleaned at the end of each day. Drain the machine then remove, clean and replace filters as per the operating instructions. Regularly check the wash and rinse jets and clean them if necessary - refer Maintenance section.

Maintenance

Regular Cleaning

1. Remove upstand **1** to drain wash tank. Remove scrap trays **2** and wash pump inlet filter **3**. Clean them with water and a brush to clear grids.
2. Remove wash arms **4** – lift to unhook and then withdraw. Remove rinse arms **5** – twist and withdraw. Flush arms with water using a toothpick or paperclip, if necessary, to clear jets.



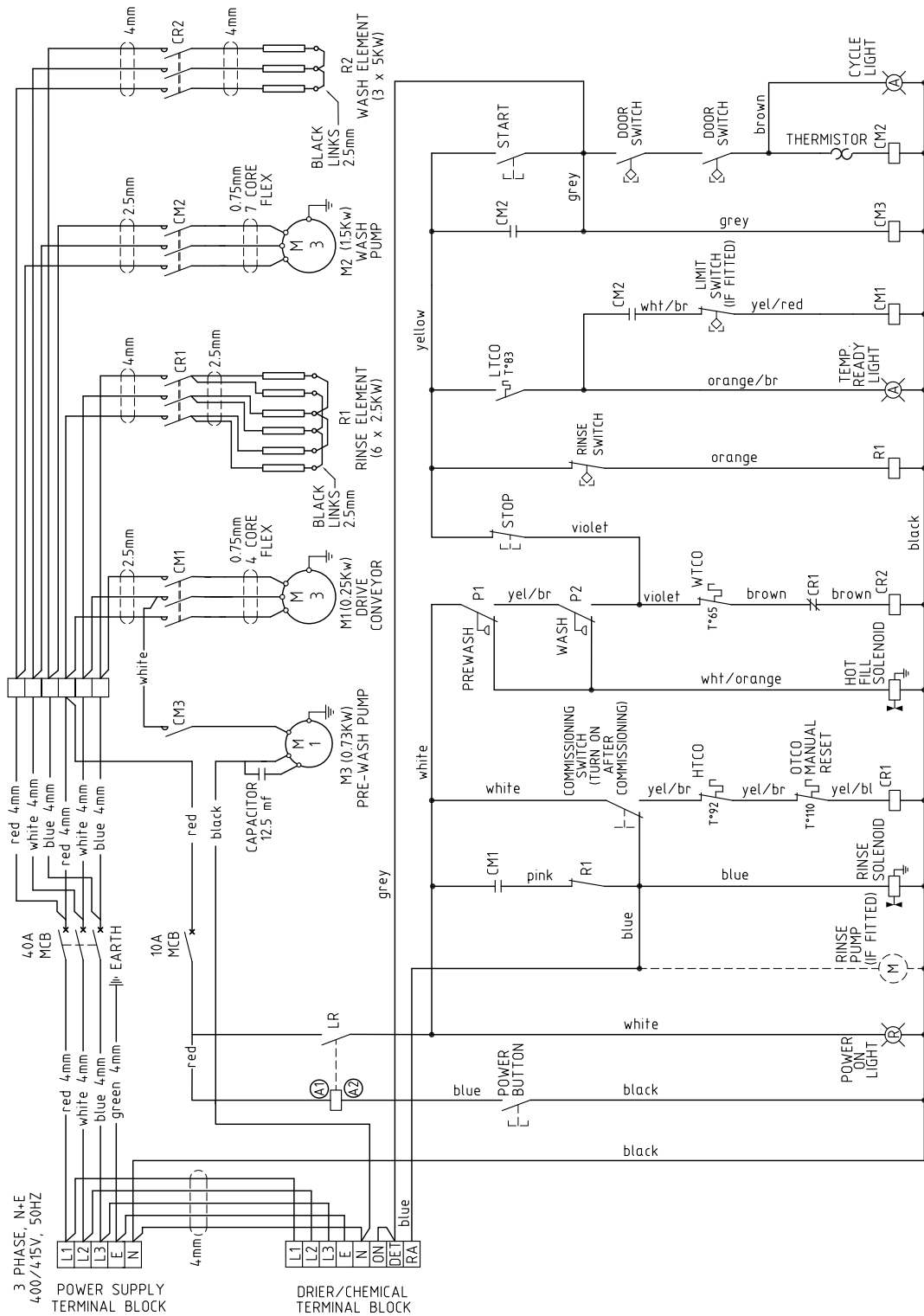
Regular Servicing

Regular servicing of the dishwasher is essential to keep the machine in top working condition and get the best performance results.

Please contact your Service Provider to organize regular servicing of the dishwasher.

CD150-2 SCHEMATIC DIAGRAM

250117 12/01/12 3E



Warranty

WASHTECH warrants that new STARLINE products are free from defects in material or workmanship for a period of one year from the date of purchase.

EXTENT OF WARRANTY

- Washtech shall repair or, at its discretion, replace any part of the machine found to be defective.
- The labour for the repairing or the replacement of defective parts shall be provided during normal office hours at no cost to the user.
- Washtech shall not otherwise be liable for any other loss or damage arising out of any person's use or inability to use the machine.
- Washtech shall not be liable for the cost of work done outside normal office hours, and for travel costs outside regional centres.
- Washtech shall not be liable for detergent related issues, including detergent pump adjustment or squeeze tube replacement, drain pump blockages and other related damages.

CONDITIONS OF WARRANTY

This warranty shall not be binding on Washtech unless the warranty registration card is completed and received by Washtech within 30 days from the date of purchase

This warranty shall be void if:

- The equipment has not been properly installed by an authorised Washtech Service Provider.
- Persons other than Washtech Service Providers have undertaken repairs or attempts at repair.
- The equipment has not been operated and maintained in accordance with the Operator Manual.
- Damage has resulted from shipment, handling, fire, water, accident, abuse, detergent equipment fitted by others or any other event beyond the control of Washtech.

Any defect must be notified to Washtech or its authorised dealer within 30 days of the discovery of the defect.

IF YOU WISH TO MAKE A WARRANTY CLAIM

- First check the things you can do for yourself. Refer to the Operator Manual provided to ensure that the machine is correctly installed and that you are familiar with its operation. If a service technician calls and determines that the equipment is not defective you will be charged with the cost of the call-out.
 - If you need service during the warranty period, first contact the dealer from whom you purchased the equipment. The Dealer will arrange service by Washtech or an authorised Starline Service Provider.
 - If you have a problem contacting your dealer or if your dealer is unable to assist, then please contact the Service Department, Washtech, telephone 09 829 0923.
 - When you write or call you will need to provide your name and address, the model and serial number (refer lower front cover) and the date of purchase so that your warranty claim may be validated.
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