

INSTRUCTION MANUAL

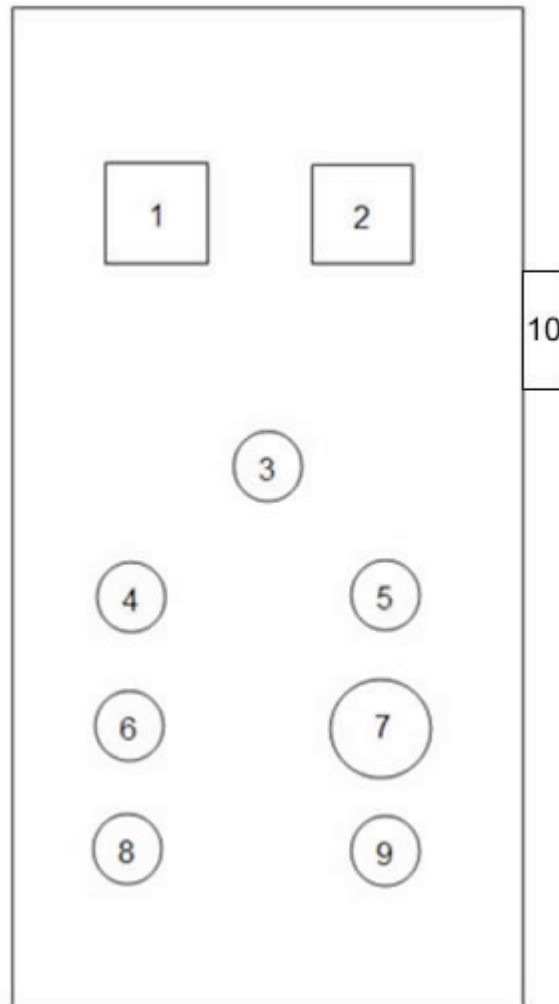
KeyChoc BT75 / BT150

Fully Automatic Batch Tempering Machines



Printed 25 November 2011

Control Panel Layout



1. Water temperature indicator / controller 1
2. Chocolate temperature indicator / controller 2
3. Heater Switch
4. Power light
5. Heater light
6. Agitator start
7. Emergency Stop
8. Agitator Stop
9. Temper switch
10. Main power switch

USAGE & CHARACTERISTICS

This machine is an automatic machine and it is important to follow the start up instructions when using the machine for the first time or whenever the water jacket has been emptied.

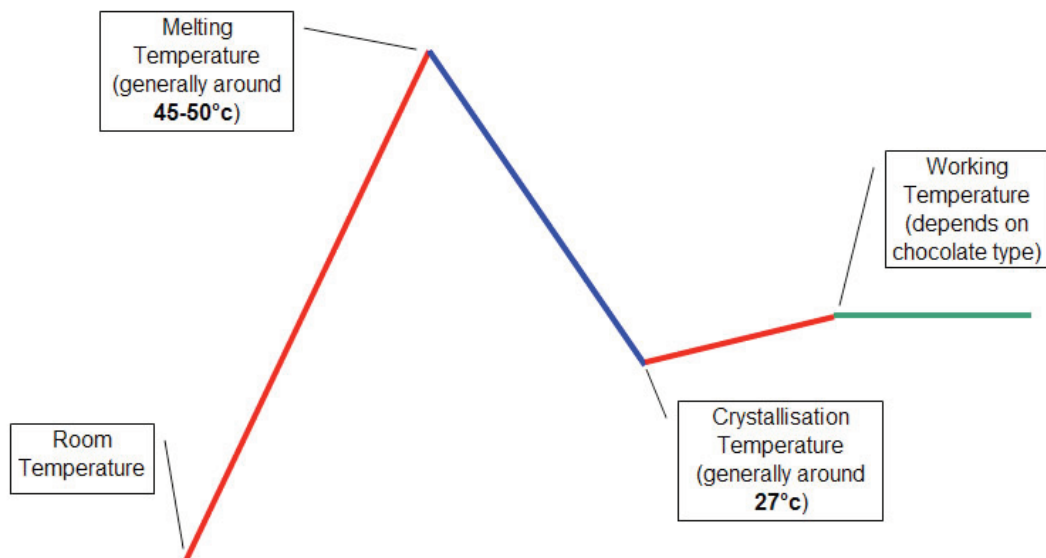
STEP 1 - Installation

1. Connect the tank to the incoming water supply using the ½ inch BSP fitting situated on the bottom of the tank. (Marked Inlet)
2. Connect the tank to the drain using the ½ inch BSP fitting situated on the side of the tank close to the top. (Marked Outlet)
3. Turn on the cold water connected to the tank. At this stage the water will not fill the tank as the electric valve will be closed.
4. Turn on the Main power switch (Number 10 on the side of the control panel), then
5. Press and hold the Temperature/water inlet button (Number 9). This enables the electric valve to open and water will start to fill the jacket. This will take 5 to 10 minutes depending on your water supply. When the jacket is full, water will run out of the outlet (which you should be able to hear). Release the Temperature/water inlet button (Number 9) at this stage.
6. Connect the water drain pipe.
7. **The Tank is now ready for use.**

OPERATING INSTRUCTIONS

CRYSTALLISATION CURVE

When setting temperatures for the melting and tempering processes, please refer to the diagram below for a key to the terms used.



The working temperatures for different chocolates will vary and you should refer to the manufacturer's instructions. However we have given below a rough guide to the working temperatures for different chocolate types.

Dark chocolate:	31-32°C
Milk chocolate:	29-30°C
White chocolate:	29-29°C

STEP 2 - Melting

The temperatures specified may vary according to the type of chocolate you are using so please adjust accordingly.

1. Set the water temperature on **Controller 1** to the **melting temperature** using the up and down arrow keys.
2. Set the temperature on **Controller 2** to the **crystallization temperature plus 2°C** (as the cooling chocolate will always overshoot this setting by 2°C) using the up and down arrow keys. Eg. If the crystallization temperature is 27°C, set Controller 2 to 29°C.
3. Fill the tank with chocolate (at least 1/2 full if already liquid). **Note:** At this point **do not** switch on the stirrer.
4. When the chocolate is partially melted the stirrer can then be switched on (**Switch 6**). If the motor does not start immediately switch off (**Switch 8**) to allow the chocolate to liquefy further.
5. When the chocolate has melted ensure that the tank is at least 1/2 full and top up if required.
6. When the chocolate temperature (Controller 2) reaches at least 45°C the chocolate is ready to commence tempering.

STEP 3 - Tempering

For optimum tempering the incoming water should be 12⁰to 15⁰C. If the water temperature is below 12⁰C this will cause the chocolate to become lumpy and have an adverse affect on the final temper. Restricting the water flow will prevent this occurring in most cases. If the water temperature is above 15⁰C it will probably be necessary to use a seed (eg. pre-tempered chocolate chips) to aid the tempering.

1. The stirrer must always be in operation for the duration of the tempering stage.
2. Reset the water temperature to the **working temperature** for your chocolate (**Controller 1**) using the up and down arrow keys.
3. Press the **Tempering/Water inlet button (Switch 9)** and the following will occur :-
 - The heating will switch off.
 - The electric valve will open and water will be cooled in the jacket.
 - The temperature of the chocolate will decrease.
 - The electric valve will close when the temperature of the chocolate reaches the temperature set on Controller 2.
 - The heaters will re-start at this stage signified by the Heater Light switching on. (Number 5)
 - The chocolate temperature will continue to drop to approximately 2⁰c below the temperature set on Controller 2 and then it will stabilize at the working temperature set on Controller 1.
 - At this stage the chocolate is tempered and ready to use.

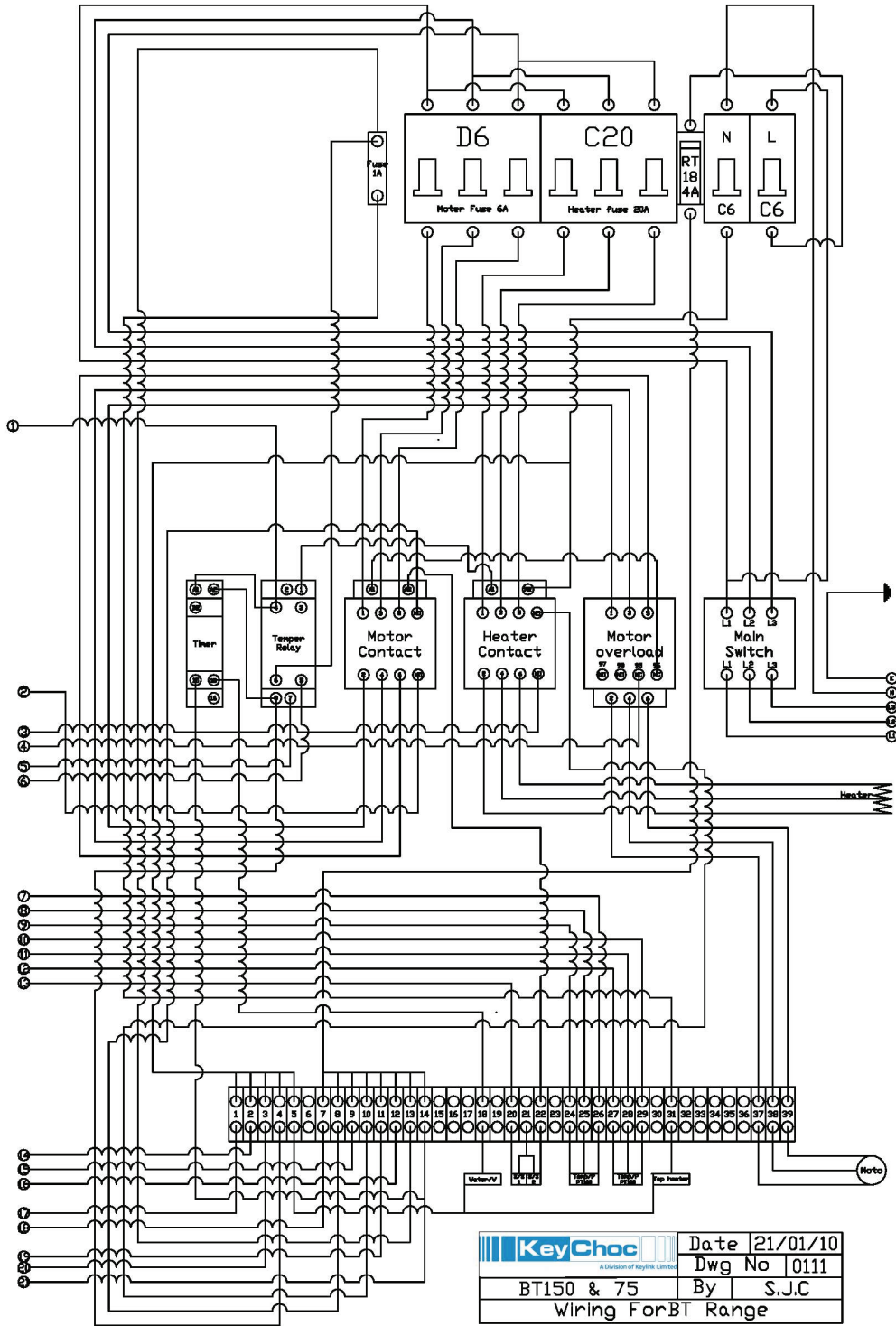
STEP 4 - Tempered Chocolate

When the chocolate is tempered and ready to use it can be drained out of the valve situated on the Side of the tank using the Butterfly valve.

If tempered chocolate is left inside the tank ensure the stirrer is left on continuously as tempered chocolate should not be left to stand still for too long.

When it is required for chocolate to be melted again, just repeat the process from the Melting Stage in Step 2 of the Operating Instructions.

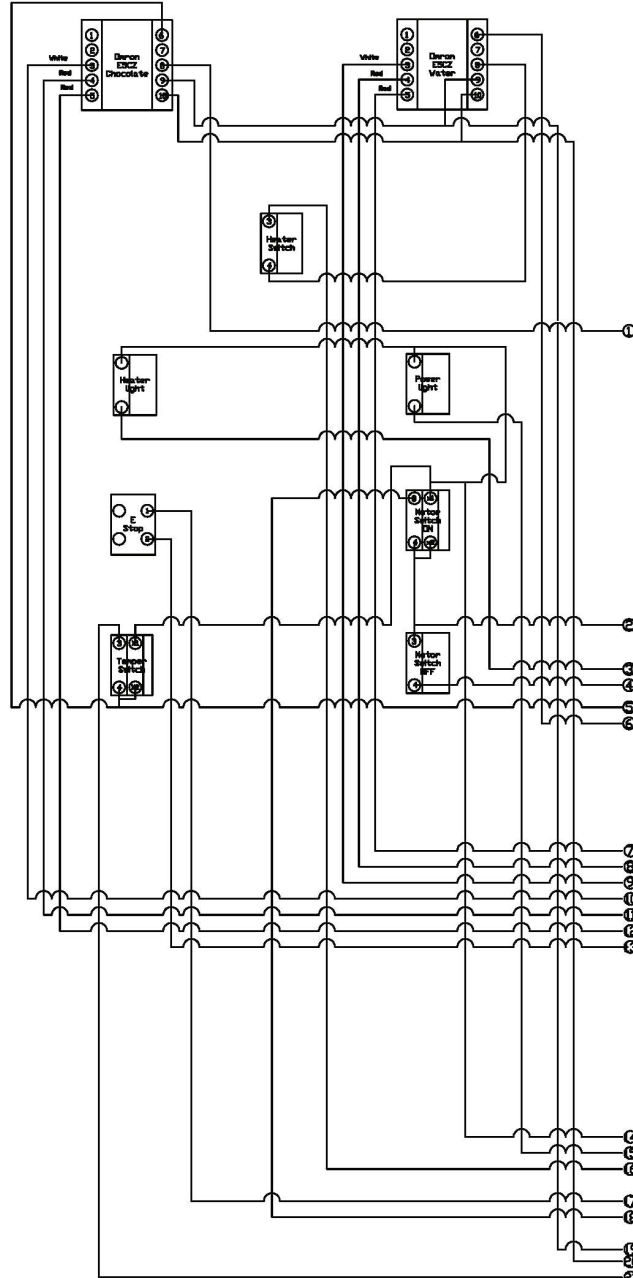
ELECTRICAL WIRING DIAGRAM



		Date	21/01/10
A Division of Keylink Limited		Dwg No	0111
BT150 & 75		By	S.J.C
Wiring For BT Range			

ELECTRICAL WIRING DIAGRAM

Inside Door



 <small>A Division of Keylink Limited</small>	Date	21/01/10
	Dwg No	0111
BT150 & 75	By	S.J.C
Wiring For BT Range		

EC Declaration of Conformity

Product Type : 'BT75 / BT150' Automatic Batch tempering Tanks
Voltage : 220-240V, 50Hz
Serial Number :
Year of Construction :

We declare that the product described above is in conformity with the relevant provisions of the following directives as amended.

The Machinery Directive (98/37/EC)

The Construction Products (89/106/EEC)

The Low Voltage Directive 73/23/EEC

The EMC Directive 89/336/EEC as amended by 91/263/EEC, 92/31/EEC, 93/97/EEC.

General Features

The KeyChoc 'BT' Series fully automatic batch tempering tanks are intended for melting and tempering chocolate and chocolate compounds. They are constructed from stainless steel and work using a heated water jacket and a thermostatically controlled heating system.

Signature:

Signatory: Mr. S J Case

Position: Technical Manager

Dated:

KeyChoc Ltd, registered in the UK Company Number 7396808