Document Number: SASoM/EQUIP/076.v2

Title: Use and Maintenance of HybEZ Hybridization System

Version: v2

Author: Mary L Wilson

Effective from:	26/11/2018
Valid to:	25/11/2023

SOP History		
Number	Date	Reason for Change
v1	26/11/2013	Original
V2	26/11/2018	Update

1.0 Purpose –

The purpose of this SOP is to outline the principles of the routine use of the ACD HybEZ Hybridisation System in Laboratory 248 at the St Andrews School of Medicine (SASoM).

2.0 Scope –

This SOP applies to routine use and maintenance of the HybEZ Hybridisation System within the SASoM.

3.0 Responsibilities –

It is the responsibility of all users of the HybEZ Hybridisation System within the SASoM to comply with this SOP.

4.0 Procedure –

The HybEZ Hybridisation System is designed to conduct hybridization and incubation steps in ACD's RNAscope assay. It may also be used for other hybridization based assays or any other assay steps where a condition of high humidity with an elevated temperature is required.

Section IV: Operation

Controls and Indicator Lamps (Figure 1)

The Power Switch controls power to the unit.

The temperature display shows the chamber temperature in degrees Celsius.

The heater lamp is on continuously while the Oven is heating up. As the required temperature is approached, it starts to flash. When the unit is controlling at the set temperature, the heater lamp flashes intermittently.

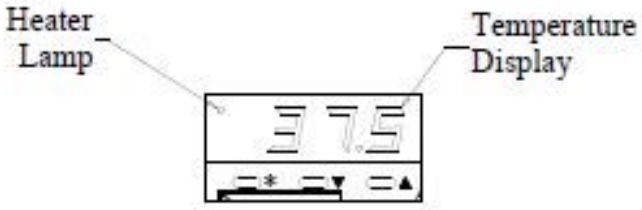

Figure 1

Setting the Temperature

The Temperature Controller has three buttons. When the button on the left '*' is depressed, it will display the set temperature. When the left button '*' is depressed simultaneously with the middle button '▼,' the set temperature value is lowered. When the left button '*' is depressed simultaneously with the right button '▲', the set temperature value is raised. When all buttons are released, the actual chamber temperature is displayed.

In the event of power loss, the Temperature Controller retains the last set temperature value.

Loading Tray with Slides

The tray with the Slide Rack can be loaded with up to 20 standard glass slides (see Figure 2). Use your standard protocol to prepare the slides with probe and buffer. To provide humidity during the heating cycles, place HybEZ™ Humidifying Paper at center on the bottom of the tray and add approximately 50 ml of distilled water or currently used hybridization solution on the paper. If cover slips are used, it is not necessary to seal them; the wetted Humidifying Paper and the sealed Tray maintain a humid environment.

Figure 2 Slides loaded on Slide Rack

Loading Tray into Heating Chamber

Place the Slide Rack loaded with prepared slides into the Humidity Control Tray and insert the tray into the heating chamber of the Oven.

Open the main door, lift the frame, pivot the latch forward (see Figure 3), and slide the Tray into the Frame Assembly until it is fully seated against the rear of the Frame Assembly (see Figure 4). Rotate the latch into a vertical position and position the latch over the keeper on the frame, then rotate the Latch Handle 180° clockwise (see Figure 5). Rotate the Latch Handle down (see Figure 6). Close the main door.

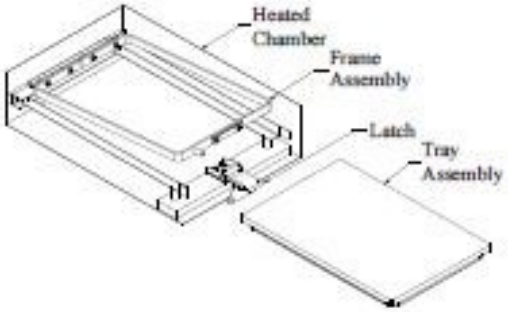

Figure 3. Tray to be inserted

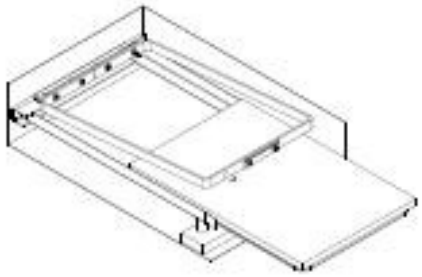

Figure 4. Tray inserted

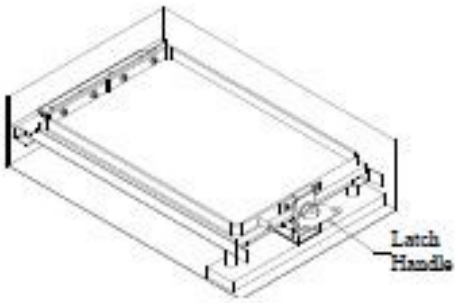

Figure 5. Fully inserted and locked

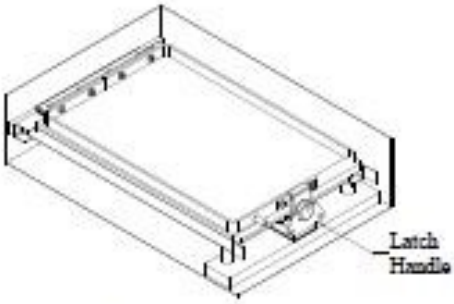

Figure 6. Ready to close main door

Removing Tray from Heating Chamber	Extreme care must be used when removing the tray due to the potentially high temperature. It may be necessary to use gloves when removing the tray. To remove the tray from the Heating Chamber, open the main door, lift the Latch Handle up and rotate it 180 in a counter clockwise direction. Rotate the latch down, lift the frame up and carefully slide the Tray Assembly out.

If a spill occurs, disengage power cord, use appropriate clean up procedures as required for radiation or biohazard control. The outer casing may be cleaned with water and tissue.

Please refer to User Manual for more detailed procedure if a spill occurs within the heating chamber.

5.0 Personal protection -
A Howie laboratory coat and lab gloves must be worn at all times.

6.0 Spillages -
Always clean up any spills immediately after use, only you know what you have spilt and are aware of its hazard.

Spillages should be mopped up with paper towel, disinfected with 70% ethanol and finally washed with distilled water.

7.0 Training –
All users have to be trained by a designated person before using the Instrument.

8.0 Related documents –

8.1 Risk assessments – RA/GEN/007 (Ovens and Drying Ovens)

8.2 Instrument Manual

9.0 Approval and sign off –

Author:		
Name:	Mary Wilson	
Position:	Laboratory Manager	
Signature:		Date:
Management Approval:		
Name:	Peter Mullen	
Position:	Research Fellow	
Signature:		Date:
QA release by:		
Name:	Alex MacLellan	
Position:	QA Manager	
Signature:		Date: