Heated Display Removal Fixture (HDRF)
OPERATING MANUAL

GENERAL USE & PRECAUTIONS

DO NOT REMOVE ANY PANELS OR COVERS OF THE FIXTURE

Technicians must not remove any protective or enclosure panels on the fixture. This fixture is not designed to be serviceable by end consumers. Component replacement and / or internal adjustment should only be performed by qualified service personnel.

ASSEMBLY AND MOUNTING REQUIREMENTS

Fixture comes fully mechanically assembled and ready for use.

Fixture is designed for workbench / table top use and does not require any clamping or mounting.

Power cord must be attached before powering on.

OPERATING ENVIRONMENT REQUIREMENTS

1. Indoor use only
2. Altitude: up to 10,000 feet (3,000 m)
3. Temperature Range:
   A. Operating ambient temperature: 32° to 95° F (0° to 35° C)
   B. Non-operating temperature: −4° to 113° F (−20° to 45° C)
4. Relative Humidity Range: 5% to 95% noncondensing
5. Mains Supply Voltage Fluctuations: 100VAC～240VAC ±10%
6. Any and all liquids, hazardous, flammable or not, should be kept at a distance and never allowed to touch or enter the fixture or Heated Display Pockets to prevent contamination, corrosion or potential for electrical shorts
7. Do not operate the instrument in the presence of flammable gases or fumes
8. The fixture should be used in an environment with adequate ventilation where no flammable vapor-air or gas air is present. Adequate ventilation is defined as ventilation (natural or artificial) that is sufficient to prevent the accumulation of significant quantities of vapor-air or gas-air mixtures in concentration above 25 % of their lower flammable (explosive) limit, LFL (LEL)

BEFORE APPLYING POWER

Verify the power is set to match the rated input of the power supply.

Verify the power cable is in good condition, not frayed or torn.

STORAGE

When the fixture is not in use, pack properly and store in a controlled environment.

1. Indoor temperature −4° to 113° F (−20° to 45° C)
2. Indoor Relative Humidity Range: 5% to 95% noncondensing
3. Do not store in direct sunlight
4. Keep away from water, oils and other liquids
5. Keep away from areas containing volatile components or corrosive gases
6. Store in a dust- free place
7. Avoid subjecting the fixture to regular vibration shocks above 0.5G

SHIPPING

Use the original packaging material when moving this test fixture over long distances. If there is a lack of packaging material, please use the equivalent cushioning material for packaging and mark it fragile and waterproof, etc., so as not to damage the fixture during transportation.

MAINTENANCE & REPAIR

This fixture does not require regular maintenance from the technician.

If the technician encounters malfunctions or error codes, please follow the steps according to the error code in the Error Code section.

CLEANING

The fixture’s outer surfaces may be cleaned as follows:

1. Power down the fixture
2. Allow fixture to cool down to room temperature (minimum 1 hour)
3. Clean with lint free wipes

Do not clean inside of the hood or fixture panels.

Do not use compressed air or vacuums to clean internally.

SAFETY

Static dissipative temperature resistant gloves required at all times when operating fixture.

The fixture can be left in STANDBY MODE indefinitely but should be power cycled off when no technicians are present.

The fixture should not be left unattended when powered on and / or in use.

If any abnormal issues are encountered during use, the technician should immediately hit the Emergency Stop Switch (E-Stop Switch).

If error codes or malfunctions are encountered during use, please follow the steps according to the error code in the Error Code section.

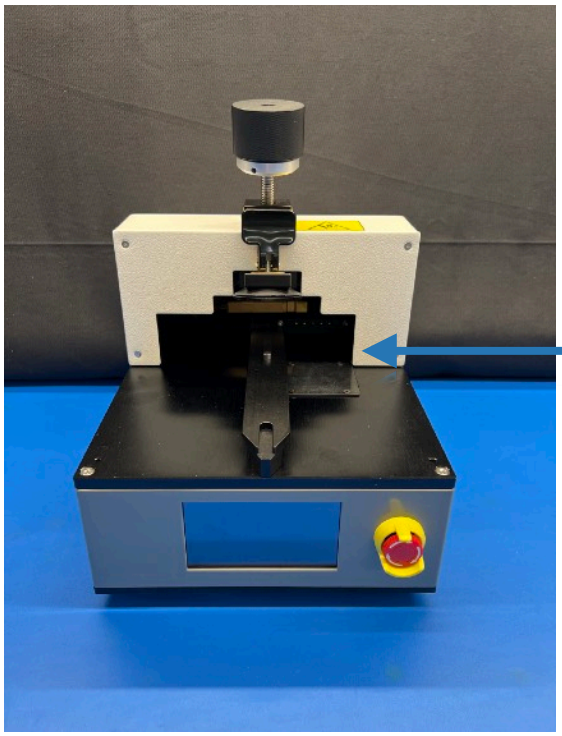
FIXTURE SAFETY WARNING LABELS

Note and use caution where safety warning labels are applied.

CAUTION: Possibility of electric shock

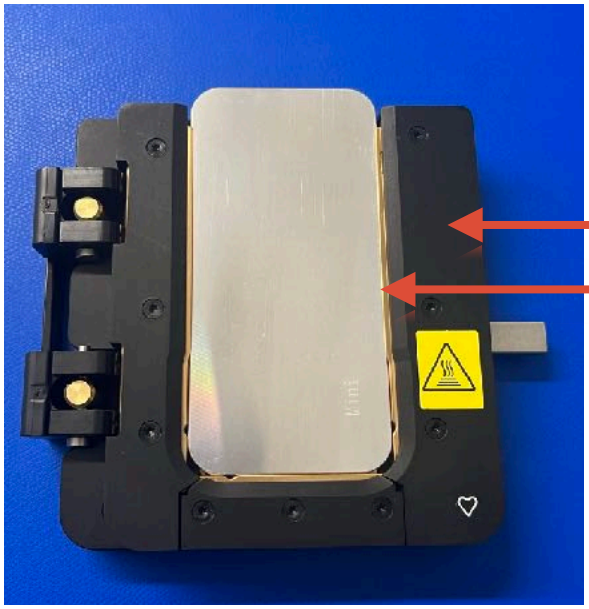
CAUTION: Possibility of mechanical pinching

CAUTION: Hot surface



CAUTION

KEEP HANDS OUT OF MAIN FIXTURE TO AVOID MECHANICAL PINCHING, ELECTRICAL INTERCONNECTS AND HOT SURFACES

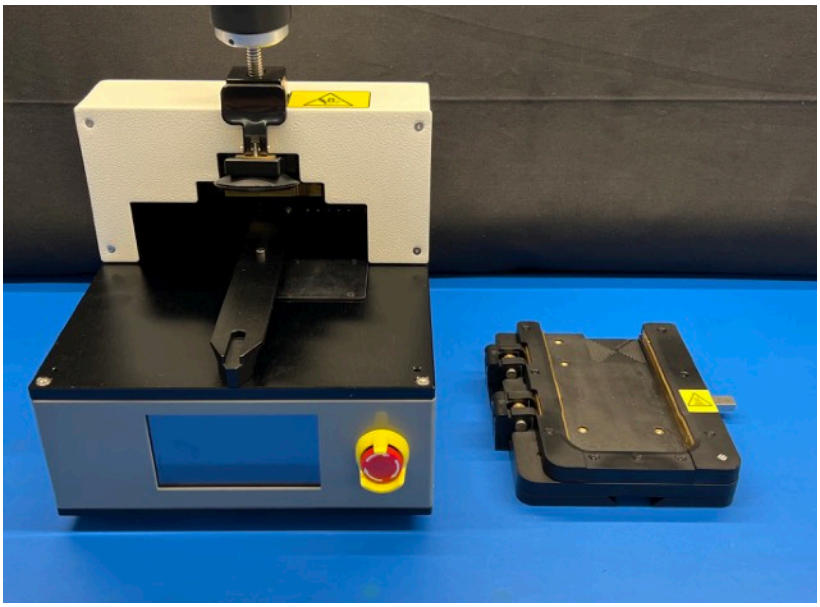


CAUTION

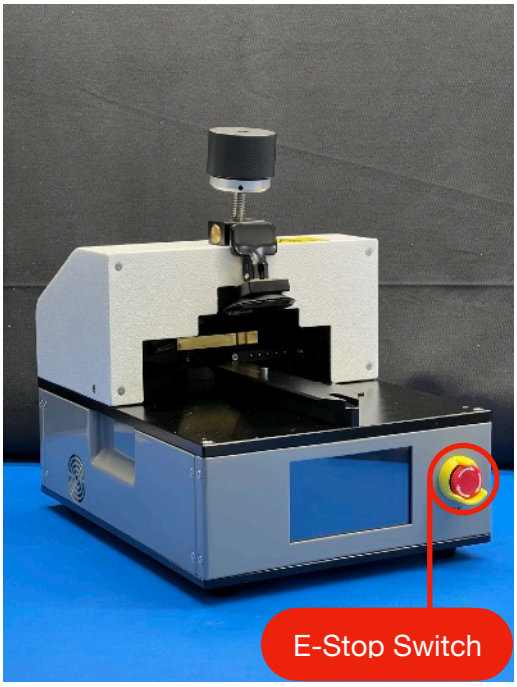
STATIC DISSIPATIVE TEMPERATURE RESISTANT GLOVES REQUIRED AT ALL TIMES WHEN HANDLING NEST

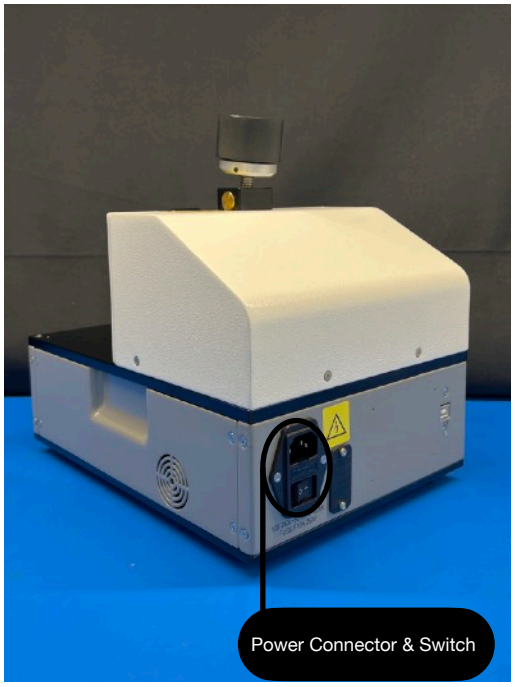
PLASTIC COVERS WARM TO TOUCH

ALL EXPOSED COPPER HOT TO TOUCH , DO NOT TOUCH INTENTIONALLY FOR PROLONGED PERIOD OF TIME

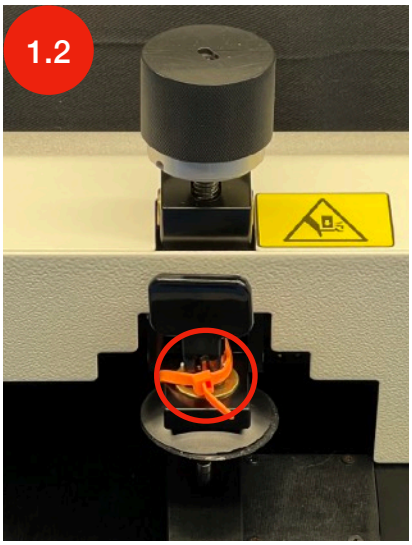


HDRF Fixture Heated Display Pocket Module

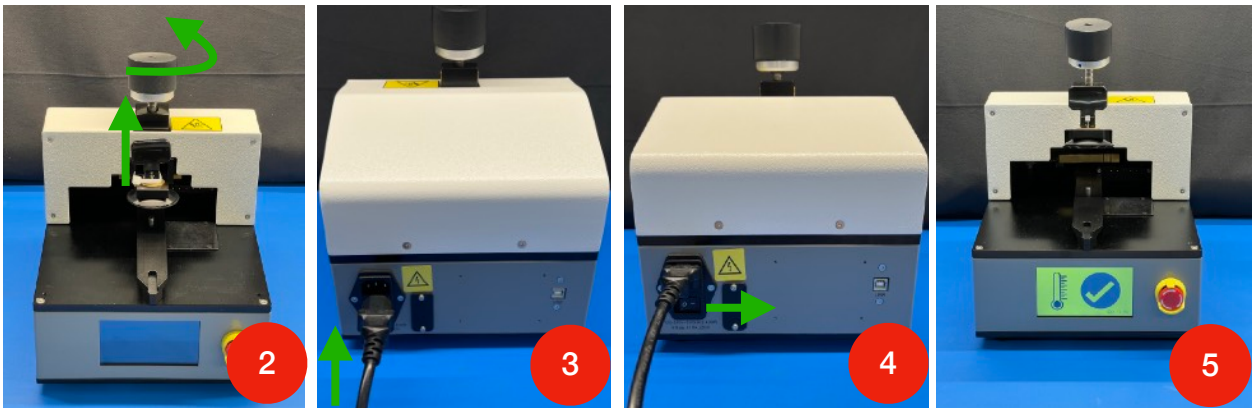




1. Remove the fixture from packaging and remove all packaging support material
    1. Do not lift the fixture by the knob.
    2. Cut and remove the zip tie from the handle.
    3. Note: A rented heated display removal fixture may have different packaging than shown. If your fixture came with a USB cable, set the cable aside. This setup doesn't require it.



2. Move the suction cup arm to the highest position by rotating the torque limit handle counter clockwise
3. Plug the fixture into wall power using the approved power code for region of use
4. Turn on the power switch on the back of the unit
5. Fixture is now in ‘Standby mode’ ready for use (yellow LCD screen with checkmark)

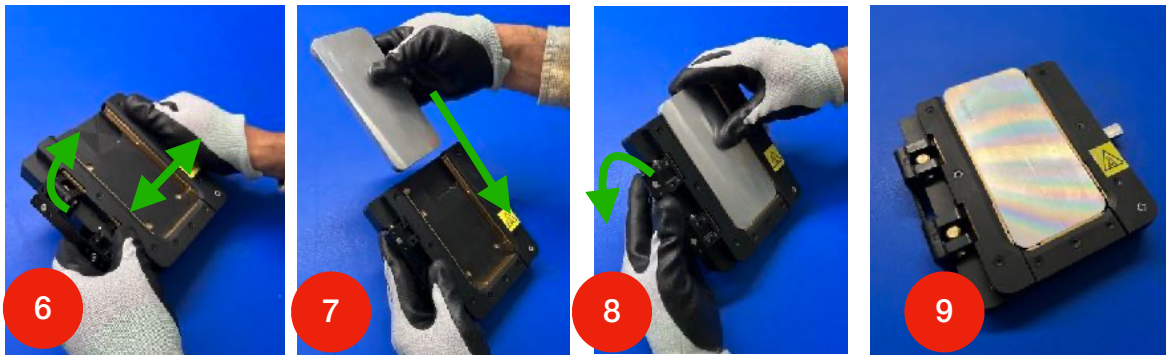


6. Ensure that the Heated Display Pocket is in the ‘Open’ position with toggle levers flipped up
7. With nest still in the ‘Open’ position, place phone to be opened into the nest, bias south and east
8. Toggle the levers to mechanically grab the phone
9. The phone is now trapped in the nest and ready for insertion into the main fixture

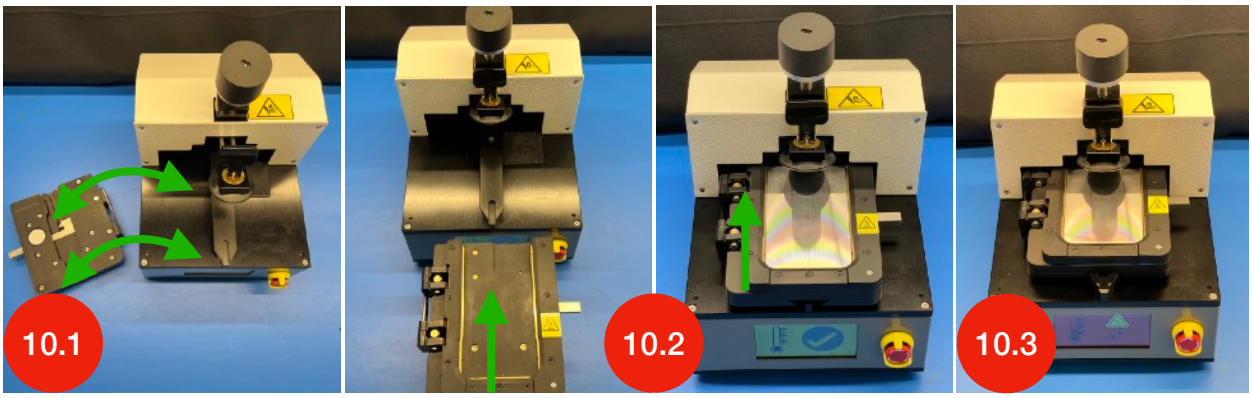
CAUTION

STATIC DISSIPATIVE TEMPERATURE RESISTANT GLOVES REQUIRED

NEST SHOULD BE HANDLED WITH CAUTION AT ALL TIMES AS IT MAY BE HOT FROM CURRENT OR PREVIOUS CYCLE USE



10. Insert the nest with the phone into the fixture
    1. The fixture will align in X & Z using the guide rail
    2. Insert and push into the fixture until a solid ‘Click’ is heard and the nest cannot be backed out of the fixture
    3. When fully inserted the fixture LCD will go from STANDBY MODE (yellow LCD) to PREHEAT MODE (red LCD) and the nest will be powered up and heaters begin heating (if a nest is inserted without an assembly in the nest, the nest will not be powered up and the fixture will enter error mode 05)

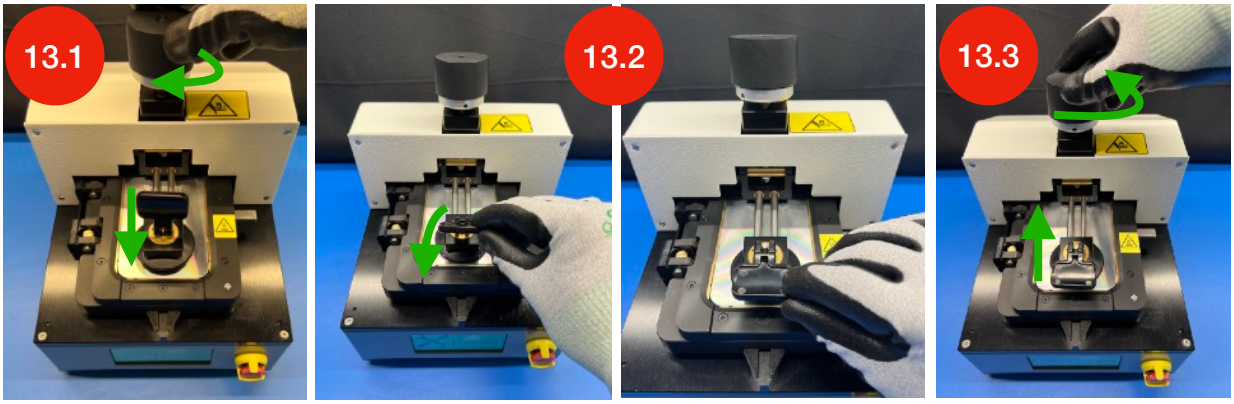


11. The fixture is now in PREHEAT MODE (Red LCD)
    1. The fixture heating elements will ramp up to hit a preset temperature, during the ramp-up section of the PREHEAT MODE, an hourglass icon rotates
    2. After temperature is stabilized, the fixture will then stay at the stable temperature for a preset time and a countdown timer will appear
12. When the countdown timer hits 0:00, the fixture is now in OPEN MODE (Green LCD) and a BUZZER will go off

13. The fixture is now in OPEN MODE (Green LCD) - and a Countdown Timer of 15:00 minutes will appear, the technician has 15:00 minutes to complete the separation of the assembly. If the separation is not completed and the nest is not ejected in 15:00 or less, the power to the nest will turn off automatically.
    1. To stop the Buzzer from ringing, rotate the handle clockwise to bring the suction cup arm down
    2. Once the suction cup contacts the top of the phone, engage the suction cup on the face of the phone by flipping the toggle down
    3. Rotate the handle counter-clockwise to lift the suction cup arm and separate the display from the phone.

CAUTION

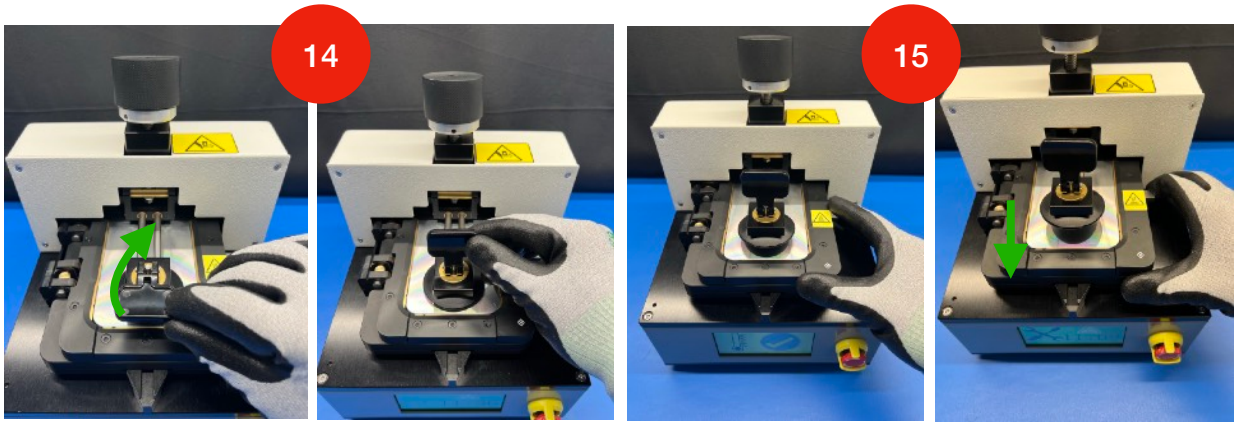
STATIC DISSIPATIVE TEMPERATURE RESISTANT GLOVES REQUIRED



14. The phone display is now separated. Disengage the suction cup from the top of the display to release the suction cup from the display
15. Eject the nest with the phone from the fixture by pressing the toggle latch on the right side and pulling the nest south

CAUTION

STATIC DISSIPATIVE TEMPERATURE RESISTANT GLOVES REQUIRED



16. The display has now been separated and the fixture is now back to STANDBY MODE (Yellow LCD) and ready for another use cycle
17. To remove the phone from the nest, toggle the levers up to mechanically release the phone
18. Remove the phone from the Heated Display Pocket. The phone display separation process is now complete.

CAUTION

STATIC DISSIPATIVE TEMPERATURE RESISTANT GLOVES REQUIRED

SOFTWARE INTERFACE

STANDBY MODE INTERFACE

After powering on the fixture, the fixture self-tests to check for any abnormalities or errors. If no abnormalities are found, the LCD displays as shown below and the fixture is ready for use.

PRE-HEAT MODE A INTERFACE

When the Heated Display Pocket is inserted into the fixture, the Heated Display Pocket will begin pre-heating the phone to a preset temperature. (Note: Do not move the suction cup to the down position at this time, otherwise an E01 error will be triggered.) The LCD displays as shown below during this mode.

PRE-HEAT MODE B INTERFACE

When the Heated Display Pocket reaches a preset steady state temperature, the timer starts counting down from a preset timer. (Note: Do not move the suction cup to the down position at this time, otherwise an E01 error will be triggered.) The LCD displays as shown below during this mode.

OPEN MODE INTERFACE

When the countdown is over, the buzzer will be activated, indicating that the technician can rotate the knob to move the suction cup down and start the disassembly process. The fixture will display a countdown to remind the technician to finish the display open and remove the Heated Display Pocket from the fixture in the allotted time. (Note: If the technician has not removed the Heated Display Pocket from the fixture before the countdown ends, an E02 error will be triggered.) The LCD displays as shown below during this mode.

ERROR CODES AND TROUBLESHOOTING

If the operating instructions are not followed properly or there is an equipment malfunction, the fixture will go into ERROR MODE and display an Error Code. Example of the ERROR CODE SCREEN (Blue)

If an ERROR CODE is shown: Immediately push the E-Stop button on the front of the fixture.

Consult the Error Codes Troubleshooting Guide for Error Code list and Failure Analysis (FA) instructions for next steps.

ERROR CODES TROUBLESHOOTING GUIDE

If an error code has been encountered, use this table to identify the Failure Type and Failure Analysis (FA) instructions.

ERROR CODE	FAILURE TYPE	FAILURE ANALYSIS (FA) INSTRUCTIONS
E82	Fixture failure. Exchange immediately. No FA needed.	1. Hit E-stop immediately. 2. Turn fixture power switch off. 3. Unplug fixture. 4. Discontinue fixture use. 5. Contact seller for support.
E83	Fixture failure. Exchange immediately. No FA needed.	
E84	Fixture failure. Exchange immediately. No FA needed.	
E85	Fixture failure. Exchange immediately. No FA needed.	
E86	Fixture failure. Exchange immediately. No FA needed.	
E01	Suction cup lowered before minimum heat timer ended. Potential sensor failure. Exchange fixture if FA does not resolve error.	1. Hit E-stop immediately. 2. Turn fixture power switch off. 3. Raise suction cup. 4. Remove Heated Display pocket & phone. 5. Reset E-stop. 6. Turn fixture power switch back on. 7. Restart repair process following SOP closely. 8. If Error code persists after 3 tries using correct SOP, contact seller for support.
E02	15 minute countdown timer reached before Heated Display Pocket ejected. Potential sensor failure. Exchange fixture if FA does not resolve error.	
E05	There is no device on the Heated Display Pocket. Potential sensor failure. Exchange fixture if FA does not resolve error.	
E15	Fixture part failure. Exchange fixture if FA does not resolve error.	
E18	Fixture part failure. Exchange fixture if FA does not resolve error.	
E35	Fixture part failure. Exchange fixture if FA does not resolve error.	
E37	Fixture part failure. Exchange fixture if FA does not resolve error.	
E57	Fixture part failure. Exchange fixture if FA does not resolve error.	
E62	Fixture part failure. Exchange fixture if FA does not resolve error.	
E67	Fixture part failure. Exchange fixture if FA does not resolve error.	
E72	Fixture part failure. Exchange fixture if FA does not resolve error.	
E76	Fixture part failure. Exchange fixture if FA does not resolve error.	
E04	Potential Heated Display Pocket issue. Extra HP required for full FA. Exchange fixture if FA does not resolve error.	1. Hit E-stop immediately. 2. Turn fixture power switch off. 3. Raise suction cup. 4. Remove Heated Display Pocket & phone. 5. Reset E-stop. 6. Turn fixture power switch back on. 7. Restart repair process following SOP closely. 8. If Error code persists after 3 tries using correct SOP and same Heated Display Pocket, retrieve a different Heated Display Pocket & phone for that Heated Display Pocket. (Same phone can be used if same model Heated Display Pocket) 9. Restart repair process with different Heated Display Pocket following SOP closely. 10. If Error code persists after 3 tries using correct SOP and different Heated Display Pocket & phone, contact seller for support.
E21	Potential Heated Display Pocket issue. Extra HP required for full FA. Exchange fixture if FA does not resolve error.	
E22	Potential Heated Display Pocket issue. Extra HP required for full FA. Exchange fixture if FA does not resolve error.	
E36	Potential Heated Display Pocket issue. Extra HP required for full FA. Exchange fixture if FA does not resolve error.	
E38	Potential Heated Display Pocket issue. Extra HP required for full FA. Exchange fixture if FA does not resolve error.	
E51	Potential Heated Display Pocket issue. Extra HP required for full FA. Exchange fixture if FA does not resolve error.	
E54	Potential Heated Display Pocket issue. Extra HP required for full FA. Exchange fixture if FA does not resolve error.	
E58	Potential Heated Display Pocket issue. Extra HP required for full FA. Exchange fixture if FA does not resolve error.	
E63	Potential Heated Display Pocket issue. Extra HP required for full FA. Exchange fixture if FA does not resolve error.	
E68	Potential Heated Display Pocket issue. Extra HP required for full FA. Exchange fixture if FA does not resolve error.	
E73	Potential Heated Display Pocket issue. Extra HP required for full FA. Exchange fixture if FA does not resolve error.	
E77	Potential Heated Display Pocket issue. Extra HP required for full FA. Exchange fixture if FA does not resolve error.	

