



Field Replacement Guide for iComfort® HD Display 3.0

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! WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life.

Installation and service must be performed by a licensed professional HVAC installer (or equivalent) or a service agency.

General

This HD Display replacement kit is used to replace any previous version of the HD Display (versions 1.0, 2.0 and 3.0). Read this entire document, noting which procedures pertain to your specific equipment and system requirements.

NOTE: *If replacing a HD display that used a mag-mount, verify that the thermostat firmware is 03.60.xxx or higher. Display will not function correctly under any earlier firmware version.*

- Make sure that all wiring conforms to local and national building and electrical codes and ordinances.
- Do not Install on voltages higher than 30VAC.
- Do not exceed 300 feet (91 meters) run when using 18 or 22 AWG thermostat wire.

- Do not allow load from any thermostat connection to be more than 1 AMP.

Replacing Old HD Display and Mag-Mount (Versions 1 and 2)

Removing Display and Mag-Mount

1. Disconnect power to the entire system.
2. To remove HD display from MAG-MOUNT base rotate in either direction the HD display 30 degrees and pull away from wall to remove. Failure to rotate display before pulling off requires much more force to be used and may pull out wall anchors.
3. Take a picture or make a drawing showing the control wires and what terminals they are connected too.
4. Disconnect control wiring.
5. Remove all the screws securing the Mag-Mount to wall.
6. Discard old HD Display and Mag-Mount.

Installing New HD Display

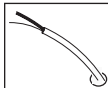
Use the following procedure for installation of the Subbase where existing thermostat wiring does not exist:

1. Unpack the HD Display and subbase.
2. Detached subbase from HD Display body.

IMPORTANT

Be careful not to bend the four connection pins protruding from the back side of the HD Display. **DO NOT** lay display down on side with pins. Damage pins could cause power and communication issues between the HD display and smart hub.

2. Pull about three inches (75mm) of the existing thermostat wire through the existing opening.



Seal wire hole in wall to prevent cold or hot air from affecting temperature sensor in display.

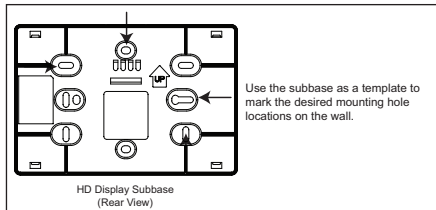
! IMPORTANT

Seal wire hole in wall to prevent cold or hot air from affecting temperature sensor in HD Display.

3. Use a level to align either the subbase or wall plate on wall horizontally.

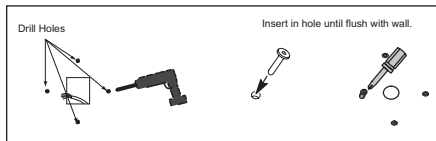


4. Use subbase as a template to mark the desired mounting hole locations on the wall.



5. Drill 3/16" (5 mm) holes at marked locations on the wall for anchors. Then insert

wall anchors into holes until flush with the wall.



! WARNING

DO NOT over-tighten mounting screws. Doing so may distort the subbase plastic housing and cause connection issues when installed the HD display.

6. Secure subbase with provided #6 x 1.25" pan-head screws (4).
7. Connect thermostat wiring to subbase screw terminals referencing provided wiring diagrams in this guide.

NOTE: Verify that the subbase access cover is reinstalled correctly to the Subbase base. The access cover must be flush with the base or could cause power or communication issues.

Attaching HD Display Attachment

1. Hold the HD Display by the edges, line it up with the subbase (horizontal position), and move the HD Display toward the subbase.
2. Center the cavity on the back of the display over the subbase.
3. Gently press on the edges of the HD Display until you hear the mounting snaps engage. Be careful not to apply force directly on the glass.

NOTE: *Once the HD Display is connected, it may take up to 45 seconds for it to power up.*

4. To remove the HD Display from the subbase, grasp the left and right edges of the HD Display and gently pull towards yourself.

NOTE: *If the HD Display is removed from the subbase, the HD Display will shut down and will not be able to communicate with the system. System can be controlled from mobile devices or consumer/dealer web portals once registration has been completed.*

5. Do not remove the label covering the HD Display screen until after power is applied to the system.

HD Display External Components

- **Proximity sensor** - Detects a person approaching the HD Display. If the HD Display is in Screen Saver mode and the Proximity Sensor setting is enabled, the proximity sensor takes the HD Display out of screen saver mode automatically and returns to the home screen when someone approaches.
- **Humidity sensor** - This is the intake location for the humidity sensor. Do not block.
- **Power button** - Turns off the HD Display when pressed and held for about five (5) seconds.
- **microSD card slot** - Not functional, for future use.
- **Micro USB connector** - Not functional, for future use.

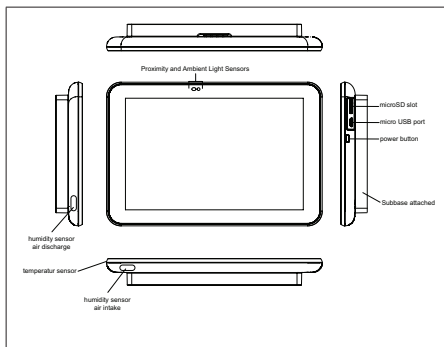


Figure 1. HD Display 3.0 Components
Connecting Low Voltage Wiring

The following diagrams in this section illustrates the basic Lennox control wiring for all compatible components.

- Do not locate the sensor near driveways or similar heat-absorbing masses which may reflect stored heat energy onto the sensor and send inaccurate information to the thermostat.
- Locate the sensor away from attic and soffit vents, or furnace venting pipes.

- Do not locate the sensor directly above an air conditioner or heat pump.

IMPORTANT

We highly recommend using 2-pair, 18AWG unshielded thermostat cable (field-provided) for power terminals (R, C, 12+ AND 12-). Recommend using 2-pair 22AWG shielded thermostat cable for communications terminals (I+, I-, A and B) which will help eliminate any noise interference.

Table 1. Smart Hub Terminal Designations, Order and Wiring Recommendations

Terminals	Description	Recommended Thermostat Wiring
R	24VAC input	18AWG unshielded
I+	RS-BUS I+	18 - 22AWG shielded
I-	RS-BUS I-	
C	24VAC return	18AWG unshielded

Table 1. Smart Hub Terminal Designations, Order and Wiring Recommendations

Terminals	Description	Recommended Thermostat Wiring
ACC1 and ACC2	Accessory 1 and 2 (typically can be used for 1 or 2 speed ventilators and fresh air damper)	18AWG unshielded
12+	12VDC output	18AWG unshielded
A	Comm bus A	18 - 22AWG shielded
B	Comm bus B	
12-	12VDC return	18AWG unshielded

Replacing HD Display (Versions 3)

Removing Old Display

To remove the HD Display from the subbase, grasp the left and right edges of the HD Display and gently pull towards yourself.

NOTE: *If the HD Display is removed from the subbase base, the HD Display will shut down and will not be able to communicate with the system.*

Installing New HD Display

1. Hold the HD Display by the edges, line it up with the subbase (horizontal position), and move the HD Display toward the subbase.
2. Center the cavity on the back of the display over the subbase.
3. Gently press on the edges of the HD Display until you hear the mounting snaps engage. Be careful not to apply force directly on the glass.

NOTE: *Once the HD Display is connected, it may take up to 45 seconds for it to power up.*