

# How To Setup & Verify Functionality of the SSE Economizer Using the LCD Screen or MAP Gateway

This document is applicable to all commercial unitary products with SSE controls. It assumes the Economizer installation was done correctly.

## Required Procedure:

- 1) Enable the Economizer
- 2) Set Free Cooling Selection
- 3) Enable Continuous Fan Operation In Occupied Mode
- 4) Turn system to Occupied
- 5) Observe Economizer Damper Movement
- 6) Adjust Economizer Minimum Position to meet the Job Specification
- 7) Adjust any additional Job Specification parameters necessary



## 1) Enable the Economizer:

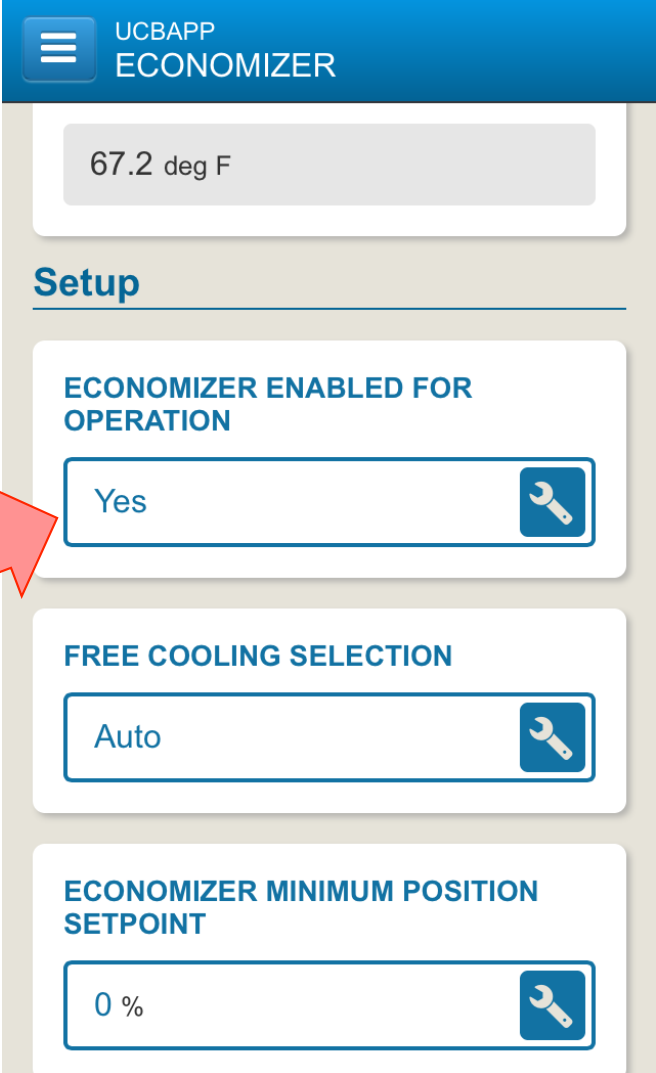
>Details

>Control

>Economizer

>Economizer Enabled for Operation (Econ-En)

Set to "Yes"



UCBAPP  
ECONOMIZER

67.2 deg F

**Setup**

**ECONOMIZER ENABLED FOR OPERATION**

Yes

**FREE COOLING SELECTION**

Auto

**ECONOMIZER MINIMUM POSITION SETPOINT**

0 %

## 2) Set Free Cooling Selection:

>Details

>Control

>Economizer

>Free Cooling Selection

Set to appropriate option\*

\*Options:

Dry Bulb Temperature

Single Enthalpy

Dual Enthalpy

Auto (automatically detects what inputs are available)

*FYI:*  
→Auto sets the changeover method based on the presence of economizer board OAH 2-10 VDC input and UCB RAH 2-10 VDC input  
→Dual Enthalpy requires OAH and RAH inputs to be effective  
→Single Enthalpy requires OAH input to be effective

UCBAPP  
ECONOMIZER

67.2 deg F

**Setup**

**ECONOMIZER ENABLED FOR OPERATION**

Yes

**FREE COOLING SELECTION**

Auto

**ECONOMIZER MINIMUM POSITION SETPOINT**

0 %

### 3) Enable Continuous Fan Operation In Occupied Mode:

>Details

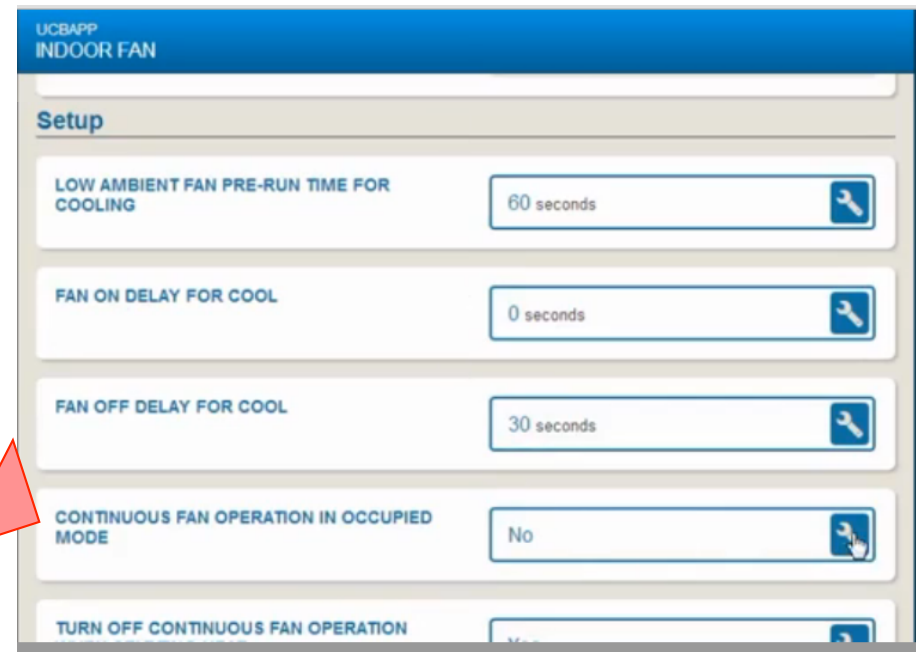
>Control

>Indoor Fan

>Continuous Fan operation in Occupied Mode






(FanOn-Occ)

Set "Yes"



UCBAPP  
INDOOR FAN

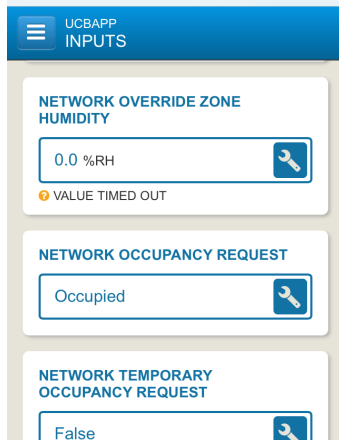
Setup

LOW AMBIENT FAN PRE-RUN TIME FOR COOLING	60 seconds	
FAN ON DELAY FOR COOL	0 seconds	
FAN OFF DELAY FOR COOL	30 seconds	
CONTINUOUS FAN OPERATION IN OCCUPIED MODE	No	
TURN OFF CONTINUOUS FAN OPERATION	Yes	

## 4) Turn system to Occupied:

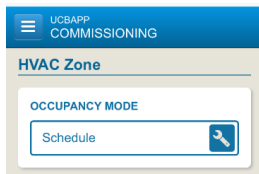
### Method 1) Network Occupancy Request

- >Details
- >Service
- >Inputs
  - >Network Occupancy Request (NetOcc)  
Change to "Occupied"



Occupancy Mode Must be set to "Schedule"

- >Commission
- >HVAC Zone
- >OccMode

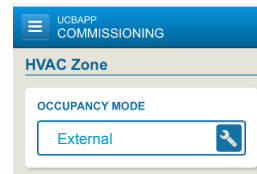


### Method 2) Jumper R to OCC (For Thermostat)



Occupancy Mode Must be set to "External"

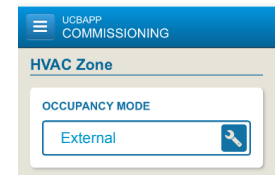
- >Commission
- >HVAC Zone
- >OccMode



### Method 3) Using a BAS

Occupancy Mode Must be set to "External"

- >Commission
- >HVAC Zone
- >OccMode



## 5) Observe Economizer Damper Movement:

>Details

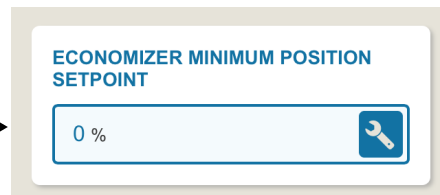
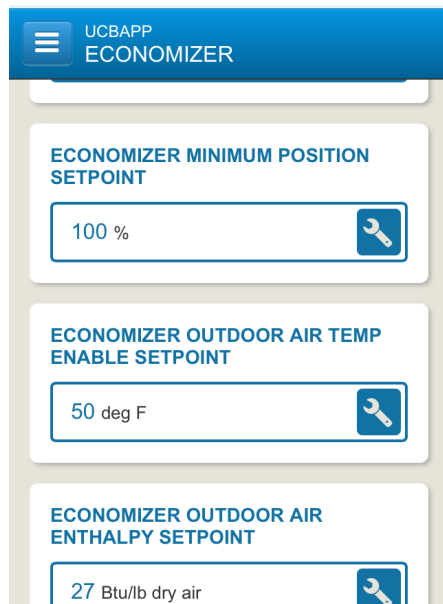
>Control

>Economizer

>Economizer Minimum Position Setpoint (Econ-MinPos)

Adjust to 100% and observe dampers

Once completed, Adjust to 0% and observe dampers



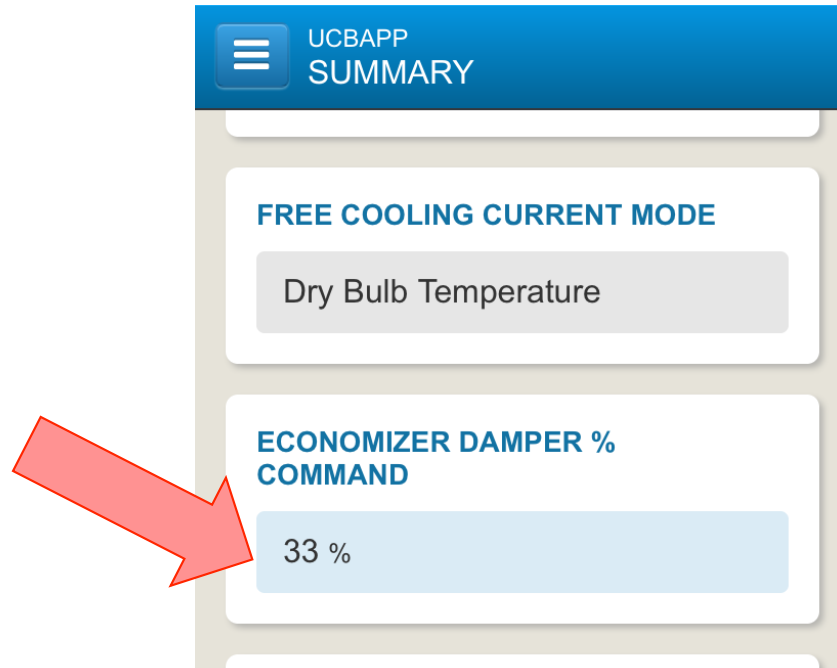
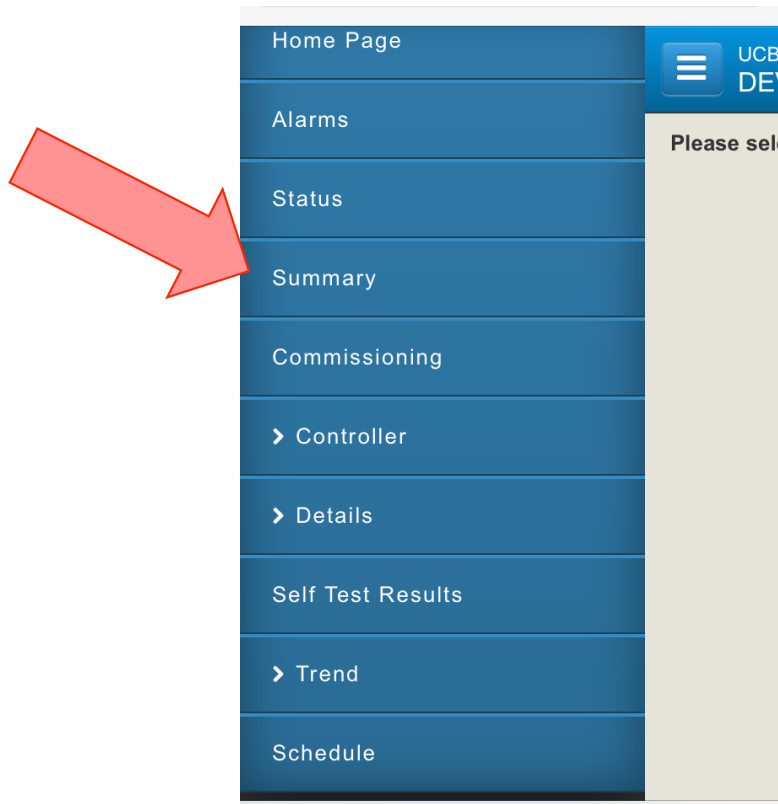
Visual Verification:



**TIP:** You should also observe Economizer Damper Movement using MAP gateway or LCD Screen

>Summary

>Economizer Damper % Command



6) Adjust Economizer Minimum Position to meet the Job Specification:

Job Spec: Outdoor air requirement is X CFM

Use Formula and adjust Economizer Minimum Position until Mixed Air provides proper percentage damper position to meet the CFM target

$$OA\% = \frac{MA^{\circ} - RA^{\circ}}{OA^{\circ} - RA^{\circ}}$$

Where,

OA = Outside Air

MA = Mixed Air

RA = Return Air