

# HUSSMANN®

## CoreLink™

Night Curtain  
Adjustment & Power Loss Protection



**IMPORTANT**

Keep in store for future  
reference!

INSTRUCTION-CORELINK NIGHT CURTAIN

## Application Manual

P/N 3113280\_A  
December 2019

Spanish 3113281\_A

## Objectives

Outline operation of CoreLink case controllers with an Uninterrupted Power Supply (UPS).  
Controller sequence for distributing power loads during power loss and deployment of night shade curtain for food preservation.

## Requirements:

Software	Version
CoreLink Application	2.3.0
CoreLink BIOS	2017011600
E2 Description File	#527-0551 v4.0

Note: This E2 description file listed above is compatible with these CoreLink versions and beyond.

## Operation:

The CoreLink case controller monitors the configured digital input for power loss. A normally open SSR sends 24Vac power to the digital input. When the CoreLink case controller sees the digital input active, case operation is normal.

During power loss, the controller sees the digital input as non-active. During this time, the controller checks for momentary power loss. Now the fans and lights are powered down immediately. If power loss continues, the curtain will start to close after 10 seconds. The controller needs 30-40 seconds to close the night shade curtain. The controller then remains in standby for maximum 3-4 hours before UPS runs out of power. During this period, the controller will monitor the case temperature, log data, and communicate with the BAS system.

When CoreLink case power is restored, the CoreLink will immediately activate the case fans and wait 10 seconds before opening night shade curtain. If power loss occurs during this time, the case fans will turn off and the controller will go back into standby stage.

If power remains ON after the 10 second period expires. The case fans remain ON and the night shade curtain begins to open. The controller needs 30-40 seconds to open the night shade curtain. During this time frame a 40 second light timer has been running since the controller regained power. After the night shade curtain opens, the case lights will turn ON. The case then returns to normal operation.

## Night Curtain Adjustment

Top Adjuster (WHITE Limiter) Note: This limiter is the CLOSED curtain setpoint



Counter Clockwise = Lowers curtain towards air return vent.



Clockwise = Raises curtain towards the top of case.

Bottom Adjuster (RED Limiter) Note: This limiter is the OPEN curtain setpoint



Counter Clockwise = Raises curtain towards the top of case.



Clockwise = Lowers curtain towards air return vent.

## Down Adjustment Procedure

1. Close curtain/DOWN in the Corelink command menu.
2. Curtain should be in a midway position on the case in the DOWN position.
3. Adjust WHITE limiter, top position looking at the curtain adjusters, counter clockwise to lower curtain. When you start to rotate counter clockwise eventually the curtain will start to bump DOWN slowly. Continue to adjust until desired closed limit is reached.
4. DO NOT let curtain aluminum bottom trim touch the bumper or bottom of case. You DO NOT want to increase wear across the surfaces at the bottom of the case if they come in contact.
5. Curtain DOWN is now set.

## Up Adjustment Procedure:

6. Open curtain/UP in the Corelink command menu.
7. Wait for curtain to stop. Hopefully the curtain will stop sooner than the desired maximum limit position. If curtain travels past the upper limit a little more work will be required in order to set the upper limit.

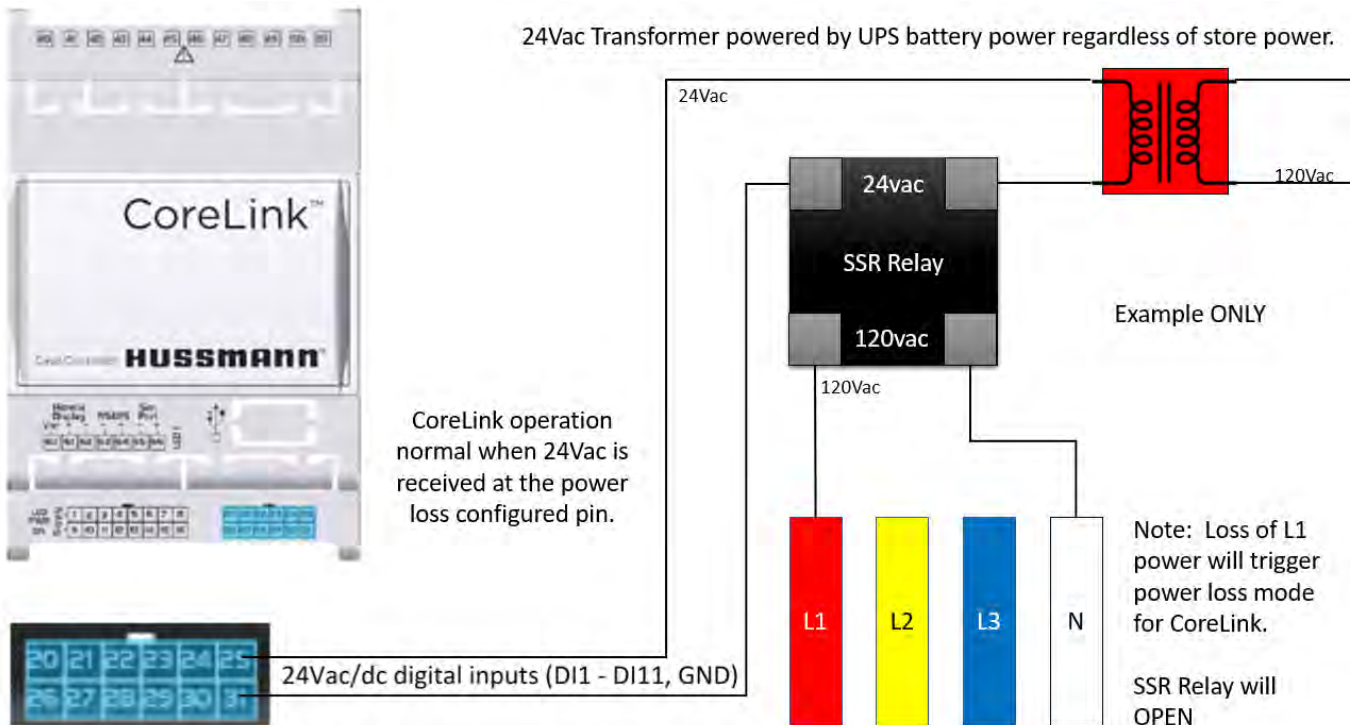
### **Curtain stops midway (ideal situation)**

8. Adjust RED limiter, bottom position looking at the curtain adjusters, counter clockwise to raise curtain. When you start to rotate counter clockwise eventually the curtain will start to bump UP slowly. Continue to adjust until desired closed limit is reached.
9. Retest OPEN/CLOSED and make adjustments as necessary.
10. END

### **Curtain stops above maximum desired height (Less Ideal Situation)**

11. Close curtain/DOWN in the Corelink command menu.
12. With the curtain DOWN, rotate the RED adjuster clockwise 1080° degrees, 3 times round. This will lower the maximum height and hopefully land the curtain in the midway position on the case.
13. Open curtain/UP in the Corelink command menu.
14. Wait for curtain to stop. Hopefully the curtain will stop sooner than the desired maximum limit position. If curtain travels past the upper limit, repeat steps 9 – 11
15. If curtain stops midway adjust RED limiter, bottom position looking at the curtain adjusters, counter clockwise to raise curtain. When you start to rotate counter clockwise eventually the curtain will start to bump UP slowly. Continue to adjust until desired closed limit is reached.
16. Retest OPEN/CLOSED and make adjustments as necessary.
17. END

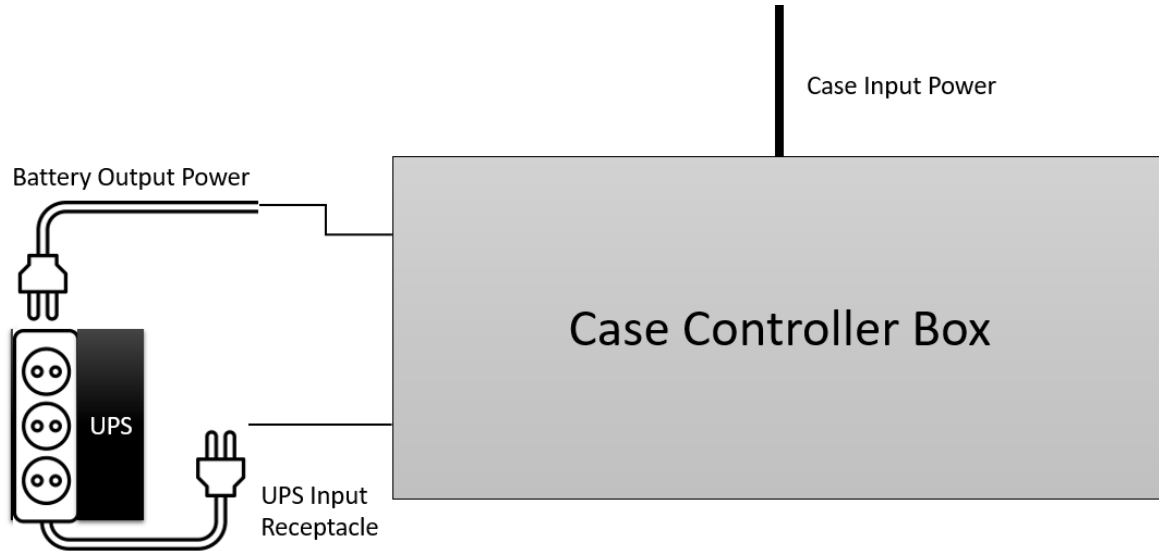
### Hardware Setup:



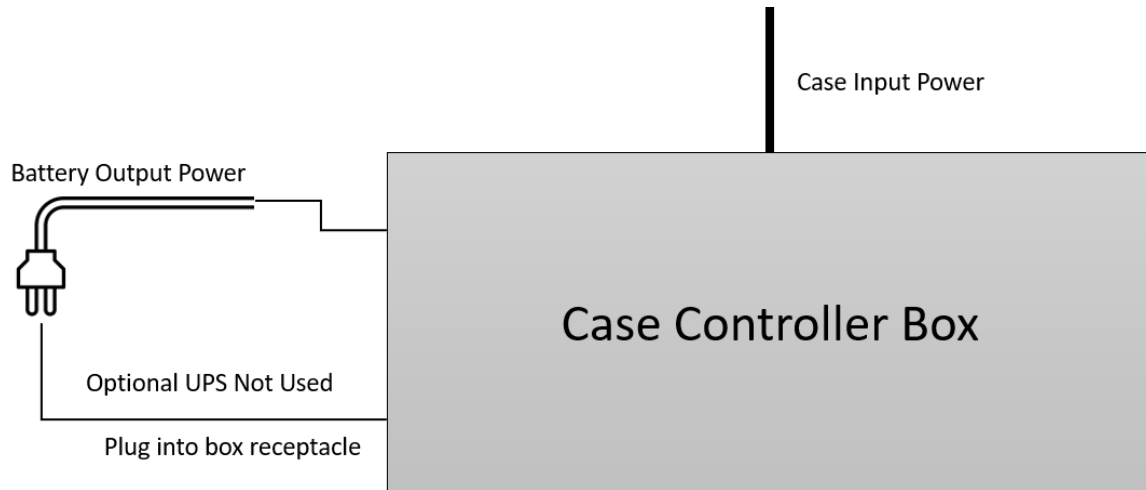
Note: The case main input power is the 3 phase L1 – L3 plus neutral. The UPS is normally powered and charged by L1 during normal store operation. In the event of power loss, the incoming 3 phase power drops to zero. At this point the UPS switches to battery power. If the system is configured correctly, the SSR relay will OPEN. This provides a signal to the CoreLink case controller that store power is no longer available. This event triggers the CoreLink shutdown sequence.

## Optional UPS Power Supply

Hussmann has made it convenient to add a UPS to supported kits. Remove the power cord from the case controller box receptacle and add the UPS in series.



Example shows UPS connected to the case controller box.



Example shows optional UPS not used. Power cord is plugged directly to case controller box receptacle.

## Phase Loss Protection

This protection should not be confused with Phase Loss Protection. Phase loss protection uses a dedicated digital input pin from a source that monitors 3 phase power. A phase loss on a leg can occur for several reasons during normal operation. This protection is for refrigeration compressor motor windings. The 3-phase power monitor might be included inside the case controller box or routed from an external source. Both phase and power loss protection can be configured at the same time.

Issue	Troubleshooting Steps
Store Power <b>ON</b> , Case in Power Loss	Verify that 24Vac is at the correct configured digital input pin. Check transformer & relay operation.
	Verify CoreLink digital input configuration
Store Power <b>OFF</b> , Case not in Power Loss	Verify correct relay used in setup. Relay might be connected to the wrong input power source. Should be connected to a source that is OFF when the store does not have power.
	Verify CoreLink digital input configuration
CoreLink does not have power.	Check UPS supply connections. Check fuse in UPS if available.
Store Power <b>OFF</b> , CoreLink does not have power	UPS not charged
	UPS circuit breaker tripped
	UPS connections lose
	Verify case controller box wiring
	Verify UPS OS configuration (Typically found on larger and more advanced UPS)
Store Power <b>ON</b> , CoreLink does not have power	UPS circuit breaker tripped
	UPS connection lose
	Verify case controller box wiring
	Verify UPS OS configuration (Typically found on larger and more advanced UPS)