Network Setup for Q Control Touch Controllers

Below are the steps needed for networking multiple Q Control Touch Controllers.

First you need to physically connect the controllers together. To do this you can use a 3 conductor CAN cable. We recommend: Belden 3106A. We have the components available individually or we have kits with everything needed as shown below.

CAN Cable sold per reel (250m, 750ft): 1900 0707 92
CAN Cable sold per meter (3ft): 0017 2610 13
CAN Service Connector (male and female connections): 1088 0017 27
CAN Connector (female connection only): 1088 0017 28

CAN Kit 2 Machines (150ft cable): 8092 2840 85

- 150ft of cable
- 3x CAN Connectors
- 1x CAN Service Connector
- Instruction Booklet

CAN Kit 3 Machines (225ft cable): 8092 2840 93

- 225ft of cable
- 4x CAN Connectors
- 1x CAN Service Connector
- Instruction Booklet

CAN Kit 4 Machines (300ft cable): 8092 2841 01

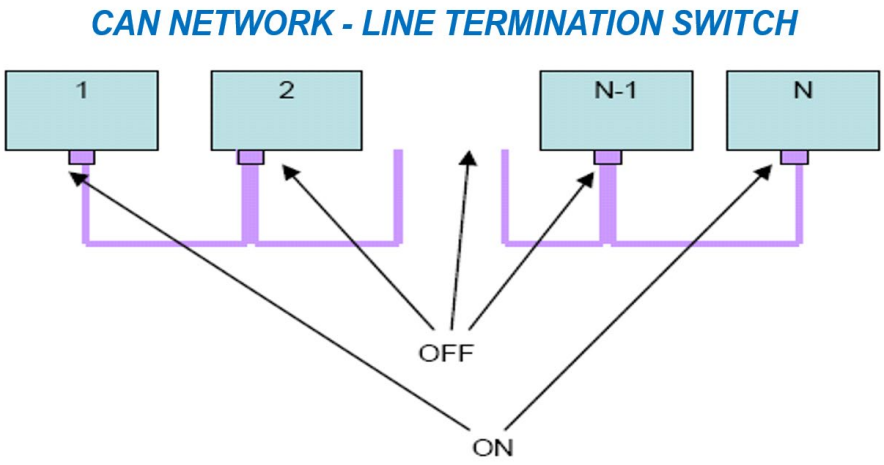
- 300ft of cable
- 5x CAN Connectors
- 1x CAN Service Connector
- Instruction Booklet

CAN Kit 6 Machines (450ft cable): 8092 2841 19

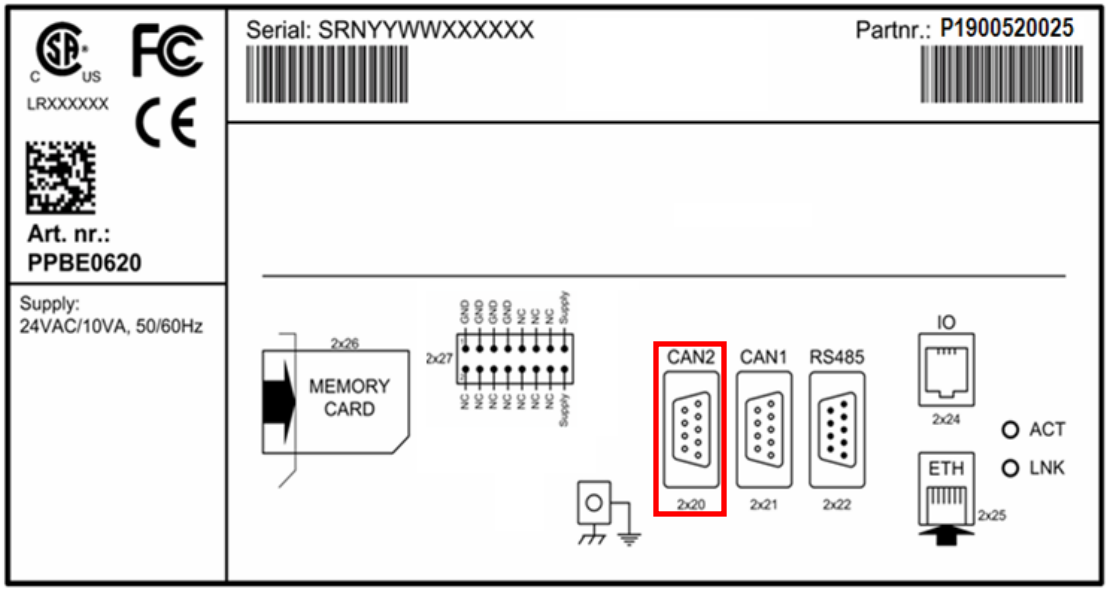
- 450ft of cable
- 7x CAN Connectors
- 1x CAN Service Connector
- Instruction Booklet

The 3 conductors are landed on the GND, C-, and C+ terminals in the CAN connectors. It does not make a difference which colors are connected to each terminal just be sure they are the same throughout the entire chain of cable. If there is a smaller conductor it is normally connected to the GND terminall.

After the cable is installed and terminated with the proper connectors be sure that the terminating resistor switches are in the correct position. The two end connectors (a connector with only one wire going into it) must have the switches on and the conductors must be landed on the 1C- and 1C+ terminals, the other connectors in between them (a connector with two wires going into it) must have the switches off. The image below depicts this:

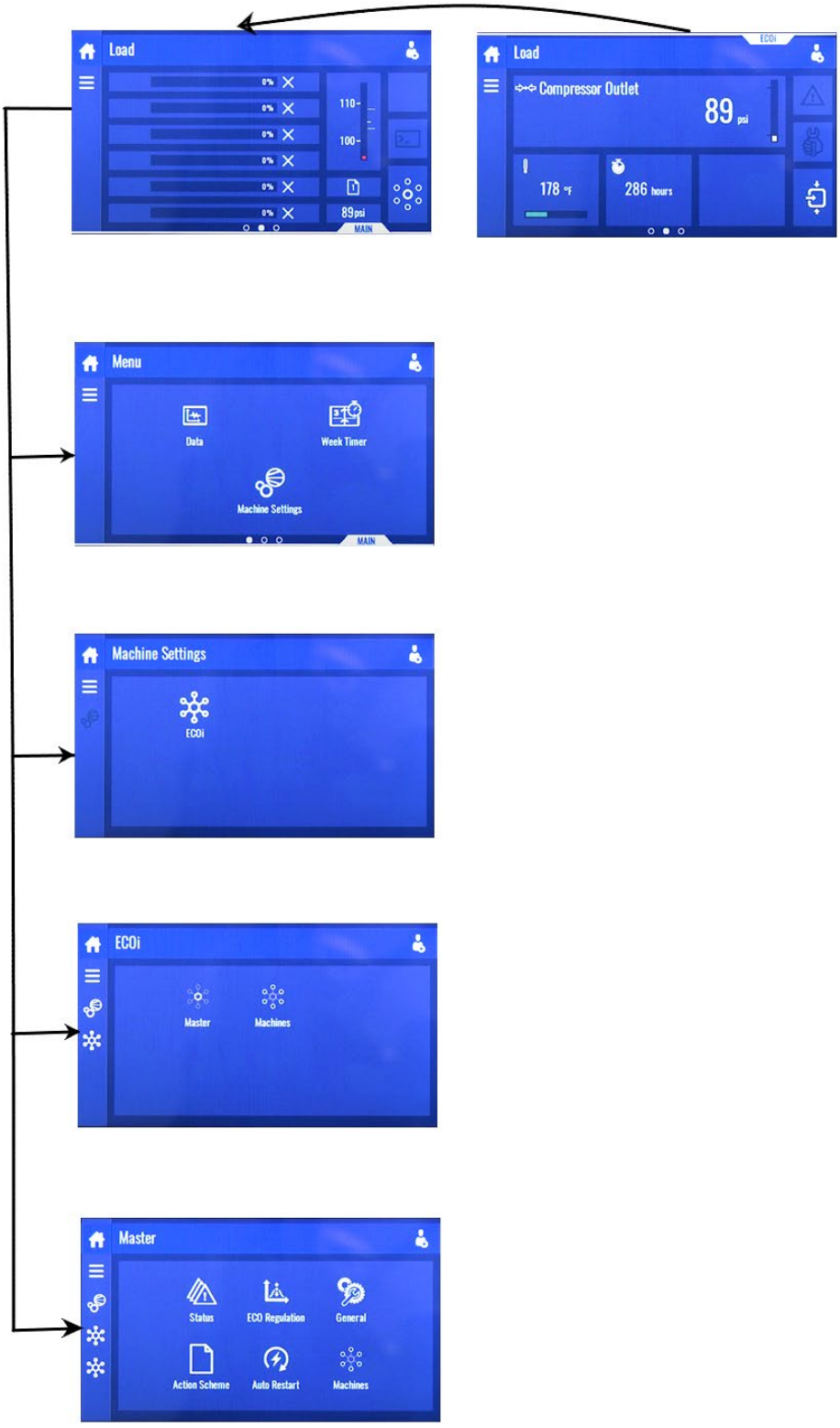


The cables are now ready to be connected to the controller. You will connect all networking cables to the CAN 2 port on the back of the screen. Below is an example diagram of the controller connections:



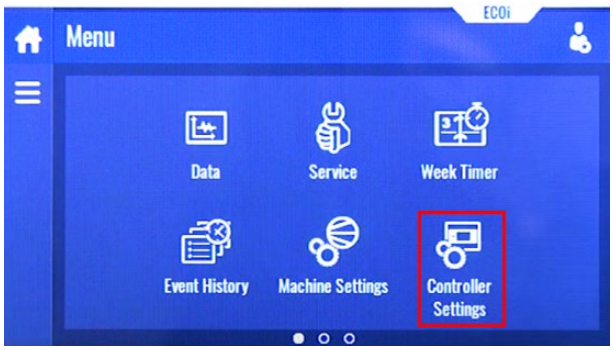
Menu structure

Operating the controller can be done by swiping through screens and tapping icons or menu items.

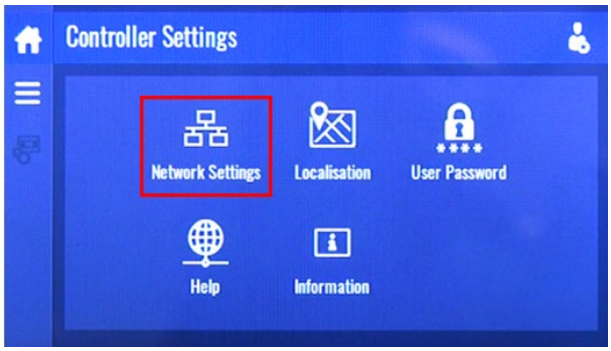


You need to set the CAN address on all compressors in the network. To set the CAN addresses follow the steps below:

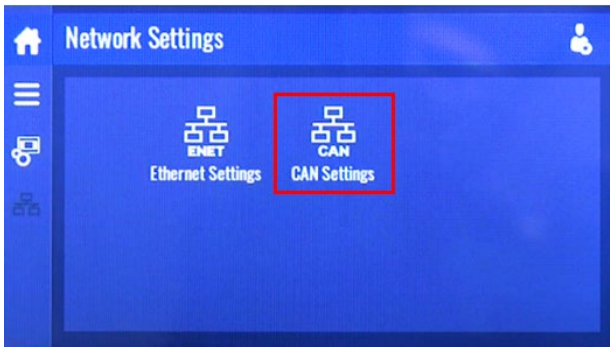
1) Select ☰ icon.



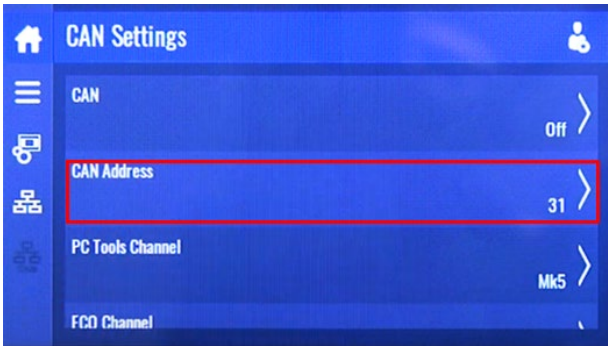
2) Select “Controller Settings”.



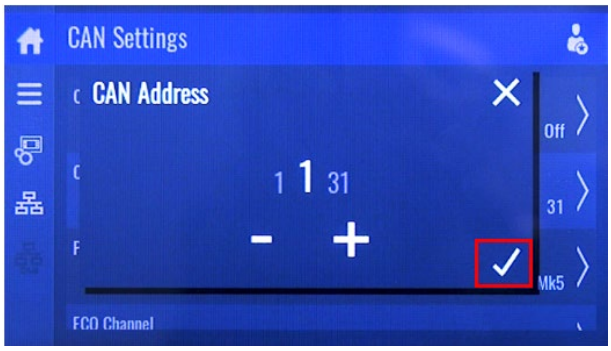
3) Select “Network Settings”.



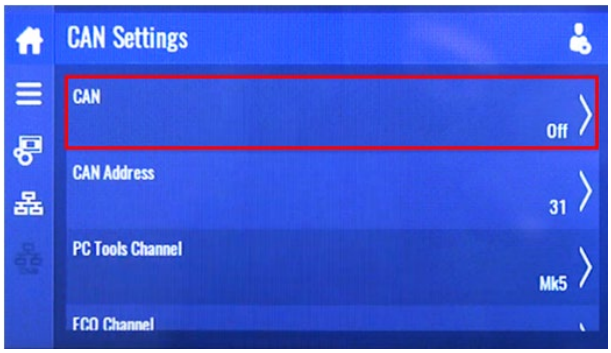
4) Select “CAN Settings”.



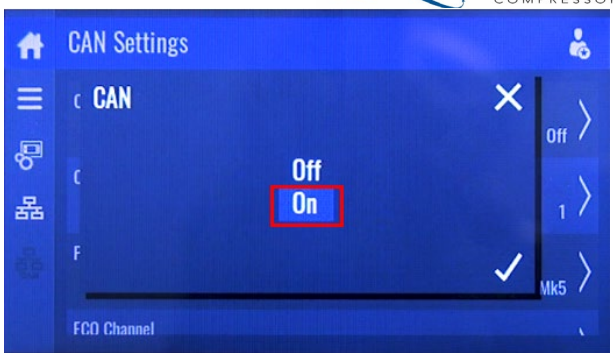
5) Select “CAN Address”.



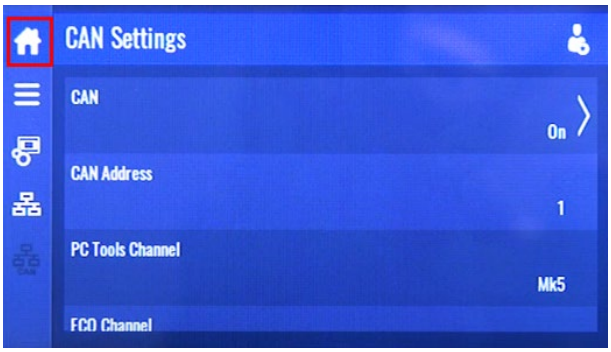
6) Set the CAN Address from 1-6.



7) Select “CAN”.



8) Set the CAN to On.



9) Select icon.

10) Swipe left and select icon.

11) Select “LAN Control”

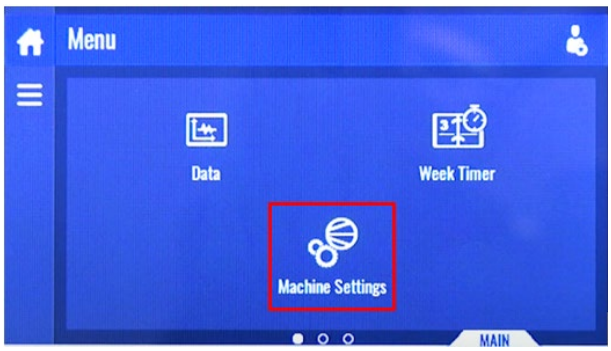
Complete steps 1 to 11 on all compressors in the Network.

Next you need to designate one compressor as the master in the network. The Master compressor can be any compressor with an ECOi License Key installed on it. These come standard on most of our units **(Not on QGS, QOF, and QSV)** so most Quincy Compressors can be a Master on the network. We can only have one master on the network at a time. We typically designate the #1 compressor as the master. However, any compressor that has the ECOi option enabled on it, can be designated as the master.

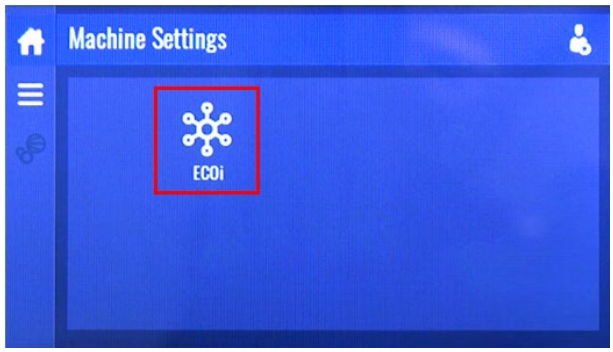
STEPS 12-43 ARE TO BE COMPLETED ONLY ON THE MASTER COMPRESSOR.

12) Swipe down from the top of the screen.

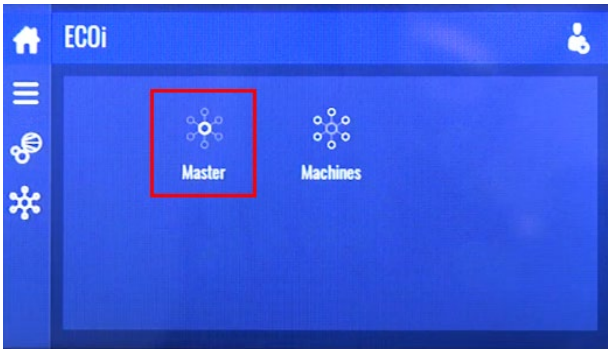
13) Select ☰ icon



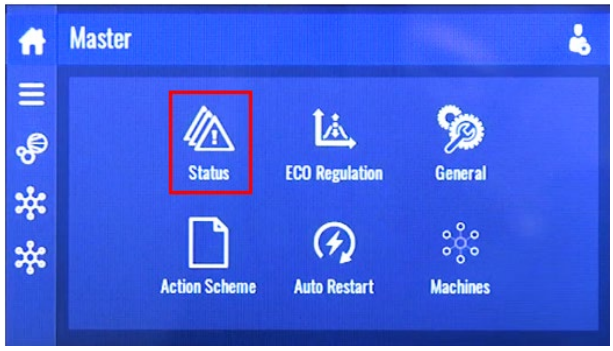
14) Select “Machine Settings”



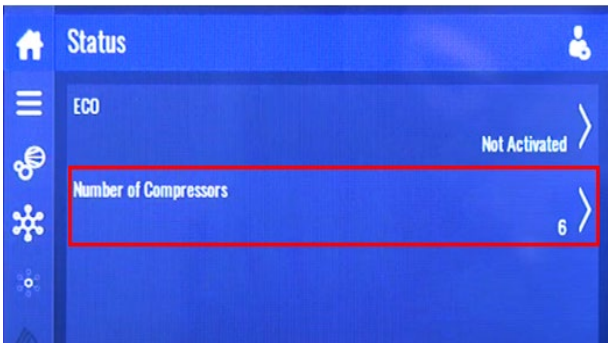
15) Select “ECOi”



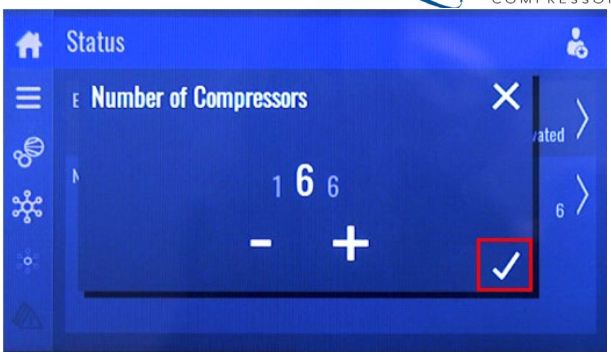
16) Select “Master”.



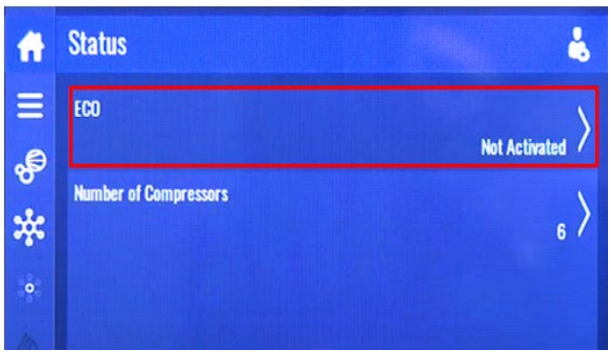
17) Select “Status”.



18) Select “Number of Compressors”.

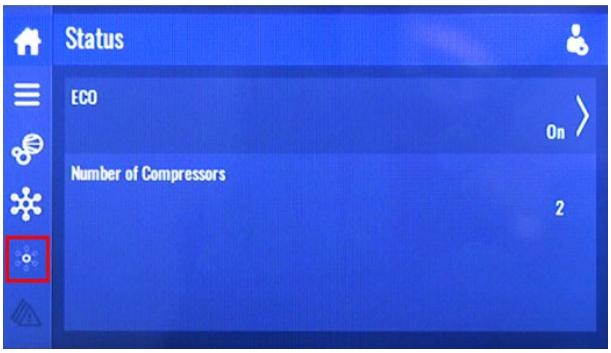


19) Set the number of compressors.



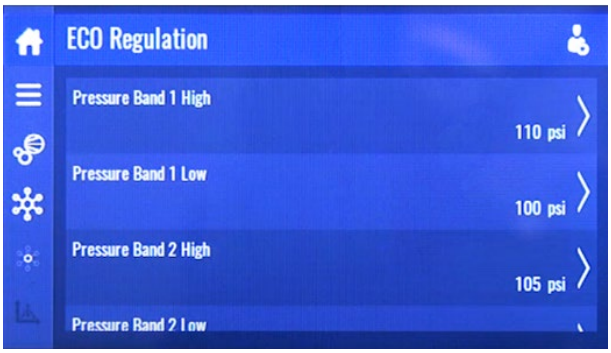
20) Select “ECO”.

21) Set the ECO Status to On.

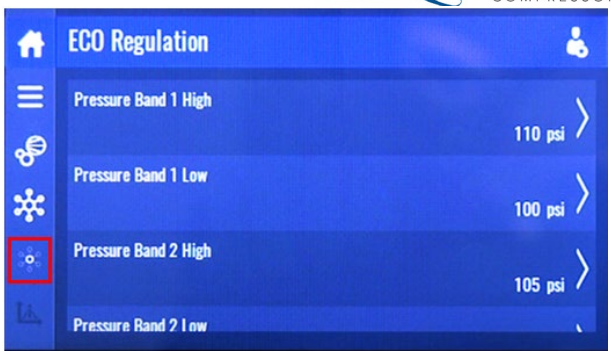


22) Select  icon.

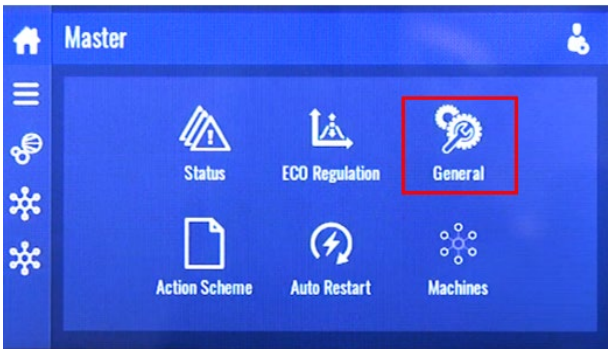
23) Select “ECO Regulation”.



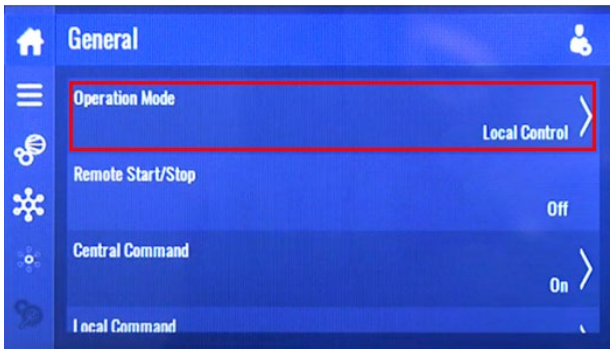
24) Set the pressure bands for network operation.



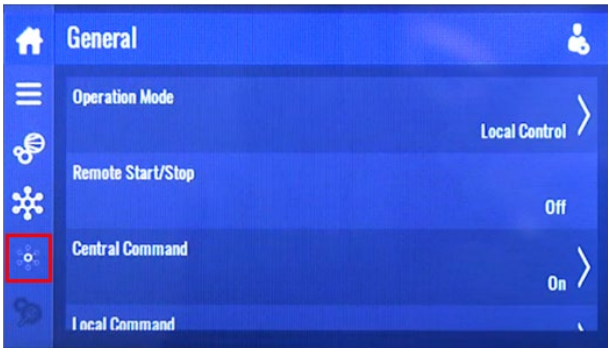
25) Select icon.



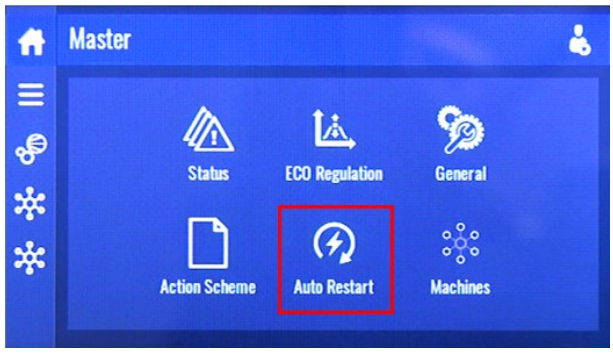
26) Select “General”.



27) Set the Operation Mode to Local Control.

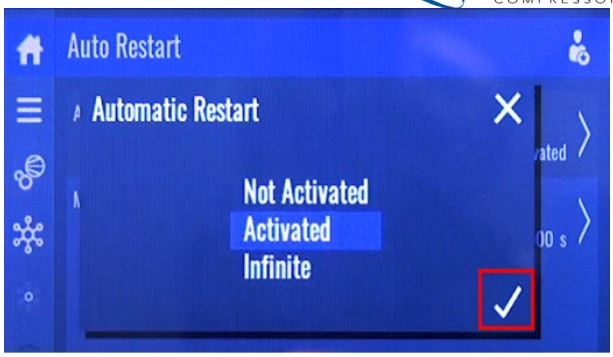


28) Select icon.



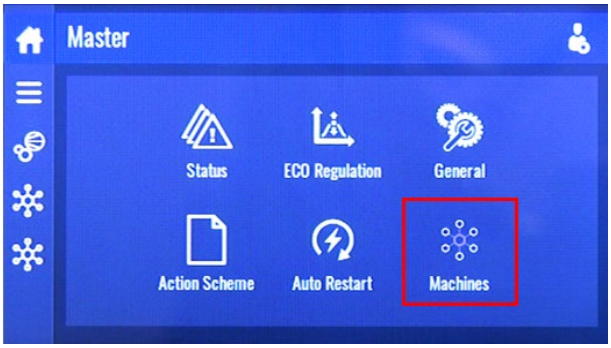
29) Select “Auto Restart”.

30) Select “Automatic Restart”.



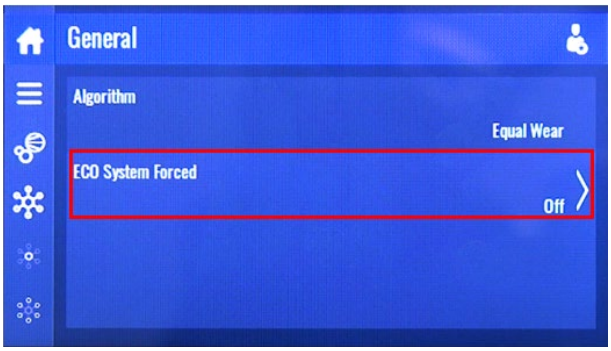
31) Set Automatic Restart to Activated.

32) Select icon.



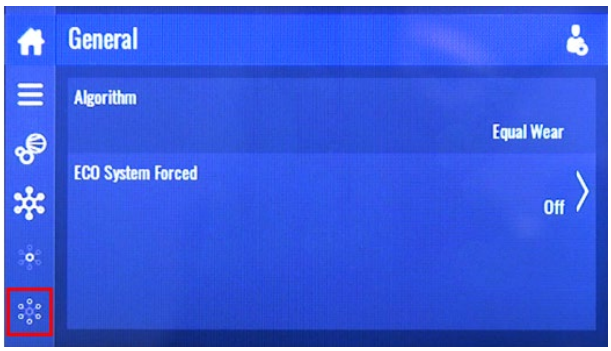
33) Select “Machines”.

34) Select “General”.



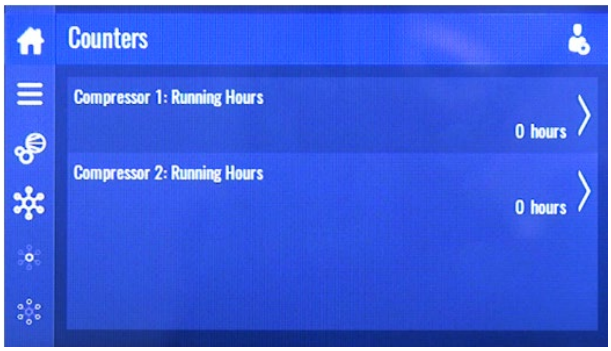
35) To force the compressors to rotate after a certain number of hours, set “ECO System Forced” to On. Please note that, typically, “ECO System Forced” is set to Off.

Note: The algorithm for the master controller is set to Equal Wear. With Equal Wear, the controller will start the units with the least number of hours and stop the units with the most number of hours.

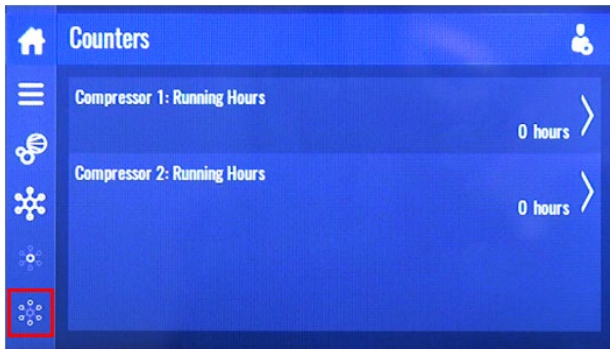


36) Select icon.

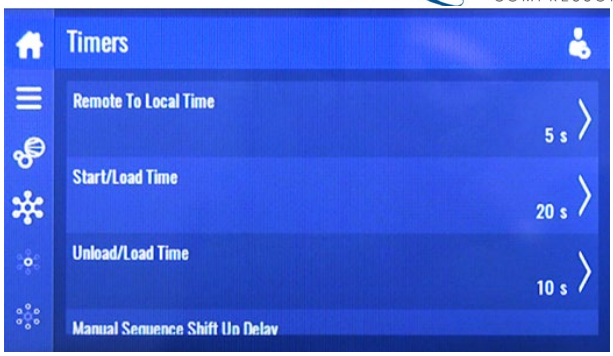
37) Select “Counters”.



38) Set the running hours for each compressor.

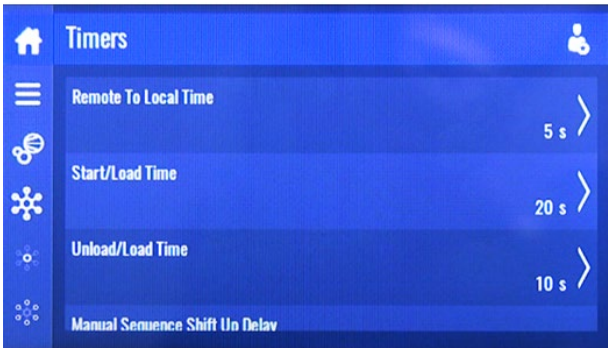


39) Select icon.



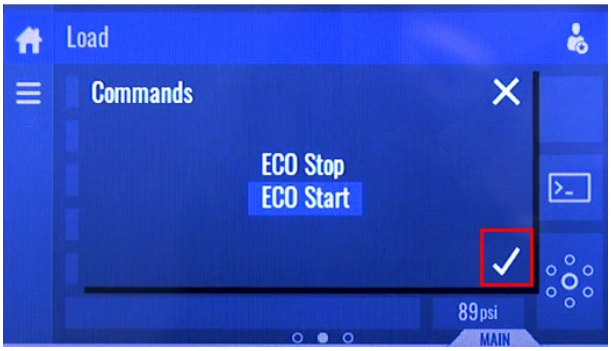
40) Select “Timers”.

Designation	Description
Remote to Local Time	Controller will wait for set time before switching from LAN/Remote control to local control.
Start/Load Time	Controller will start a compressor and wait for set time before starting the next compressor.
Unload/Load Time	Controller will load a compressor and wait for set time before loading the next compressor.
Manual Sequence Shift Up Delay	This option is not applicable for Equal Wear algorithm.
Manual Sequence Shift Down Delay	This option is not applicable for Equal Wear algorithm.
Forced Time	If the System Forced Function is activated, at step 35, the ECO system will force the next available unit to start following the normal ECO algorithms.
Delta Time	In Equal Wear, this is the maximum amount of Running Hours the ECO system will allow the compressors to differ. Consider a stopped compressor which has running hours that are more than the Delta Time amount of running hours behind an unloaded compressor. The stopped compressor will start instead of loading the unloaded compressor. 168 hours is a weekly rotation (24 hours per day for 7 days of the week).



41) Select  icon.

42) Select  icon.



43) Select ECO Start to start the master controller.

The  icon denotes that the ECO master controller is controlling the network.

If you select the  icon and no commands appear, refer step 27 and check that the “Operation Mode” is set to Local Control.

Note: The algorithm for the master controller is set to Equal Wear. With Equal Wear, the controller will start the units with the least number of hours and stop the units with the most number of hours.

Note: If you select “ECO Stop”, it will Stop ALL compressors in the network. In the same menu, you can select “ECO Local”. This will allow you to put all compressors in network control back to local control.