

ACH550 and E-Clipse Bypass Basic Start-up Cheat Sheet

This cheat sheet will provide instructions for completing the programming portion of your startup. Please review the manual for any installation and safety instructions prior to beginning work.

These instructions assume that your external control wiring consists of an analog speed reference, a digital start/stop, and a digital safety interlock. It also assumes that you will be using the "E-Clipse" macro which is by definition the default when you power up the VFD & Bypass system.

Step 1 – Landing your Control Wiring & Setting Jumpers on the VFD control board

1. Set your J1 (Resistor) jumper located above the control board. This jumper allows you to select volts dc or milliamps for your analog input. You will see (2) switches – the top switch is for AI1 and the bottom switch is for AI2. You will be using AI1 for your speed reference so set the AI1 jumper as follows.

The switch is in the off (left) position for a VDC signal

The switch is in the on (Right) position for a Milliamp signal

2. Land your external speed reference wire to the control board on terminals 2 and 3 of the control board. (Terminal 2 is positive)

Step 1A – Landing your Control Wiring & Setting Jumpers on the Bypass control board

3. Wire terminal 1 to terminal 5 through relay (relay supplied by others) for Start/Stop
4. Wire terminal 1 to terminal 7 through relay (relay supplied by others) for Safety Interlock
5. Optional "system running" relay output – Wire to terminals 14 and 16
6. Optional "System Fault" relay output – Wire to terminals 11 and 12 for fault indication or terminals 11 and 13 for fault "not" indication

Step 2 – Setting your parameters on the VFD keypad

1. 9902 – Make sure it is set to (E-Clipse)
2. 9905 – Set your motors nominal voltage (from motor name plate)
3. 9906 – Set your motors nominal current (from motor name plate)
4. 9907 – Set your motors nominal frequency (from motor name plate)
5. 9908 – Set your motors nominal RPM / Speed (from motor name plate)
6. 9909 – Set your motors nominal HP (from motor name plate)
7. 1301 – This parameter scales your analog input. If you have a 2-10 VDC or a 4-20 MA signal do not change this parameter. If you have a 0-10 VDC signal change this parameter to 0%
8. 2007 – This is your minimum frequency setting. Set this to your required minimum speed (usually 15hz or so for an Air handling Unit)
9. 2202 – Set your required acceleration time. (60 seconds is usually fine)
10. 2203 – Set your required deceleration time. (60 seconds is usually fine)
11. 3404 – Set to (Direct) **Note: This sets up your keypad to read HZ on the top line of the keypad**
12. 3405 – Set to (HZ) **Note: This sets up your keypad to read HZ on the top line of the keypad**

Step 3 – Setting the clock

Go to the main menu and select "TIME & DATE" and follow the prompts

Step 4 – Backing up parameters to the Keypad

Hit the off Button. Go to the main menu and select "PAR BACKUP" and follow the prompts

Congratulations you have set up your ACH550 & E-Clipse Bypass!

Don't forget to check rotation