

IMPORTANT TECHNICAL UPDATE—Read before installation!

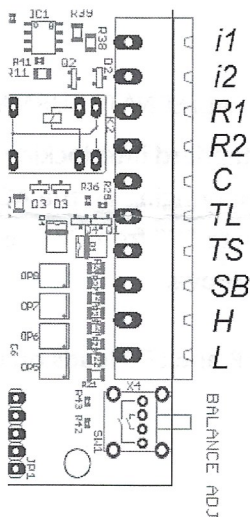
TECHNICAL BULLETIN: NEW FEATURES OF 'ES CLASS' CONTROL BOARD & UPDATING V.1 BOARDS

From the middle of April, 2013, Nu-Air introduced its newest version of HRV/ERV control board with new and enhanced features. As such, all involved product manufactured from this period onward will have this update document attached and shipped within its manual. With this change, 24 VAC terminal block designations also changed. **Use information in this document when replacing a V.1 board with a V.2 board.**

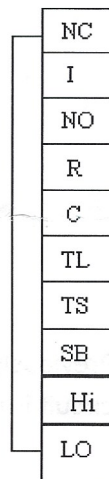
To otherwise verify if your product has these new features, consult the serial number on the products identification label:

Example: NU145**1304**XXX

Bear in mind that product manufactured in the earlier part of April 2013, despite serial number characteristics matching the above, would not have these features.



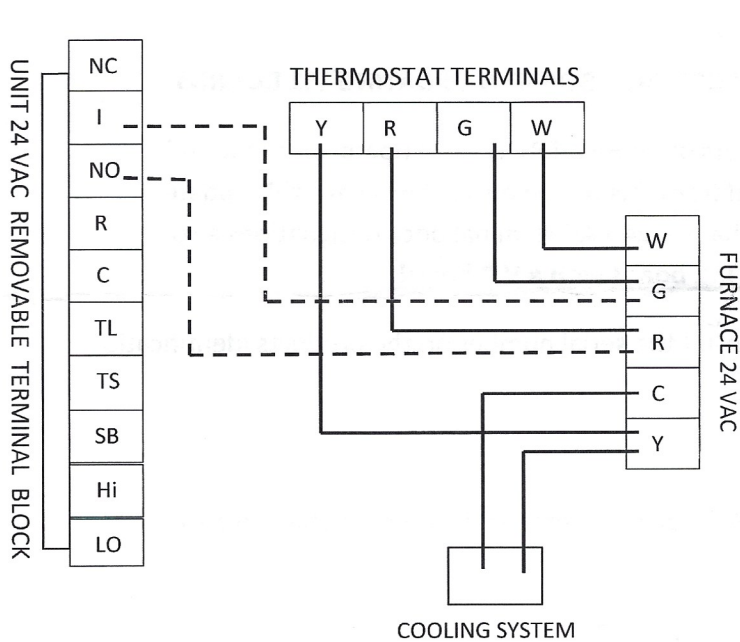
Version 1 Wiring Labels



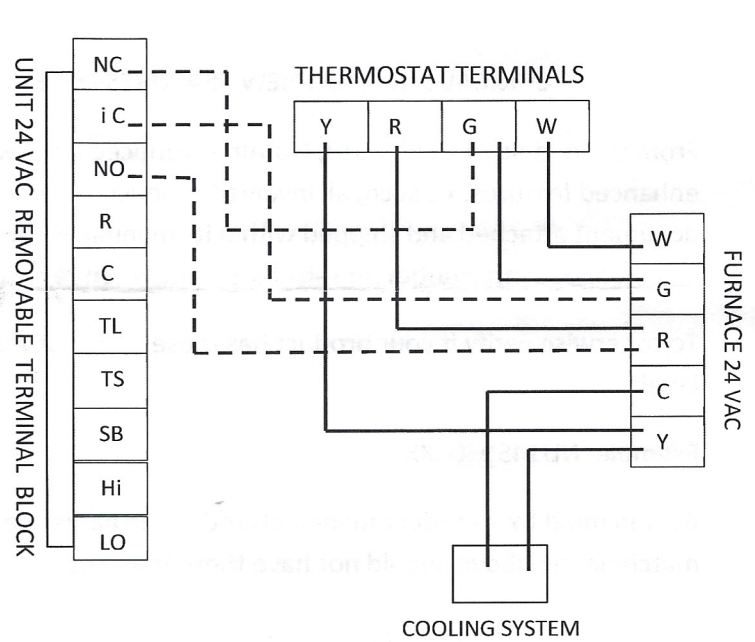
Version 2 (current) Wiring Labels

Version 1 terminal blocks can still be used with Version 2 boards, provided appropriate adjustments are made to Furnace Interlock and control wire locations.

1. FURNACE INTERLOCK. Where previous versions supplied 24 VAC through the furnace G and C terminals, current models will interlock with dry contacts in a normally open/normally closed switching principal



STANDARD FURNACE INTERLOCK



ALTERNATE FURNACE INTERLOCK

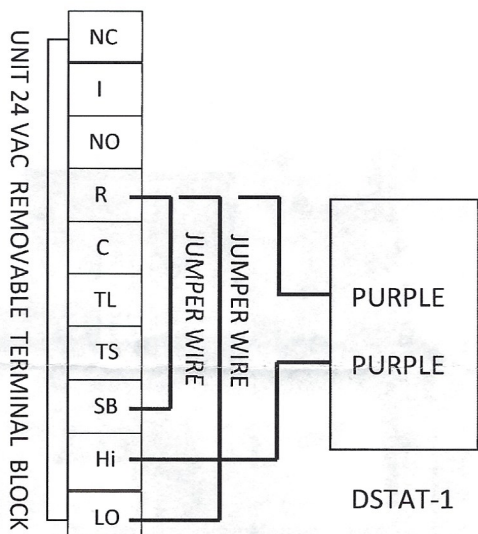
If the standard interlocking method has the unwanted effect of bringing on the AC, i.e. thermostats that do not isolate "G" from "Y", use the alternate method shown above.

2. Enhanced 24 VAC circuit protection. Previously, contact between R and LED leads on the Win-20 would result in a permanently lit Win20 LED. This circuit is not fully protected.
3. STATUS INDICATORS.

CONDITION	LED AND STATUS
NO LED	UNIT/TRANSFORMER IS NOT POWERED
UNIT OFF	Red is off, Green is blinking slow, every 1 s. Also indicates processor is programmed and running.
STANDBY	Green is OFF. Red led is blinking slow, every 1 s.
EXHCHANGE LOW SPEED	Green ON. Red blinking slow, every 1 s.
EXCHANGE HIGH SPEED	Green ON. Red blinking fast.
DEFROST	Green ON, Red blinking slow, every 1s.
RECIRCULATION LOW SPEED*	Red led ON, Yellow blinking slow, every 1s.
RECIRCULATION HIGH SPEED*	Red led ON, Green led blinking fast.

*Where available

4. 24 VAC Wiring—Terminal Block label changes. As a result of the change in furnace interlock mechanism, the wiring of 24 VAC external controls is still as easy as ever, but as illustrated below, "R1" is eliminated.



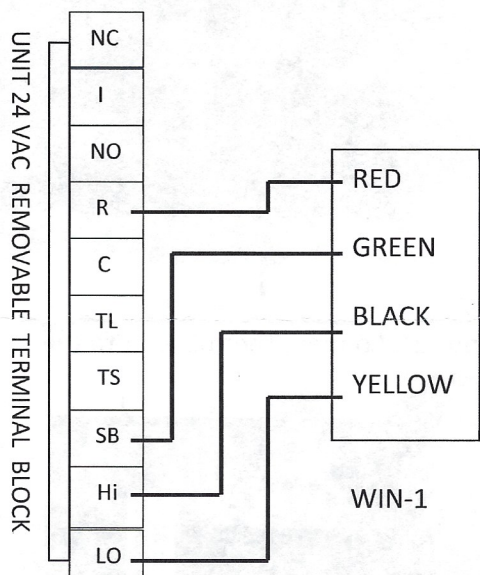
Basic 24 VAC Wiring or DSTAT-1

For intermittent high speed operation, connect Nu-Air PN DSTAT-1, dedicated (RNC) wall switch, CO₂ sensor, etc. to R and Hi terminals.

For continuous low speed, connect jumper wire to R and LO terminals.

Where required, C terminal may be used for controls requiring external 24 VAC power source.

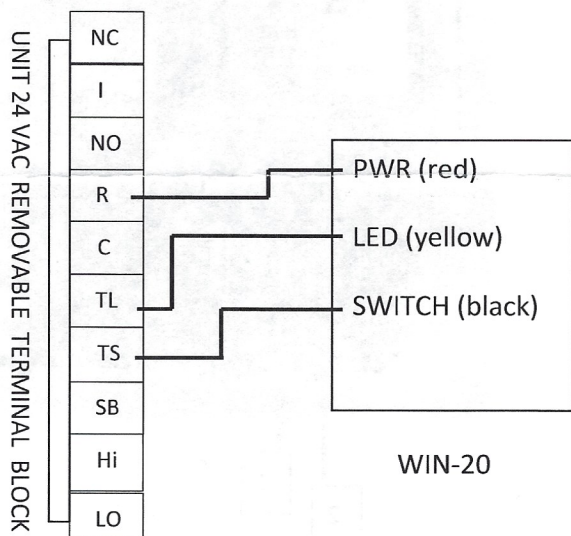
For two-wire switching, and where local building regulations permit, Nu-Air recommends a jumper wire between R and SB to engage the unit in standby mode.



Win-1

Choose from the following operating modes:

1. Off
2. Standby
3. Continuous low speed
4. Intermittent high speed
5. Continuous high speed



Win-20 Timer

Up to 6 Win-20 timers may run off of one system.

If using only the Win-20 timer as a means of remote control, connect jumper wire between R and SB.



September 9, 2024

Technical Bulletin

Starting September 2024, Nu-Air will phase in a new version of circuit board for production and replacements. The part number will remain CBRK2. **A model's serial number is important to ensure that any replacement board has the correct firmware for the unit being repaired, as with the original version of CBRK2.**

This replacement affects “residential” ES095E, ES100H, ES150H, NU145H, NU160, ES160H, ES160E NU165, ES170, NU205, ES210, and Contractor Edition models. The change also applies to NU305, NU500, NU600, NU800, NU1200 and NU1600.

For units equipped with ONE thermistor, use the center-most receptacle to connect it to the board, labelled “SL 1 DEFROST”.

For units equipped with TWO thermistors, the thermistors are labelled “1” and “2”. Connect Thermistor 1 to the center-most receptacle (“SL 1 DEFROST”), and connect Thermistor 2 to the left-most receptacle (SL 2 SPARE).

For any questions, please contact us:

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