

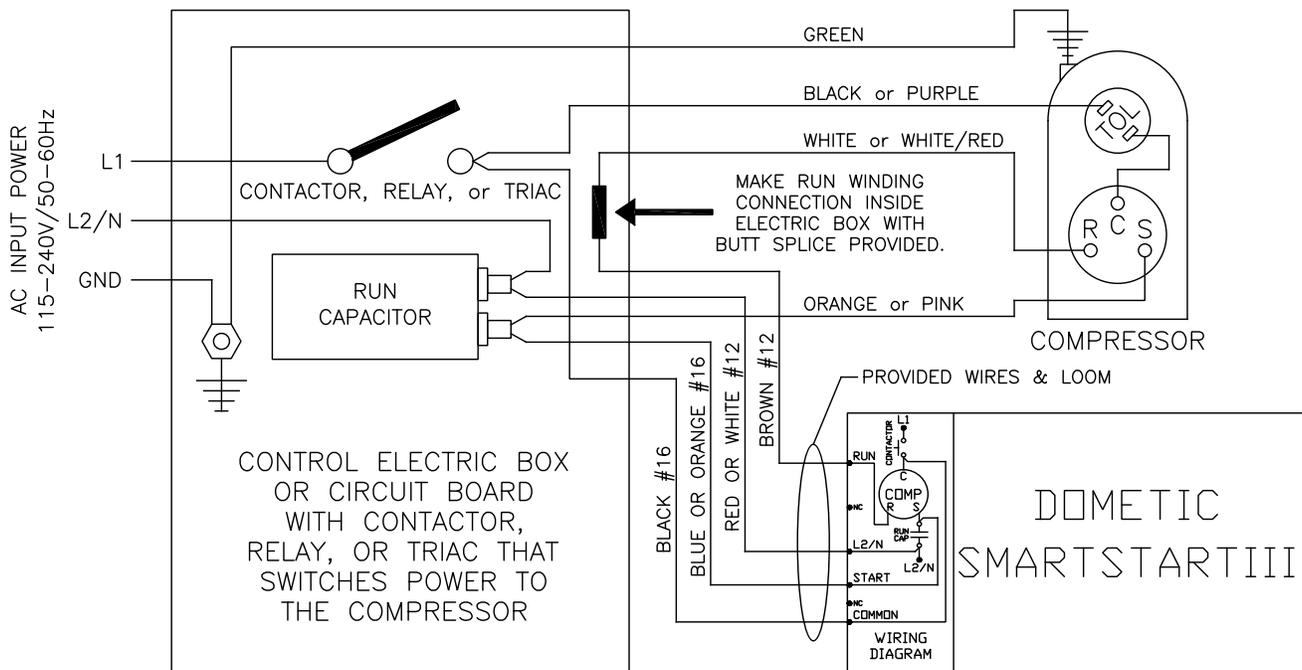
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REV	DATE	REVISION DESCRIPTION	DWG	APR
A	4/9/15	REV SSII L2 CONNECTION TO RED OR WHITE,CAD233-15	DRR	TV
B	01/12/17	NOW SMARTSTART III, BLUE/ORNG START WIRE,CAD029-17	CT	TV
C	03/27/18	UPDATE INSTRUC. STEP 9 FOR U-BOARD WIRING,CAD321-18	CT	JPR
D	6/12/18	ADDED INSTALL INSTRUCTIONS/ CLEANED UP VERBIAGE	TV	TV

INSTRUCTIONS TO INSTALL DOMETIC SMARTSTARTIII

WARNING TURN BREAKER OFF BEFORE SERVICING.

1. IF UNIT USES A START ASSIST (PTCR OR CERAMITE), REMOVE IT COMPLETELY.
2. IF THE UNIT USES A START RELAY AND A START CAPACITOR REMOVE THE START CAPACITOR AND ITS CONNECTIONS TO START RELAY TERMINAL #1 AND TO THE RUN CAPACITOR. IT MAY BE IMPRACTICAL TO REMOVE THE START RELAY. IF THE START RELAY IS REMOVED, MAKE SURE THE WIRE CONNECTIONS THAT PASSED THROUGH ITS TERMINALS ARE PROPERLY SPLICED.
3. (FOR CRUISAIR STQ, SQUF, OR SQL UNITS ONLY. SKIP THIS STEP IF OTHERWISE) IF THE UNIT USES A REV B Q-RELAY BOARD (4120050) WITH A YELLOW STICKER TO SWITCH POWER TO THE COMPRESSOR, REFER TO THE D8010003 SMARTSTART INSTALLATION ADDENDUM FOR FURTHER INSTRUCTIONS BEFORE PROCEEDING WITH STEP 4. IF THE UNIT USES A REV C Q-RELAY BOARD WITH A BLUE STICKER (SHIPPED AFTER 7/2010) OR USES A TRIAC (SHIPPED BEFORE 11/2009), PROCEED DIRECTLY TO STEP 4.
4. IF THE REMOVAL OF THE START COMPONENTS CREATES ENOUGH ROOM INSIDE THE ELECTRIC BOX, MOUNT THE SMARTSTART INSIDE THE BOX USING THE DOUBLE ADHESIVE TAPE PROVIDED. ONLY IN THIS CASE CAN THE PROVIDED WIRE LOOM BE ELIMINATED.
5. IF THERE IS NOT ENOUGH ROOM INSIDE THE ELECTRIC BOX, MOUNT THE SMARTSTART JUST OUTSIDE USING THE DOUBLE ADHESIVE TAPE SUCH THAT THE WIRES AND LOOM CAN REACH ALL THE NECESSARY CONNECTIONS INSIDE THE ELECTRIC BOX. THE SMARTSTART SHOULD BE MOUNTED IN AN AREA WHERE IT WILL NOT BE EXPOSED TO WATER. UNIT WILL MALFUNCTION IF EXPOSED TO WATER WITH RISK OF FIRE.
6. REMOVE THE COMPRESSOR RUN WIRE FROM ITS EXISTING CONNECTION AND SPLICE IT TO THE BROWN WIRE ON THE SMARTSTART USING THE BUTT SPLICE PROVIDED.
7. CONNECT THE RED OR WHITE WIRE FROM THE SMARTSTART TO THE L2 TERMINAL ON THE RUN CAPACITOR USING THE FLAG TERMINAL PROVIDED.
8. CONNECT THE ORANGE WIRE FROM THE SMARTSTART TO THE START WINDING TERMINAL ON THE RUN CAPACITOR USING THE FLAG TERMINAL PROVIDED.
9. CONNECT THE BLACK WIRE FROM THE SMARTSTART TO THE COMPRESSOR COMMON OUTPUT TERMINAL USING THE CAPTIVE SPADE TERMINAL PROVIDED:
 - 9.1 FOR MARINE AIR SYSTEMS PASSPORT I/O OR DDC CIRCUIT BOARDS, CONNECT TO THE "COMP L1" TERMINAL SCREW.
 - 9.2 FOR CRUISAIR SMXII OR Q-LOGIC CIRCUIT BOARDS, CONNECT TO THE "PUMP L1" TERMINAL SCREW.
 - 9.3 FOR SYSTEMS WITH CONTACTORS, CONNECT TO THE T1 TERMINAL (OUTPUT SIDE OF L1) ON THE CONTACTOR.
 - 9.4 FOR DOMETIC SYSTEMS WITH UNITY CIRCUIT BOARDS, CONNECT TO THE "COMP L1" TERMINAL SCREW.
10. CLOSE THE ELECTRIC BOX AND RE-APPLY POWER TO THE SYSTEM. ALLOW THE SMARTSTART 5-10 START CYCLES TO OPTIMIZE ITSELF.



DOMETIC				
SMARTSTARTIII INSTALLATION WIRING DIAGRAM 115-240V/50-60HZ/1φ				
DATE: 12/18/14	DWG BY: DRR	PART NUMBER:	DWG	REV
SCALE: NTS	APR BY: TV	0880307	D8010006	D

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		SEE SHEET 1 FOR REVISIONS		

Product Notice:

SMARTSTART III

From 2017, we will be introducing a new version of our single phase SMARTSTART and phasing out all earlier versions of similar models along the course of the year.

The new model is incorporated with an annunciation system for easy fault diagnosis. Added protection features along with fault indicators are designed to safeguard the compressor/motor in adverse operating conditions. NOTE: LED fault indicator will stay off in normal running mode.

Annunciation for new feature inclusions and modification to operating voltage cutoffs

New SMARTSTART secondary models will be now equipped with LED indicator to relate to fault conditions which can lead the SureStart to shut down a compressor/motor.

The red LED indicator will flash under the following conditions.

- a) Rapid Flash (10 / sec) : Low voltage
- b) Triple Flash every three seconds (3 / 3 secs) : Lockout on three failed starts:
- c) Slow Flash (1 / 3 secs) : Lockout on Over current
- d) Slow steady Flash (1 / sec) : Cycle Delay / Fault mode

Detailed descriptors on the flash codes

Flash code (a) – LOW VOLTAGE

- Displayed for "Low supply voltage" before or after a softstart.
- If Low voltage is detected before a start, a re-start is attempted after 50 seconds.
- If Low voltage is detected after a start, a re-start is attempted after 3 minutes.
- Low voltage cutoffs in the new models have been modified as shown in the table below. Note that 115V cut-off values remain unaffected.

Model ratings	Before Start		Running Mode	
	Old cut-off	New cut-off	Old cut-off	New cut-off
230V versions	195V	180V	190V	175V
115V versions	103V	103V	98V	98V

Flash code (b) – LOCKOUT ON 3 FAILED STARTS

- Displayed after failure to start on "Three consecutive start attempts".
- Re-start is attempted after 50 minutes.

Flash code (c) – LOCKOUT ON OVERCURRENT

- Displayed for "Overcurrent" in running mode of the compressor motor.
- Overcurrent limit is "25A for 8–16A version" and "50A for 16–32A rated version".
- Also displayed, if internal Klixon of the compressor trips out on overheat.
- Re-start is attempted after 10 minutes.

Flash code (d) – CYCLE DELAY / OTHER FAULTS

- Displayed for "Cycle delay" between two consecutive softstarts or other faults as below.
- Re-start is attempted after a default period of 3 minutes.
- Other possible reasons for this Fault mode indicator can be due to
 - incorrect wiring during installation,
 - a failed softstart attempt,
 - intermittent power loss (duration longer than 100ms),
 - frequency out of range, or
 - failed run capacitor.

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SMARTSTARTIII INSTALLATION WIRING DIAGRAM
115–240V/50–60HZ/1ϕ

DATE: 12/18/14	DWG BY: DRR	PART NUMBER:	DWG	D8010006	REV	D
SCALE: NTS	APR BY: TV	0880307				