



# HOSHIZAKI AMERICA, INC.

## SERVICE BULLETIN

**SB10-0003**

**July 13, 2010**

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### **Subject: Magnetic contactor (Relay) 428393-01 no longer available**

The manufacture of magnetic contactor (relay) 428393-01 has stopped production. This relay has been used for over twenty years on many Hoshizaki models. This relay is currently being replaced in production by the relays discussed below.

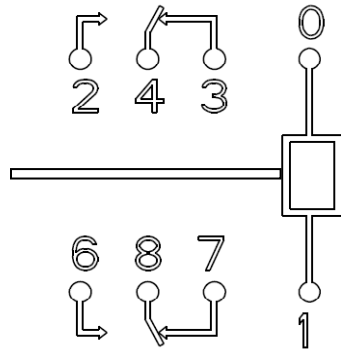
After service parts inventory is depleted this number will sub to two different part numbers. Relay-compressor 4A5096-01 will be used for remote models. Relay-compressor part number 4A3140-01 will be used for air cooled and water cooled models

Since this contactor has been used in many different models, for many years, it is difficult to provide mounting instructions that will apply to all applications. Below is a guide for generic mounting of the new relays.

1. Insure all power has been disconnected from the unit.
2. Gain access to the control box
3. Locate the original contactor
4. Remove and mark existing wiring
5. Remove contactor and mounting bracket
6. If possible using one of the original mounting holes, measure 60mm or approximately 2 $\frac{3}{8}$ " and mark for the new mounting hole. If it is not possible to use one of the original holes mark two new mounting holes 60mm or approximately 2 $\frac{3}{8}$ " apart, where space is available.
7. Drill new mounting holes as needed. Note it may be possible to use self tapping screws instead of drilling new holes. In either case be careful not to damage other components during the mounting process. Remove any metal shavings from the control box area.
8. Mount new contactor.
9. Replace wiring as needed, referring to the attached generic diagrams for new numbering sequence.
10. Re-install control box cover.
11. Restore power and check for proper operation

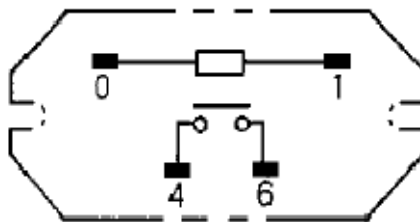
**Relay 4A5096-01** (For remote units) consist of two sets of normally open (NO) contacts numbered 2 and 4 and 6 and 8. This relay also has two sets of normal closed (NC) contacts numbered 4 and 3 and 8 and 7. In most cases only one set of NO contacts and one set of NC contacts will be used for remote applications. (See next page for relay schematic).

In typical remote applications the compressor circuit will be connected to one set of on the NO contacts (ex. 2 & 4) and the crankcase heater will be connected to one set of NC contacts (ex. 8 & 7). Coil voltage will be supplied to terminals 1 and 0.



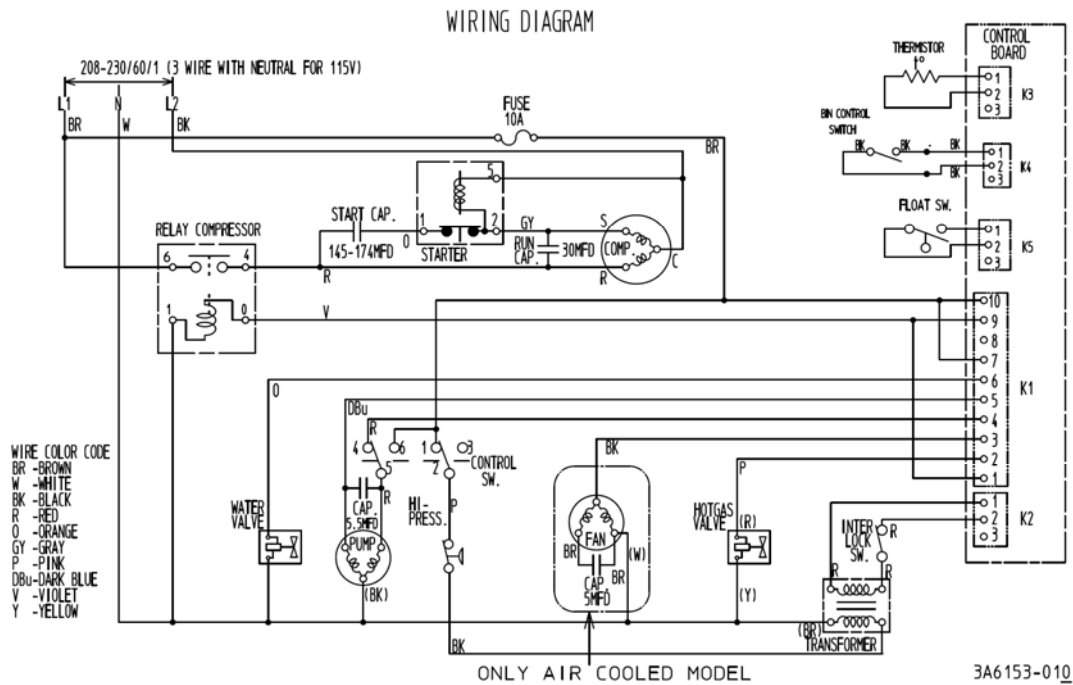
**Relay 4A3140-01** (For air and water cooled units) consist of one set of normally open contacts numbered 6 and 4. The NO contacts will be used for the compressor circuit. (See Below for relay schematic). Coil voltage will be supplied to terminals 1 and 0.

If you have any questions about this conversion please do not hesitate to call Technical Support at 1-800-233-1940

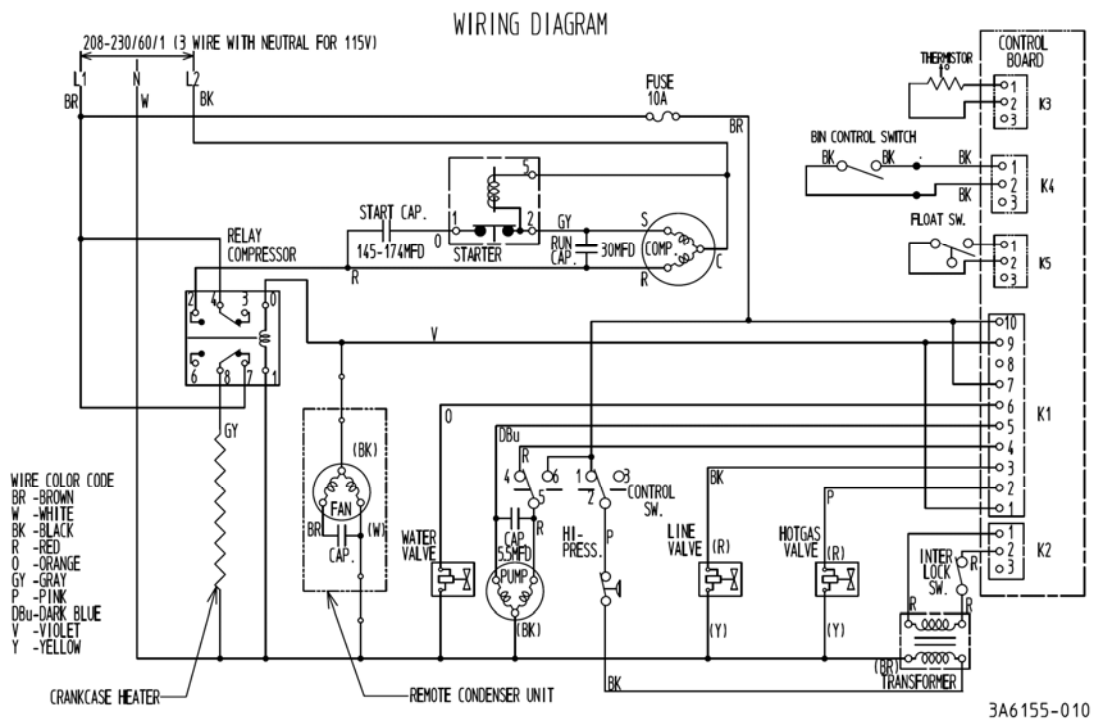


Note: See attached page for typical wiring diagrams for both applications.

		Contactor (Relay) Terminal Number Chart						
	Air and water cooled. (Old Contactor)			Air and water cooled (New) (4A3140-01)	Remote (Old Contactor)			Remote (New) (4A5096-01)
	Terminal #			Terminal #	Terminal #			Terminal #
	Ver. 1	Ver. 2			Ver. 1	Ver. 2		
Coil	A	A2	→	1	A	A2	→	1
Coil	B	A1	→	0	B	A1	→	0
Load (Comp.)	12	13	→	4	12	13	→	2
Line	11	14	→	6	11	14	→	4
Load (Crankcase heater)	Not used	Not used	→	Not available	15	33,31	→	8
Line	Not used	Not used	→	Not available	16	34,32	→	7



(Typical air cooled and water cooled wiring)



(Typical remote wiring)