

For use with Lancer JR. Type L1  
General Purpose AC Inverter Drives.

**OVERLOAD RELAY (1OL) MOD KIT**

**MODEL 92332 THRU 92350\* 46S02732-0010 THRU -0190 \***

**\* SEE LISTING IN TABLE 2**

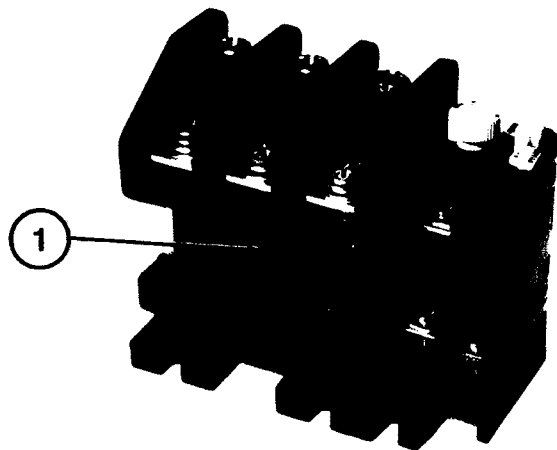
Before installing this kit, a **TECHNICALLY QUALIFIED INDIVIDUAL**, who is familiar with this type of equipment and hazards involved, should **READ** this **ENTIRE INSTRUCTION SHEET**.

IMPORTANT

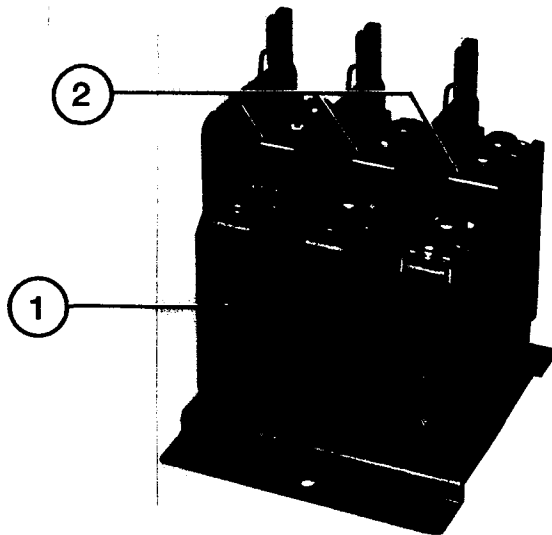
This kit may have been installed by the factory. However, certain steps can only be completed at the installation site. Therefore, review and then perform those steps which complete the installation process.

DESCRIPTION

This Louis Allis kit includes all the material described in Table 1 and illustrated in Figure 1. It can only be installed in a Lancer JR. Type L1 inverter drive which has a top/bottom enclosure (end cover) kit installed. Your nearest Louis Allis District Office will provide assistance in obtaining the enclosure kit, if required.



**MODEL 92340**



**ALL OTHER MODELS**

Figure 1.

Table 1. Kit Contents

ITEM	QTY	DESCRIPTION	PART NO.
1	1	Overload Relay	See Table 2
2	3	Overload Heaters (Installed on Item 1)	See Table 2

CHANGE RECORD			

DWG. NO. 02Y00025-0212  
SHEET 1 OF 7  
EFF. 5/20/86

The thermal overload relay is a bimetallic device which, with properly selected wire and heaters, provides motor protection for running and stall overloads.

During normal operation, motor current flows thru the relay heater elements. If an overload does occur, the additional current flow causes the heater element temperature to increase sufficiently so that the heat sensitive strip bimetal deflects to open normally closed contact(s), thereby opening the FAULT circuit of the Lancer JR.

Except for the Model 92340 thermal relay, all relay strip bimetal elements are directly heated by replaceable heater elements. In the Model 92340 relay the strip bimetal elements are indirectly heated by non-replaceable heater elements.

The kit relay and heaters are sized to match motor HP and full load current. The relay in kit Model 92340 has a maximum current rating of 60 amperes. All other kit model relays are rated at 30, 50, 100 and 150 amperes which corresponds to relay size category 1, 2, 3, and 4 respectively.

If an overload has occurred, the relay must be reset before the Lancer JR. can again be operated.

If the relay is set for AUTO reset, the drive will automatically restart after approximately 2 minutes if the Run loop contactor is still closed.

If the relay is set for MAN or HAND reset, wait approximately 2 minutes. Place the drive in the Stop condition, press the reset rod and then place the drive back into the Run condition.

#### INSTALLATION

1. Disconnect all electrical power to drive.
2. Open or remove drive front cover.

3. Verify voltage has been disconnected by using a voltmeter to check for voltage at incoming power terminals.

HAZARDOUS VOLTAGE CAN CAUSE SEVERE INJURY OR DEATH.

LOCK ALL POWER SOURCES FEEDING DRIVE IN "OFF" POSITION.

4. Remove front plate from bottom end cover. Remove end cover from drive and retain hardware.

5. See Figure 2 and Table 2. Using indicated dimensions A and B, position the relay on the end cover, with relay adjustments facing to the front. Mark locations for mounting hardware. Remove relay and drill holes in the end cover.

6. Secure overload relay to end cover using proper hardware: screws, lock washers, flat washers and KEPS nuts.

#### CAUTION

USE ONLY COPPER CONDUCTORS OF PROPER SIZE FOR THE APPLICATION.

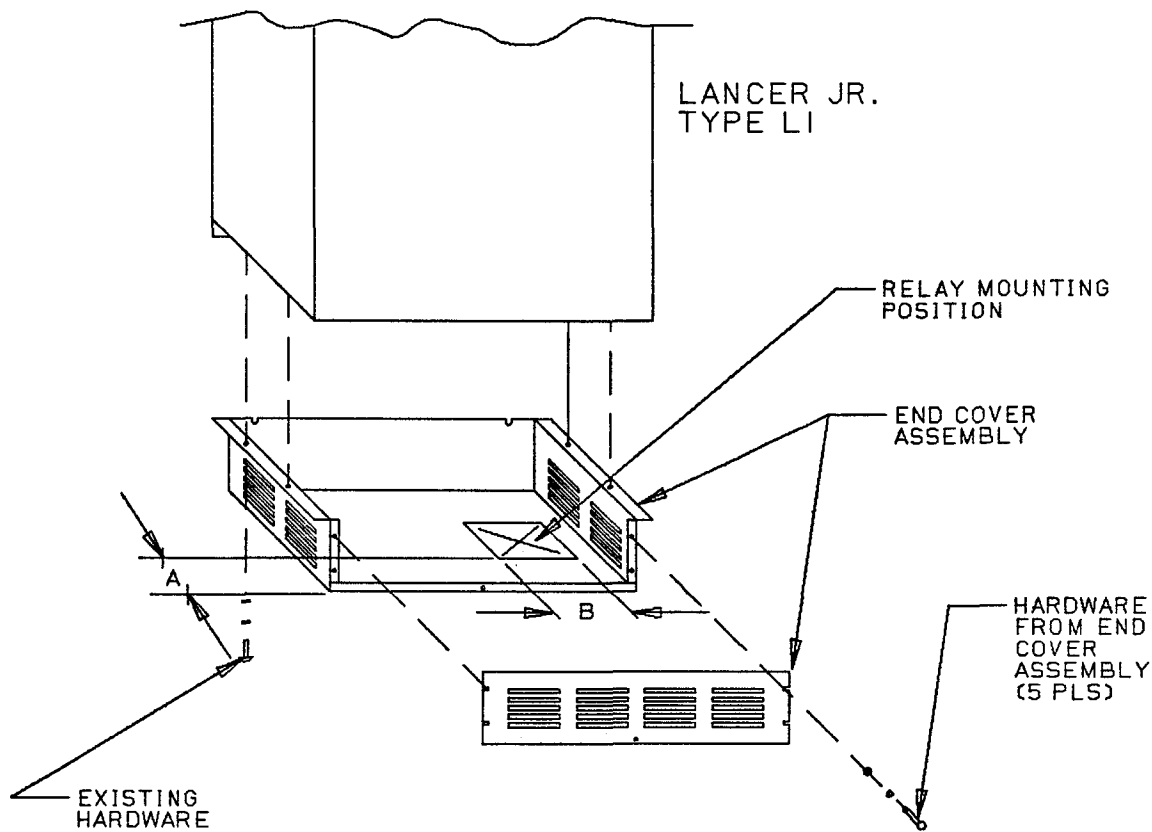
7. See Figure 3. Wire from relay terminals U, V and W to inverter output terminals U, V and W respectively.

8. See Figure 3. Wire from motor terminals T1, T2 and T3 to relay terminals T1, T2 and T3 respectively.

9a. For Model 92340: wire the N.C. (normally closed) contact to terminals ST1 and COM in the inverter. Remove any existing jumper between these terminals.

9b. All other models: wire the N.C. (normally closed) contacts in series and connect to terminal ST or ST1 (depending on HP) and COM on the inverter. Remove any existing jumper between these terminals.

DWG. NO. 02Y00025-0212  
SHEET 2 OF 7  
EFF. 5/20/86



TD.1.2Y25.0212.F162

Figure 2.

10. Reinstall the bottom end cover to the Lancer JR. enclosure.

11. Verify that all wire connections are secure. Then reinstall the front plate onto the bottom end cover.

ADJUSTMENTS

Manual or Automatic Reset

CAUTION

AUTOMATIC RESET SHOULD NOT BE USED WITH 2-WIRE CONTROL CIRCUITS WHERE AUTOMATIC STARTING OF THE MOTOR MAY BE HAZARDOUS.

12a. For Model 92340. The overload relay is normally furnished set for "HAND" reset operation. The relay may be set for either "HAND" or "AUTO" reset by holding down the reset rod and moving the HAND-AUTO selection lever to the proper position marked on the lever.

12b. All other Models. The overload relay is normally furnished set for "MAN" reset operation. The relay may be set for either "MAN" or "AUTO" reset by moving the MAN-AUTO selection lever to the proper position marked on the molded case.

DWG. NO. 02Y00025-0212  
SHEET 3 OF 7  
EFF. 5/20/86

Table 2.

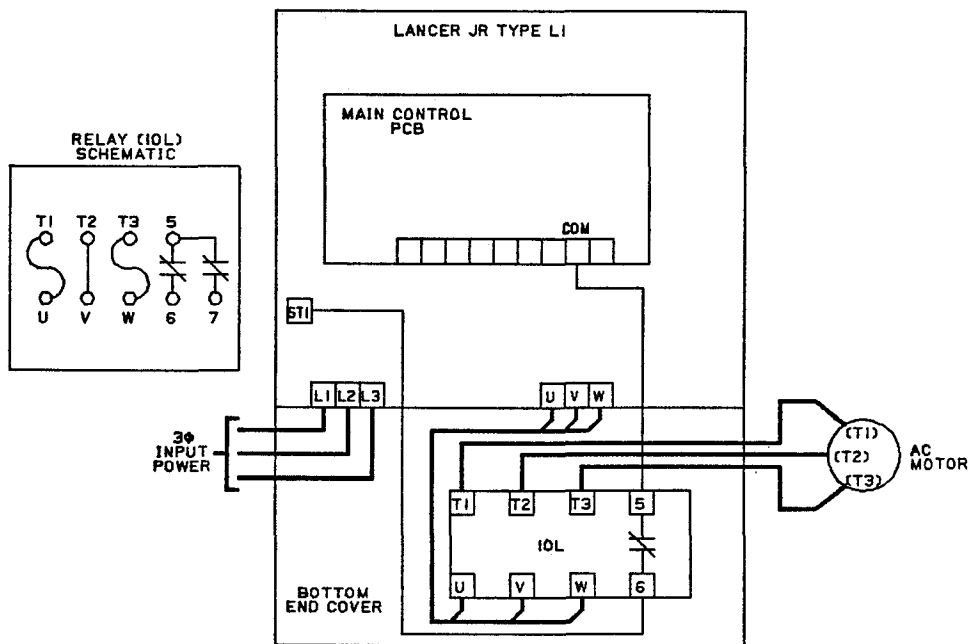
VOLTAGE	HP	FLA	KIT 46S02732-		RELAY 05P00037-		HEATER (QTY 3) 05P00004-	DIMENSIONS (IN.)		USE WITH END COVER
			MODEL		SIZE			A	B	
230	3/4	4	92332	0010	0127	1	0215	1.00	3.81	05T00800-0010
	1	5	92333	0020	0127	1	0217	1.00	3.81	05T00800-0010
	2	7	92334	0030	0127	1	0220	1.00	3.81	05T00800-0010
	3	10	92335	0040	0127	1	0223	1.00	3.81	05T00800-0020
	5	16	92336	0050	0127	1	0228	1.00	3.81	05T00800-0020
	7.5	20	92337	0060	0127	1	0230	1.00	3.81	MODEL 92265
	10	30	92338	0070	0128	2	0233	1.00	3.81	MODEL 92265
	15	45	92339	0080	0128	2	0237	1.00	3.81	MODEL 92265
	20	60	92340	0090	0135	-	N/A	1.50	4.625	MODEL 92265
	25	75	92341	0100	0129	3	0245	2.00	9.375	MODEL 92267
	30	90	92342	0110	0129	3	0250	2.00	9.375	MODEL 92267
	40	110	92343	0120	0130	4	0252	2.00	9.375	MODEL 92267

DWG. NO. 02Y00025-0212  
SHEET 4 OF 7  
EFF. 5/20/86

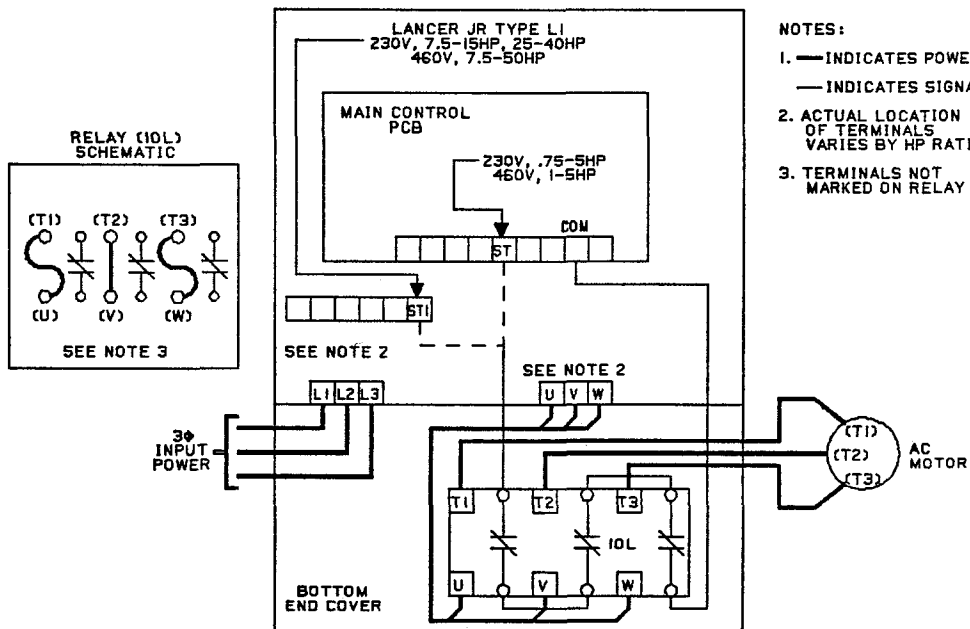
Table 2. (Continued)

VOLTAGE	HP	FLA	KIT		RELAY		HEATER (QTY 3) 05P00004-	DIMENSIONS (IN.)		USE WITH END COVER
			MODEL	46S02732-	05P00037-	SIZE		A	B	
460	1	2.5	92344	0130	0127	1	0211	1.00	3.81	05T00800-0020
	2	3.7	92332	0010	0127	1	0215	1.00	3.81	05T00800-0020
	3	5	92333	0020	0127	1	0217	1.00	3.81	05T00800-0020
	5	8	92345	0140	0127	1	0221	1.00	3.81	05T00800-0020
	7.5	11	92346	0150	0127	1	0225	1.00	3.81	MODEL 92265
	10	15	92336	0050	0127	1	0228	1.00	3.81	MODEL 92265
	15	22	92347	0160	0127	1	0231	1.00	3.81	MODEL 92265
	20	30	92338	0070	0128	2	0233	2.00	9.375	MODEL 92266
	25	38	92348	0170	0128	2	0235	2.00	9.375	MODEL 92266
	30	45	92339	0080	0128	2	0237	2.00	9.375	MODEL 92266
	40	55	92349	0180	0129	3	0244	2.00	5.375	MODEL 92268
	50	69	92350	0190	0129	3	0247	2.00	5.375	MODEL 92268

DWG. NO. 02Y00025-0212  
SHEET 5 OF 7  
EFF. 5/20/86



FOR MODEL 92340 (RELAY 05P00037-0135)



NOTES:

1. — INDICATES POWER WIRING  
— INDICATES SIGNAL WIRING
2. ACTUAL LOCATION OF TERMINALS VARIES BY HP RATING
3. TERMINALS NOT MARKED ON RELAY

ALL OTHER MODELS

TD.1.2Y25.0212.FIG3

Figure 3.

DWG. NO. 02Y00025-0212  
SHEET 6 OF 7  
EFF. 5/20/86

### Adjustable Trip

13a. For Model 92340. The trip rating of the relay is factory adjusted to the full load current; the relay will trip at 125%. This setting SHOULD NOT BE CHANGED. Verify that the adjustment knob on the relay is set to the full load setting (60 amperes).

13b. All other models. The trip rating of the heater elements can be adjusted over a range of approximately 85% to 115%, either to alleviate nuisance

tripping or, conversely, to obtain closer protection when desired. This is accomplished by turning the adjustment knob on the relay to the respective stop position.

14. Close and secure the drive front cover.

15. This completes installation of this mod kit. Place this instruction sheet immediately behind the inverter instruction manual front cover.

DWG. NO. 02Y00025-0212  
SHEET 7 OF 7  
EFF. 5/20/86

