

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

GROUND FAULT DETECTION MOD KIT

MODEL **92328** **92329** **92330**
KIT P/N **46S02721-0010** **46S02721-0020** **46S02721-0030**

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

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 with complete the installation process.

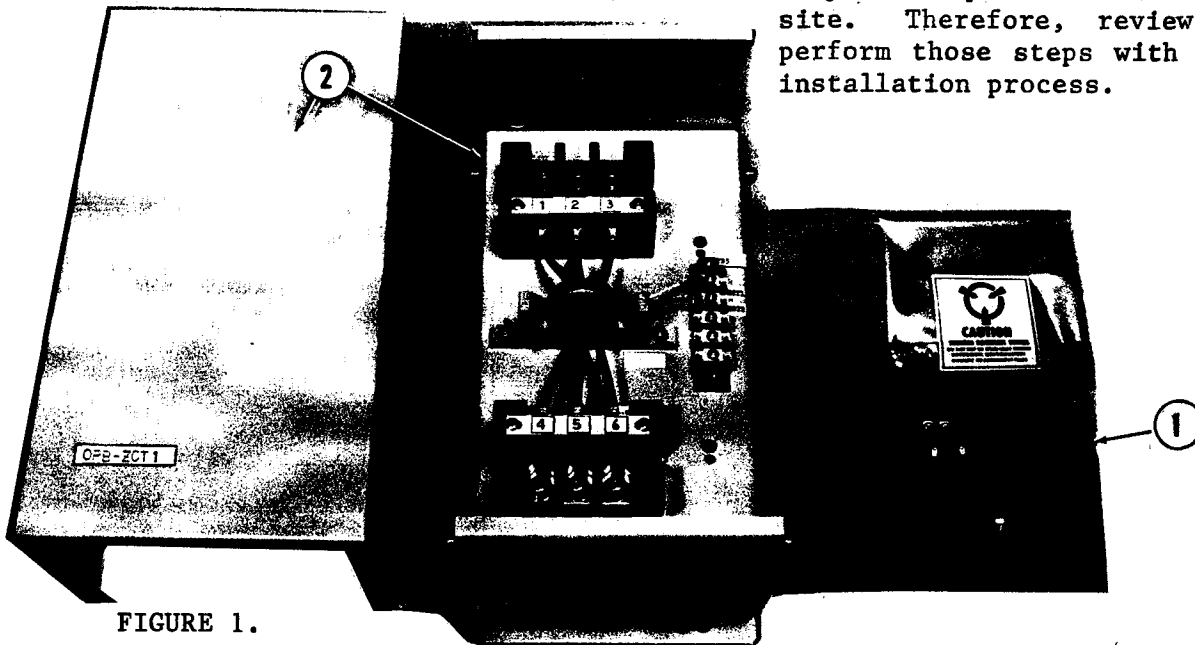


FIGURE 1.

TABLE 1. KIT CONTENTS

ITEM	QTY	DESCRIPTION	PART NO.
1	1	Ground Fault Detection PCB with Mounting Hardware	See Table 2
2	1	Zero Current Transformer (ZCT) with Enclosure	See Table 2

TABLE 2. ITEM PART NUMBERS PER KIT MODEL

KIT MODEL	INVERTER RATING		ITEM 1 (PCB)	ITEM 2 (ZCT)
	230V	460V	PART NO.	PART NO.
92328	3/4 to 5HP	1 to 10HP	05P00090-0169	05P00068-0076
92329	7.5 to 15HP	15 to 30HP	05P00090-0169	05P00068-0077
92330	20 to 70HP	40 to 100HP	05P00090-0177	05P00068-0078

CHANGE RECORD

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DESCRIPTION

This Louis Allis kit includes all the material described in Tables 1 and 2 and illustrated in Figure 1. It can only be installed in a Lancer JR. Type L1 inverter drive which has an ARNI-889 REV D or above Main Control PCB.

When installed, this kit protects the inverter from ground faults by monitoring inverter input current. When a ground fault occurs, the inverter is immediately turned-off by the mod PCB. The fault status "OC" will appear on the inverter FREQUENCY/FAULT display and the EARTH LEAKAGE LED on the Ground Fault Detection PCB will light. To reset the inverter, first set the DRIVE RUN/STOP switch to STOP and turn FREQ. ADJ. pot to zero. Eliminate the ground fault, then press and hold the RESET push button on the Main Control PCB until the EARTH LEAKAGE LED goes off. Then place DRIVE RUN/STOP switch to RUN, and re-adjust FREQ. ADJ. for desired motor speed.

INSTALLATION

IMPORTANT

- a. If this mod kit is to be installed in the inverter, proceed to install according to these installation instructions.
- b. If this mod kit is to be installed in a Multi Adapter mod assembly, FIRST complete installation steps stated in 02Y00025-0204. Then continue with these installation instructions.
 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.

WARNING

HAZARDOUS VOLTAGE CAN CAUSE SEVERE INJURY OR DEATH.

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

4. Remove both sets of hardware and the standoff from the Ground Fault Detection PCB. Retain standoff and hardware.

5. If installed in inverter:

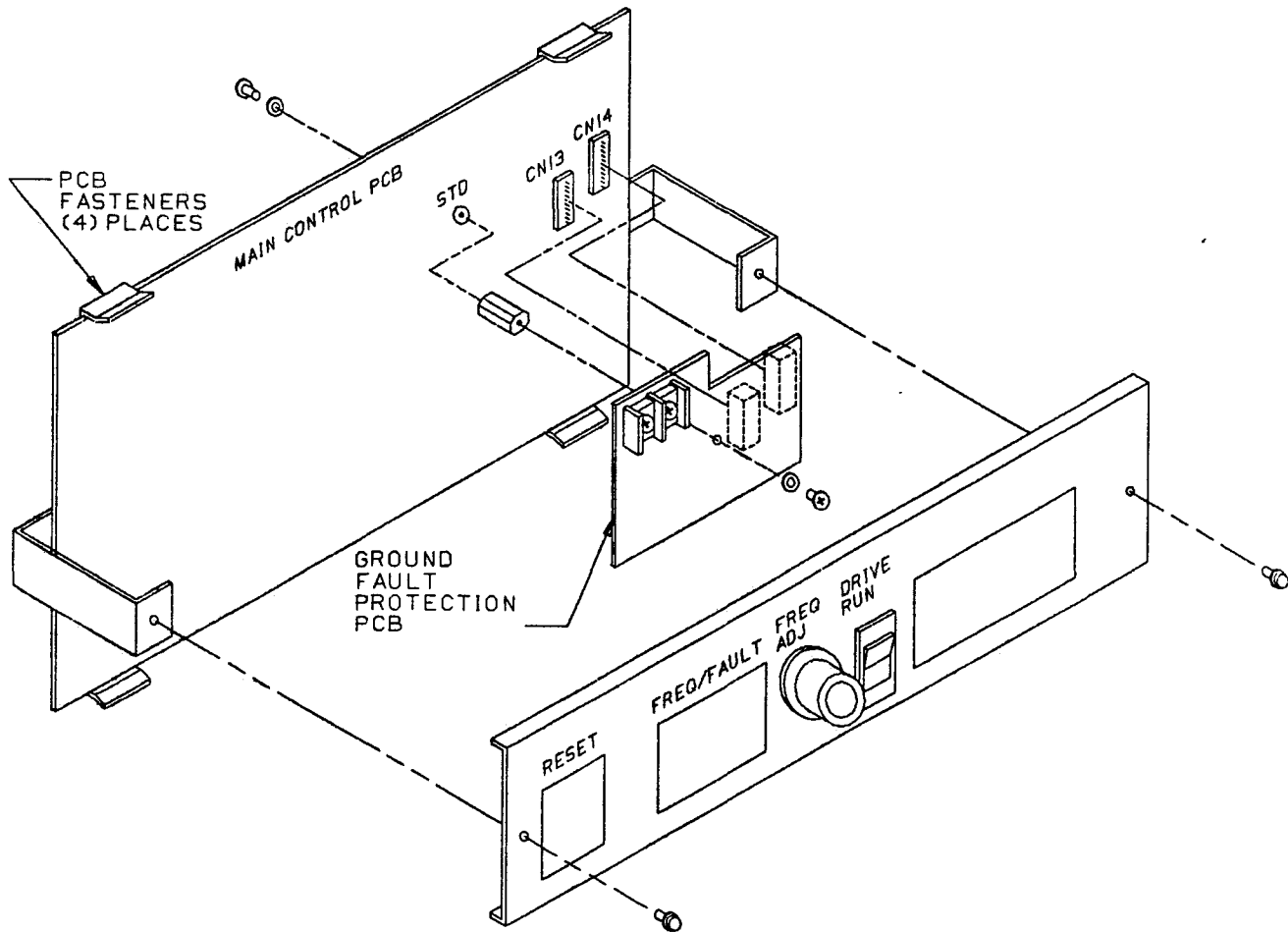
a. See Figure 2. Remove the two Phillips screws which secure the existing Operators Control Station (OCS) plate; retain the screws. Leave the wiring between the OCS plate and the Main Control PCB terminal strip intact. Allow the plate to drop below the PCB.

b. See Figure 2. The Main Control PCB is held in place by (4) hinged locking PCB fasteners. Grasp the top of the board in a convenient location and release from the top (2) fasteners by gently pulling the board forward while pushing upward on the locking portion of the fasteners.

c. See Figure 2. Insert one set of mounting hardware thru the 0.12 inch diameter hole designated "STD" on the Main Control PCB, from the rear side. Tighten the metal spacer onto the screw. Then snap the Main Control PCB back into place.

d. See Figure 2. Note that there are (2) 11-pin female connectors (CN13A and CN14A) on the underside of the Ground Fault Detection PCB. Position the board so that these connectors are aligned with male pin connectors CN13 and CN14 on the Main Control PCB. Ensure that all 22 pins engage and then snap the board into place. Use the other set of hardware to secure the board to the metal spacer.

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TD I 2Y25 0205.FIG2

FIGURE 2.

6. If installed in Multi Adapter:

NOTE

a. At the option position where the board will be installed in the Multi Adapter, remove the hardware from the end of the metal spacer.

The ZCT enclosure is designed for wall or panel mounting. DO NOT MOUNT ONTO SIDE OF INVERTER ENCLOSURE. Preferred location is as close as possible to the input power terminals (L1, L2 and L3) of the inverter.

b. Note that there are (2) 11-pin female connectors (CN13A and CN14A) on the underside of the Ground Fault Detection PCB. Position the board in the option position so that these connectors are aligned with male pin connectors CN13() and CN14() on the Multi Adapter PCB. Ensure that all 22 pins engage and then snap into place. Use the hardware to secure the board to the metal spacer.

7. Hold the ZCT enclosure in the desired mounting position, and mark drilling locations. Drill and tap as required, then mount enclosure using appropriate hardware.

8. Remove the four Phillips screws that secure the ZCT cover, and remove cover. Set aside cover and screws for later reinstallation.

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WIRING CONNECTIONS

9. See Figure 3. If input line power is already wired to the inverter, disconnect from terminals L1, L2 and L3. Route the power leads through the holes in the top of the ZCT enclosure and connect to terminals labeled 1, 2 and 3.

10. See Figure 3. Connect power wiring from terminals 4, 5 and 6 of the ZCT, through the holes in the bottom of its enclosure, to terminals L1, L2 and L3 of the inverter.

11. See Figure 4. Connect signal wires to terminals ZCT1 and ZCT2 in the ZCT. Route the wires through the 0.44" diameter hole in the top or bottom of the ZCT enclosure, to the inverter or Multi Adapter. Connect to terminals ZCT1 and ZCT2 on the Ground Fault Detection PCB.

ADJUSTMENTS

12. There are two adjustments on the Ground Fault Detection PCB:

100RH - LEAKAGE DETECTION CONTROL

101RH - GROUNDING DETECTION CONTROL

DO NOT TOUCH THESE ADJUSTMENTS. THEY HAVE BEEN ADJUSTED AT THE FACTORY.

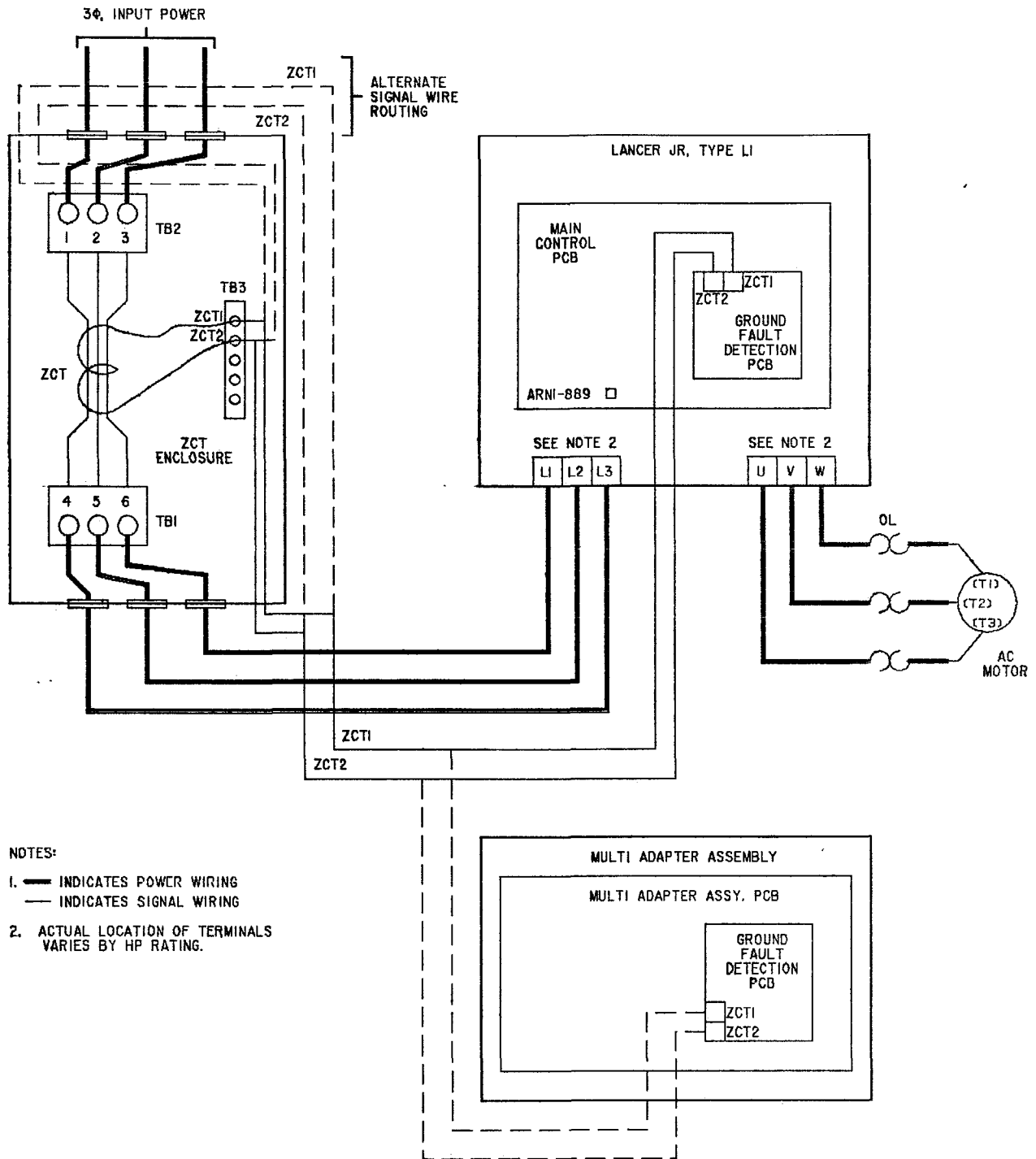
13. Re-position and secure the OCS plate.

14. Reinstall and secure all enclosure covers.

15. Place this instruction sheet immediately behind the inverter instruction manual front cover.

This completes installation of this kit.

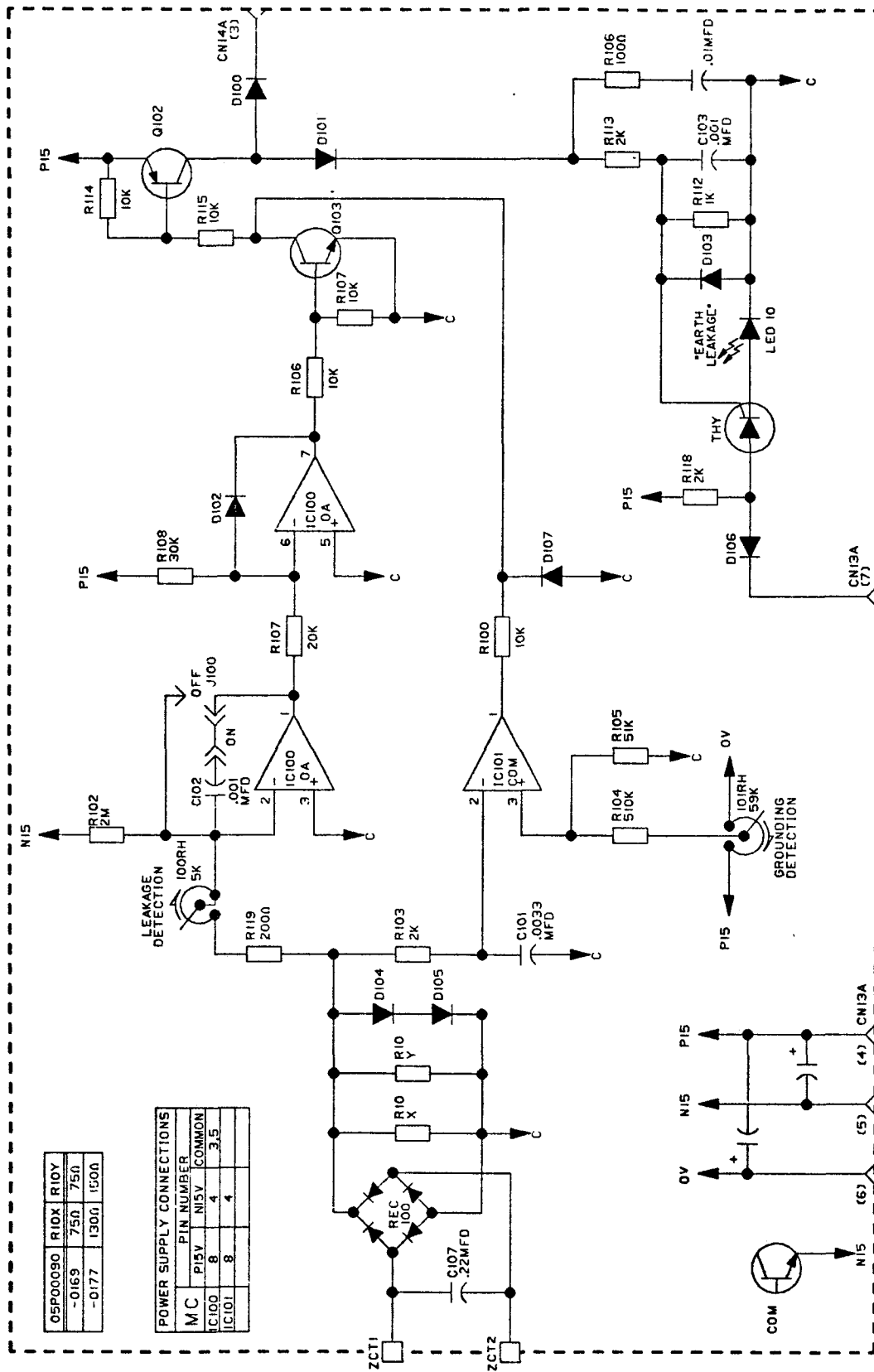
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TD.1.2Y25.0205.FIG3

FIGURE 3.

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05P00090	R10X	R10Y
-0169	750	750
-0177	1300	1500

POWER SUPPLY CONNECTIONS		
	PIN NUMBER	
M C	PI5V	COMMON
IC100	8	4
IC101	8	4
		3,5

GROUND FAULT DETECTION
PCB SCHEMATIC

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