30RB060-300, 30XA Fixed Speed 080-501, 30XA Variable Speed 140-352, 30XW150-400, 30XV140-500 Dual Chiller Thermistor Accessory

Installation Instructions

Part No. 00EFN900044000A, 00EFN900005600A

SAFETY CONSIDERATIONS

Installation of this accessory can be hazardous due to system pressures, electrical components, and equipment location (such as a roof or elevated structure).

Only trained, qualified installers and service mechanics should install, start up, and service this equipment.

When installing this accessory, observe precautions in the literature, labels attached to the equipment, and any other safety precautions that apply.

- Follow all safety codes.
- Wear safety glasses and work gloves.
- Use care in handling and installing this accessory.

⚠ WARNING

Electrical shock can cause personal injury and death. Shut off all power to this equipment during installation. There may be more than one disconnect switch. Tag all disconnect locations to alert others not to restore power until work is completed.

PACKAGE CONTENTS (00EFN900044000A)

ITEM	PART NO.	QUANTITY
Thermistor	00PPG000008106A	2
Well	00PPG000008000A	2
Connector*	HY06AM016	2

*Connector comes wired to the thermistor.

NOTE: Accessory 00EFN900044000A is used with 30RB060-300, 30XA080-501 fixed speed, 30XW150-400 and 30XV140-500 units. 30XA fixed speed units are identified by a number in the 9th position of the model number; for example, 30XAB200**6**-------.

PACKAGE CONTENTS (00EFN900005600A)

ITEM	PART NO.	QUANTITY
Thermistor	00PPG000008106A	2
Well	00PPG000008000A	2
Connector*	HY84EE004	2
AUX 1 Board	CEPLP130567-02-SA	2
CB4	HH83ZB010	2
Harness	00PPN500011200A	2

*Connector comes wired to the thermistor.

NOTE: Accessory 00EFN900005600A is used for 30XA140-352 variable speed units only. These units are identified by a letter in the 9th position of the model number; for example, 30XAB200**F**--------.

GENERAL

These instructions cover installation of the dual chiller thermistor accessory. If two chillers are installed in parallel, additional chilled water sensors (one for each chiller) must be installed in the common leaving water piping. The accessory kit contains the required thermistors, wells, and wiring connectors. This accessory is not required for chillers piped in series.

INSTALLATION (00EFN900044000A)

To prepare the chillers for parallel operation, perform the following procedure:

1. Lock out and tag all disconnects.
2. Determine the location for the thermistor wells. The well locations must be in the common leaving water header. See Fig 1. DO NOT relocate the chiller's leaving water thermistors. They must remain in place for the unit to operate properly.
3. Install the thermistor wells. The thermistor well is a 1/4 in. NPT fitting. See Fig. 2. Select a location that will allow for removal of the thermistor without any restrictions. Installation method will depend on the type of piping.
4. Insert the thermistors into the wells until the O-rings on the thermistors reach the well body. Use the nut on the thermistors to secure the thermistors in place.

   It is recommended that a small amount of heat compound (such as Dow Corning 340 Heat Sink Compound) be inserted with the thermistor for better heat transfer.
5. Once the thermistors are in place, it is recommended that a wire loop be made and secured with a wire tie to the chilled water pipe. This will provide strain relief. See Fig. 3.
6. The wiring connector (part no. HY06AM016) comes attached to the thermistor lead. Run connector wiring to the chiller control box of the master and slave chillers. Plug the connectors into MBB-J6 CH-3 on the main base board. For 30RB060-300, 30XA080-501 fixed speed and 30XW150-400 units. See Fig. 4. For 30XV140-500 plug the connectors into SIOB-B J-25 (AI-03). See Fig. 5.
7. Restore power to unit.

NOTE: For 30RB315-300 units, as well as all units using the dual chiller algorithm, a Carrier Comfort Network® (CCN) bus must be connected between the two modules.

INSTALLATION (00EFN900005600A)

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2. Determine the location for the thermistor wells. The well locations must be in the common leaving water header. See Fig 1. DO NOT relocate the chiller's leaving water thermistors. They must remain in place for the unit to operate properly.
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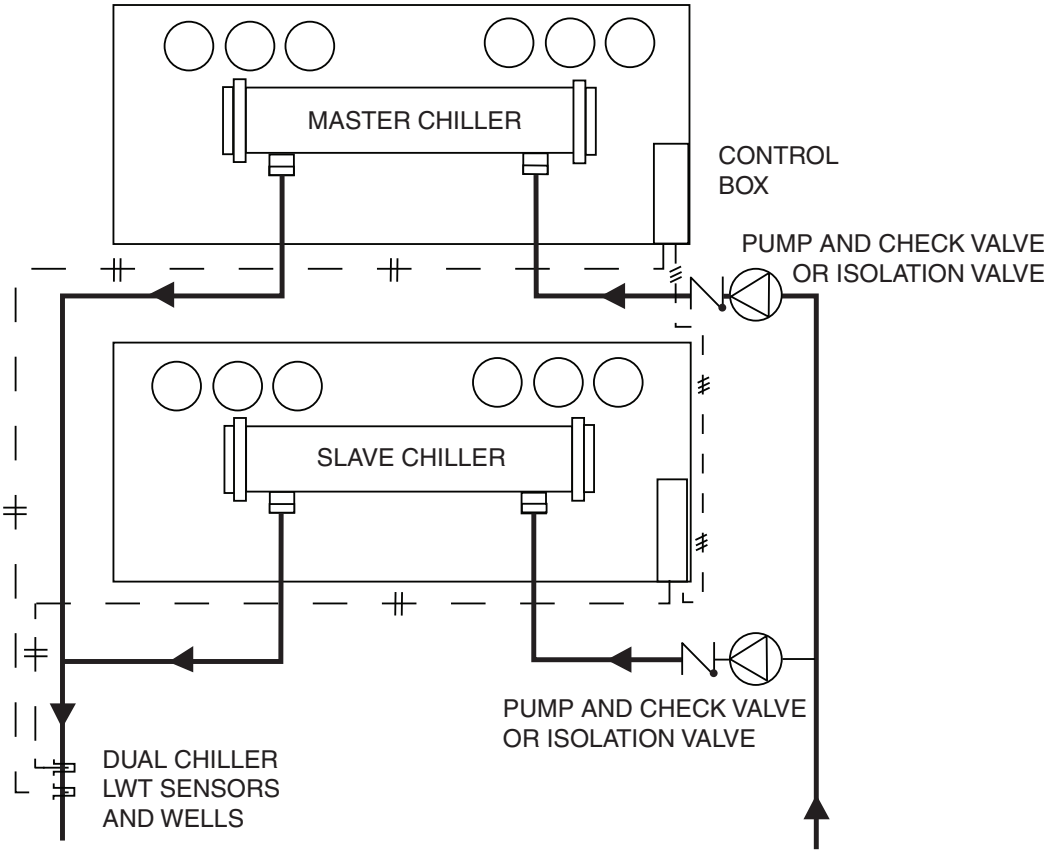


LEGEND

LWT — Leaving Water (Fluid) Temperature
– //– Field Wiring
– /// – Field Communication Wiring

NOTE: This is a simplified piping diagram — not all hydronic specialties are shown.

Fig. 1 — Accessory Thermistor Location (30RB Units Shown)

4. Insert the thermistors into the wells until the O-rings on the thermistors reach the well body. Use the nut on the thermistors to secure the thermistors in place.

   It is recommended that a small amount of heat compound (such as Dow Corning 340 Heat Sink Compound) be inserted with the thermistor for better heat transfer.
5. Once the thermistors are in place, it is recommended that a wire loop be made and secured with a wire tie to the chilled water pipe. This will provide strain relief. See Fig. 3.
6. The wiring connector (part no. HY84EE004) comes attached to the thermistor lead. Run connector wiring to the chiller power box on the master and slave chillers. Plug the connectors into Aux Board 1 (included in accessory kit and part of installation) connector J6. See Fig. 6.
7. Install Aux Board 1 on right side of wall of power box, on the mounting studs located below Aux Board 3. See Fig. 7. Dip switch settings on Aux Board 1 (refer to Fig. 6 for location) should be set as follows:

8. Install circuit breaker CB-4 inside power box on bracket as shown in Fig. 8. Using wiring harness (part no. 00PPN500011200A), connect power from CB-4 to Aux Board 1 (J1) at location shown in Fig. 6. Neatly route wiring harness so wiring is protected from damage.
9. Using the accessory-supplied wiring harness (part no. 00PPN500011200A), connect the plug marked AUX1-J9 to the J9 connection on Aux Board 1 (see Fig. 6). Connect the other end of the harness to terminal blocks TB-P-1, TB-P-2, and TB-P-3 in power box. Neatly route wiring harness so wiring is protected from damage.
10. Restore power to unit.
11. Refer to the Controls, Start-Up, Operation, Service and Troubleshooting guide for configuration information.

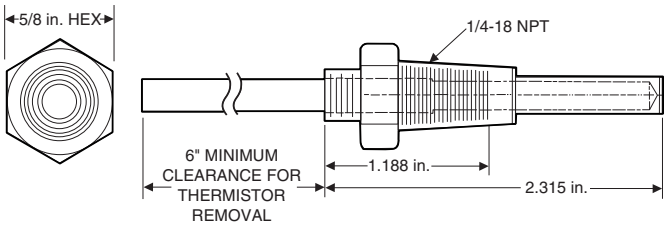


Fig. 2 — Accessory Leaving Water Thermistor Well

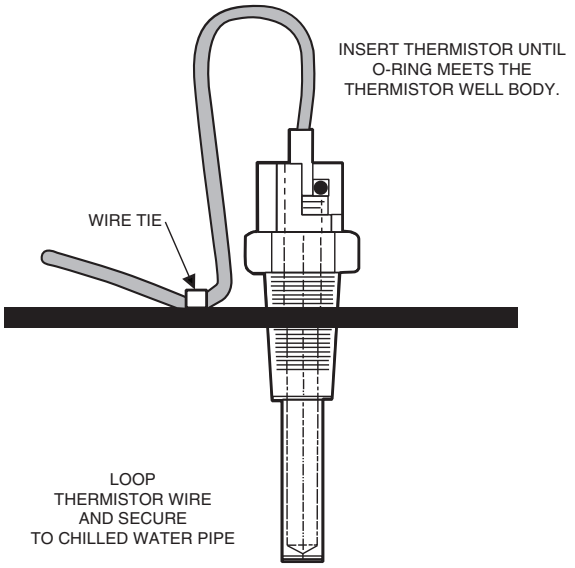
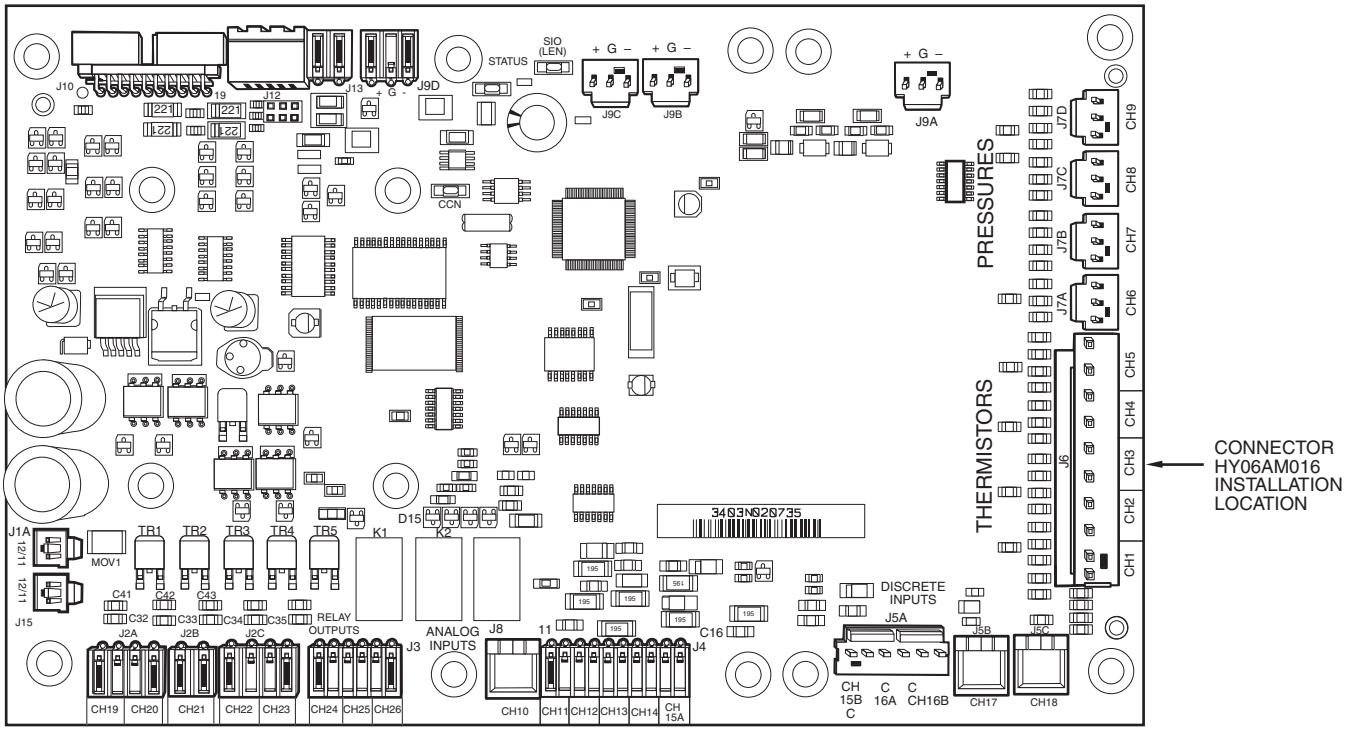


Fig. 3 — Accessory Leaving Water Thermistor



NOTE: Does not apply to 30XA140-352 variable speed units.

Fig. 4 — Chiller Main Base Board

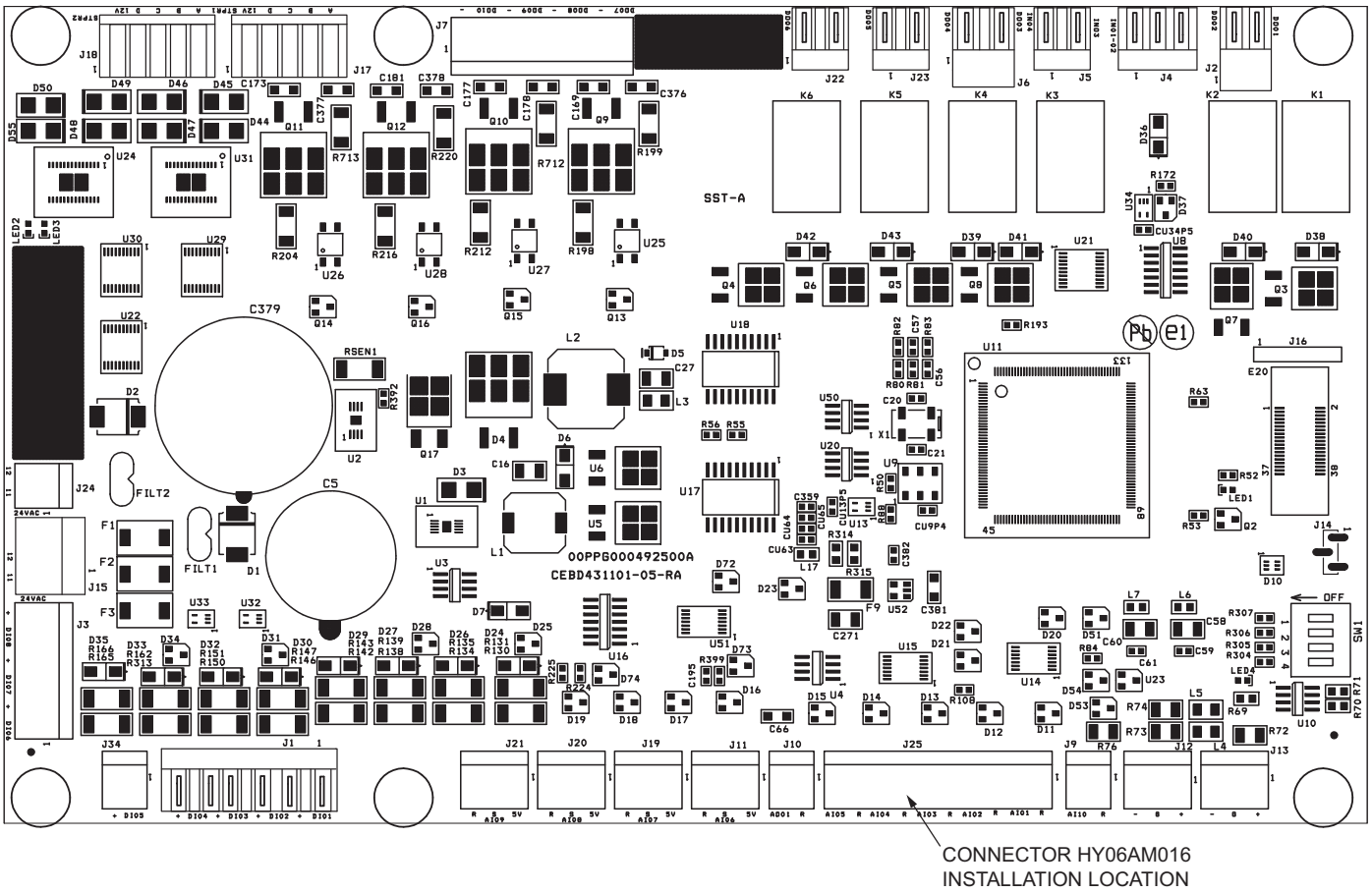
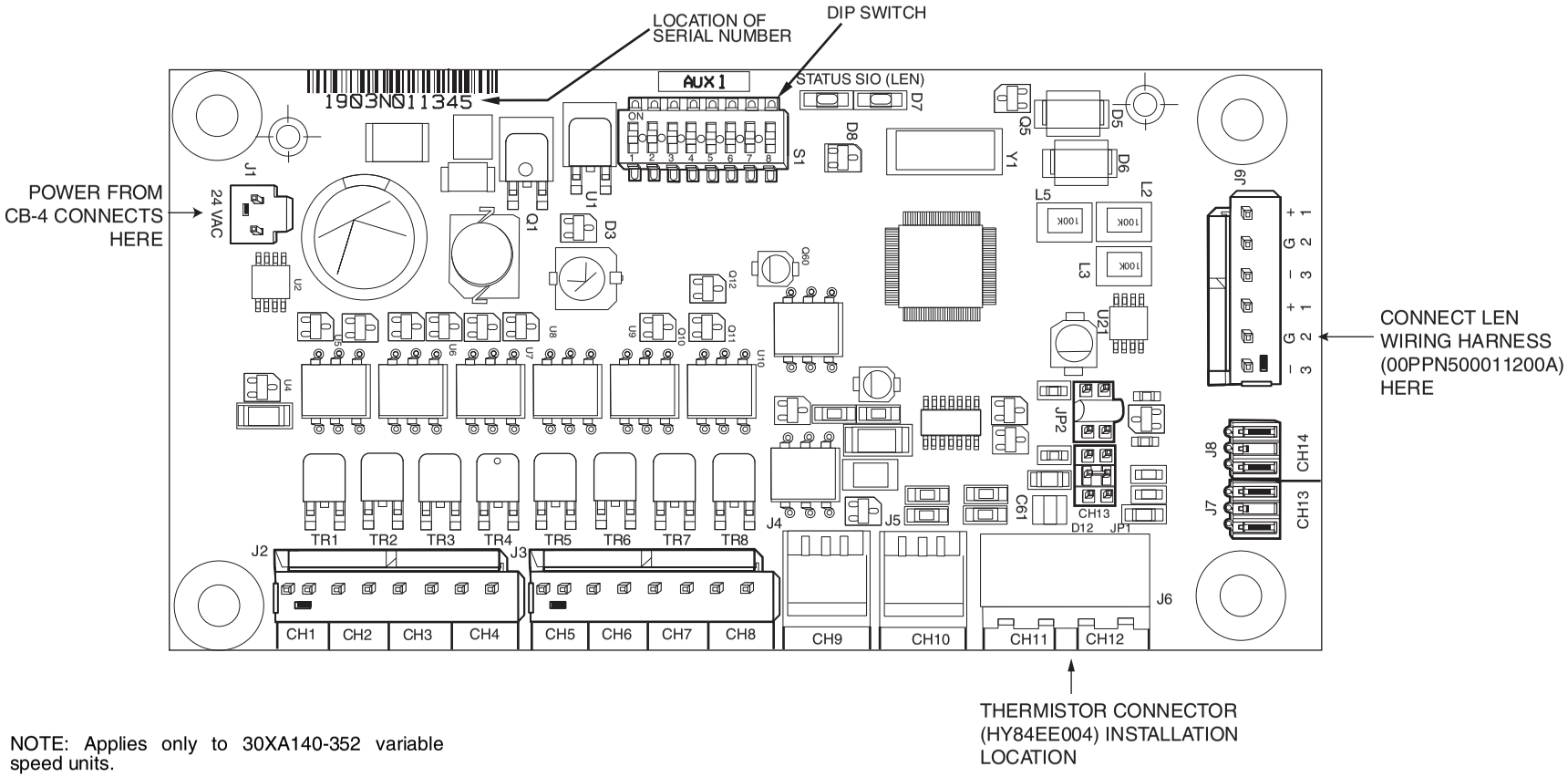
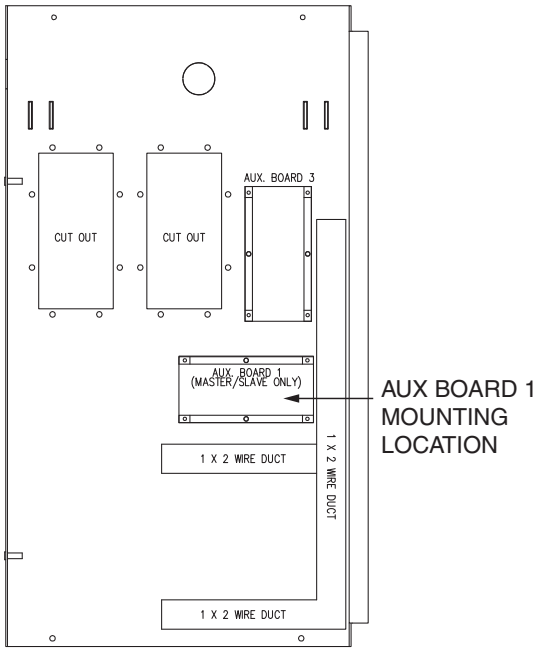


Fig. 5 — SIOB-B



NOTE: Applies only to 30XA140-352 variable speed units.

Fig. 6 — AUX Board



POWER BOX,
RIGHT INSIDE VIEW

NOTE: Applies only to 30XA140-352 variable speed units.

Fig. 7 — AUX Board Location

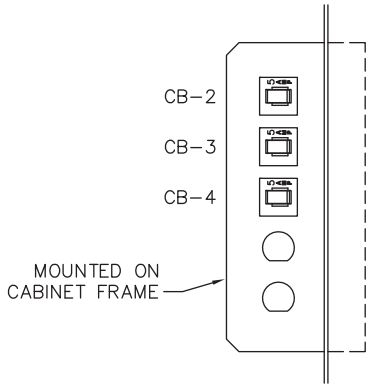


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Fig. 8 — CB-4 Location

Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.

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