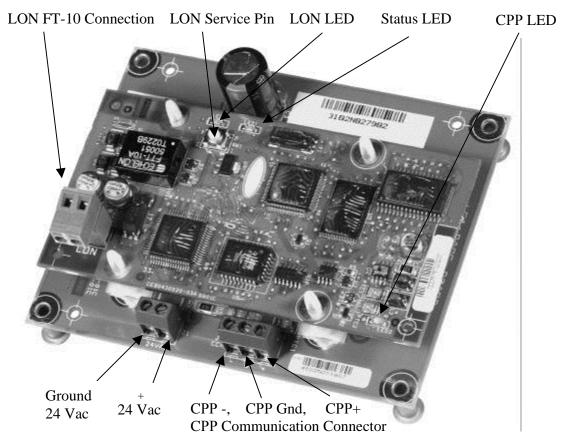# LonWorks CIAT Translator
Installation Instructions

The LonWorks CIAT Translator with LON FT-10A communication (33CNTRANLON), shown below, is a microcontroller-based module that provides the ability to easily interface CIAT CPP* controllers to third party non-CIAT control equipment. The LonWorks CIAT Translator provides CPP to LonWorks FT-10A ANSI/EIA-709.1 protocol conversion.

*CPP = Chiller Proprietary Protocol

Figure 1

CIAT Translator Module

LON FT-10 Connection   LON Service Pin   LON LED   Status LED   CPP LED

Ground   +   CPP -,   CPP Gnd,   CPP+
24 Vac   24 Vac   CPP Communication Connector

Default Address and Baud Rate

The LonWorks CIAT Translator's default CPP address is 0,200 (bus number, system element number). The default CPP baud rate is 9600 bps.

Each LonWorks CIAT Translator has a unique LON address. The LON address can be sent to LON configuration tools when the LON Service Pin is pressed.

CIAT

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Installation Procedure

1. Install the CIAT Translator printed circuit board into the equipment's CPP controls section and secure by inserting 4 sheet metal screws through the board's integrated standoffs.

2. Connect a field supplied 24 Vac (3 VA minimum) transformer to the power connector.

   Note 1: The power can be shared with a single CPP controller's 24 Vac transformer provided that you ensure there is sufficient VA available on the existing transformer. The CIAT Translator provides an isolated communications port that allows for power sharing with one other CIAT CPP controller that utilizes 24 Vac. When sharing power, make sure that the polarity of the power wires into the CIAT Translator (24 Vac + and Ground) are the same as at the source controller.

   Note 2: It is recommended that you provide a way to cycle power to the CIAT Translator without disconnecting wires.

Table 1
Power Connector
Terminal Assignment

CIAT Translator Connector	Signal
+	Supply Hot
⏚	Supply Common

3. If the CPP network consists solely of this CIAT Translator and its associated CPP controller, wire the CIAT Translator's non-removable CPP communication connector to the CPP controller's CPP communication connector.

   If the CPP network consists of multiple CIAT Translators and multiple associated CPP controllers, wire the CPP communication bus in accordance with all CPP network standards and address the CIAT Translators and CPP controllers appropriately.

Table 2
CPP Connector
Terminal Assignment

CIAT Translator Connector	Equipment Connector	Signal
+	1	CPP Data (+)
G	2	CPP Signal Ground
-	3	CPP Data (-)

4. Wire the CIAT Translator's removable LON FT-10A communication connector to the third party's LonWorks communication network as instructed by the third party representative.

   Note: The service pin can be utilized to commission the CIAT Translator.

LEDs

The CIAT Translator has three LEDs that are used to indicate operational status:

LED	Color	Indicates
Status	Red	Operating, initialization and configuration status. The LED blinks at a 2 Hz rate when initializing and at 1 Hz when operating correctly.
CPP	Yellow	The CIAT Translator is sending CPP communication messages to the connected CPP controller. If the connected CPP controller is responding, its CPP LED will blink when a message is sent back to the CIAT Translator.
LON	Green	The CIAT Translator is sending LON communication messages to the third party LonWorks network.