



# MODEL LT-4200

## LTR<sup>®</sup> TRUNKING REPEATER MANAGER



The LT-4200 is for the "dispatch only" channels on any Logic Trunked Repeater (LTR<sup>®</sup>) System. The LT-4200 can be easily user configured for compatibility with either the E. F. Johnson or Uniden repeater bus protocols. The LT-4200 will operate flawlessly with other makes of controllers on the same system. In fact, the built-in validator can be used to validate other controllers on the same system that require an external validator! (An LT-4200 costs less than dedicated validator products!)

The LT-4200 is fully self contained and includes every important Controller feature such as Logic Control Unit, Validator, Billing Data Generator, and System manager. Many of the important LT-4200 standard features such as the front panel LCD display are simply unavailable in competing brands.

### • Quick Access to Internal Adjustments

All adjustments are quickly accessible by removing the front panel with two screws. There's no need to remove the LT-4200 from the rack or disrupt service to your users!



### • LCD Display

Only CSI LT Controllers keep you fully informed about what the repeater is doing while you are at the site. The LCD shows you the ID code of the current user, RX/TX status, repeater status, dip switch settings, built-in test, error codes and more. The standard LT-4200 has LCD messages in English. Please inquire about availability of other languages.

### • Validator

Unlike competing brands, each LT controller stores the entire validation data base of 5,000 User ID's per system (up to 250 User ID's per repeater, up to 20 repeaters). This approach makes it virtually impossible for a mobile with an invalid ID to tie up a channel on the system. The validator also limits a user to specified privileges such as time of day lockout, etc.

### • Billing

Using CSIBASE, you can create two separate prime time intervals per business day. All other times and weekends are considered regular time. The LT-4200 then accumulates time (up to 4,660 hours) and hits (up to 65,535) in both regular and prime time categories for each user ID which can be downloaded when convenient for billing purposes.

### • CSIBASE<sup>™</sup>

CSIBASE is a DOS based application for your PC that gives you full control and management of all LT-4200 and LT-4900 controllers on

each system and each site that you operate. It's operation is similar to Z competition's site management program.

Working offline, you can set up all repeaters separately, or set up one and transfer that programming to the others; set up the site global parameters; set up the user data etc. When all programming is completed offline, CSIBASE will upload all data at once via RS-232 or using a dial up line and external modem.

At appropriate intervals, you use CSIBASE to download all stored billing data and to reset the time and hit accumulators.

CSIBASE also allows you to monitor all repeaters on the system at once displaying activity by user ID. Also creates bar graphs of repeater loading and other useful statistical data.

The normal use of your system is not affected while your computer is communicating with the LT-4200 to allow you to be in Monitor Mode, or to transfer data.

### • CSI BUS<sup>™</sup>

All LT controllers are interconnected with the CSI BUS (do not confuse with the repeater bus which connects to all repeaters including other brands).

The CSI BUS allows all uploading, downloading and programming of all LT repeaters on a system through the RS-232 port of any LT unit you choose. This means that only one modem is needed per system and only one phone call per session.

CSI BUS also permits advanced (proprietary) DID trunking features only available in our LT-4900.

## • Serial Ports

Each **LT-4200** has both a front and rear DB-9 RS-232 port. Most likely, you will connect one of the rear ports to a modem, and use any front port to Monitor or Program the system using your laptop while at the repeater location.

## • Modem

The **LT-4200** supports 300, 1,200 and 2,400 baud external modems, but remember, due to CSI BUS you only need one modem per system!

## • Cloning

The LT series controllers can automatically sense if you have added or replaced an LT controller on the bus and automatically clone the programmed setup parameters to the new unit. There's no need to use a computer at all! You will see a message on the LCD informing you that cloning is occurring. This important feature gets you up and running faster and with less hassle than any competing controller.

## • Monitor Mode

Using **CSIBASE**, you can dial up the system and monitor/display all of the repeaters on the system at once from your office. You will see the user ID of the current user, watch handoffs to other repeaters as they occur and more.

## • Repeater Loading and All-Channels Busy Graph

You can determine system loading by analyzing each repeaters hourly loading bar graph for the previous 48 hours.

## • Sharing an LTR® Channel with existing Conventional Repeaters

The **LT-4200** Cross Busy input can be connected to a receiver that monitors the shared channel input or output. When the **LT-4200** Cross Busy input senses channel activity, it will put a "channel busy" message on the repeater bus which prevents trunking to that channel until it becomes clear.

## • Sharing an LTR® Channel with your Conventional Users

You may wish to share your conventional UHF repeater (s) with one (or more) of your LTR® channels. Our LT controllers have been designed to be shared repeater compatible with our **TP-154** and **TP-154 PLUS** Repeater Tone Panels. If the TP is in use, the LT will not trunk to that channel. If the LT is in use, it will sound and appear just like another user group of the TP when the conventional mobile user goes off hook.

## • CW ID

Each repeater in the system can be independently set to ID any desired callsign or message in Morse, or CW ID can be disabled.

## • Alarms

The system operator can set alarms to occur on various events such as sense inputs, loss of Repeater Bus or CSI Bus sync or SMDR call records memory 85% filled (in **LT-4900's**), etc. The alarms are sent on a preprogrammed User ID code and from the repeater on which they are generated. The system operator has considerable flexibility as to when alarms sound, how long they occur, etc.

## SPECIFICATIONS

### Mechanical

Height	1.75 Inch
Width	19.0 Inch
Depth	6.9 Inch
Weight	4.5 Lbs.

### Trunking Data

Trunking Protocol	LTR®
No. of Channels	20 Maximum
Validator	250 ID's per channel 5,000 ID's per system
BUS Protocol	EF Johnson or Uniden (user selectable)

### Adjustments

RX Audio, TX Audio,  
Squelch/COS, CW ID/Alarm

### Input/Output Levels

RX input (Subcode)	20 mVpp - 10 Vpp.
RX input Z	150K ohms, AC Coupled
TX Audio Out	0 - 5 Vpp
TX Audio Out Z	1,000 ohms, AC Coupled
TX Subcode	0 - 5 Vpp
TX Subcode Z	5,100 ohms, AC Coupled
CW ID / Alarms	0 - 5 Vpp

### Signal Processing Filters

RX Subcode LPF	5 Pole
TX Subcode LPF	4 Pole
Subcode Removal HPF	6 Pole
Noise Squelch HPF	5 Pole

### LCD Display

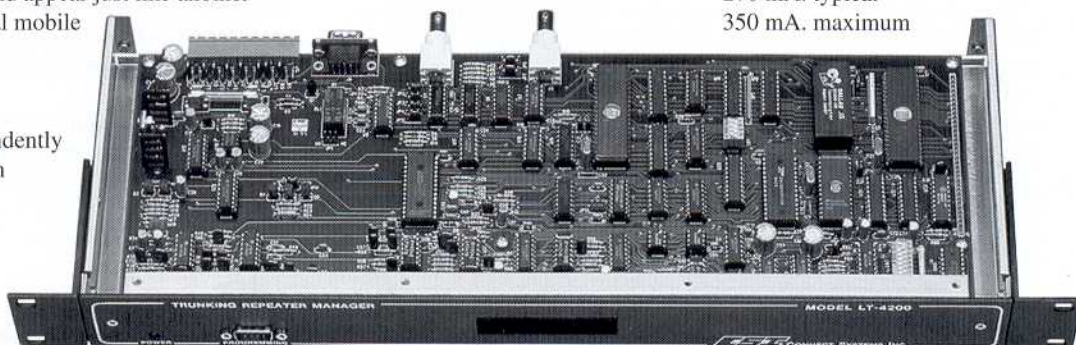
Two line, 16 characters/line

### RS-232 Ports

Front and Rear DB-9  
300, 1200, 2400 Baud

### Power Requirements

12 - 16 VDC  
270 mA. typical  
350 mA. maximum



*Made in U.S.A*



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