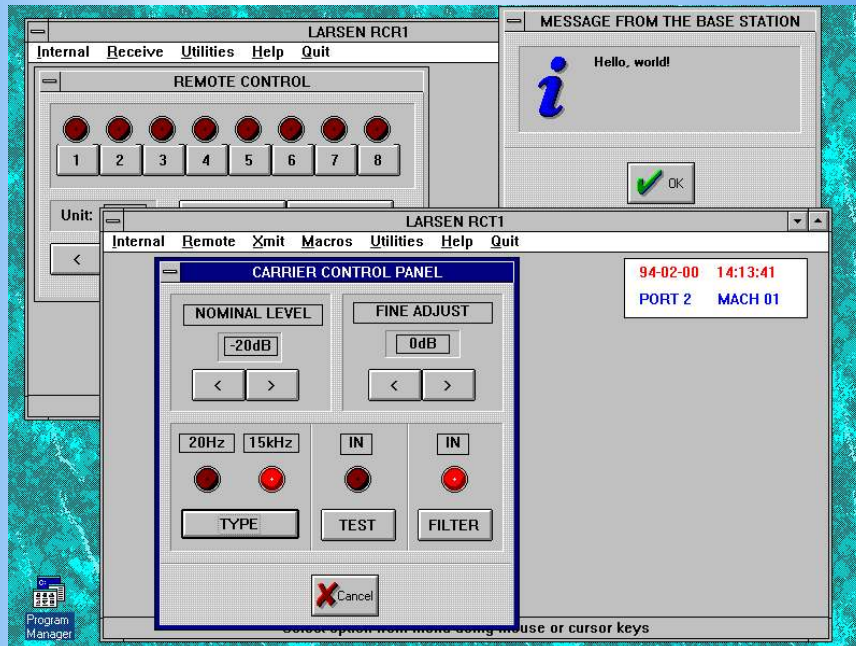
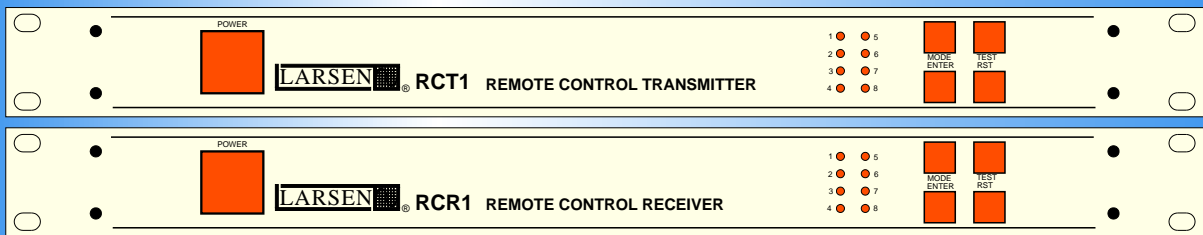


RCT1-RCR1 Remote Control System



DESCRIPTION

RCT1-RCR1 system is aimed for remote equipment control as well as for the transmission of digital data over Broadcast and Television networks using quasi-inaudible digitally-modulated carriers superimposed to the regular analog audio station signal.

APPLICATIONS

- Broadcast network remote control
- Logging (SNOOPER logging system)
- Defective equipment replacement
- Commercial killing
- Remote RDS coder TA activation
- Simultaneous distribution of 2 different mono programs through the same stereo satellite network line

TRANSMISSION

Transmission of the information packets is carried out by the RCT remote control transmitter. 3 different transmission processes are possible:

- Directly triggered by the control computer, any number of messages is allowed.
- Through 8 macros, previously defined in the control computer and stored inside the RCT1, and triggered by up to 8 external contact closures.
- Acting on the panel push buttons on the unit to trigger the previously-stored macros.
- The RCT1/RCR1 system will place a modulated carrier at the bottom/top of the spectrum just when a command is being dispatched! No filtering is performed so audio quality is not degraded.
- If you work at the top of the spectrum, only a small "click" is heard when a command is sent. If the system uses the lower carrier, nothing will be heard, but commands will act slower.

FEATURES

General

- Electronically balanced XLR I/O using instrumentation amplifiers and polyester coupling capacitors
- Audio performance exceeding the one present in 16 bit systems.
- Both the devices are presented in a slim line 1U 19" rack box.
- Fully EN55103 compliant according to 89/336/EMC
- Different power supplies for audio and digital circuits
- Fast 32-bit control software, runs in Windows™ 98/NT4/2000/XP
- Automatic power loss configuration recovery
- Password protection on critical programming items
- Keyboard inhibit feature for distant operation
- Automated time-schedule operation (available separately)

Transmitter

- Carrier level and frequency is software-programmable, with built-in special test mode.
- Built-in receiver disable function.
- Provision to transmit up to 60 uniquely-named files
- Unformatted packets for external equipment command (e.g. RDS coders) may be transmitted
- Built-in automation system Suspend and Resume orders for the former LARSEN WinAir/TM1+ system
- Programming through the ES-BUS port and the ACUTRON SA2/C PCI board (not included)
- Up to 32 RCT1 units may be controlled by one instance of the control software.
- Distance between the control computer and the RCT1 may be up to 1200m.

Receiver

- 8 remote-controlled DPDT contacts, software-programmable as steady make/break or momentary

- Integrated EIA232D port to send out received data (messages or files).
- Remote-controllable static stereo/mono L+R/mono L/mono R switching built-in.
- Carrier threshold and frequency is software-programmable.
- Programming either through the integrated EIA232D port or through the air carrier.
- Extensible to up to 24 contacts, through its extension port and up to 3 RCE1 8 contact extenders.

Communications protocol:

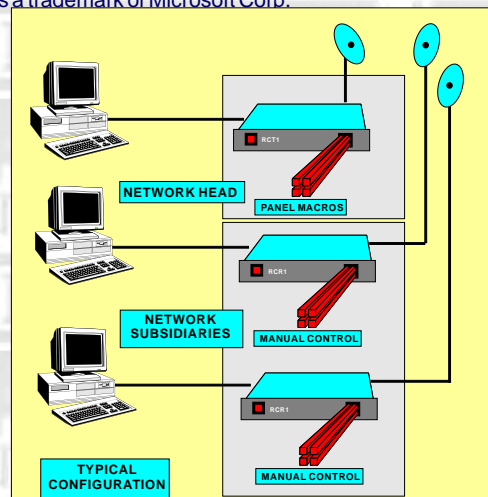
- 20Hz or 14.7kHz differential-phase PAM modulated carrier with zero-crossing synchronous modulation
- Carrier is generated digitally with a 16X oversampling ratio (carrier $THD+N < 0.2\%$).
- Nominal carrier level software-adjustable between -10 and -20dBu.
- Error detection statistical analysis algorithm built-in
- Data rate is either 10 or 4800 baud, depending on carrier frequency
- Receivers addressable individually or in groups (128 different units or groups may be addressed).
- Station identifier to allow for existence of several active transmitters on the same network.
- Secure: Transmitted data may not be decoded by another station receiver.

SPECIFICATIONS

Frequency response	20Hz-20kHz ± 0.5 dB
Noise	-90dBu, 22Hz-22kHz unweighted
Crosstalk	>80dB, 1kHz, any input to any output
Harmonic distortion	<0.005% 20Hz-20kHz
Intermodulation	<0.002%
Input/output phase deviation	during transmission: <30°
Input impedance	50k Ω balanced
Output impedance	600 Ω balanced
Clipping point	+10dBu
Common mode rejection	>45dB 20Hz-20kHz
Carrier:	
Amplitude	adjustable from -20dBu to -10dBu in 1 dB steps
Filter rejection	>35dB
Frequency	20.41Hz/14706Hz
Harmonic distortion	<0.2%
RCR1 contacts	8XDPT 50V 2A max
Physical	1U 19" rack height, 252 mm depth
Weight	3Kg
Power supply	120/240VAC, 50-60Hz, @ 6VA
Operating temperature	0-40°C

RCT1-RCR1 V1.21 2003-11-12

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