# **TELEMASTER**

# REMOTE CONTROL

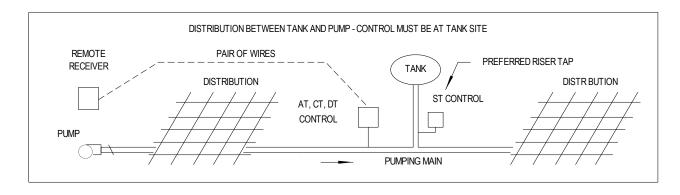
A simple economical telemetry system to turn one or more pumps on and off and transmit pumping status over a single pair of wires. Functions range from starting and stopping a single pump to starting and stopping two pumps with a pump run report back for both pumps. The Telemaster is located at the remote pump site and provides a output contact to the pump starter. Any Master Level Controller can be used as a transmitter which only requires a contact closure for transmission.



# RC1-200-1 REMOTE RECEIVER

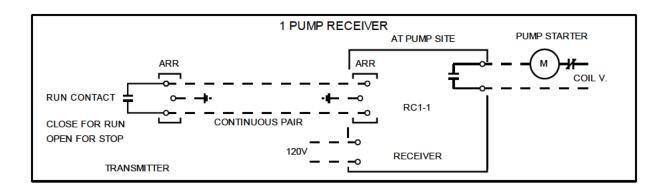
RC1-200-1 Remote Receiver for a single pump with phone line arrester, plug in relays and built in power supply. A single pair of transmission wires, telephone or private, of 26 gage or larger can be used. A continuous pair is required from the transmitter switch to the remote pump site. Loop resistance of up to 2000 ohms is permissible. The built in low voltage power supply is 36VDC and is protected with a  $\frac{1}{2}$  amp fuse. The output relay contact to the pump starter is rated 10 amp @  $\frac{120}{240}$ V.

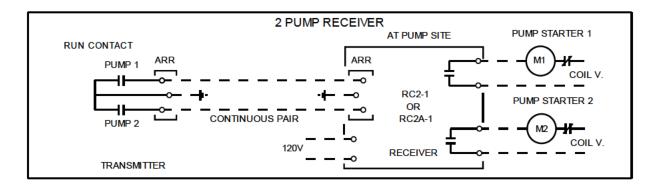
#### REMOTE RECEIVER AT PUMP SITE

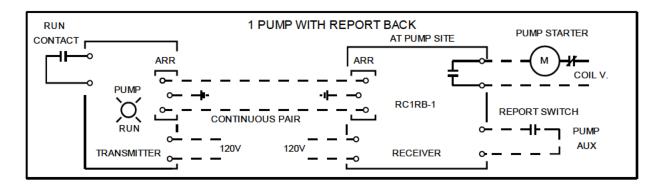


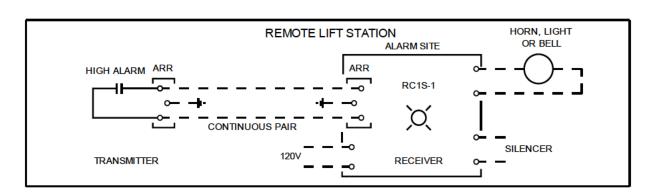
#### MASTER LEVEL CONTROLS CO.

# REMOTE CONTROL SYSTEMS









TELEMASTER		AUG 2018
MODEL NO.	DESCRIPTION	PRICE
RC1-200-1	1 Pump Receiver, Nema 1 Enclosure, 120v, With Phone Line Arrester. Output Relay Contact is Rated 10 amp @ 120/240V.	
RC2-226-1	2 Pump Receiver, Nema 1 Enclosure, 120v, With Phone Line Arrester,	
RC2A-206-1	2 Pump Receiver with Lead and Lag Alternator, Nema 1 Encl. 120V, with Phone Line Arrester.	
RC1T-234-1	1 Pump Receiver with Time Delay Start, Nema 1 Enclosure, 120V, with Phone Line Arrester.	
RC2T-242-1	2 Pump Receiver with Time Delay Start, Nema 1 Enclosure, 120V, with Phone Line Arrester.	
RC2TA-243-1	2 Pump Receiver with Lead and Lag Alternator, Time Delay Start, Nema 1 Enclosure, Arrester.	
RC1-256-1	1 Pump Receiver with Start and Stop Delay, Nema 1 Enclosure, 120V, Phone Line Arrester.	
RC1RB-214-1	1 Pump Receiver with Report Back Feature, Run Light on Transmitter Encl, 120V, Nema 1 Enclosures.	
RC2RB-248-1	2 Pump Receiver with Report Back Feature, 2 Run Lights on Transmitter, 1 Receiver, 120V, Nema 1.	
RC2RB-249-1	2 Pump Transmitter with Report Back Feature, 2 Run Lights on Transmitter, 2 Pump Site Receiver, 120V, Nema 1 Enclosures.	
RC1S-201-1	1 Alarm Receiver, Alarm Silencer, Alarm Light, Audible Signal, Nema 1 Enclosure, 120V, Specify Transmitter Contact, Normally Open, or Closed	l.

All Prices Subject to Change Without Notice

F.O.B. Rogers, MN

## REMOTE TELEMETRY UNITS

AUG 2018

# LEASED LINE INDUSTRIAL MODEM 33.6K

Phone Line

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Master Modem

Client Modem

#### **VT-MODEM**

The VT-Modem supports fast point to point continuous communication over 2-wire leased PSTN lines. The enhanced industrial VT-Modem incorporates modern data compression technology to speed up communications from the traditional 1200-2400 baud to rates up to 33.6K baud, improving performance and reliability.

#### VT-Modem RTU

The VT-Modem with RTU is located at each transmission site for 2-way communication. The RTU is a MLC-830 Master Logic Controller or any Digital Master Level Controller.

VT-Modem for leased phone line 2-way communication. Modem, up to 33.6K communication rate, with phone line arrester.

Master Client

#### RTU

See Master Logic Controllers, MLC-830 & MLC-850. DT2A Digital Tankmaster, DH2A Hydromaster, DP2A Pumpmaster.

All Prices Subject To Change Without Notice

F.O.B. Rogers, MN

#### MASTER LEVEL CONTROLS CO.

## RADIO TRANSCEIVERS

# SPREAD SPECTRUM TELEMETRY RADIO INDUSTRIAL 900MHz



CL4490 Transceiver (Laird)

The CL4490 transceiver is a Frequency-Hopping Spread Spectrum (FHSS) radio designed for license-free operation in the 900MHz ISM band. The radio sustains a standard asynchronous serial data stream between two or more radios. The radio features an RS-232 interface for integration into legacy data systems.

The CL4490 uses Frequency Hopping Spread Spectrum modulation, where the units "hop" from frequency to frequency many times per second using a specific hop pattern applied to all the transceivers in the same network. A distinct hopping pattern is provided for each Channel Number, thereby allowing multiple networks to co-exist in the same area without interference.

CL4490 Transceivers operate in a Point-to-Point or Point-to-Multipoint, Client-Server or Peer-to-Peer architecture. One transceiver is configured as a Server and there can be one or many Clients. To establish synchronization between transceivers, the Server emits a beacon. Upon detecting the beacon, the Client transceiver informs its Host and a RF link is established. A link LED indicates Client and Server is in range and communication is active.

CL4490 implements a proprietary communication protocol to provide secure data transmissions. As its uses FHSS technology, the data remains reliable over long distances. Use of license free frequency bands ensure that the units are ready to use with no further certification requirements. Transmission range up to 10 miles or greater with matched antenna and clear line-of-site.

## RADIO TRANSCEIVERS

**AUG 2018** 

# SPREAD SPECTRUM TELEMETRY RADIO INDUSTRIAL 900MHz



#### CL4490 Transceiver

The Server Radio can be located at the tank site or a main pump site. The Client Radio can be located at the main control panel or remote pump site. The radio unit is furnished with a power supply, lightning protection, cable and programmed. 900 MHz Server/Client protocol with RS-232 interface to the RTU.

# CL4490 Server Radio

CL4490 Client Radio, (Add for each multi-point Client Radio)

# RTU

See Master Logic Controllers, MLC-830 & MLC-850. DT2A Digital Tankmaster, DH2A Hydromaster, DP2A Pumpmaster.

### Antenna

Yagi Directional Antenna, with 50 ft. cable, Surge Protector.

Omni Directional Antenna, with 100 ft. cable, Surge Protector.

(Cable \$ 4.00/ft)

All Prices Subject To Change Without Notice

F.O.B. Rogers, MN