SYSTEM PRODUCTS
FULL 2 WAY

Full 2 Way: Download Brochure(10 MB)

The Standard of Flexible, Functional, Energy- Efficient Lighting Multiplex Transmission FULL-2WAY Remote Lighting Control System Simple, Efficient Lighting Control That Matches Your Needs

Multiplex transmission FULL-2WAY remote control system uses just two 24 V signal wires for all the switches on a network, and controls lighting using pulse signals. This makes for a simple and flexible system that requires little maintenance. We've proved that highly functional systems does not require complex wiring. In wide use in many office buildings, these systems provide the standard for simple, efficient, and effective control.

ECOLOGY

Save-Energy, Save-Cost

Timers and sensors control the system to provide light only when needed. This cuts energy use and costs.

SIMPLE

Simple Design and Labor-Saving Installation

The system employs a multiplex transmission method using two non-polarized signal wires. This drastically reduces the number of wires needed compared to conventional remote control wiring.

AMENITY

Matches All Lighting Control Needs

You get lighting control to match your exact needs. With just a touch of a button, you can either turn on/off all lights in one area of the building, or turn on/off individual lights as required.

CONVENIENCE

Minimal Design, Minimum Maintenance

Because switch functions can be programmed after wiring is complete, the entire process is speed up-from design and estimating, to ordering, delivery, and installation. System functions can also be quickly and easily changed.

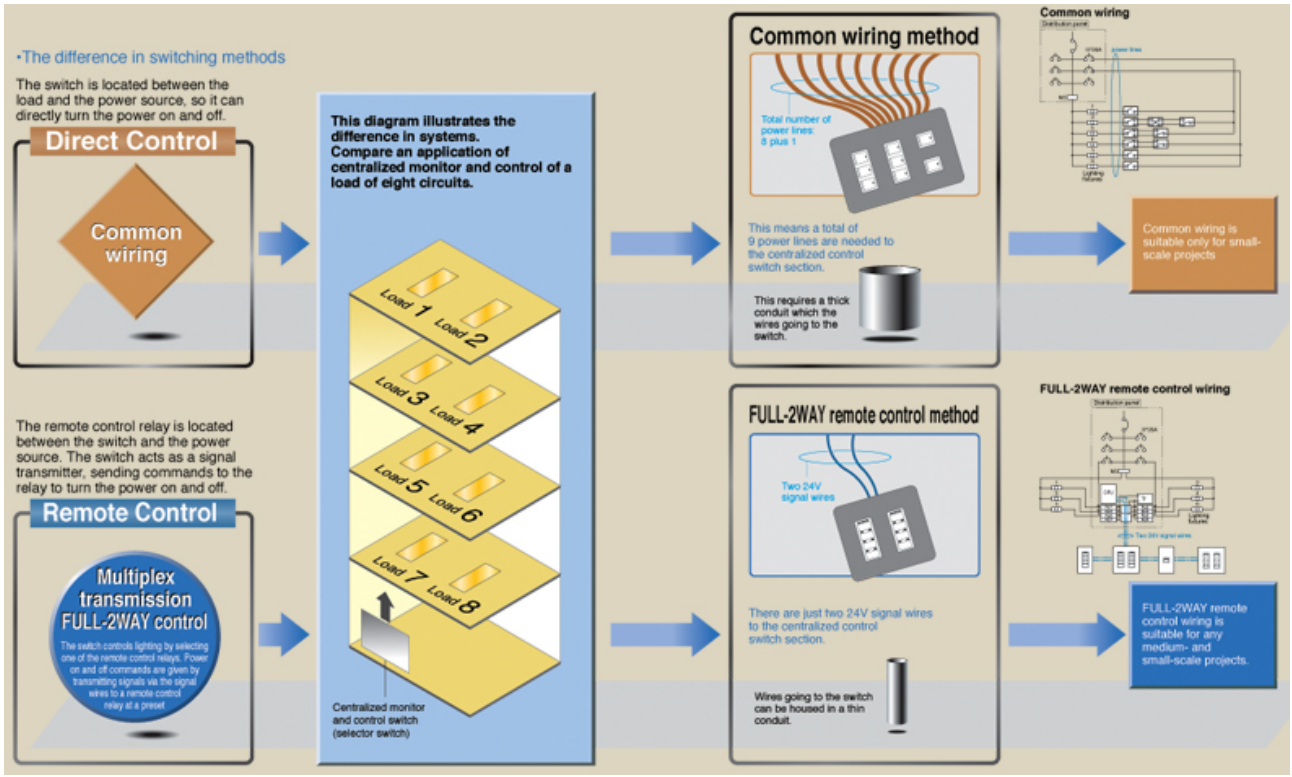
FLEXIBILITY

Flexibility Reduces Total Costs

There's no need to modify the wiring if lighting control has to be changed due to room layout alterations. This contributes to reduced overall costs.

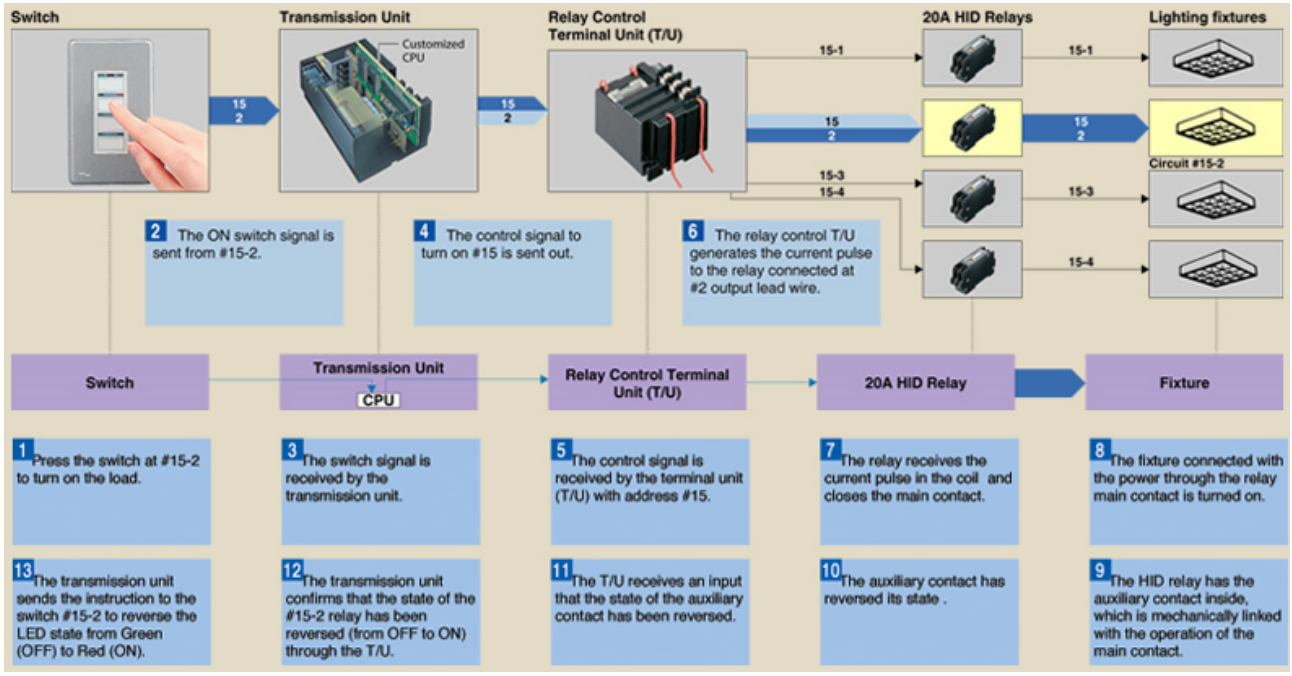
The Bigger the Building, the More Labor-saving, the Installation., The Key is Our Special Switching System.

Multiplex transmission FULL-2WAY wiring is designed differently than common wiring methods. Commands are signaled from remote locations and lighting controlled using just two 24V non-polarized wires, so installation unit labor costs decrease despite the increasing of building size.



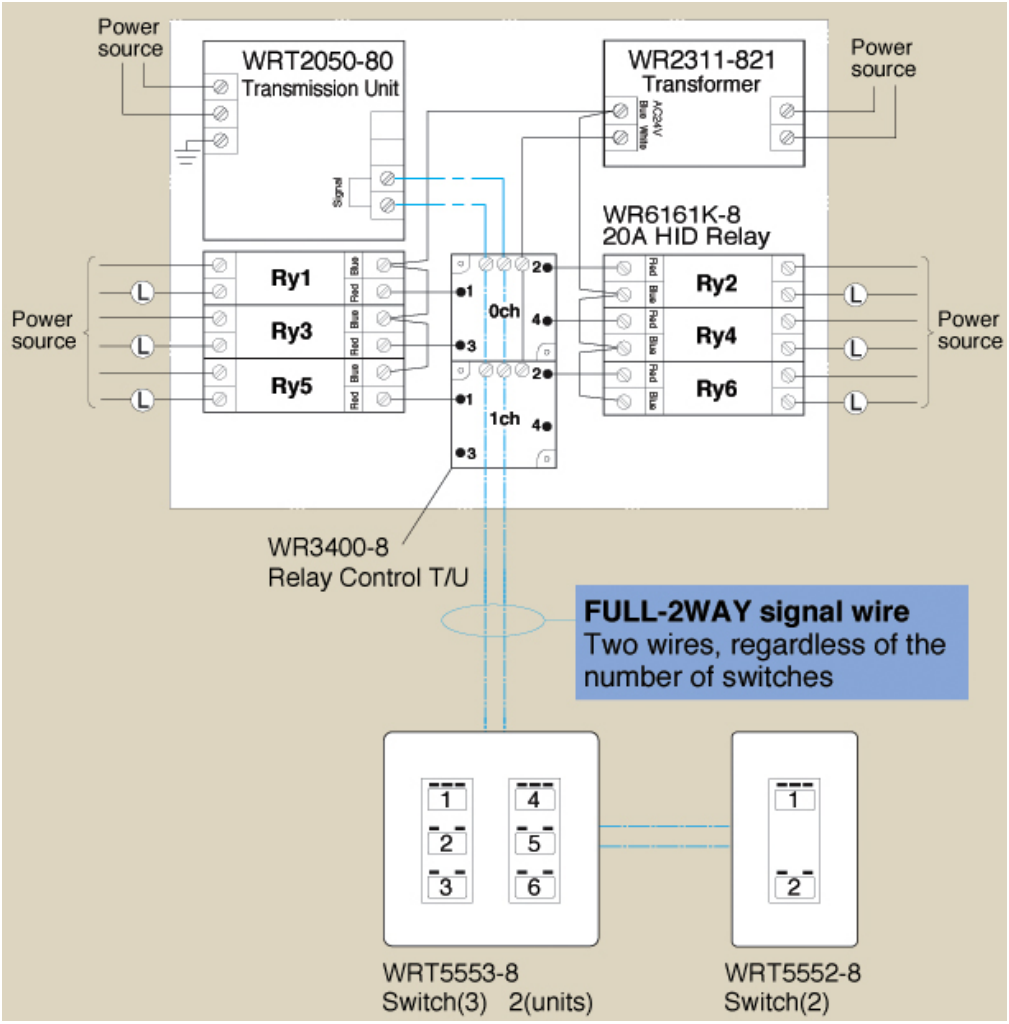
System Principle

2-wire multiplex transmission technology helps to simplify lighting control system.



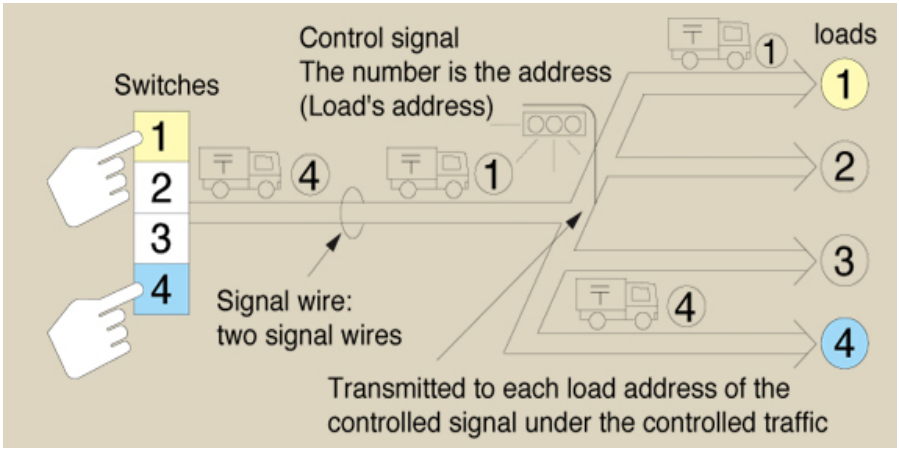
Basic circuit

Easy installation-just match to the applicable, load and the switch T/U address.



The transmission system features of FULL-2WAY remote control system
FULL-2WAY remote control system

•Multiple transmission system allows 2 signal wires to control multiple loads.
•Load address for switches and T/U need to be matched according to the loads.



Specifications of the Transmission Unit What is multiple transmission?

Signal transmission method	Cyclic time sharing multiplex transmission with cut-in signal method
Signal wires	Two wires with no polarity
Signal voltage	24V
Output current	500mA max.
Transmission speed	Approx. 15 msec. per terminal unit (10Kbit/sec.)
Relay activation time	0.2 sec. max.
Max. number of circuits	256 circuits
Signal transmission distance	
Maximum signal wiring length	500m max. with 1.2 mm dia.wire (Between transmissin unit and the farthest point)
Total signal wiring length	1,500m max. with 1.2 mm - diameter wire
Extension of transmission distance	with use of 5 amplifiers (WR 3913-80); Maximum signal wire distance: 3,000 m, Total signal wire length: 9,000 m
Ambient temperature range	-10˚C to 50˚C
Power failure backup	Flash memory for groups/patterns (no battery backup)

The system transmits signals via two wires to circuits which are to be switched on and off. With FULL-2WAY multiple transmission, load addresses comprised of channel and load numbers are set up in advance, and the signal is transmitted to the designated addresses that correspond to remote controlled relays HID when switches are operated.

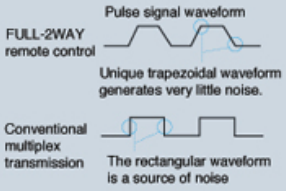
With multiple transmission, the signal is transmitted by pulse signals

What is a pulse signal?

The number of signals is limited only by the number of different possible arrangements of 0s and 1s, thus making it possible to handle many signal destinations (circuits to be switched on and off).

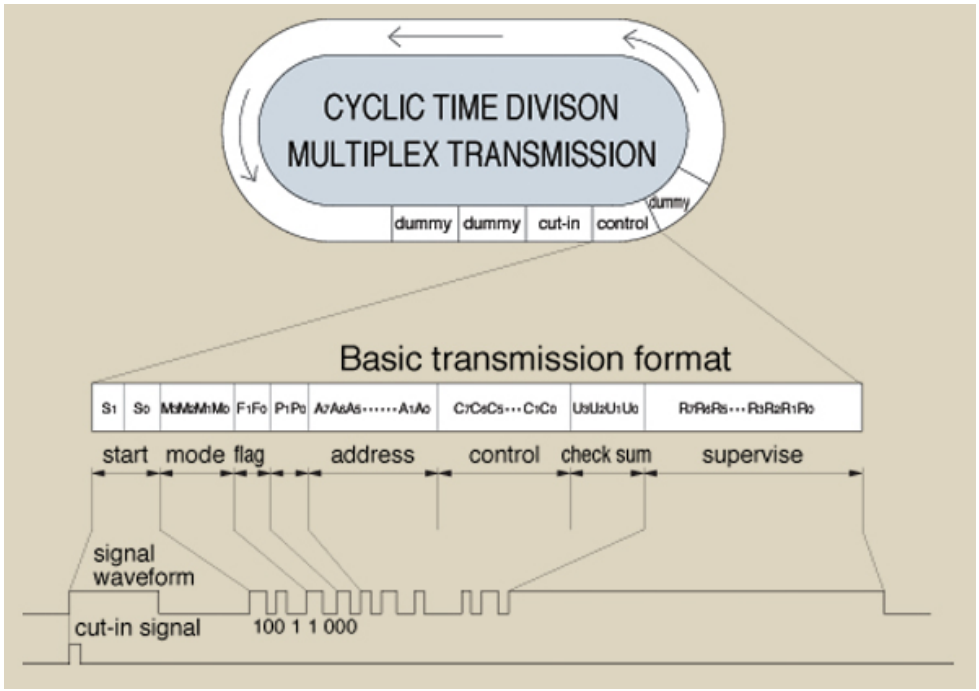
Pulse signals are transmitted at an interval of 0.015 second for each Terminal Unit, so there is no chance of signal interference in the two signal wires.

Reduced noise level with the special trapezoidal waveform for the pulse signal



FULL-2WAY remote control has the cut-in method of high-speed control response and signal indication

In addition to "CYCLIC TIME DIVISION MULTIPLE TRANSMISSION METHOD", , a new technology called the "CUT-IN SIGNAL CIRCUIT" can control relays at high speed and , indicate on the ON/OFF status.



Function and Features of FULL -2 WAY Remote Control

ECOLOGY

Save-Energy, Save-Cost

Timers and sensors control the system to provide light only when needed. This cuts energy use and costs.

Centralized monitoring and control

Control and monitor all lighting from a central location

Pattern selector switch

Functional display of lighting status

LED displays lighting status

ON
Red LED is lit

OFF
Green LED is lit

Pattern selector switch

Timer and sensor control

Connectable with timer or sensor control equipments for further energy saving

Program timer unit

Passive infrared ceiling unit

Day light sensor unit

SIMPLE

Simple Design and Labor-Saving Installation

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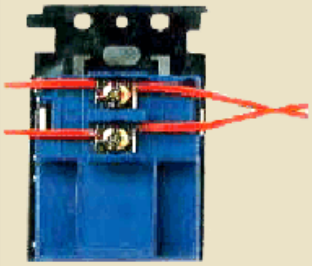
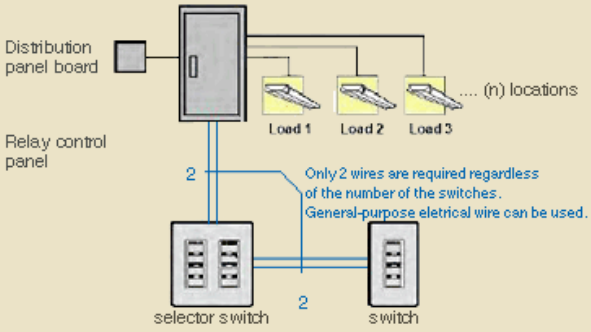
Group Control

9am work starts



Wiring diagram for Full-2way remote control system



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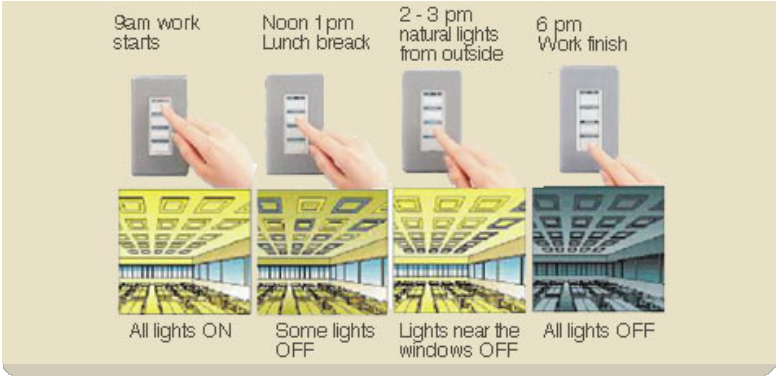
Group Control

Pattern Control



CONVENIENCE

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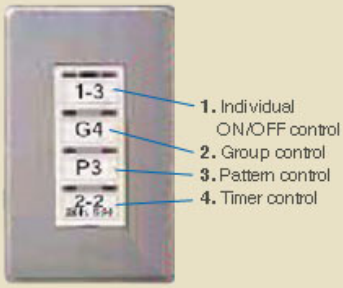
4 functions in 1 unit

WRT9600-8
Wireless programing unit

Example of LCD that shows the programmed settings made by installer



WRT5554-8
Switch (4) (Infrared I/O)

FLEXIBILITY

Flexibility Reduces Total Costs

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WRT9600-8
Wireless programming unit

WRT5850-8
Program setting unit