



# Gate Command

## Remote Control

### 110vac Multi-channel

# ***SWING GATE SYSTEM***

## *INSTALLATION and OPERATING INSTRUCTIONS*

The **Gate Command** Remote Control is designed to provide the ultimate in convenience and safety to perform tasks remotely. It is a radio frequency (RF) controlled device that allows operation of a gate from a hand held transmitter operated remotely. The Transmitter, which operates at 418 MHz FM, transmits encoded information to the Receiver, which then decodes the information and performs the desired function. When connected to the electrical driver, this system will remotely operate a swinging gate. The Transmitter and Receiver are designed to operate within 600' but actual range is dependent on operating environment.

### **Features :**

- Simplicity of design and quality of engineering.
- User selectable security code.
- Power On/Off switch on Receiver.
- Latched or Momentary data selectable by channel.
- LED Indicator lights.
- 9v Transmitter Battery
- Ease of installation.
- All controls can be by either Manual Switch or Remote Control
- Multiple Transmitters can operate a single Receiver.
- Multiple Receivers can be operated by a single Transmitter.
- Up to 4 different Channels can be operated by one Receiver

**Manufactured By:**

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# Specifications:

## Transmitter:

Power: 9 volt dc battery  
Frequency: 418 MHz  
Modulation: FM  
Indicators: Power/Transmit Red LED  
Case Size: 2.5" x 4.2" x .8"  
Weight: .25 lb.  
Range: 600'+ (depending on environment)  
Antenna: 1.3" Fixed Mini Tuned  
Security Code: 2<sup>8</sup> selections

## Receiver:

Power In: 110vac  
Power Out: 57 vdc @ 6 amps max  
Transformer: 36v 6A ct  
Standby: 40mA  
Security Code: 2<sup>8</sup> selections  
Indicators: Power On LED  
Receive RF Data Yellow LED  
Channel Active Green LED  
Options: Latched/Momentary Data  
Multi-Channel (1-4)  
Main Power On/Off Switch  
Manual Switch Control  
Antenna: 7" Flexible Tuned  
Overall Size: 6" x 6" x 4"  
Weight: 5 lb.

## Electric Cylinder Model VW76-5

|             |               |
|-------------|---------------|
| Force:      | 600lb.        |
| Stroke:     | 24 in         |
| Speed:      | 24 in/per min |
| Electrical: | 36v @ 6A dc   |

# INSTALLATION INSTRUCTIONS

## Receiver Installation:

Mount the Receiver case securely in a location offering minimum signal interference for the antennae and providing installation access. The Receiver should be mounted with the Antennae UP and in a location where the Manual Switches can be operated in full view of the Electric Cylinders.

**SAFETY FIRST! Be sure all power is off before attempting any connections or servicing. Use only qualified personnel.**

Using 16ga. 3 conductor wire, connect 110vac to the two wires as marked. The pigtail fuse holder provided has a 3Amp fast-blow fuse. **Connect the incoming ground wire to one of the 10-32 mounting screws of the transformer.** Tighten the grommet seal onto the wire.

Using sufficiently heavy gage wire, connect the electric cylinder (motor/valve etc.) to the pigtail wire for the selected channel on the Output Drivers Connector from the Receiver. If the actuator does not run the desired direction when activated, reverse these two wires.

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# RECEIVER PANEL

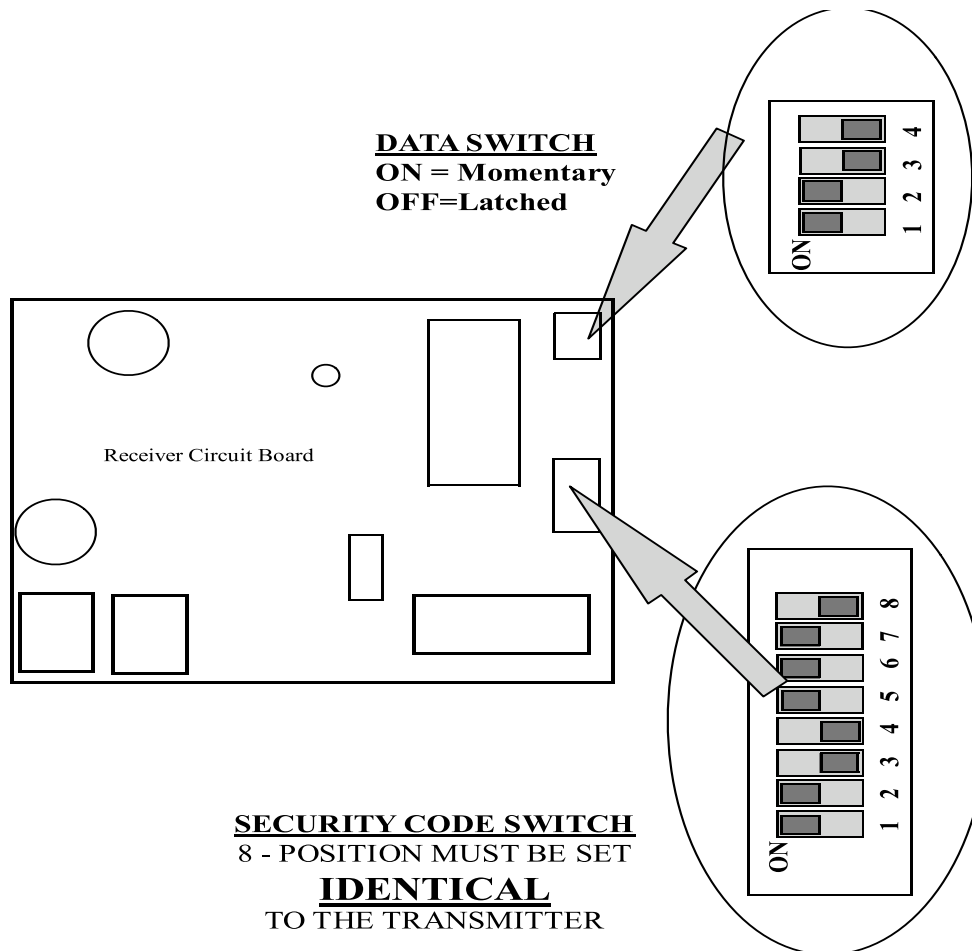
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# **General Operation:**

## **RECEIVER:**

The Receiver is equipped with a Power On/Off switch on the side of the case. When the switch is ON, the Red LED should be lit indicating normal operation.

The Receiver is equipped with an 8-position switch used to set the user security code. The security code is provided to prevent unwanted operation of the Receiver by other devices. Only a Transmitter with identical switch settings will be able to "talk" to this Receiver. When the switches are set identically and the transmitter "talks" to the Receiver, the yellow "RECEIVE" light will come on. This indicates that valid data with a matching security code has been received. Position these switches to any desired On/Off pattern for your own security code. REMEMBER: The 8-position switch on the Transmitter must be set IDENTICALLY. To access the security code switch, remove the four screws on the Receiver front panel, and gently remove the panel.



The Electric Cylinder(s) can be operated using the Transmitter, or alternatively, by pressing the desired OPEN/CLOSE buttons on the Receiver to activate the Manual Switches. Whenever an electric cylinder is operating, the Green LED indicating power to the device on that channel, will be lit. Only one device can be operating at a time. The Manual Switches have priority over the Transmitter signal.

The DATA SWITCH is used to select how each output channel will operate. The four-position switch controls channels 1 to 4 respectively. Each channel can be individually set. If the Data Switch is set to **ON** (momentary operation) that **channel will only operate while the Transmitter button (or Manual Switch) is depressed**, and will stop when the button is released. If the Data Switch is set to **OFF** (latched operation) that **channel will continue to operate** after the Transmitter button is released, and until another signal is eventually received.

The ALL OUTPUT STOP button turns off ALL outputs and is only used where one or more of the channels is set to Latched Data.

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The Receiver has two automatically resetting fuses. Fuse F1 (1 Amp) is intended to protect the RF receiver and data circuitry, and Fuse F2 is intended to protect the relays from overload. These fuses will automatically reset when cooled.

## **TRANSMITTER:**

The Transmitter is powered by a 9v battery which, when installed, should light the red "power" light when a switch is pressed. If the battery does not exceed 7 volts the Power light will not come On, indicating battery replacement is required.

Set the 8-position switch to your own security code which matches the code on the Receiver to which it is to "talk". Note that any number of Transmitters can "talk" to the same Receiver as long as they have the same security code set to match the receiver.

To access the Transmitter security code switch, remove the battery cover and remove the battery. Remove the two retainer screws. Grasp the front and back of the case and gently slide the top downwards (away from the antenna) approximately ¼" until it unclips from the bottom, and then gently separate.

## **Think Safety:**

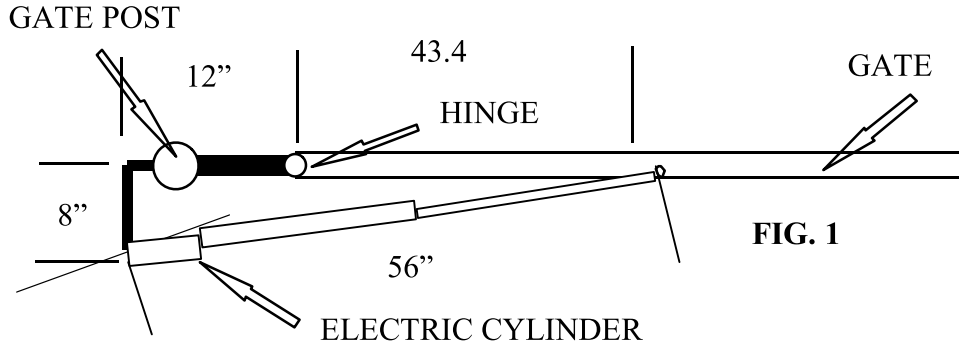
**Do Not install or operate where  
damage to property or persons may occur.**

### **Electric Cylinder Installation**

Before mounting the electric cylinder(s) it is important to plan the best installation configuration. The mounting options are very flexible, but care must be taken to ensure there is room for the cylinder to pivot on its mounts and the desired gate travel is achieved.

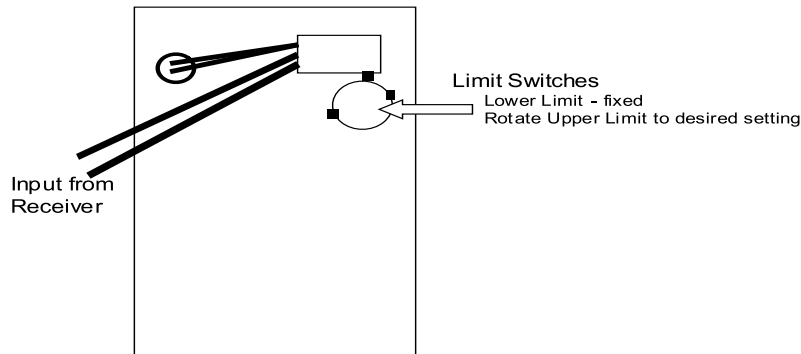
The electric cylinder can be mounted to any post or gate by welding, bolting, or otherwise attaching suitable supports (not supplied) to the post and gate to allow the cylinder to be pinned in place. Sample cylinder mounting dimensions are shown in Figs. 1. The pin position on the drive head and the pin position on the gate result in various stroke and space requirements.

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It is recommended that a stroke length of 14" to 23" be used. An 18" stroke length will result in an opening/closing time of approximately 40 seconds. A 23" stroke will require 55 seconds. Please consult the manufacturer if specialized installation requirements exist.

### Linear Driver – Wiring Connections



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## **HOW TO RESET LIMIT SWITCHES**

### **VW76-5 Electric Cylinder**

**CAUTION:** If you want to test this actuator on a bench, make sure to hold the inner tube with your hand or with a screwdriver through the rod end when the inner tube is moving in and out. Otherwise the inner tube may turn freely and destroy the factory preset mechanical lower and upper limits.

#### **A. RESET LOWER LIMIT**

The factory preset mechanical lower limit on this unit is  $\frac{1}{4}$ " to  $\frac{1}{2}$ " from the retracting end of the actuator.

MAKE SURE THE ACTUATOR IS PROTECTED AT ITS LOWER MECHANICAL LIMITS WHEN YOU ATTACH IT TO THE MOUNT. Otherwise, please reset lower limit as following procedures:

- 1) If the inner tube has been connected, detach it first.
- 2) Use the Receiver to retract the actuator until the motor stops by itself. Important not to hold the tube now. Allow it to retract freely.
- 3) Hand turn (or use a screwdriver through the rod end to help) the actuator to retract it further until you cannot turn it any more. Now the lower limit is set on Zero Inches.
- 4) Hand turn the inner tube to extend it until it reaches your desired mechanical lower limit. We recommend a minimum of 2 to 4 turns out ( $\frac{1}{4}$ " to  $\frac{3}{4}$ " )

#### **B. RESET UPPER LIMIT**

- 1) Extend the actuator to where you want to set the upper limit.
- 2) Open the back cover of the actuator locating two plastic cams located one on top of the other. The upper one is for the upper limit adjustment.
- 3) Loosen the two limit cam screws.
- 4) Turn the upper cam clockwise until you hear (you can also feel) a "CLICK" sound from the limit switch.
- 5) Retighten the two limit switch cam screws. (Using two fingers to hold the lower limit cam steady when you fasten the two screws otherwise the cams driving gear may be destroyed by high torque force generating when tightening these screws.)
- 6) Test the limit switch setting to ensure it is correct and replace the back cover.

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