The AP-5 is designed for a broad range of access control applications. Its wireless design and small size make it easy to install in a variety of access control locations. Typically, the AP-5 is used in conjunction with one or two barrier gates, automatic gates, or doors.

The AP-5 contains a high-performance superheterodyne UHF receiver which uses an external antenna to pick up signals from up to 500 feet away. Up to 480 Linear Megaco® transmitters and six Model MGT safety edge transmitters can be programmed into the AP-5’s memory. The AP-5 will retain its memory, even without power.

Three dry contact relays are provided. The first relay (K1) is always for ACCESS. The second relay (K2) is always an OBSTACLE relay. An ACCESS relay can be programmed to be either timed or toggled. In timed mode, the relay can each be programmed to activate from 1 to 120 seconds (default 2 seconds). In toggle mode, activating a transmitter will latch the relay, activating the transmitter again will unlatch the relay. An OBSTACLE relay will activate for 2 seconds when a valid signal is received from a Model MGT transmitter. During an obstacle condition, all ACCESS relays will be disabled.

For manual activation, pressing OPEN then the “1” key will activate relay K1. Pressing OPEN then the “2” key will activate relay K2. Each relay will activate for its programmed time only. If relay K2 is programmed as an OBSTACLE relay, it cannot be manually activated.

Relays K1 and K2 can also be activated using the two OPEN REQUEST inputs. Each input (1 or 2) will activate an ACCESS relay (K1 or K2) for its timed amount, or as long as the input is active. OPEN REQUEST inputs override any MGT obstacle activity on relay K3 (but not on K2).

SAFETY WARNING

MOVING DOOR OR GATE CAN CAUSE SERIOUS INJURY OR DEATH

THIS UNIT CAUSES OPERATION OF A DOOR OR GATE MOTOR.

STAY CLEAR OF MOVING PARTS IF THIS UNIT IS MOUNTED INSIDE THE DOOR OR GATE OPERATOR!

STAY CLEAR OF THE DOOR/GATE/ OR DISCONNECT THE ACCESS RELAY WIRES WHEN PROGRAMMING OR SERVICING THIS UNIT!

The AP-5 can fully supervise up to six MGT safety edge transmitters stored in six memory locations (1-6). The system monitors each MGT transmitter for hourly status reports, tamper signals, and low battery signals. A beep will sound every 5 seconds if a fault occurs and the trouble source can be displayed by pressing P then 1-6. A transmitter must be activated twice to trigger the ACCESS RELAY if a supervisory trouble condition exists on any MGT transmitter (unless the MGT has been suspended). MGT supervisory conditions can be canceled per individual unit, or globally.

The AP-5 can be powered from 12-24 Volts AC or DC. The three Form C relay outputs can each switch up to 1 Amp @ 24 Volts AC/DC. An EARTH GROUND terminal is provided as a recommended connection for maximum lightning and static protection.

AP-5 FEATURES

NUMERIC KEYPAD FOR ENTERING TRANSMITTER ID NUMBERS, PROGRAMMING, AND UTILITY FUNCTION NUMBERS

Pound (#) Key TO ACTIVATE ACCESS OR OBSTACLE RELAYS

1. MOUNT RECEIVER IN AN AREA PROTECTED FROM THE ELEMENTS
3. Optionally, mount the receiver in a metal cabinet and use an external antenna

SPECIFICATIONS:
- SIZE: 4.8” W x 4.6” H x 1.5” D
- SUPPLY VOLTAGE: 12-24 Volts AC/DC
- OPERATING CURRENT: 250 mA MAXIMUM
- OPERATING TEMPERATURE RANGE: -22° TO +118° F (-30° TO +70° C)
- SENSITIVITY: -102 dBm MINIMUM
- BANDWIDTH (3 db): 300 KHz TYPICAL
- FREQUENCY: 358 MHz
- RELAY CONTACT RATING: 1 AMP @ 24 Volts AC/DC
- MAXIMUM NUMBER OF TRANSMITTERS: 480
- MAXIMUM NUMBER OF TRANSMITTER BLOCKS: 238
- MAXIMUM NUMBER OF FACILITY CODES: 4

NOTE:
- THE AP-5 IS DESIGNED FOR A BROAD RANGE OF ACCESS CONTROL APPLICATIONS. ITS WIRELESS DESIGN AND SMALL SIZE MAKE IT EASILY ADAPTABLE FOR A VARIETY OF ACCESS CONTROL REQUIREMENTS. TYPICALLY, THE AP-5 IS USED IN CONJUNCTION WITH ONE OR TWO BARRIER GATES, AUTOMATIC GATES, OR DOORS.

- THE AP-5 CONTAINS A HIGH-PERFORMANCE SUPERHETERODYNE UHF RECEIVER WHICH USES AN EXTERNAL ANTENNA TO PICK UP SIGNALS FROM UP TO 500 FEET AWAY. UP TO 480 LINEAR MEGACO® TRANSMITTERS AND SIX MODEL MGT SAFETY EDGE TRANSMITTERS CAN BE PROGRAMMED INTO THE AP-5’S MEMORY. THE AP-5 WILL RETAIN ITS MEMORY, EVEN WITHOUT POWER.

- THREE DRY CONTACT RELAYS ARE PROVIDED. THE FIRST RELAY (K1) IS ALWAYS FOR ACCESS. THE SECOND RELAY (K2) IS ALWAYS AN OBSTACLE RELAY. AN ACCESS RELAY CAN BE PROGRAMMED TO BE EITHER TIMED OR TOGGLE. IN TIMED MODE, THE RELAY CAN EACH BE PROGRAMMED TO ACTIVATE FROM 1 TO 120 SECONDS (DEFAULT 2 SECONDS). IN TOGGLE MODE, ACTIVATING A TRANSMITTER WILL LATCH THE RELAY, ACTIVATING THE TRANSMITTER AGAIN WILL UNLATCH THE RELAY. AN OBSTACLE RELAY WILL ACTIVATE FOR 2 SECONDS WHEN A VALID SIGNAL IS RECEIVED FROM A MODEL MGT TRANSMITTER. DURING AN OBSTACLE CONDITION, ALL ACCESS RELAYS WILL BE DISABLED.

- FOR MANUAL ACTIVATION, PRESSING OPEN THEN THE “1” KEY WILL ACTIVATE RELAY K1. PRESSING OPEN THEN THE “2” KEY WILL ACTIVATE RELAY K2. EACH RELAY WILL ACTIVATE FOR ITS PROGRAMMED TIME ONLY. IF RELAY K2 IS PROGRAMMED AS AN OBSTACLE RELAY, IT CANNOT BE MANUALLY ACTIVATED.

- RELAYS K1 AND K2 CAN ALSO BE ACTIVATED USING THE TWO OPEN REQUEST INPUTS. EACH INPUT (1 OR 2) WILL ACTIVATE AN ACCESS RELAY (K1 OR K2) FOR ITS TIMED AMOUNT, OR AS LONG AS THE INPUT IS ACTIVE. OPEN REQUEST INPUTS OVERRIDE ANY MGT OBSTACLE ACTIVITY ON RELAY K3 (BUT NOT ON K2).

- THE AP-5 CAN FULLY SUPERVISE UP TO SIX MGT SAFETY EDGE TRANSMITTERS STORED IN SIX MEMORY LOCATIONS (1-6). THE SYSTEM MONITORS EACH MGT TRANSMITTER FOR HOURLY STATUS REPORTS, TAMPER SIGNALS, AND LOW BATTERY SIGNALS. A BEEP WILL SOUND EVERY 5 SECONDS IF A FAULT OCCURS AND THE TROUBLE SOURCE CAN BE DISPLAYED BY PRESSING P THEN 1-6. A TRANSMITTER MUST BE ACTIVATED TWICE TO TRIGGER THE ACCESS RELAY IF A SUPERVISORY TROUBLE CONDITION EXISTS ON ANY MGT TRANSMITTER (UNLESS THE MGT HAS BEEN SUSPENDED). MGT SUPERVISORY CONDITIONS CAN BE CANCELED PER INDIVIDUAL UNIT, OR GLOBALLY.

- THE AP-5 CAN BE POWERED FROM 12-24 VOLTS AC OR DC. THE THREE FORM C RELAY OUTPUTS CAN EACH SWITCH UP TO 1 AMP @ 24 VOLTS AC/DC. AN EARTH GROUND TERMINAL IS PROVIDED AS A RECOMMENDED CONNECTION FOR MAXIMUM LIGHTNING AND STATIC PROTECTION.

- MOVING DOOR OR GATE CAN CAUSE SERIOUS INJURY OR DEATH.

- THIS UNIT CAUSES OPERATION OF A DOOR OR GATE MOTOR.

- STAY CLEAR OF MOVING PARTS IF THIS UNIT IS MOUNTED INSIDE THE DOOR OR GATE OPERATOR!

- STAY CLEAR OF THE DOOR/GATE OR DISCONNECT THE ACCESS RELAY WIRES WHEN PROGRAMMING OR SERVICING THIS UNIT!
### 6 - SET FACILITY CODES

#### USE THESE STEPS IF TRANSMITTER BLOCK ID COMES OUT FOLLOWING

- Press and hold for 3 seconds → Enter program mode
- Press #2 → Change facility code
- Press #2 → Enter new facility code number (from 1-16)
- Press #1 or #2 → Verify new facility code
- Press 1 or 0 → Exit program mode

**NOTES:**
1. The factory default setting only allows the left transmitter button to activate access relay K1.
2. The button setting will be used by all transmitters programmed.
3. Repeat steps 2-4 to program other buttons.

### 10 - REMOVING ALL TRANSMITTERS

#### USE THESE STEPS IF A TRANSMITTER BLOCK ID COMES OUT FOLLOWING

- Press and hold for 3 seconds → Enter program mode
- Press #2 → Change facility code
- Press * (asterisk) → Enter “1” to remove all programmed transmitters
- Press 1 or 0 → Exit program mode

**NOTES:**
1. Transmitters can be removed only via the left transmitter. Other options will be reset to factory defaults.
2. Activated transmitters cannot trigger any access relay.

### 12 - SYSTEM TESTING

#### ACTIVATE A TRANSMITTER WHICH HAS BEEN PROGRAMMED AND IS NOT SUSPENDED.

1. Warning: All transmitters including the best transmitter will be removed (transmitters cannot be individually removed).
2. Warning: All other options will be reset to factory defaults.

#### REMOVE COMMAND

- Press and hold for 3 seconds → Enter program mode
- Press #1 → Remove command
- Press 1 or 0 → Exit program mode

**NOTES:**
1. The facility default setting only allows the left transmitter button to activate access relay K1.
2. The button setting will be used by all transmitters programmed.
3. Repeat steps 2-4 to program other buttons.

### 11 - REMOVING MGT TRANSMITTERS

#### USE THESE STEPS IF A TRANSMITTER BLOCK ID COMES OUT FOLLOWING

- Press and hold for 3 seconds → Enter program mode
- Press #2 → Change facility code
- Press * (asterisk) → Enter “1” to remove MGT transmitter
- Press 1 or 0 → Exit program mode

**NOTES:**
1. WARNING: ALL TRANSMITTERS INCLUDING THE MGT TRANSMITTER WILL BE REMOVED.

### 7 - MGT TRANSMITTER SUPERVISION

#### IF THE APX-4B PASSES EVERY 1 SECOND, ERROR INDEX 4 WILL BE DISPLAYED.

- Enter “1” in the OR to enter program mode
- Press #1 → Activate relay K1
- Press #2 → Activate relay K2
- Press 1 or 0 → Exit program mode

**NOTES:**
1. The factory default activation time for access relays is 2 seconds.
2. Obstacle relays always activate for two seconds and cannot be programmed differently.

### 4 - RELAY ACTIVATION TIME

#### USE THESE STEPS IF A TRANSMITTER BLOCK ID COMES OUT FOLLOWING

- Press and hold for 3 seconds → Enter program mode
- Press #2 → Change facility code
- Enter “0” or “2” to toggle relay activation time
- Press 1 or 0 → Exit program mode

**NOTES:**
1. When any MGT has a supervisory condition, transmitters have been suspended.
2. The button setting will be used by all transmitters programmed.
3. Repeat steps 2-4 to program other buttons.

### 8 - SUSPENDING/ACTIVATING MGT TXS

#### TO DISABLE MGT SUSPENSION ON A SPECIFIC TRANSMITTER AND PREVENT

- Press and hold for 3 seconds → Enter program mode
- Press #1 → Enter “1” to remove MGT transmitter
- Press #2 → Activate relay K2
- Press 1 or 0 → Exit program mode

**NOTES:**
1. THE SAME COMMAND TO ACTIVATE SUSPENDED TRANSMITTER ID #, THE MGT TRANSMITTER WILL BE REMOVED.
2. SUSPEND OR ACTIVATE ADDED TRANSMITTER INFO REMOVED.
3. OR REMOVE COMMAND
- Press and hold for 3 seconds → Enter program mode
- Press #1 → Verify remove command
- Press 1 or 0 → Exit program mode

**NOTES:**
1. The factory default setting only allows the left transmitter button to activate access relay K1.
2. The button setting will be used by all transmitters programmed.
3. Repeat steps 2-4 to program other buttons.

### LINEAR LIMITED WARRANTY

This Linear product is warranted against defects in material and workmanship for twenty-four (24) months. This warranty extends only to wholesale customers who buy direct from Linear or through Linear’s normal distribution channels. Linear does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer’s warranty, if any. There are no obligations or liabilities on the part of Linear LLC for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or replacement. All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are voided until the warranty expires. This Linear LLC Warranty is in lieu of all other warranties, express or implied. All products returned for warranty service require a Return Product Authorization Number (RPA). Contact Linear Technical Service at 1-800-421-1871 for an RPA or other important details.

**IMPORTANCE:**
Linear radio controls provide a reliable communications link and fill an important need in portable wireless signalling. However, there are some limitations which must be observed:
1. This value is not to comply with FCC Part 15 and Industry Canada Rules and Regulations. As such, they have limited transmission power and therefore limited range.
2. This receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near the operating frequencies, regardless of code settings.
3. Changes in the configuration to the device may void FCC compliance.
4. Infrequently used radio links should be tested regularly to protect against undetected interference or fault.
5. A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate user.

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