

FAAC

425D

Control Panel

Instructions

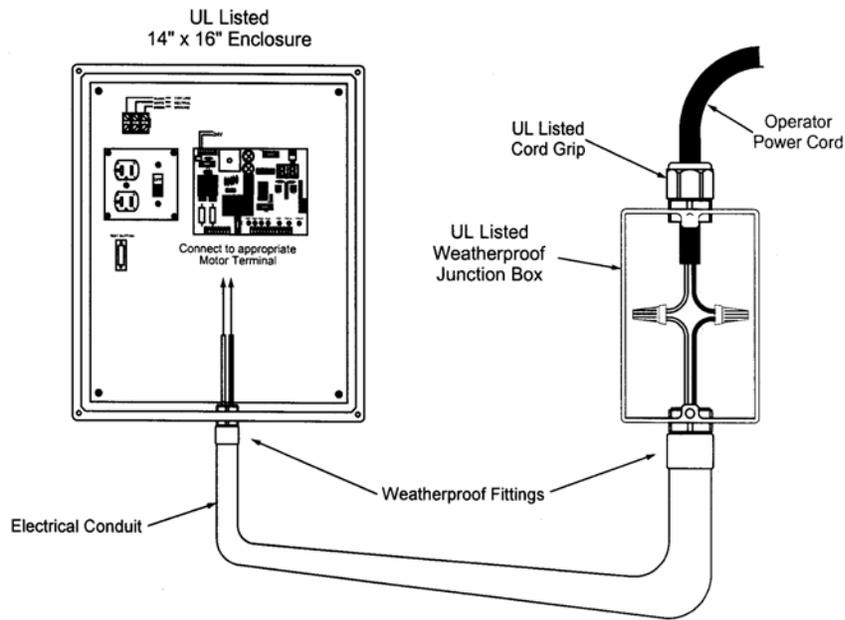


Figure 13. Wiring detail of the 412 operator to the 425D

Connecting the Operator(s)

If your gate system has one operator, connect the black and white wires from your operator to the terminals APM1 and CHM1 in terminal block CN2 for Motor 1.

If your gate system has two operators, connect the second operator to terminals APM2 and CHM2 in terminal block CN2 for Motor 2.

Note: If you want to delay the closing of one gate leaf in a two-leaf gate design, be sure to connect it's operator to Motor 1.

Connect Other Devices

WARNING! Turn the main power off before you make any electrical connections or set any switches inside the control panel box.

Electric Lock

If you are using the FAAC Electric Lock connect it to terminals labeled ELS on the CN2 terminal block. These terminals provide 24vdc to release a lock when the gate begins to open. If you have any problems with the lock releasing due to back pressure, it may be

necessary to utilize the reversing stroke set during programming (Parameter FO).

Flashlight/ Courtesy Light

Terminals labeled LAMP provide a 24vdc output (15W max) that may be helpful during the programming stages. During programming the output will flash every ½ second during opening and every 1-½ seconds during closing. If you are in the automatic mode, upon reaching the open stop, the output will remain on for 5 seconds to inform you that the gate will close automatically. It will also flash for up to 10 seconds if the gate is open and a safety is triggered.

This output can also be set as a courtesy light that stays illuminated for 90 seconds. See the programming section on page 17 and parameters GO and G1.

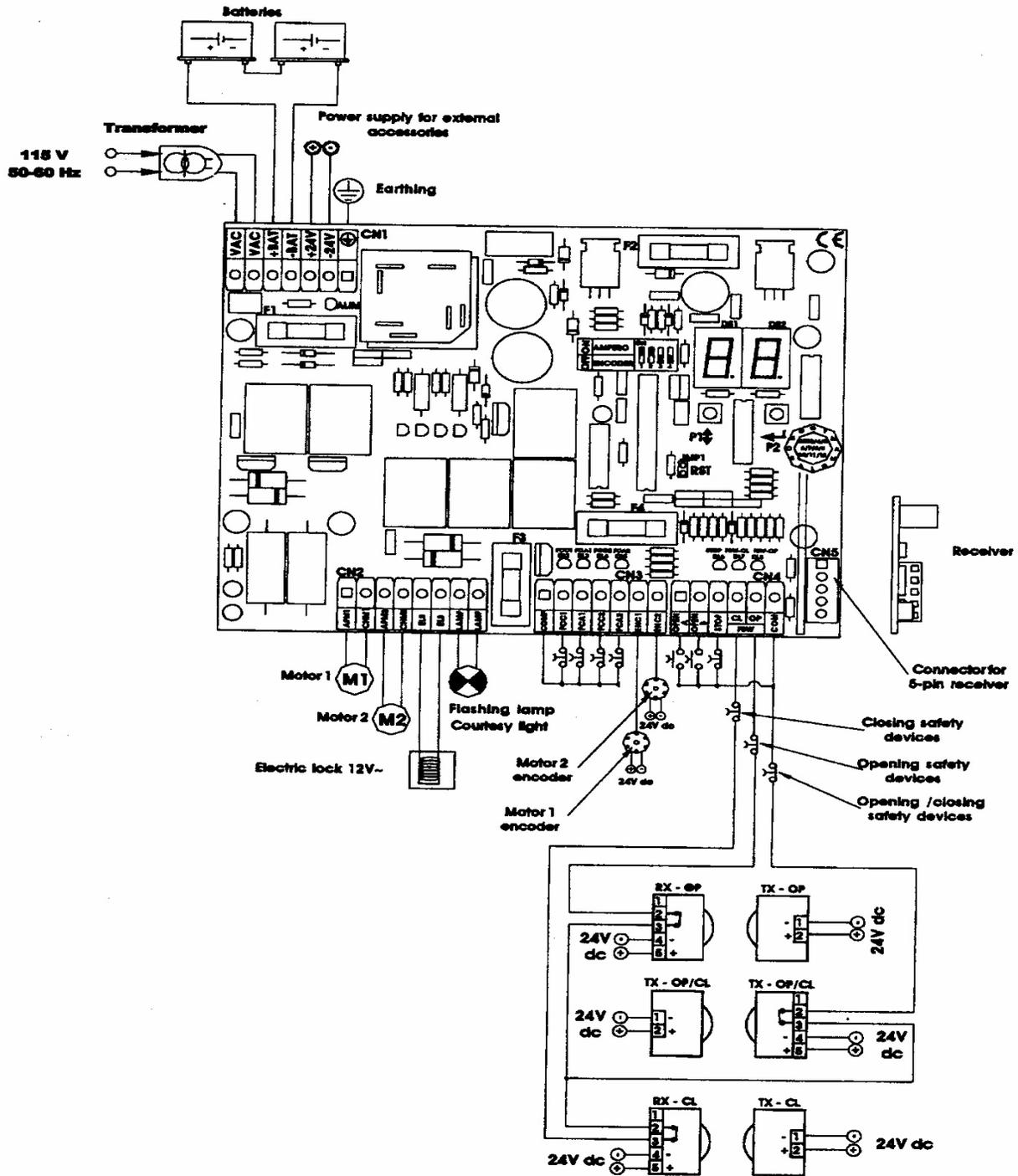


Figure 14. The 425D layout and wiring diagram

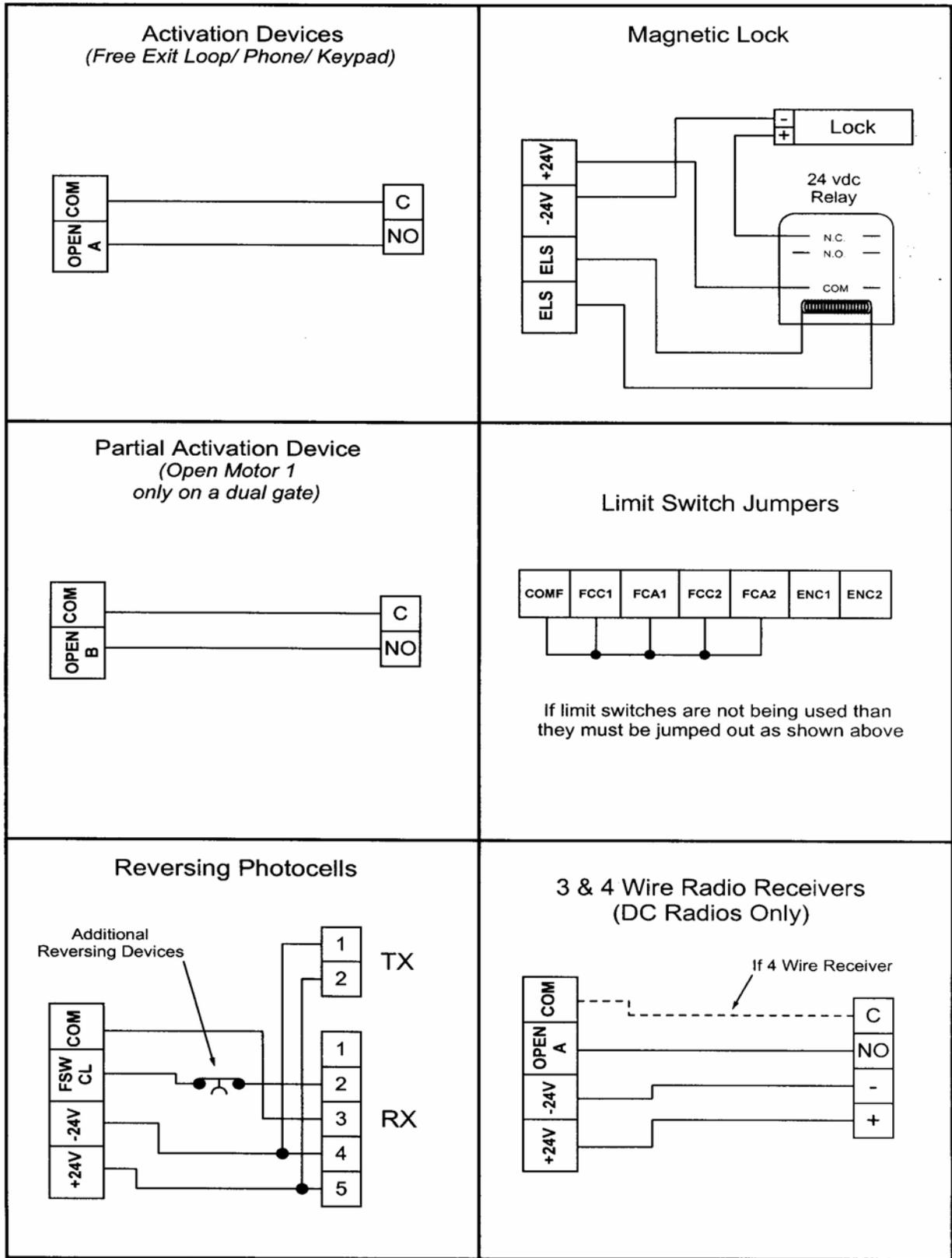


Figure 15. Common accessories wired to the 425D

Activation Devices

The activating devices for your gate must have normally open (N.O.) contacts. Connect the devices to the terminals labeled OPEN A and COM. Multiple activation devices should be connected in parallel.

Note: The way that the control panel responds to an input from an activating device depends on how the “dO” parameter is set in programming.

If you have a dual gate and want to have a certain activation device open one leaf only, connect it to the terminals labeled OPEN B and COM. Multiple devices should be connected in parallel.

In the automatic mode, a maintained activation signal will hold the gate(s) open until the signal is removed.

FAAC Radio Receiver

If you are using the FAAC plug-in receiver, connect it to the five-prong plug labeled “CN5” on the 425D control panel. The orientation in which you plug the receiver in is indicated by an outline of the receiver printed on the 425D circuit board.

Reversing Devices

Reversing devices include photo beams and other devices that keep the gate from opening or closing when something or someone is in the way. All of the reversing devices should have contacts of the normally closed (N.C.) type. Multiple reversing devices should be connected in series.

Note: A reversing device is required for a U.L. recognized installation.

FAAC International, Inc. strongly recommends that you install reversing devices.

Note: UL **does not** recognize the FAAC system with loop detectors or safety edges. FAAC photo beams must be used to comply with UL 325.

Caution: Failure of a reversing device that operates during opening causes a gate to lock in the closed position and requires the use of the Manual Release key.

Stop Devices

The stop button you install must have normally closed (N.C.) contacts. Multiple stop buttons must be wired in series. Connect your stop device between terminals labeled STOP and COM.

Note: If you choose not to install a stop button, you must install a circuit between these terminals for the control panel to work.

The LED Indicators

The eight light-emitting diodes (LEDs) on the control panel can be used to check the proper function of the devices you attach to the control panel and indicate whether there is power to the panel.

The POWER LED (DL1) indicates whether power is present on the control panel. The FSW CL (DL7), FSW OP (DL8) and STOP (DL6) LEDs indicate whether the input circuits for reversing and stop are open or closed. If the light is on, the circuit is closed. If the light is off, the circuit is open. See the table below for details.

LED	On	Off
DL1, POWER	Power ON	Power OFF
DL7, FSW-CL	Reversing Device Normal	Reversing Device Triggered
DL8 FSW-OP	Reversing Device Normal	Reversing Device Triggered
DL3, STOP	Stop Device Normal	Stop Device Triggered
DL2, DL3, DL4, DL5 LIMITS	Limit Switch Normal	Limit Switch Triggered

Display Descriptions

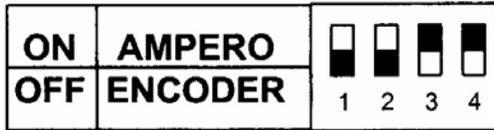
The following table shows the descriptions of the display during a normal operating procedure.

Value Shown	Description
-- --	Gate at rest
OP	Gate is opening (Open in “E” Mode)
tc	Timer To Close (Pause Time)
CL	Gate is closing

Setting the Dip Switches

Set the dip switches as follows:

- For current detection set dip switches 1 & 2 off and 3 & 4 on.



(The dip switches should be set with 1 & 2 off and 3 & 4 on like this diagram shows.)

In the event that two obstacles are sensed in succession, the motor(s) will stop. At this point the control panel will require an activation signal which will cause the motor(s) to run open and then close at slow speed to reprogram the location of the opened and closed positive stop(s)

Programming

WARNING! Turn off the main power before you make any electrical connections or set any switches inside the control panel box.

The 425D has two push buttons labeled P1 and P2 that are used to program how the control panel operates and responds to inputs.

- The display should show "-- --".
- Press and hold the **P2** button for 5 seconds until the display shows the first parameter.
- To change the parameter values use the **P1** button.
- Use the **P2** button to move from parameter to parameter.
- If no buttons are pushed for 60 seconds than the board will automatically exit programming.
- Continuing all the way through the program to the last parameter will also exit the program.

Use the following table to program the parameters required for your installation.

Display	Description
Motor Force/ Torque Settings (Force Applied To The Gate)	
A1	Minimum force, maximum sensitivity
A2	Medium low force, maximum sensitivity
A3	Medium high force, minimum sensitivity
A4	Maximum force, minimum sensitivity
Leaf Delay	
b1	1.5 Seconds
b2	3 Seconds
b3	6 Seconds
b4	10 Seconds
Logic Setting	
cO	EP
c1	A
Activation Command	
dO	Open/Close/Open
d1	Open/Stop/Close/Stop
Security Mode (See page 7)	
EO	Only Useful In EP Logic
E1	Only Useful In A Logic
Reversing Stroke (Useful with electric locks)	
FO	Disabled
F1	Enabled
Courtesy Light/Warning Light	
GO	Flashing Light
G1	Courtesy Light (Light stays lite solid for 90 seconds)
Deceleration Percentage Setting	
HO	20% of opening run time
HI	10% of opening run time
Deceleration Speed (Slow Down Speed)	
iO	Be sure to choose this setting
i1	Do not choose this setting.
Limit Switches (With/Without)	
LO	Not Using Limit Switches
L1	Using Limit Switches
Number Of Motors	
n1	One Operator Connected
n2	Two Operators Connected

Programming Motor Run Time

Note: The operator(s) will run at slow speed during the motor run time programming phase.

The 425D features a self-learning function for programming the motor run time, pause time, and deceleration of the 412 Operator(s). Follow the procedure below to complete this function.

1. Manually release the 412 operator(s), move the gate(s) to the halfway position, and reengage the operator(s). See figure 3.
2. Turn the power to the control panel on. Ensure that the power LED (DL1) is illuminated.
3. Press and hold the P2 until the displays the first and its value.
4. Give the control panel an activation signal with any normally open device connected to terminals OPEN A and COM or with the plug in FAAC radio. When the signal is given, the gate(s) should close. Motor 2 should close first, followed shortly by Motor 1.
5. If either gate moves toward the open position, touch the two RESET (JMP1) pins, (see figure 14) with a small screwdriver or piece of wire. This will cause the gates to stop.
6. Disconnect the power to the control panel and reverse the wires of any motor that ran open. Reconnect power and start again at step 1.
7. Once the motor(s) is (are) running toward the close position, it (they) should do so until the closed positive stop(s) is (are) reached.
8. After two seconds, Motor 1 should begin to run open, and after another two seconds, (if you have a dual gate) Motor 2 should run open. It (they) should continue until the opened positive stop(s) is (are) reached.
9. When the gate(s) reach the open position, the control panel begins to count the pause time. Once the desired pause time (time before automatic close) has elapsed, give the panel another activation signal. Motor 2 should begin to close, followed by Motor 1. The gate(s) should run until the closed positive stop(s) is (are) reached.
10. Programming is now complete. The display should show “ - -“

Fuses

Fuse	Protects
F1 = 10Amp, 250V	Main Power
F2 = .630Amp, 250V	Accessories
F3 = .800Amp, 250V	Flashing Light
F4 = 3.15Amp, 250V	Electric Lock Output