Radionics®

UPLINK
Installation Manual

Before You Begin

1) UPLINK Radio installations require an "A" version text Keypad (D222A, D223A, D206A).
2) The UPLINK package needed for installation includes the radio, the cover, and the UPLINK number.
3) Read through these entire instructions **before** beginning the radio installation.

Program the Control/Communicator First

Entering the UPLINK Number

The UPLINK number is a five-digit number you must enter into the Phone 1 or Phone 2 prompt of the control/communicator. See Figure 1, below. The UPLINK number will be supplied to you as part of the UPLINK registration package.

Zero First: Always enter a zero first and then the UPLINK number. Enter a zero (0) and then the UPLINK number in the same way you would an ordinary phone number. Consult the control/communicator's Program Entry Guide for additional information.

Standby Switch Starts Radio: When you return the standby switch to the normal (unlocked) position, the UPLINK Radio starts normal operation.
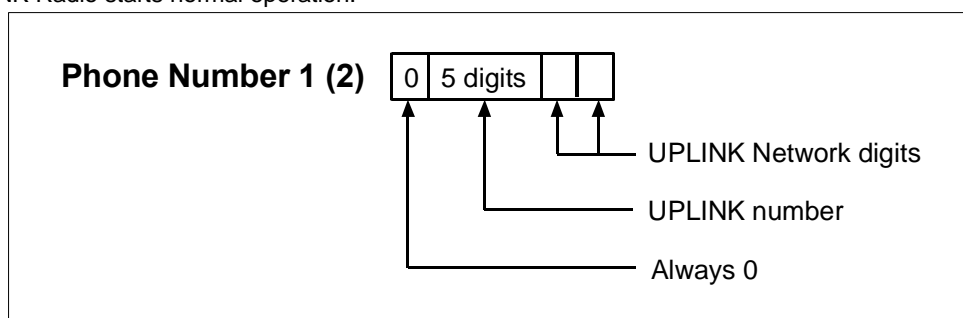

Figure 1: Programming the UPLINK Number

Modem Format Only

Changing the Rcr Format prompt to Pulse **does not** change the reporting format to 4x2 Pulse as indicated in the *D2000 Series Program Entry Guide*. The UPLINK compatible D2000 Series panels only report in the Modem IIIa^2™ format. The 4x2 Pulse Format is not available on compatible panels.

There is no need to program any of the prompts in the RECEIVER Group. Changing them from their default values has no effect on operation. The prompts in the Receiver Group configure *non-UPLINK* versions of the D2000 Series panels.

Recommended Programming

The programming described below helps to ensure that reports are sent through the UPLINK network as quickly as possible.

In the PHONE Group:

1) Enter the UPLINK number in 'Phone 1' as described above. Enter the phone number for the standard telephone network in 'Phone 2'.
2) Set 'Phone Routing' to Yes.
3) Set each Route Group that you would like sent through the UPLINK network to 'Both'. Reports will be sent through both the UPLINK network and the phone network. Set groups to be sent only through the telephone network to 'Phone 2 Only'. You should review your agreement with UPLINK before choosing which reports to route through the UPLINK network. Typically, only critical events (such as alarm reports) are routed through UPLINK.

UPLINK Network Digits

Your control/communicator was shipped from the factory with the UPLINK Network digits set to the recommended default (blank).

Only enter values other than blank at the direction of your UPLINK representative.

Entering values other than those recommended by UPLINK may prevent your UPLINK Radio from operating correctly.
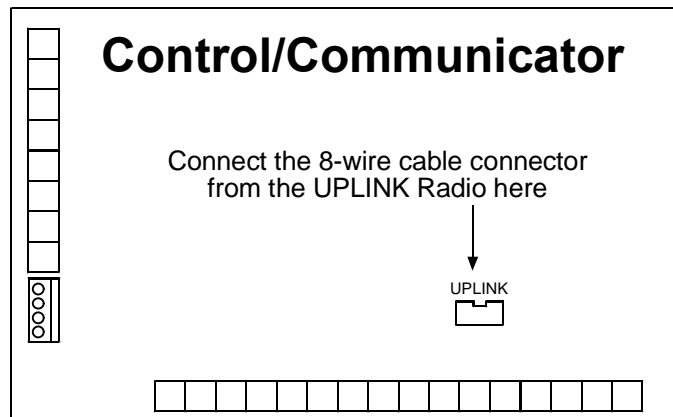
Connect the UPLINK Radio to the Control/Communicator

Power down the control/communicator by removing power from terminals 1 and 2 and disconnecting the battery.

Connect the UPLINK Radio to the control/communicator using the radio's 8-wire ribbon cable. Match the keyed radio plug to the 8-position header labeled UPLINK on the control/communicator. See Figures 2 and 3, below:

Connect this cable connector to the control panel
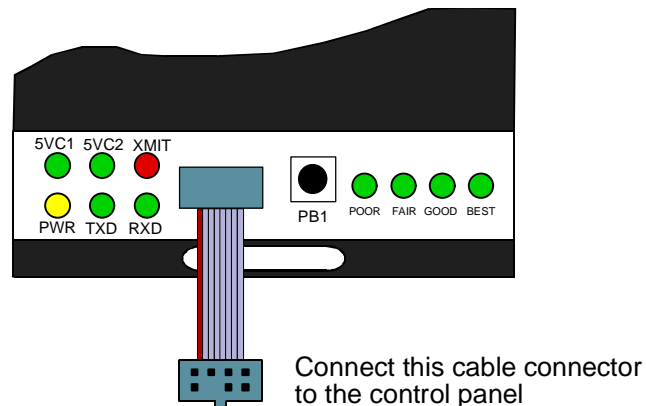
Figure 2: 8-Connector Ribbon Wire Connector on UPLINK Radio

Control/Communicator

Connect the 8-wire cable connector from the UPLINK Radio here

UPLINK

Figure 3: Connecting the UPLINK Radio to the control/communicator

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Locating and Mounting the UPLINK Radio

Determining Mounting Location

Temporarily mount (or hold) the radio in the desired location.

Make sure the UPLINK Radio is connected to the control/communicator and that the UPLINK number is programmed in the control/communicator.

Power-up the control/communicator by returning power to terminals 1 and 2 and reconnecting the battery. Release the standby switch if it is locked.

Wait for the control/communicator to send any reports pending (REBOOT for example). The control/communicator does not communicate to the radio until the pending reports for Phone 1 are communicated or until a communication failure occurs on Phone 1.

The keypad may show a SYSTEM TROUBLE. If the CALL FOR SERVICE message displays when you view the system trouble, hold down the [5] key.

If the UPLINK TROUBLE display shows **2111**, check all the connections to the radio. If you can not clear this trouble, call Technical Support for help.
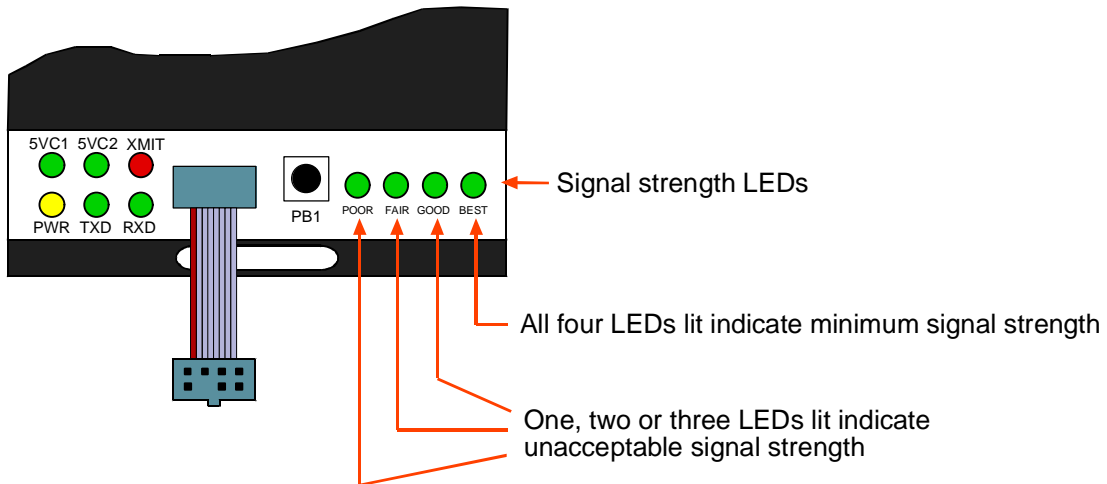
If the UPLINK TROUBLE display shows **1211**, verify that you entered the correct UPLINK number. See *Programming the Control/Communicator* on page 1. If the UPLINK number is correct, continue with the mounting procedure.

Press and release the button labeled PB1 to put the radio in signal strength mode. See Figure 4, below. The radio remains in signal strength mode for approximately 10 seconds then returns to normal operation:

Press the **PB1** button to put the radio in signal strength mode
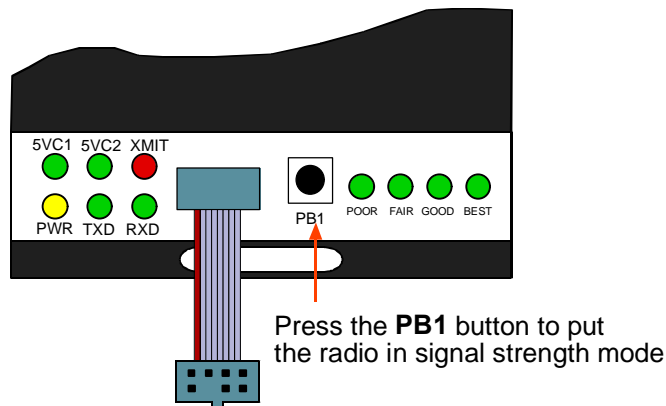
Figure 4: Entering the Signal Strength Mode via the PB1 Button

Watch the row of four LEDs to the right of the PB1 Button. When the UPLINK Radio receives the signal from the cellular network, these LEDs indicate its strength. See Figure 5.

5VC1 5VC2 XMIT

PWR TXD RXD

PB1

POOR FAIR GOOD BEST

◀── Signal strength LEDs

All four LEDs lit indicate minimum signal strength

One, two or three LEDs lit indicate
unacceptable signal strength

Figure 5: Signal Strength LEDs

Experiment with different positions until you find the minimal signal strength reading. If an acceptable location can not be found, relocate the control/communicator and then retest the UPLINK Radio. See Figure 6, below.

Once you find minimal signal strength (four LEDs), call UPLINK Technical Support at 1-888-9-UPLINK. They will test your radio to verify signal strength.

Change the UPLINK Radio
position until the best
signal strength is achieved.
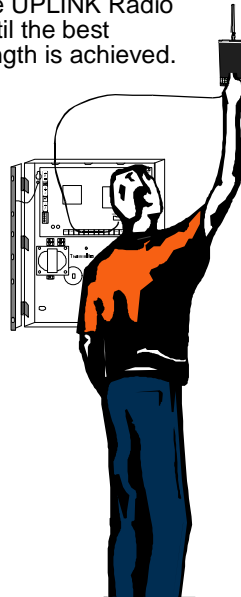
Figure 6: Selecting the Best Location for Signal Strength

Physical Mounting Instructions

⚠️ WARNING **The UPLINK Radio enclosure cannot be grounded.**

Ideally, the radio should be mounted to a wooden or plastic mounting plate to ensure the radio enclosure has no electrical connection to earth ground. If a mounting plate is not used, make sure to avoid contact with metallic surfaces (including metal wall studs).

• Mounting surface can not be metallic

• Wall studs may not always be wooden

• Keep radio vertical

Mount the UPLINK Radio to the wall (or mounting plate) with the two screws provided. There are slots at the top and bottom of the radio for mounting.

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Final Test, Sending an UPLINK Report

The control/communicator routes reports to the UPLINK Radio according to the programming for Phone 1, Phone 2, Phone Routing, and Route Group prompts. The programming for these prompts determines the steps you need to take to send a report to the UPLINK Radio. See "Recommended Programming", page 1.

For example, if you enter the UPLINK number in Phone 2 and set the Phone Routing prompt to NO, the UPLINK Radio (Phone 2) is only used if the control/communicator is unable to send the report to Phone 1. For this example, to send a report using the UPLINK Radio, disconnect the phone line from the control/communicator.

If the Phone Routing prompt is set to YES (as recommended), only reports routed to the phone number containing the UPLINK number are sent to the UPLINK Radio (Phone 1 recommended).

Once you determine what reports you intend to send to the UPLINK Radio, program the Phone 1, Phone 2, Phone Routing, and Route Group prompts accordingly. See "Recommended Programming", page 1.

Radionics recommends that you conduct a final test on the UPLINK Radio by sending all the reports routed to the UPLINK Radio.

As you conduct the final test, keep in mind:

- It may take several minutes for the UPLINK report transmission to complete.
- Reports are sent through the UPLINK system one per transmission. It may take an extended time to transmit multiple reports.
- If the control/communicator is unable to successfully send a report through the UPLINK system, it creates an UPLINK TROUBLE event. See *Error Codes* in the next section.

Special UPLINK Alarm Reports

ALARM PT 247

UPLINK periodically tests each UPLINK installation to be certain the UPLINK radio is present. If the radio does not respond to the test 'ping', UPLINK sends an 'ALARM PT 247' to the central station receiver.

ALARM PT 248

UPLINK may have to shut a radio down for a technical service reason. Whenever UPLINK sends a shutdown command to a radio, an 'ALARM PT 248' is sent to the Central Station receiver.
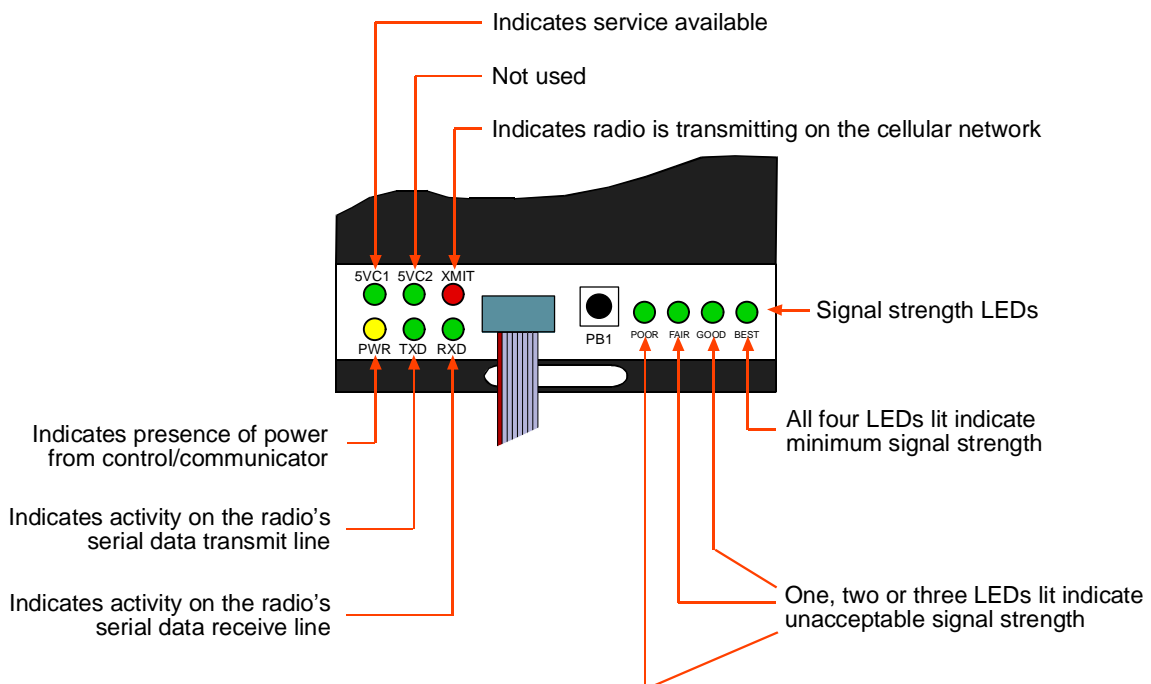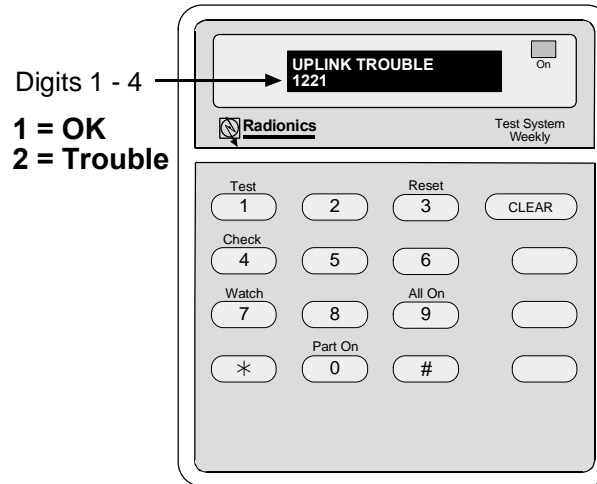
UPLINK Radio LEDs

Figure 8: LED Functions

Error Codes

The keypad supplies simple feedback as to the state of the UPLINK Radio. Status is displayed numerically with four digit "positions." See Figure 7, below.

For each position, a **1** indicates no trouble, and a **2** indicates trouble or an UPLINK system failure.

Digits 1 - 4 →

1 = OK
2 = Trouble

UPLINK TROUBLE
1221
On

Radionics

Test System
Weekly

Test
1   2   Reset
3   CLEAR

Check
4   5   6

Watch
7   8   All On
9

✳   Part On
0   #

Figure 7: Keypad Displays

The digits (left to right) represent the following conditions:

Digit 1 = 2	UPLINK Radio to control/communicator serial communications status. When Digit 1 = 2 the radio and control/communicator are not communicating properly. Check all connections to the radio.
Digit 2 = 2	Availability of cellular service. Digit 2 = 2 means the radio failed to initialize and is unable to send a report over the cellular network. An improperly programmed UPLINK number, trouble with the cellular network, or low signal strength due to an improperly positioned radio, can cause this trouble condition. If there are no other reports to send, the control/communicator waits 30 minutes before attempting to re-initialize the UPLINK Radio. You can override this delay by locking and unlocking the standby switch, forcing the control/communicator into retrying the radio initialization sequence.
Digit 3 = 2	UPLINK ACK has not been received in the allotted time frame. Digit 3 = 2 generally means that the radio is functioning properly, however an error on the UPLINK network may have occurred.
Digit 4 = 2	Digit 4 = 2 means that the UPLINK provider sent a shutdown command to the radio. The radio will not attempt to communicate. Contact your UPLINK representative before using the standby switch to restart the radio.

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