



# CDS-9090

LTE VoIP  
Dual Band WiFi Router

# INSTALLATION **GUIDE**

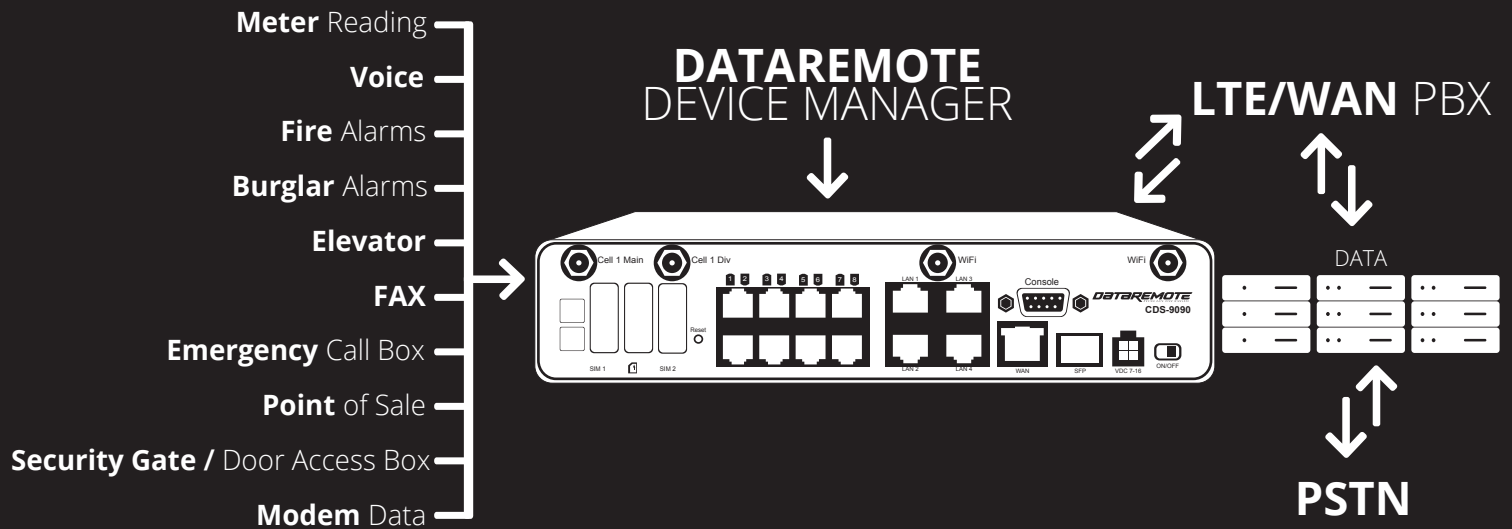


## WHAT CAN YOUR NEW DEVICE DO?

Virtually every application that requires a copper hard-line can now be replaced with one device!

# ONE DEVICE TO REPLACE ALL YOUR LANDLINES

DataRemote® offers enterprise-grade solutions for traditional landline replacement. Our suite of products converts all your existing legacy landlines to next generation service via VoIP and the LTE cellular network. Whether it be voice, FAX lines, burglar, fire alarms, elevators, ATM's, emergency call boxes, point of sale systems and more.



The DataRemote CDS-9090 wireless router with VoIP is a stand-alone device which facilitates clear and reliable voice quality over the Internet. It is fully compatible with Session Initiation Protocol (SIP) industry standards and can integrate with many other SIP devices and software on the market.

## HARDWARE INSTALLATION

FOLLOW ALL THE STEPS AS SHOWN ON THE PICTURES AND THE DESCRIPTION, IF YOU HAVE ANY QUESTIONS RELATED TO THE HARDWARE INSTALLATION, PLEASE CONTACT THE SUPPORT NUMBER PROVIDED ON YOUR DEVICE'S BOX.



# TABLE OF CONTENTS

● <b>What comes in the Box</b> .....	4
● <b>What do you need to know before installing your device</b>	
LED Light Indicators.....	5
LED Light Indicators (Continued).....	6
● <b>What is on the front of your device</b> .....	7
● <b>Basic Installation</b>	
● STEP 1.....	8
● STEP 2.....	
● STEP 3.....	9
● STEP 4.....	
● STEP 5.....	10
● STEP 5 (Continued).....	
● STEP 6.....	11
● STEP 7.....	
● <b>Service Technician Installation</b>	
● Overview of the DataRemote CDS-9090 device.....	
● Scope Of Work.....	12
● <b>Scope Of Work (Continued)</b>	
● Materials List Provided By Dataremote.....	
● Tools List For Tech.....	13
● <b>Tools List For Tech (Continued)</b>	
● Prep-installation Tasks.....	14
● <b>Phase 1</b> – DataRemote CDS-9090 device assembly/Pre-Test + Fire Panel location.....	15
● <b>Phase 1 (Continued)</b> .....	16
● <b>Phase 2</b> - Installation Tasks – Locate existing POTS lines.....	18
● <b>Phase 3</b> - Cut-over Fire Panel lines to new CDS-9090 device.....	19
● <b>Phase 4</b> - Testing Fire Alarm Communication over DataRemote's CDS-9090 device.....	20
● <b>Phase 5</b> - Testing FAX Lines.....	23
● <b>Phase 6</b> - Testing Analog Data Lines	
● Post Installation Tasks.....	
● Deliverables.....	24
● <b>Deliverables (Continued)</b>	
● Advanced Programming Information.....	25
● <b>Statements and Disclaimers</b> .....	26
● <b>Statements and Disclaimers (Continued)</b> .....	27
● <b>Certifications</b> .....	28
● <b>Certificate Of Compliance Batteries</b> .....	29
● <b>Certificate Of Compliance</b> .....	30



# WHAT COMES **IN THE BOX**



DATAREMOTE CDS-9090 DEVICE



WiFi AND LTE ANTENNAS



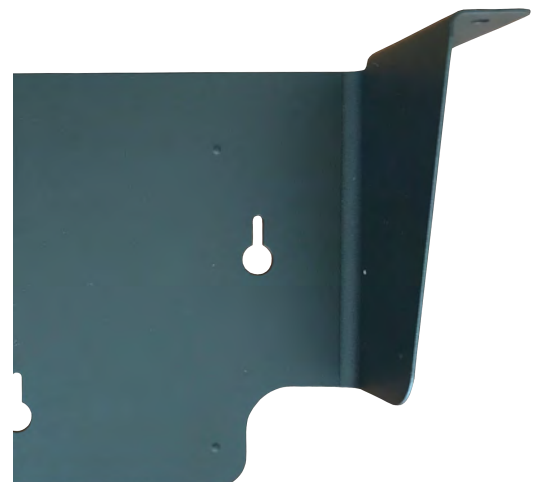
AC POWER ADAPTER



ETHERNET AND PHONE (RJ-11) CABLES



SET OF MOUNTING  
HARDWARE



MOUNTING BRACKET

# WHAT DO YOU NEED TO KNOW BEFORE INSTALLING YOUR DEVICE

Before you can connect your DataRemote CDS-9090 device to the Internet and use it, you must have access to high-speed Internet. A high-speed Internet connection can be accessed through DSL, LTE wireless network, cable modem, WiFi access point, or a leased line.

Make sure you are connecting your new DataRemote CDS-9090 device near a power source and away from extreme heat / humid sources.

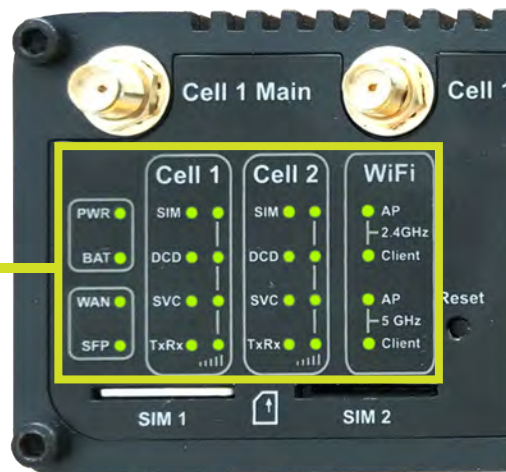
As this device uses LTE, please make sure that wherever you are installing the device, there is good cell reception. The device should also be installed in a location which is easily accessible.

**!** *IMPORTANT: Please refrain from putting furniture or other obstacles in front of the device as it might influence the signal, thus degrading the quality of service.*

## LED LIGHT INDICATORS

*NOTE: Before you use your device, please get acquainted with the LED indicators and connectors.*

REAR PANEL  
LED STATUS

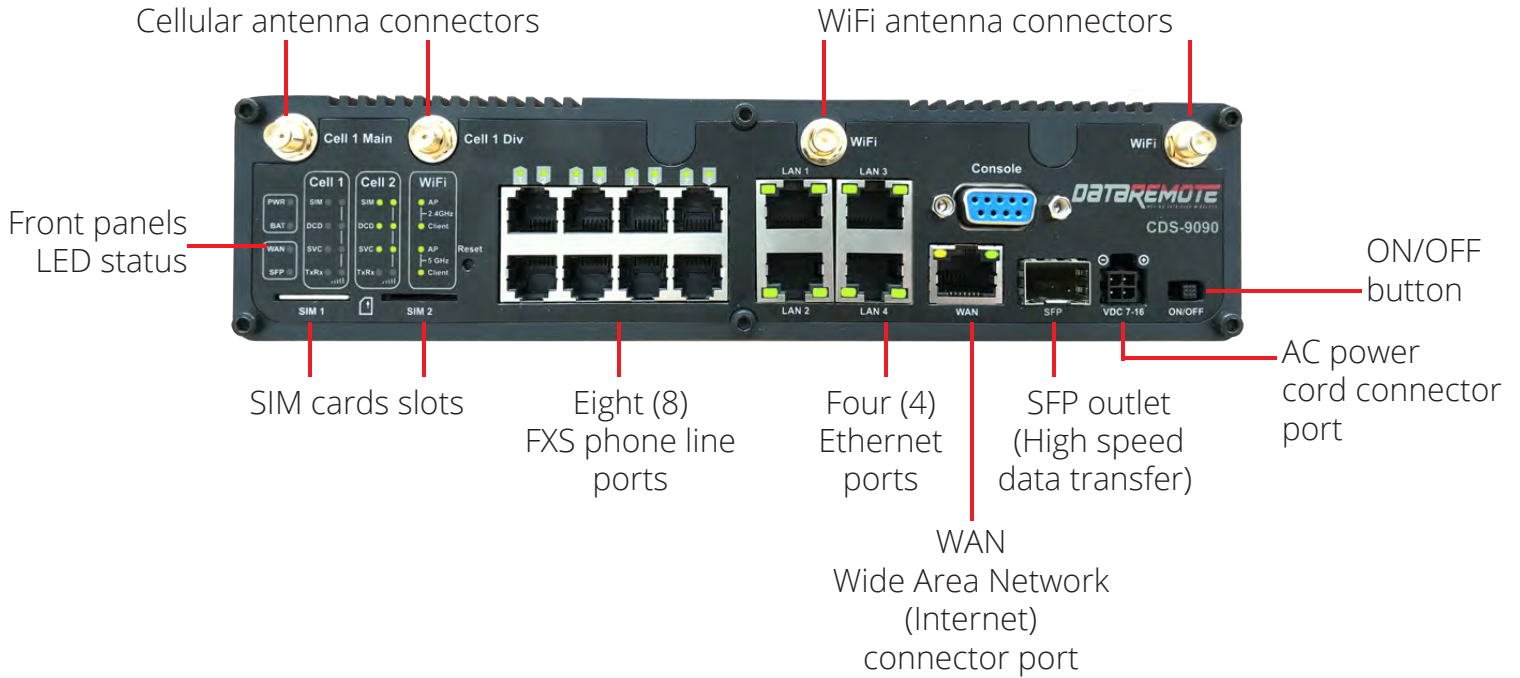


LED	STATUS	EXPLANATION
POWER	On (GREEN)	The router is powered on (external power) and running normally.
	On blinking (GREEN)	The router is powered on (Internal Power - BAT) and running normally.
	OFF	The router is powered off.
	On (RED)	System Fault (Software or Hardware)

# LED LIGHT INDICATORS (continued)

LED	STATUS	EXPLANATION
<b>BATTERY(BAT)</b>	On (GREEN)	Battery charged
	On blinking (GREEN)	Battery charging
	RED	Battery low or not connected
<b>FXS ports</b>	On (GREEN)	Registered
	OFF	Not registered
	On blinking (GREEN)	FXS port active / call in progress
<b>WiFi Client</b>	OFF	The wireless client is powered off or the device is not connected to the AP
	On (GREEN)	Device is connected to the AP
	On blinking (GREEN)	Device is waiting to connect an AP
<b>WIFI AP</b>	OFF	The wireless AP is powered off
	On (GREEN)	Wireless AP ready
	On blinking (GREEN)	Wireless traffic (data)
<b>WAN ETH</b>	OFF	Device is not connected to Internet via Ethernet cable
	On (GREEN)	Connected (registered)
	On blinking (GREEN)	Active Data Traffic
<b>Cell 1/2</b>	OFF	Disconnected
	On (GREEN)	Connected (registered)
	On blinking (GREEN)	Active Data Traffic
<b>RSSI</b>	OFF	No LTE Signal Detected
	On (GREEN)	Good LTE Signal Detected
	On blinking (GREEN)	LTE Signal Weak
<b>CELL DCD</b>	On (RED)	No Data Carrier Detected
	On (GREEN)	LTE Data Carrier Detected
	On blinking (GREEN)	3G Data Carrier Detected
<b>SIM</b>	Off	No service
	On (GREEN)	SIM Active

# WHAT IS ON THE FRONT OF YOUR DEVICE?



REAR PANEL	INTERFACE	DESCRIPTION
AC power cord connector port	DC	Connector for a power adapter.
Wide Area Network (Internet) connector port	WAN	Connector for Wired Ethernet.
Four (4) Ethernet ports	LAN1/2/3/4	Connectors for local network.



# BASIC INSTALLATION

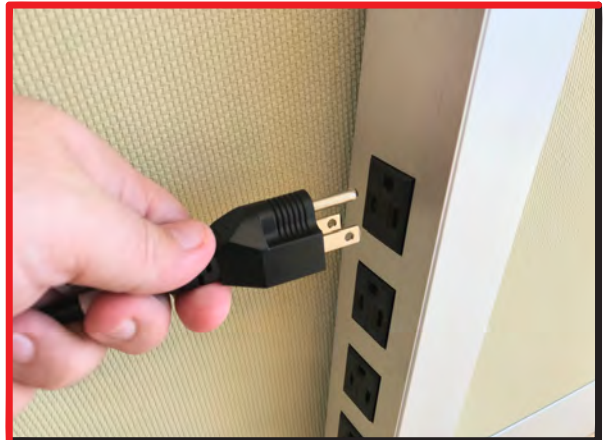
**!** *IMPORTANT! Before starting to configure the router, please connect your device as shown in these "step by step" directions. If you have any questions regarding installation, please contact the Support number provided on your device's paperwork.*

## STEP 1

The SIM card slots are located on the left bottom corner of your device. Insert the SIM card inside the slot marked "SIM 1" or "SIM 2" as appropriate. Make sure it is inserted all the way into the slot. You will feel a spring lock the SIM card into place.



Then connect one end of the power cord to the power port of your device, then connect the other end to an electric outlet.





## STEP 2

Connect the WAN port of your device to a modem, switch, router or Internet source with an Ethernet cable (RJ-45).



**DISCLAIMER:** This is just a representation of a modem. Modem models and appearance may vary depending on your Internet provider.

## STEP 3

Connect to one of the four LAN ports on your device with an Ethernet cable (RJ-45) to your equipment or computer that needs to receive an Internet connection from the DataRemote CDS-9090 device. Your device allows you to connect up to four (4) devices.



# STEP 4

Connect the RJ-11 (Phone line) from your phone or equipment requiring a phone line to the DataRemote CDS-9090 device's FXS port.



## ! WARNING! !

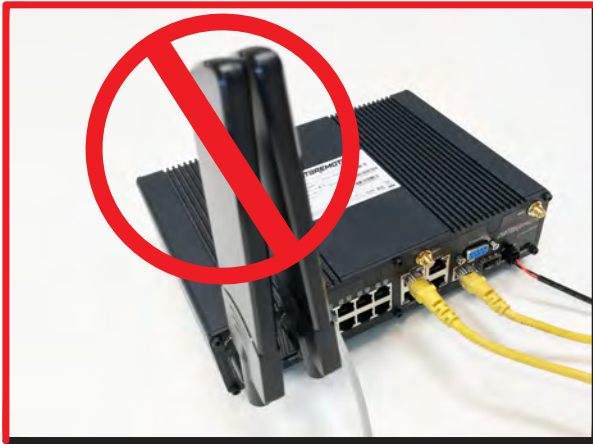
***Do not connect an active RJ-11 with voltage directly from the wall into the DataRemote device's RJ-11 ports, this will damage the device permanently. Each DataRemote device's RJ-11 FXS port is an active port supplying voltage. The FXS port is only to be connected to an FXO analog phone or another FXO device.***

# STEP 5

Connect the antennas to their respective ports (WiFi and Cellular)



## STEP 5 (continued)



**! WARNING! !**

*Make sure the antennas do not touch each other, this will cause the connection to be degraded.*

## STEP 6

Check the Power, WAN and LAN LED lights to make sure you are connected properly.

Your device should look like this when connected to a phone line, WAN and one LAN/computer device.



# STEP 7

Finally, with the help of a paperclip or a pen, turn 'ON' the ON/OFF button to turn on your device.



## SERVICE TECHNICIAN INSTALLATION

### Overview of the DataRemote CDS-9090 device.

The DataRemote CDS-9090 device is part of DataRemote's **POTS IN A BOX (Plain Old Telephone Service)** product line. It is an Analog Telephone Adapter (ATA) with battery backup that uses the Internet and the LTE Cellular Data Network to provide high levels of reliable connectivity to directly replace wire-line or POTS lines, including the capability for transmission of voice, FAX, alarm, analog data, ring-down and emergency lines with full access to E-911.

### SCOPE OF WORK.

The scope of work to be completed on-site includes the following:

- Locate existing devices (ie: Fire Panel(s), Call Boxes, FAXES, Voice lines).
- Using a cable toner, locate demarc for existing POTS lines currently serving devices.
- Unpack, assemble then test DataRemote CDS-9090 device unit in "Standalone" Mode with power cable connected.
- Mount DataRemote device and test FXS 1-8 (if applicable) phone jacks by calling in/out using a telephone test set or a simple single line telephone and cell phone prior to connecting any device/appliance.

## SCOPE OF WORK. (Continued)

- Mount the biscuit (RJ-11 Surface mount) jacks close to the DataRemote CDS-9090 device, to serve as the new incoming phone line service.
- Connect existing devices to newly installed RJ-11 biscuit jacks.
- Ensure no "Foreign Voltage" is present by measuring the voltage at the tip and ring terminals on the new biscuit jacks connected to the devices. Voltage should read: "zero" volts DC (direct current)

 **IMPORTANT! IF foreign voltage is present, locate and disable it. IF no foreign voltage is present, proceed to next step** 

- Connect the DataRemote CDS-9090 device FXS 1-8 (if applicable) jacks to existing devices.
- If installing a Call Box or Voice line, test by making inbound/outbound calls.
- If installing a Call Box also test 'Gate/Door Entry" tone (DTMF / 'Press 9") and programming calls inbound to the device. Request client or call vendor technical support to facilitate programming test calls as needed.
- If installing a Fire Alarm Panel, test that Fire Alarm Panels primary & secondary lines accordingly, calling out through the DataRemote CDS-9090 device. If RJ-31 style jack is used, verify that tip/ring connections are on pins 4 & 5 of jack.
- If installing a FAX, test by sending/receiving FAX using customer equipment.

## MATERIALS LIST PROVIDED BY DATAREMOTE

### Basic Package Contains (Refer to "What comes in the Box" section)

- **One (1)** DataRemote CDS-9090 device.
- **One (1)** 100-240VAC, 50/60Hz, 1.0A to 15.0VDC, 2.0A power adapter.
- **One (1)** AC power cord.
- **One (1)** Ethernet cable RJ-45.
- **Two (2)** Phone cable RJ-11.
- **Two (2)** LTE antennas (SMA-M connectors)
- **Two (2)** WiFi antennas (SMA-M-RP connectors)
- **One (1)** Mounting bracket.

## TOOLS LIST FOR TECH:

- Sufficient quantity of dual RJ-45 port surface mount boxes (aka biscuit jack)
- Sufficient quantity of RJ11 or RJ-45 keystone plugs
- CAT5E cable – minimum 150'
- Power strip (this may not be needed but bring one in case there are not enough outlets in the room)
- Zip Ties / Velcro for wire management
- Extra RJ-11 cable and RJ-11 male adapters, in the event additional or longer runs are required.

## TOOLS LIST FOR TECH (continued)

- Flashlight
- Cat5 patch cables of varying lengths
- Cordless drill/driver with bits to install light-duty ATA mounting bracket to wallboard
- All termination tools and line/tone testers
- **NOTE: Photo of Cable Tester results will be required in deliverables**
- All hand tools required to make Cat5 cable runs (glow-stick, wire tape, etc.)
- Butt Set (or analog test telephone if Butt Set doesn't have an RJ-11 plug/jack interface)
- Label maker (to label biscuit jacks)
- Digital camera with 3.0 mega pixels or higher photo resolution
- 6" torpedo level
- Voltmeter

 **IMPORTANT! TECHNICIAN MUST FOLLOW THIS MANUAL EXACTLY, AS EACH PHASE & STEP IS DESIGNED TO ENSURE PROPER MIGRATION. ANY DEVIATION MUST ABSOLUTELY BE APPROVED BY YOUR RESPECTIVE EMPLOYER ONLY!!**

Please review these steps before starting and ensure you bring a printed copy of this guide and installation checklist to the site, to use as a reference during the installation.

### PREP-INSTALLATION TASKS.

On-site Arrival and Initial Equipment Testing:

1. Upon arrival, call your respective Program Manager on the check-in line to confirm that you are on-site and be prepared to supply the store number/location ID, City and State listed on your Work Order
2. Ask for the Manager On Duty (MOD), and introduce yourself with the purpose of your visit as the installer for the DataRemote CDS-9090 device.
  - a. Please report any store access issue to your Project Manager immediately.
3. The DataRemote device was shipped to the site in advance of your dispatch; please obtain this package from the Manager.
  - a. **IMPORTANT:** Please open the package in front of MOD and inspect for a complete kit per the previous page's material's list; especially if package was already opened when it was given to you
  - b. Report any missing equipment immediately to Project Manager.
4. **IMPORTANT: ANY directives from on-site store personnel deviating from the norm or outside the scope of this guide must be relayed to the PM immediately. If you encounter a problem in the field which requires escalation, please contact the PM immediately (bottom line, contact PM for approval prior to accepting and acting upon any direction from store personnel on-site).**

# PHASE 1

## **DATAREMOTE CDS-9090 DEVICE ASSEMBLY PRE-TEST + FIRE PANEL LOCATION.**

### **ASSEMBLE THE DATAREMOTE CDS-9090 DEVICE TO PRE-TEST:**

1. Remove the CDS-9090 device and affix the antenna accordingly:

a. **⚠ WARNING! THE WiFi ANTENNAS CONNECTORS ARE DIFFERENT FROM THE LTE ANTENNAS CONNECTORS, SO FORCIBLY CONNECTING THEM INCORRECTLY WILL DAMAGE THE ANTENNAS AND POSSIBLY THE CDS-9090 DEVICE APPLIANCE COAXIAL PORT AS WELL.**

b. LTE Antennas – Male Center Pin WiFi Antennas – Female Center Hole



**LTE** Antennas  
Male Center Pin



**WiFi** Antennas  
Female Center Hole

**\*Be aware of the difference of LTE and WiFi Antennas\***

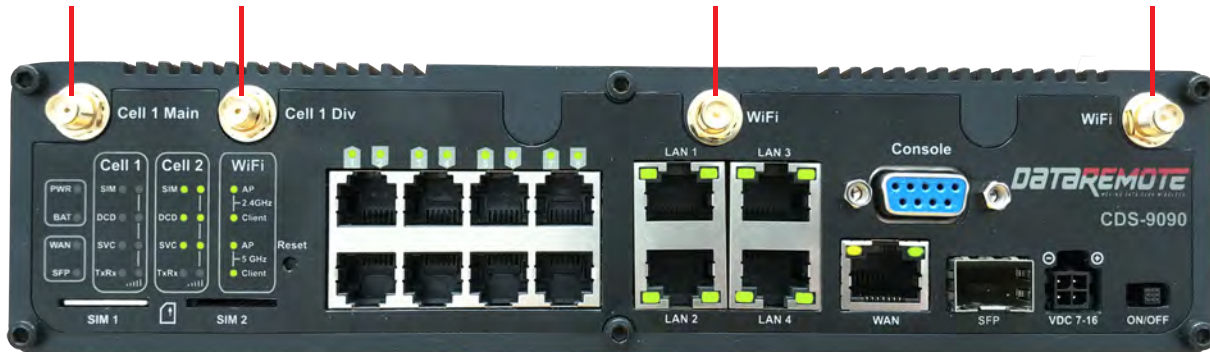
# PHASE 1 (continued)

## DATAREMOTE CDS-9090 DEVICE ASSEMBLY /PRE-TEST + FIRE PANEL LOCATION.

c. The two (2) LTE antennas connect to the Cell 1 Main and Cell 1 Div connectors on the left side of the back panel. The WiFi antennas connect to the two (2) WiFi connectors on the right side of the rear panel of the device.

Cellular antenna connectors

WiFi antenna connectors



2. Slide power switch (located on the lower front right side of the CDS-9090 device) to “ON” position to turn unit on. This will power the CDS-9090 device up. Plug the power cord into an AC power outlet. Ensure. Ensure the power block and power cable are supported to prevent damage to the moxex of the power plug.

3. Once the DataRemote CDS-9090 device is positioned to achieve the best signal strength possible (high on the wall with atennas facing up) , install the device mounting bracket in the selected location. Dress and secure the DataRemote’s AC adapter and power cables path neatly. Then secure device to the bracket with the included screws. If there are any questions with the devices placement please contact Installation Support.

4. If the device is not plugged into it's permanent power outlet, move the power plug to its permanent AC power; verify correct LED lights on the DataRemote CDS-9090 device.

### WAN CONNECTIVITY VERIFICATION VIA LED LIGHT

WAN (Wired Broadband) – WAN link light is on

Check to see all SIM lights (SIM, DCD,and SVC) are on and the SIM signal strength bars are lit. (1-3, 3 being the strongest).

WiFi AP or Client LEDs are lit for 2.4G and/or 5G respectively.

Verify Line Registration with FXS LEDs



**NOTE: ANY VARIATIONS FROM THE ABOVE, CONTACT THE INSTALLATION SUPPORT TEAM.**

## TESTING VOICE LINE.

1. Phone FXS 1-8 indicators should be either solid green (On-Hook) or flashing green (Off-Hook/Busy). Call Installation Support if LED indicators for the FXS ports are not lit. Once the lights above have been verified, use a butt-set **(or an analog test phone if your model butt-set doesn't have an RJ-11 modular connection)** to place a test call from the phone 1 jack to your cell phone (if line is a voice line.)

2. **IMPORTANT: You MUST complete the call by answering it; otherwise the device won't register the test call event in the server logs, which are used for install validation.**

3. **NOTE: If there are any issues other than a completed call and calling number identification/verification such as call didn't go through or any other condition, STOP and call Installation Support to report the issue and work to resolve before proceeding. Record the calling phone number in the checklist for this site as phone 1's (primary) new ATA number. Repeat steps 2 - 5 accordingly by performing the steps again using the phone 2-8 line ports of the DataRemote CDS-9090 device (If the lines are voice lines.)**

## TESTING FIRE PANEL.

1. Locate the Fire Alarm Panel. Have the Manager escort you to the room/area where the active Fire Panel is located, if not already visible refer to your Installer Representative Manual for a sample picture of typical Fire Alarm Panels.

-The site's active Fire Alarm Panel will have one or two POTS lines connected to it. These POTS lines may be terminated near the panel in several ways, to include:

- a. Two (2) surface-mount jacks located just outside of the Fire Panel, generally RJ-31 style
- b. In a 4x4 electrical box just off to the side of the fire panel.
- c. Jacks may be inside the Fire Alarm Panel on Motherboard and/or a dialer module.

**IMPORTANT: DO NOT TOUCH these existing surface mount jacks or their cabling at this time!**

## TESTING FIRE PANEL. (Continued)

-Take a "BEFORE" picture of the panel and any status indicators/displayed messages appearing to represent the condition of the panel upon arrival!

**CAUTION:** DO NOT DISCONNECT ANY EXISTING PHONE LINES UNTIL INSTRUCTED TO DO SO LATER IN THIS DOCUMENT. TO DO SO EARLIER, MAY RISK A POSSIBLE DISPATCH FROM THE RESPECTIVE ALARM COMPANY.

# PHASE 2

## Installation Tasks – Locate Existing POTS Lines

 **WARNING! DO NOT TOUCH THE EXISTING RJ-31 POTS JACKS NEAR FIRE PANEL UNLESS INSTRUCTED TO DO SO**

Once the Fire Panel is located, you will need to connect the DataRemote CDS-9090 device's phone 1-8 ports respectively with the Fire Alarm Panel's primary & secondary phone line ports preferably utilizing the existing cabling by preparing to disconnect the terminating end from the POTS line jack and connecting to the appropriate DataRemote FXS port.

As stated earlier in **STEP 1**, when trying to find the Fire Alarm Panel, that cabling is typically terminated near the Fire Panel via some method before running inside the panel to connect to it. A common method uses two (2) surface mount jacks, but you may see other methods as well.

ID the termination points of those two(2) POTS lines serving the Fire Alarm Panel at the Telco Closet/demarc. To do so, try one or more of the following:

- Look for the two (2) telephone number's (TN) if ID's and labeled at the Fire Panel and record them in your installation checklist and then look for labels with those TN's at the Telco Room/Demarc.
- Be sure to also note which TN may be labeled primary or secondary.
- Tone-trace the existing cabling:
- Temporarily unplug the cable from the Fire Alarm Panel leading into one of the RJ-31x surface mount jacks.

## PHASE 2 (continued)

### Installation Tasks – Locate Existing POTS Lines

- Plug tone-generator into the surface mount jack to tone-out the cabling back towards the Demarc to discover its location. Repeat for other RJ-31x jack/cable too if needed.
- Restore connection to RJ-31 jack(s) if removed to conduct tone-test.

## PHASE 3

### Cut-over Fire Alarm Panel lines to new CDS-9090 device.

**CAUTION: ONLY PROCEED IF STEPS 1 AND 2 ARE COMPLETE & WITHOUT ANY OPEN ISSUES.**

Once those POTS Line terminations are found in the telco closet demarc/SIN, their cable-runs to the Fire Alarm Panel need to be isolated from their telco POTS lines and redirected to the DataRemote CDS-9090 device's phone ports using included 5' long phone cords. The method of termination of those lines coming back from the Fire Alarm Panel will dictate the next steps taken to cut them over to DataRemote CDS-9090 device.

**1.** If the cable runs coming from the Fire Panel terminate in the Telco closet demarc/SIN to an RJ-11 or RJ-45 patch-panel or surface-mount (SMT) jack:

- a. Determine which jack is associated to the primary or secondary line from Fire Alarm Panel and mark them respectively with new device's telephone numbers as noted in your checklist during **STEP 1** tasks for 9090's phone 1-8 ports respectively.
- b. Remove what's plugged into the Primary marked jack now and plug one end of a phone cord included in the kit into that jack and the other end into Phone jack of the DataRemote CDS-9090 device respective line for Fire Alarm – Primary Dialer connection.

**NOTE: Mark this phone 1 port's phone cord with a "1" or "P" to reflect it connects to the CDS-9090 device's phone alarm port.**

- c. Repeat with other included phone cord for secondary marked jack into phone 2 jack of the DataRemote CDS-9090 device for Fire Alarm – secondary dialer connection

# PHASE 3 (continued)

## Cut-over Fire Panel Lines to New CDS-9090 device.

**NOTE: Leave it unmarked or place a "2" or an "S" on its phone cord.**

d. If cable runs coming from the Fire Panel terminate in the Telco closet demarc/SIN to a 66 or 110 block, check the following:

- Determine which jack is associated with the Primary or Secondary line of Fire Panel and mark them accordingly if not already apparent/visible.

- Isolate the Telco side connection from those two (2) pairs (i.e. lift bridging clips on 66-Block) Punch-down the two pairs of the new cable run to a dual SMT jack or two (2) Single-port SMT jacks (a.k.a. biscuit jacks)

- Determine and mark/label each SMT jack cover with its new device telephone number plus some primary or secondary suffix - i.e:

**678.555.1234 678.555.2468 FIRE PNL-Prim FIRE PNL-Sec**

2. Mount the SMT Jack(s) somewhat near to the DataRemote CDS-9090 device depending on 5' long phone cord's reach and distance between 66-Blk & SMT box(es)

3. Using your cable tester, test both SMT jack terminations and take PHOTO of test results to add to deliverables (REQUIRED).

4. Using included phone cords with RJ-11 terminations, connect FXS alarm ports from CDS-9090 device to the "FIRE-Primary & FIRE-Secondary" SMT box respectively

5. Mark Cables:

- Mark the DataRemote CDS-9090 device alarm line 1 port's phone cord with a "1" or "P" to reflect it connects to the DataRemote CDS-9090 device's alarm line 1 port.

- Mark the DataRemote CDS-9090 device's alarm 2 port's phone cord with a "2" or "S" to reflect it connects to the DataRemote CDS-9090 device's alarm line 2 port.

# PHASE 4

## Testing Fire Alarm communication over DataRemote's CDS-9090 device.

The DataRemote CDS-9090 device will be set in auto alarm mode. Meaning it will detect what type of supported protocol the panel communicates in (Contact-ID, SIA, Pulse...Etc)

**NOTE: do not plug in a butt set to the CDS-9090 device and make a test call on any of the alarm lines as this will deactivate the auto detect mode.**

**The first alarm call will fail during the auto-detect sequence, this is normal. If calls continue to fail contact installation support.**

# PHASE 4 (continued)

## Testing Fire Alarm communication over DataRemote's CDS-9090 device.

From the cut-over steps above, the Fire Alarm Panel may have already communicated its a Telco trouble fault condition and restoration to the alarm vendor, but we want to test it once again.

1. Determine if the Fire Alarm Panel has a current trouble condition (controller display, a message or LED Indicators) and note or take a picture if so then go back to the DataRemote CDS-9090 device.
2. Invoke a Fire Alarm Panel trouble condition by removing all phone cords from alarm line 1-8 (respectively) jacks of the DataRemote CDS-9090 device unit and leave disconnected for at least 3 minutes. If time permits, walk back to Fire Alarm Panel to wait for it to go into trouble condition as may be indicated in the Controller Display and/or via certain LED indicators being lit on motherboard.

**NOTE:** If this phone line disconnect method doesn't invoke a trouble condition in Fire Alarm Panel to be reported from the panel, please contact Install Support Team as you may have to temporarily disconnect backup batteries or power-cycle the panel to force an event required to be communicated to monitoring vendor.

3. Test the Fire Alarm Panel trouble resolution process.

**IMPORTANT: DO STEPS IN THIS ORDER ONLY, DO NOT CHANGE THE ORDER.**

### Secondary Line Testing:

- ONLY plug phone cord back into secondary 2 alarm line of the DataRemote CDS-9090 device.

Wait for the Phone 2 green LED on the DataRemote CDS-9090 device to start flashing. Once the flashing phone 2 LED goes back to solid green, the system has attempted the call to report the trouble event to the alarm vendor.

### Primary Line Testing:

- Once the secondary test call is successful, leave phone 2 port's cord plugged in, and now plug remaining phone cord into the primary alarm line 1 port of the DataRemote CDS-9090 device.
- Wait for the Phone 1 green LED on the DataRemote CDS-9090 device to start flashing green. Once the flashing phone 1 LED goes back to solid green, the system has attempted the call to report the trouble event to the alarm vendor.

# PHASE 4 (continued)

## Testing Fire Alarm communication over DataRemote's CDS-9090 device.

### 4. Fire Alarm Panel confirmation:

- Walk back to the Fire Alarm Panel to verify that the panel cleared the trouble condition.
- If both test calls above completed successfully and the trouble condition cleared, then proceed to call alarm vendor next.
- If testing was unsuccessful on either line, then:
  - Verify the DataRemote CDS-9090 device phone ports are still providing dial-tone and allowing outbound calls to be made. If not working, then contact Install Support
  - Verify cabling connections to/from Fire Alarm Panel/DataRemote CDS-9090 device.
  - Call Install Support Team to assist in troubleshooting

### 5. Call fire alarm vendor to confirm they show the trouble condition report and that it has been cleared:

- Record the new telephone number from the DataRemote CDS-9090 in your checklist to provide to the alarm vendor for monitoring and future programming.
- Confirm the fire alarm vendor is receiving the alarm call from the DataRemote CDS-9090 device phone 1-8 (respectively) telephone numbers recorded in your checklist against the respective primary & secondary line trouble calls they received/logged in their monitoring system.

### 6. Call Install Verification line to confirm that communication through the DataRemote CDS-9090 device was successful.

### 7. Cleanup area, dress any cables needed then take photos of installation as required in below deliverables section.

### 8. Confirm the phone 1-8 LEDs (respectively) are all solid green (if blinking, it may be making a call so just wait for it to go solid again). Lights should be as below; capture picture of their status

**(REQUIRED, SEE AN EXAMPLE BELOW):**

# PHASE 4 (continued)

## Testing Fire Alarm communication over DataRemote's CDS-9090 device.



# PHASE 5

## Testing FAX Lines.

### FAX Mode Details:

- FAX Works in VOIP and FAX modes on the DataRemote CDS-9090 device.
- FAX calls in VOIP mode cannot be assured of full transmission and or quality.
- FAX in FAX mode works in Basic (9600 Baud), Normal (14400 Baud) with ECM (Error Correction Mode) ON & OFF depending on the customers fax machine.
- **NOTE: Depending on the BAUD rate, the quality of the lines, and if ECM is on or off, the calls can take up to 25 seconds to 1 minutes per page to print.**

Here is a breakdown of the average time it takes for a single page FAX to transmit based on the Baud Rate of the sending and receiving FAX lines.

Please keep in mind that these are average times of FAX transmission speeds.

BAUD RATE	INBOUND MINUTES PER PAGE	OUTBOUND MINUTES PER PAGE
2400	2 Minutes 30 seconds	2 Minutes 50 seconds
4800	1 Minute 45 seconds	1 Minute 50 seconds
7200	1 Minute 15 seconds	1 Minute 15 seconds
9600	1 Minute	1 Minute
12000	55 Seconds	55 Seconds
14400	45 Seconds	45 Seconds
28800	35 Seconds	35 Seconds
33600	25 Seconds	25 Seconds

# PHASE 5 (continued)

## Testing FAX Lines.

### FAX Testing:

1. Connect the respective FXS line that is provisioned for fax to the "Line" port of the customer FAX machine.
2. Make a test outbound FAX call to a number provided by your Project Manager.
3. Contact Project Manager to return the FAX for inbound FAX testing.
4. Repeat test (Steps 1-3) on both WAN and LTE.

***NOTE: if at any point FAX is not working please contact Support.***

# PHASE 6

## Testing Analog Data Lines.

1. Connect the respective FXS line that is provisioned for analog data with RJ-11 cable to the modem device.
2. Initiate an outbound data call to the receiving station / monitoring company. If you do not have a number please contact your Program Manager or the site MOD.
3. Request the receiving station / monitoring company call the modem device for a programming call. If you do not have an external station / company number please contact the site MOD.
4. Repeat test (**STEPS 1- 3**) on both WAN and LTE.

***NOTE: if at any point modem is not working please contact Support Team.***

## Post-Installation Tasks.

- Present installation checklist to MOD to sign.
- Call Tech Check-in/Check-Out line to be released from the site.
- Upload all taken & required pictures to your Work Order.



## Deliverables.

1. Signed Work Order.
2. Signed Tech Installation Checklist.
3. Required photos.
4. View of the DataRemote CDS-9090 device with battery switch in "On" position.
5. View of RSSI LED of the DataRemote CDS-9090 device for signal strength indication.
6. Wide angle view of room where Fire Alarm Panel resides.
7. View of Fire Alarm Panel outside cover.
8. View of Fire Alarm Panel's status upon arrival – Controller display / any fault LED's.
9. Inside door view of Fire Alarm Panel – any labels or block diagrams.
10. View of inside of Fire Alarm Panel – Motherboard.
11. View of old POTS line's surface mount jacks at Fire Alarm Panel.
12. View of old POTS line's terminations at telco closet/demarc/SNI
13. View of cable test results of newly installed SMT boxes (as applicable).
14. View of SMT boxes labeled with new TN's & Prim/Sec Suffixes.
15. View of marked phone cords plugged into the DataRemote CDS-9090 device 1-8 ports.
16. View of Fire Panel's controller display before cut-over to the DataRemote CDS-9090 device Ports.
17. Photo of all cable management.
18. Wide views of entire wall & the DataRemote CDS-9090 device closeup to show completed installation job.
19. Picture/scan of both pages of Tech Checklist.
20. Picture/scan of signed Work Order.

### **NON-Alarm Installation Tasks:**

***For all other Device installations follow same steps excluding RJ-31 biscuit connections and monitoring company communications.***

***NOTE: The DataRemote CDS-9090 device LED FXS lights run left-to-right (1 - 8) FXS ports Left to Right top row are 1,3,5,7 respectively. Bottom row are 2,4,6,8***

## Advanced Programming Information.

- For advanced programming information, please go to **Support.Dataremote.com**. This is the support desk site for submitting Tier 3 trouble tickets.
- Please set up an account by requesting access to "Advanced Programming Information Guides" and entering your email contact details.
- You will receive an email asking you to login and set up an account.
- You will then receive a second email with a link with the login to your support desk.
- The support desk contains documentation for Advance Programming of the CDS-9090 as well as a means to submit and check on support request ticket.

# Statements and Disclaimers

## FCC Radiation Exposure Statement

DataRemote Incorporated, declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example- use only shielded interface cables when connecting to computer or peripheral devices) FCC Radiation Exposure Statement.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.



## CALIFORNIA PROPOSITION 65 WARNING

This product can expose you to chemicals including Carbon black and Nickel, which are known to the State of California to cause cancer, and including Bisphenol A and 1,3-Butadiene, which are known to the State of California to cause birth defects and/or other reproductive harm. For more information please visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

E911 Disclaimer

PLEASE READ THE FOLLOWING IMPORTANT 911 INFORMATION

The POTS IN A BOX® and related Services relies on an Internet-based IP network and adequate power or battery to function. This Section provides important information for Customer about emergency calling, including 911/E911 services in the U.S. for this Service. In compliance with the Federal Communications Commission (FCC) WC Docket No. 05-196, DataRemote, Inc. hereby advises all current and potential customers that enhanced E911/911 calling services are available at this time but may not be available in all service areas and may/or may not function the same as traditional 911 Services.

**YOU ACKNOWLEDGE THAT DATAREMOTE DOES NOT OFFER ALTERNATE PRIMARY LINE OR LIFELINE SERVICES. IT IS STRONGLY RECOMMENDED THAT YOU ALWAYS HAVE AN ALTERNATIVE MEANS OF ACCESSING TRADITIONAL 911 OR EMERGENCY DIALING SERVICES.**

# Statements and Disclaimers (Continued)

In some instances, 911 service may not be available when using an Interconnected VoIP service or may be limited in comparison with traditional 911 telephone or commercial mobile radio service ("CMRS") service. These instances include, but are not limited to:

- 9-1-1 is dialed from a location other than the Registered Location last provided;
- The broadband connection (wired, wireless and/or Wi-Fi) is unavailable, or has been disrupted or impaired;
- The data service upon which the broadband connection is dependent is terminated or is disrupted or impaired;
- Loss of electrical or battery power;
- Network Congestion/outages;
- Customer or User terminal equipment is not configured correctly;
- Applicable equipment set-up instructions are not properly followed;
- Delays have occurred in processing a newly updated registered location;
- Customer has not provisioned and connected PSTN service for one or more locations;
- Customer has not updated DataRemote or Service provider of change of Registered Location;
- Payment of your subscription service.

Accordingly, Customer should always have an alternate means of accessing traditional 911 services, or other applicable emergency calling services, and such alternative means should include the ability to access 911 services, or other applicable emergency services, through the Public Switched Telephone Network where available. Failure to update Registered Location information may result in emergency calls being routed to the incorrect Public Service Answering Point (PSAP), preventing or delaying emergency response. If Customer changes the phone number used for 911 calling, Customer must register the new E911 CLID number and its associated address with DataRemote, in order to enable 911 capabilities for the updated number. Failure to do so may result in 911 services not being available to Customer when using an unregistered phone number

If you use a Private Branch Exchange (PBX) telephone system, the 9-1-1 dispatcher may see only your corporate or billing address, not the location information of the emergency. Customer should inform all Users of the Service of these limitations (including but not limited to, and of available alternate means of accessing 911/E911, or other emergency calling services. If you are unable to speak during a 911 call, the emergency operator will assume that the call originates from your last registered address.

If your account is suspended or terminated, all services, including E911, will cease to function. No E911 address accuracies guarantees are made during a Proof of Concept or demonstration of the product and you agree to hold harmless DataRemote for any claims made as to the provision of the E911 services. DATAREMOTE SPECIFICALLY DISCLAIMS ALL LIABILITY RELATED TO THE E911 SERVICE. We recommend that you leave this notice near your phone or device.

**YOU HAVE READ AND UNDERSTAND THE LIMITATIONS ASSOCIATED WITH THE 911 SERVICES DESCRIBED ABOVE. YOUR USE OF THE DEVICE AND SERVICES SHALL BE DEEMED AS UNDERSTANDING AND ACKNOWLEDGMENT OF THE ABOVE DISCLAIMER.**

## CAUTION

The battery used in this device may present a risk of fire or chemical burn if mistreated. Replace the battery with only a DataRemote manufactured or approved battery. Use of another battery is prohibited, and may present a risk of fire or explosion and void any battery or device warranties. Dispose of used battery promptly and in a manner authorized by your jurisdiction.



**Do not disassemble, crush and do not dispose of it in fire.**

Keep away from children.

# CERTIFICATIONS



Manufacturer	Device Model	Device Type	Frequency Bands	Technology
DataRemote	CDS-9010	Router	4G: II / IV / V - LTE: 2/4/5/12/13/14/66/71	LTE CAT 4
DataRemote	CDS-9070	POTS	2G: 850/1900 - 4G: II / V - LTE: 2/4/5/17	LTE CAT 4
DataRemote	<b>CDS-9090</b> (Current Device for this Manual)	Router	4G: II/IV/V - LTE: 2/4/5/12/13/14/66/71	LTE CAT 4



Manufacturer	Model Name/Number
DataRemote	CDS-9010
DataRemote	CDS-9070
DataRemote	<b>CDS-9090</b> (Current Device for this Manual)

# CERTIFICATE OF COMPLIANCE BATTERIES

## CERTIFICATE OF COMPLIANCE

**Certificate Number** 20190725-MH63085  
**Report Reference** MH63085-20190717  
**Issue Date** 2019-JULY-25

**Issued to:** DATAREMOTE INC  
18001 Old Cutler Rd, Suite 600  
Miami FL 33157

**This certificate confirms that  
representative samples of**

BATTERIES, HOUSEHOLD AND COMMERCIAL,  
INFORMATION TECHNOLOGY EQUIPMENT INCLUDING  
ELECTRICAL BUSINESS EQUIPMENT  
USL, CNL – RECHARGEABLE LI-ION BATTERY,  
Model(s): JBT18650-2S2P.

Have been investigated by UL in accordance with the  
Standard(s) indicated on this Certificate.

**Standard(s) for Safety:** UL 2054 Standard for Safety of Household and commercial  
Batteries,  
CAN/CSA-C22.2 No. 60950-1-07 and UL 60950-1 Standard  
for Safety of Information Technology Equipment-Safety-  
Part1: General Requirements.

**Additional Information:** See the UL Online Certifications Directory at  
<https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Mark. Only the UL Follow-Up  
Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's  
Follow-Up Services.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program  
UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please  
contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



# CERTIFICATE OF COMPLIANCE

## CERTIFICATE OF COMPLIANCE

**Certificate Number** 20190619-E500070  
**Report Reference** E500070-A2-UL  
**Issue Date** 2019-JUNE-19

**Issued to:** DATAREMOTE INC  
18001 Old Cutler Rd, Suite 600  
Miami FL 33157

**This certificate confirms that representative samples of** Information Technology Equipment Including Electrical Business Equipment  
LTE Cellular Router  
CDS-9090

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

**Standard(s) for Safety:** UL 60950-1, Information Technology Equipment - Safety - Part 1: General Requirements  
CAN/CSA C22.2 No. 60950-1-07, Information Technology Equipment - Safety - Part 1: General Requirements

**Additional Information:** See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program  
UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>

