



Fort Digital Dry Contact Alert System

Main Module + 16-Channel Dry Contact Module

IMPORTANT Read the safety instructions before connecting any wiring, SIM card or power supply.

Fort Digital Pte. Ltd.
www.FortDigital.com.sg
WhatsApp : +65 8151 5000
support@fortdigital.com.sg

1. Before You Begin

This guide explains how to connect the Fort Digital Main Module to the 16-Channel Dry Contact Module, install the SIM card, power up the system, add the device to the Fort Digital app and test each input channel.

WARNING Disconnect every power source before opening either enclosure or changing any wiring. Switch off the Main Module and unplug its USB power cable before inserting or removing the SIM card.

Included Components

- Fort Digital Main Module
- 16-Channel Dry Contact Module
- Connection cables and cable joiners
- Jumper wire for input testing
- Screwdriver
- USB 5 V charger and cable

Terminal Identification

Terminal	Function	Connect to
VCC	12 V power output/input	VCC terminal on the other module
GND (power)	Power return / common ground	Power GND terminal on the other module
A	RS485 data A	A terminal on the other module
B	RS485 data B	B terminal on the other module
GND (RS485)	RS485 reference ground	RS485 GND terminal on the other module
S/S	Input common terminal	Link to the module's common GND as supplied/configured
D1-D16	Individual alert inputs	One monitored signal per channel

NOTE The module has two ground connections: one for power and one for RS485 communication. Follow the printed terminal labels and do not interchange A and B.

2. Connect the Main Module and 16-Channel Module

STEP 1 Remove all power

Confirm that the USB charger, 12 V supply and any connected equipment are unplugged. Make sure the Main Module's ON/OFF switch is in the OFF position.

STEP 2 Open the enclosure

Use the supplied screwdriver to loosen the enclosure screws. Keep the screws safely aside.

STEP 3 Connect 12 V power

Connect VCC on the Main Module to VCC on the 16-Channel Module. Then connect the Main Module power GND to the module power GND.

STEP 4 Link S/S to common ground

Connect the S/S terminal to the same common GND terminal, following the supplied wiring arrangement.

STEP 5 Connect RS485

Connect A to A, B to B and the RS485 GND to the corresponding RS485 GND terminal.

CHECK BEFORE POWERING ON VCC to VCC; power GND to power GND; A to A; B to B; RS485 GND to RS485 GND; S/S linked to common GND.

3. Connect the Monitored UPS Signals

STEP 6 Join the common ground wires

Use the supplied cable joiners to combine the ground/common wires from all monitored UPS units. Connect the combined common ground to the designated common GND terminal on the 16-Channel Module.

STEP 7 Connect each 12 V signal

Connect the 12 V signal wire from each UPS to one input terminal: D1, D2, D3 and so on, up to D16. Use one channel for each monitored signal.

IMPORTANT Label every cable and record which UPS or alarm point is assigned to D1-D16. Verify voltage and polarity before connection. Never apply voltage higher than the system's specified input rating.

Suggested Channel Record

Channel	Equipment / Signal	Location
D1		
D2		
D3		
D4		
D5		
D6		
D7		
D8		
D9		
D10		
D11		
D12		
D13		
D14		
D15		
D16		

4. Install the SIM Card and Power On

STEP 8 Open the Main Module carefully

Loosen the screws and lift the cover slowly. An antenna cable is attached inside the enclosure; do not pull, twist or strain it.

STEP 9 Confirm power is off

Move the ON/OFF switch down to the OFF position and confirm that the USB power cable is disconnected.

STEP 10 Unlock the SIM holder

Slide the SIM-card holder to the left, then lift it open.

STEP 11 Insert and lock the SIM card

Place the SIM card into the holder according to the printed shape and orientation. Close the holder, then slide it to the right until it locks with a click.

SIM HOLDER Slide left to unlock. Slide right to lock. Never insert or remove the SIM card while the unit is powered.

STEP 12 Switch on the Main Module

Move the switch up to the ON position. The internal rechargeable battery allows the unit to operate even before external USB power is connected.

STEP 13 Connect USB charging power

Connect the Main Module to the supplied 5 V USB charger. A blue indicator light confirms that USB power is present and the internal battery is charging.

Status Indicator Guide

Indicator behaviour	Meaning / action
Network indicator blinking	The modem is detecting or communicating with the mobile network. Allow time for registration.
Both network indicators remain solid	The SIM card may be missing, incorrectly installed or unable to obtain network service. Switch off before checking the SIM.
Blue USB indicator on	External USB power is connected and the internal battery is charging.

STEP 14 Close the enclosure

After confirming normal operation, position the cover carefully so the antenna cable is not trapped or pinched. Reinstall and tighten the enclosure screws evenly.

5. Add the System to the Fort Digital App

STEP 15 Install the app

Download the Fort Digital app from the Apple App Store or Google Play Store, or use the download link provided on the Fort Digital website.

Google Play: <https://play.google.com/store/apps/details?id=com.fortdigital.gpstracking>

Apple Store: <https://apps.apple.com/ph/app/fort-digital-sensors/id6798488289>

**STEP 16 Add the device**

Open the app and select Add Device. Scan the QR code supplied with the Main Module.

STEP 17 Complete registration

Enter the device PIN. If you are a new user, enter your email address and complete the sign-up process.

STEP 18 Confirm the device appears

Once registration is complete, the device will be shown in the app. Open it to view all input channels and the incident history.

6. Test Each Alert Channel

STEP 19 Prepare the test

Keep the system powered and connected to the mobile network. Open the device page in the Fort Digital app.

STEP 20 Trigger a channel

Using the supplied jumper wire, briefly bridge VCC to the input you want to test. For example, bridge VCC to D2 to activate Channel 2.

STEP 21 Confirm the alert

Check that the phone receives an alert showing that the correct channel has been activated. Remove the jumper after the alert is confirmed.

STEP 22 Repeat and document

Test D1 through D16 one at a time. Confirm that each physical input matches the correct app channel and assigned equipment name.

TEST SAFELY Bridge only VCC to the intended D1-D16 input, one channel at a time. Do not bridge VCC to A, B, GND, S/S, the SIM holder or any unlabelled terminal.

7. Final Commissioning Checklist

- All terminal screws are secure and no bare conductor can touch an adjacent terminal.
- VCC, power GND, A, B and RS485 GND are connected to their matching terminals.
- S/S is linked to common GND according to the supplied wiring arrangement.
- Each UPS or alarm signal is labelled and recorded against D1-D16.
- The SIM holder is locked and the mobile network indicator shows normal activity.
- USB charging power is connected and the blue charging indicator is on.
- Every channel has been tested and the correct alert appears in the app.
- Both enclosures are closed without pinching any cable or antenna lead.

SUPPORT If the device does not appear online or an input does not trigger correctly, switch off the system before checking the SIM card or wiring. Contact Fort Digital support if the issue continues.

Fort Digital Pte. Ltd.
www.FortDigital.com.sg
WhatsApp : +65 8151 5000
support@fortdigital.com.sg