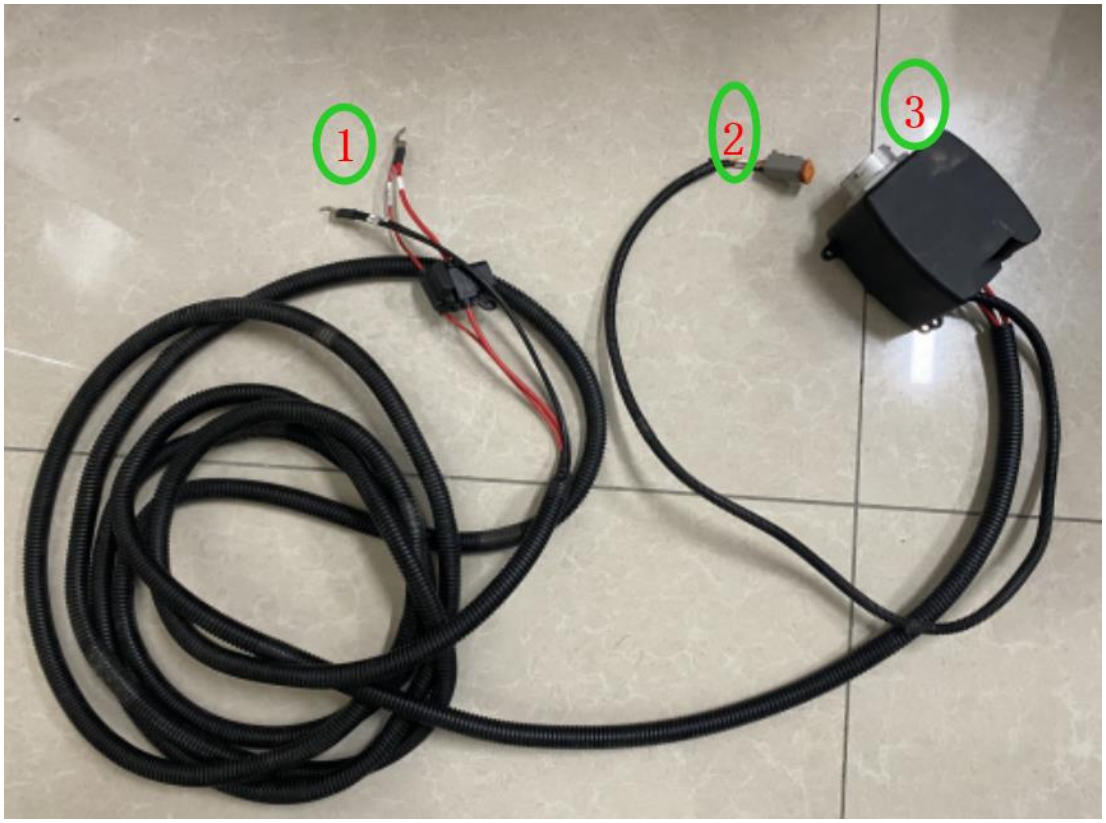
# FJD ISOBUS INSTALLATION

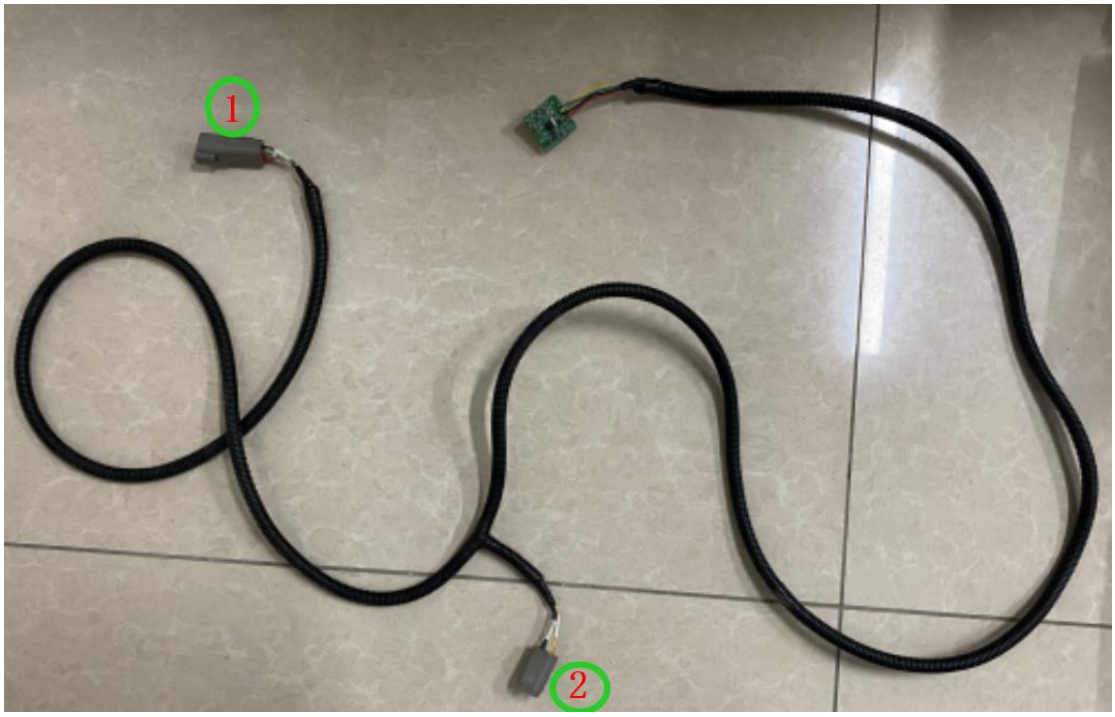
## Table of Contents

# 1. Test tools：

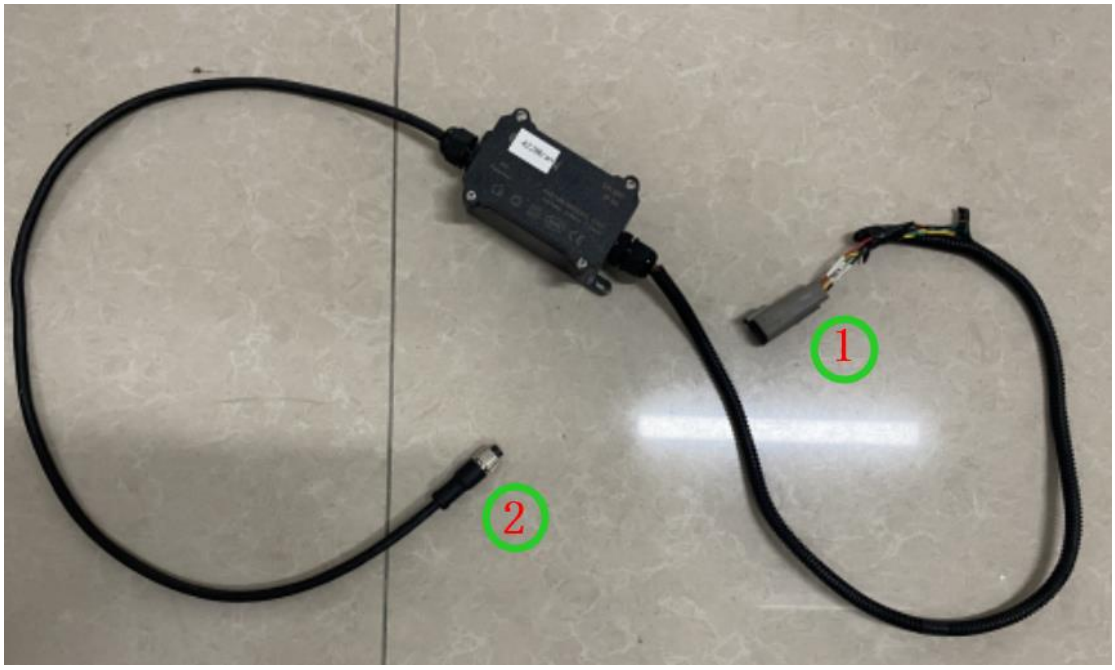
A. ISOBUS_9pin Cable (L0012269)




B. BUS_6pin Cable (L0012268)

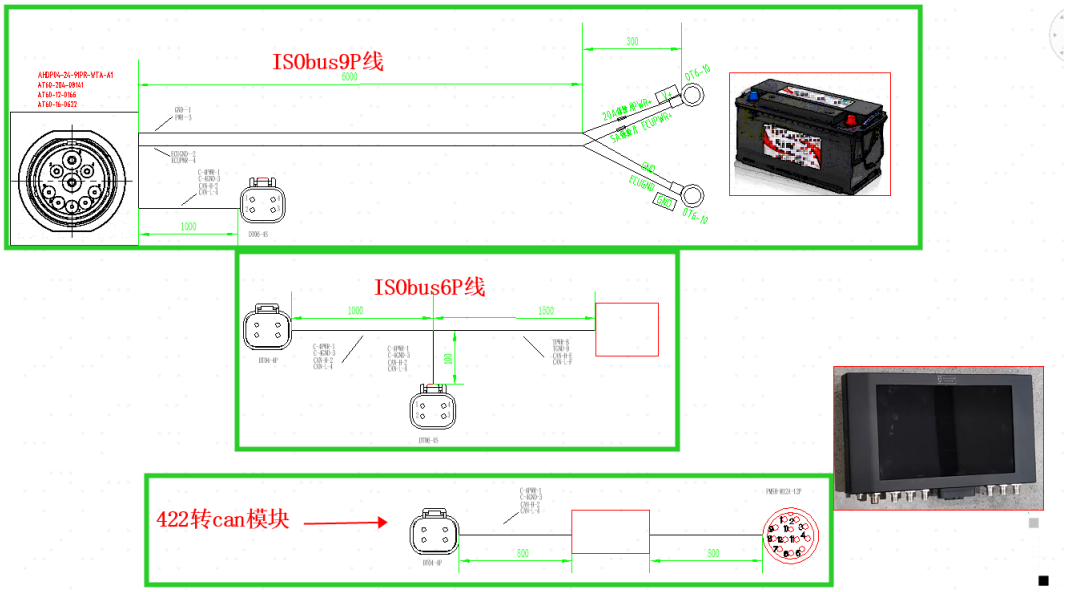


C. 422-can Transverter




D. Control Terminal

# 2. Connection and Installation：




A. Place the ISOBUS_9pin Cable (1-A) from the rear of the car seat to the battery.
B. Connect ISOBUS_9pin Cable (1-A, port 2) to ISOBUS_6pin Cable (1-B, port 1).
C. Connect ISOBUS_6pin Cable (1-B, port 2) to 422-can Transverter (1-C, port 1).
D. Attach 422-can Transverter (1-C, port 2) to the Control Terminal (1-, port 1). Please fix the 422-can Transverter so it won't be tugged back and forth.
E. Fix the socket on ISOBUS_9pin Cable (1-A, port 3) at the rear part of the cab so that it can be easily connected to the machineries and implements.
F. Connect the two terminals on the ISOBUS_9pin Cable (1-A, port 1) to the positive and negative anodes of the battery.

# 3. CAN-Box Installation and Data Collection

There are two ways of data collection. Plan A uses FJD Control Terminal to monitor and upload logs; Plan B uses CAN box to collect data.

**Plan A:**

A. Self-monitoring data collection: connect the ISOBUS wiring harnesses and start the control terminal. Click the ISOBUS button on the main interface, when the interface of ISOBUS is loaded (an independent interface for the implement appears on the control terminal), then go to *Settings - User Information - Log upload*.


B. Data collection monitoring of other systems (HORSCH, KUBOTA, etc.): Connect the CAN cable of other systems to the CAN cable of FJD ISOBUS system, start the control terminal, and go to *Settings - User Information - log upload* after the transfer of object pool of other systems is completed.

**Plan B:**

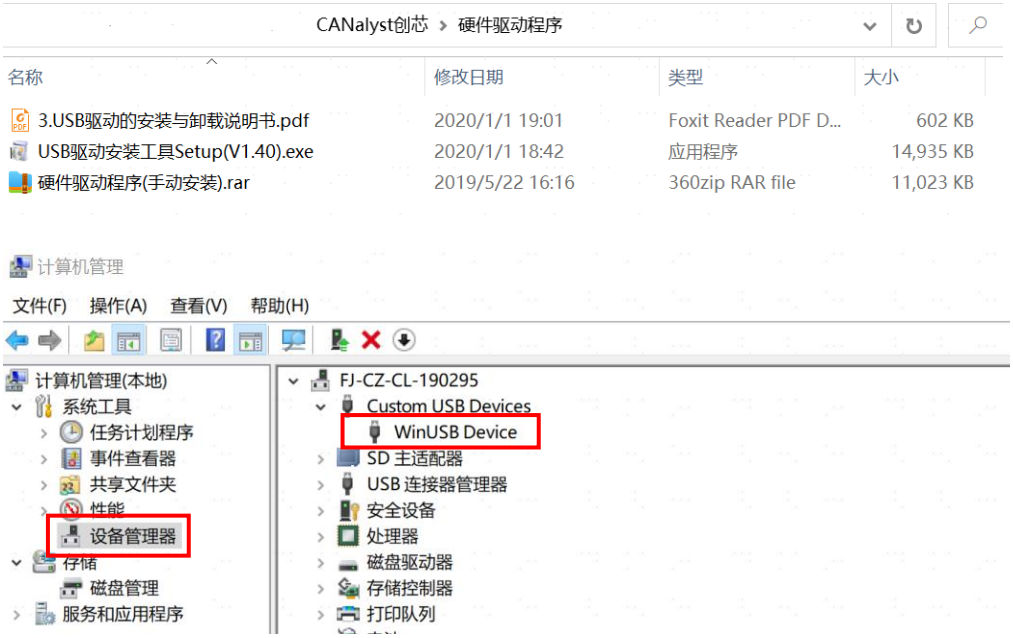
A. Install the CANtest software and CANtest drive on the laptop.

CANalyst创芯.zip

a) Click on the .exe file in the figure below. When the installation is complete, copy and paste controlCAN.dll into the installation directory of CANtest to replace the original file.


b) Install the CAN-Box drive (CAN-Box must be connected to the computer during installation).

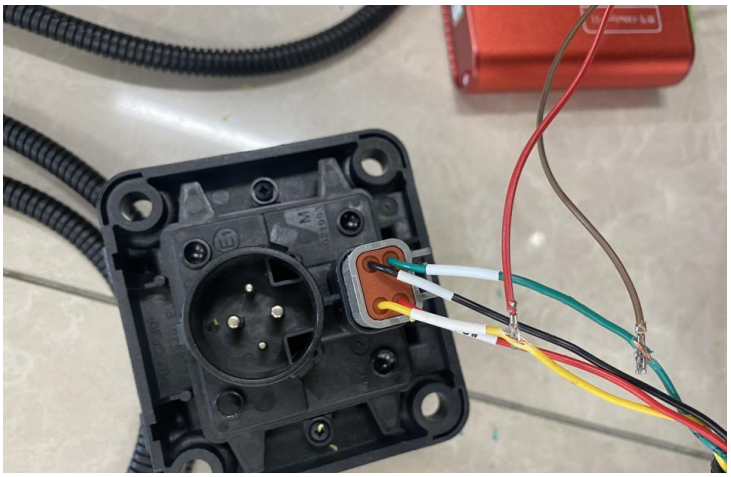

c) Click on the .exe file in the figure below to install the drive. If WinUSB Device as shown in the next figure appears in the device manager, the drive installation is complete.




B. Connect the CAN-Box to ISOBUS socket.

a) If only CAN1 is used, use two dupont threads to plug in the canH and canL ports in CAN1 area. If you want to use ports in CAN2 or use both CANs at the same time, you must choose “select all cans” in CANtest (see C.c).

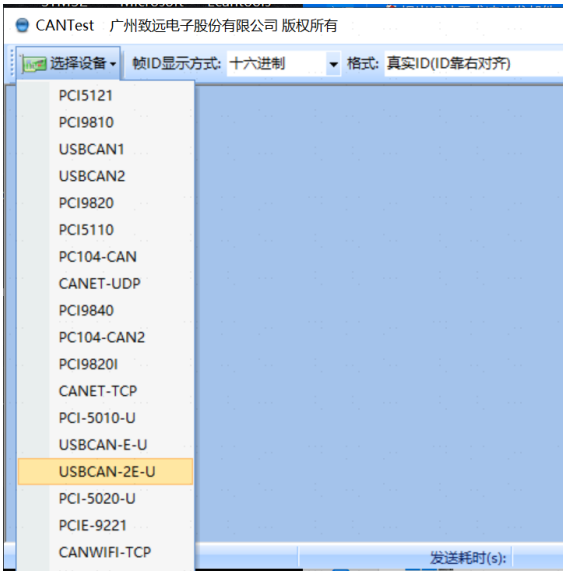

b) Connect the dupont threads from canH and canL to the corresponding pots on ISOBUS socket. The figure below is an example.



C. Start the software.

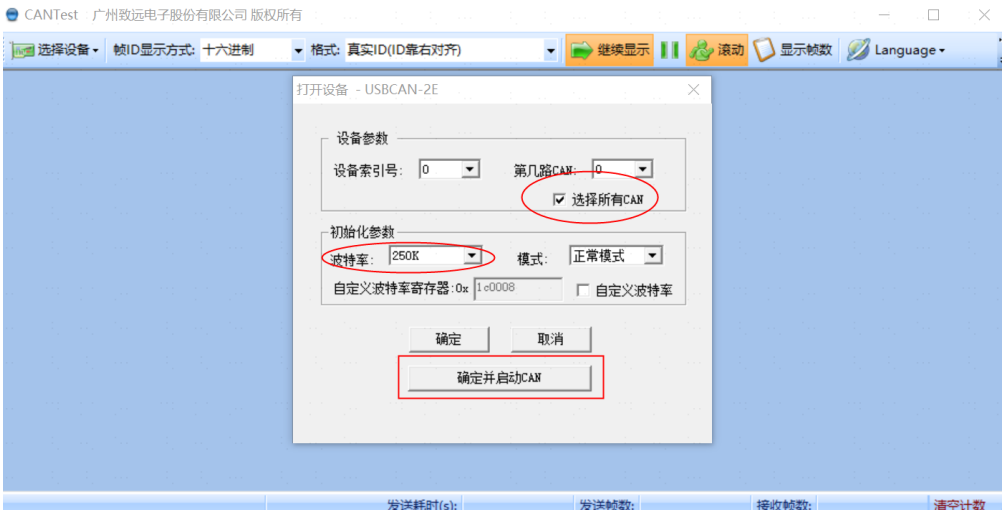
a) When starting the software for the first time, close the prompt window.


b) Select the device, select USBCAN-2E-U. (Select the corresponding equipment model for products from Guangcheng Technology or Zhou Ligong)




c) If CAN2 is used, you must choose “select all cans” in CANtest.

d) Set the baud rate at 250k for ISOBUS communication.




e) Choose Save in Real-time and set the save path. When the data collection is over, click Save. (If CAN1 is used, the data is then saved in channel 0)


For the integrity of data collection, the software must be opened and ready before charging and operating the device.

D. Segmented data collection (save a file for each icon):

a) Use the ISOBUS display.

b) First take a photo of each interface and mark them as indicated in the figure below, the number on the next page starts from 9. If block 2 has sub-interfaces, take photos and mark the sub-interfaces as 2-a, 2-b. Save the picture to the folder “User ISO”.

c) Open CANtest, don’t turn on "Save in Real Time”. Press each button on the right column and save as an independent file. If there are sub-interfaces, then click the buttons for the sub-interfaces and save them as one file together with the main interface. The file name is as the marked number in 3.D.b, the file type is csv, and the data is stored in the ISO folder. Each time you finish saving a csv file for an interface, clear the data and then continue with the next interface until all buttons on the right column are tried and files of all interfaces are saved.

d) Use FJ control terminal and repeat the steps above. Save all the images and data sheet to the folder “FJ ISO”.

Data collection completed.

# 4. Data Collection Debugging

When you cannot collect data from the CANtest box, you may check:

A. Check whether the implement is charged properly? If the implement is not cahrged or turned on properly:

   a) Check whether the battery voltage is 12v

   b) Check whether each part is fully connected.

   c) Whether the FJ control terminal is turned on.

   d) Check whether the voltage of BD pin of the ISOBUS Cable (1-B, port 5) is 12V. If not, please connect pins1 and3 of port 6 of the ISOBUS Cable to pin4 and pin2 respectively. Then see if the implement can be turned on successfully.

B. Check whether the CAN-box and the CANtest software function well, check chapter 5 for more details.

# 5. CAN-Box Debugging

A. Install the USBcan-tool software.

USBcantool.zip

B. Connect the resistance and wiring according to the figure below, and then connect the can box to the computer.

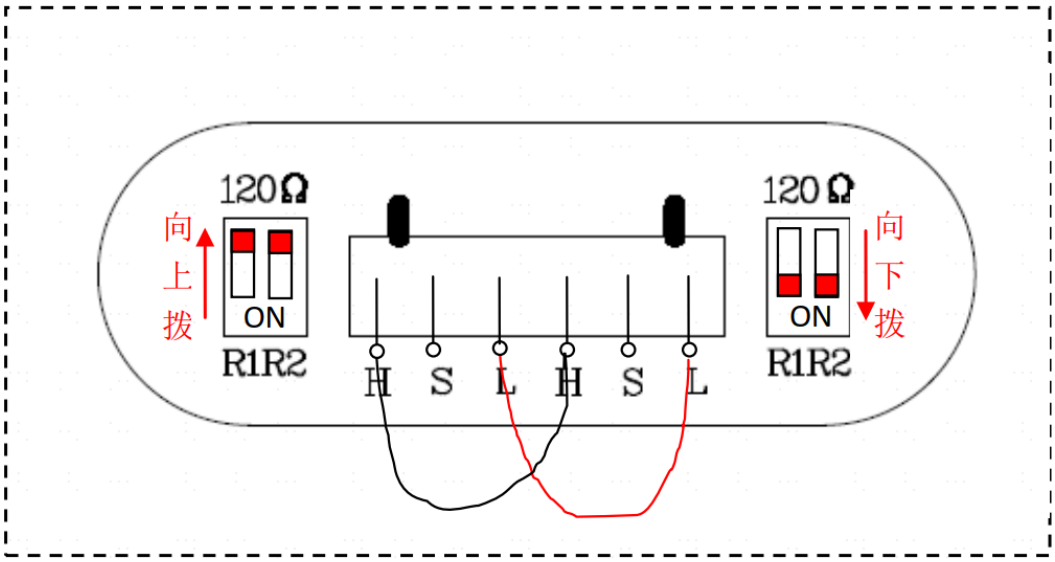



图 1 CANalsyt-II 分析仪测试接线图

C. Open the USBCAN Test Tool.


D. Click the "Open and Test" button in the upper left corner, the software will automatically start the test (open the device in turn -> initialize channel CAN1/CAN2 -> CAN1 sends a sequence, CAN2 receives and verifies -> CAN2 sends a sequence, CAN1 receives and verifies -> Turn off the device -> Show result):

# 6. ISOBUS Software Upgrade (Manual)

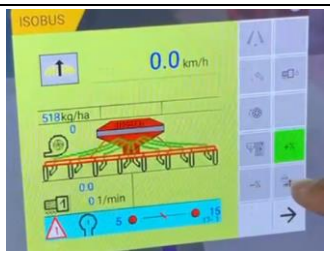
A. Connect the control terminal (port T2) to a computer with a USB-Type C cable.
B. Run the "install1904.bat" in the “installApp” folder.
C. Configure the upgrade.
D. Switch off the kit for 30s, then restart.
E. Click on the ISOBUS icon, the screen of the popup window will go white for 10min during data receiving.
F. Enter the ISOBUS system.

# 7. Data Collection with CAN-Box

Please follow these steps:

A. Open CANtest software, choose "Save in Real Time”.
B. Turn on the FJ kit after the ISOBUS software update and open the ISOBUS window.
C. Click “Save” in CANtest software to get data sheet-1.
D. Clear the object pool/ clear data.
E. Disconnect the implement and turn off the kit.
F. Connect the implement and turn on the kit, open the ISOBUS window.
G. Click “Save” in CANtest software to get data sheet-2.
H. Restart the the FJ kit, open the ISOBUS window. (start taking videos)
I. Try all the interactive buttons on the screen.
J. Click “Save” in CANtest software to get data sheet-3.

# 8. ISOBUS Software Testing

| | | Inspection | Y/N |
|---|---|---|---|
| **A** |  | Can you enter the ISOBUS system?<br>(With the icon for ISOBUS in the middle of right column on the interface) | |
| **B** |  | Can you get access to the ISOBUS function?<br>(Does the ISOBUS window popups when clicking on the ISOBUS icon?) | |
| **C** |  | Is data received from the ISOBUS equipment? | |
| **D** |  | Does the interface respond to your interaction? | |