

TC3XYMT/TC3XYNT

Starter Guide

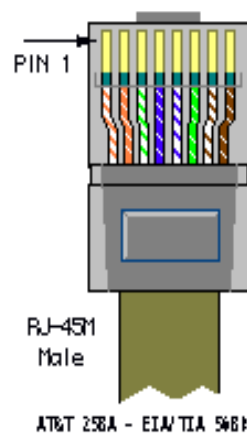
Version 1.04.1

Sphinx Access Control System

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1. Controller and Reader wiring

- Print out TC3XYHardwareUserManual.doc.
- Please refer to the last page of the connection diagram (it is better to view it on the PC display because of the color code).
- Connect wires of RJ45 cable to wires of reader's cable. Notice that:
 - PIN 1&2 of RJ45 connector must be connected together and connect to GND of reader.
 - PIN 7&8 of RJ45 connector must be connected together and connect to +VDC of reader.
 - PIN 3 of RJ45 connector must be connected to LED wire of reader.
 - PIN 4 of RJ45 connector must be connected to BEEP wire of reader (the TC514 reader doesn't support BEEP wire).
 - PIN 5 of RJ45 connector must be connected to Data0 wire of reader.
 - PIN 6 of RJ45 connector must be connected to Data1 wire of reader.
 - The PIN number is according to EIA/TIA 568.



- The reader and controller may be burn if you confused PIN 1,2,7,8.
 - The reader will beep beep if wrong connected at PIN 3,4,5,6.
- Plug the RJ45 connector to controller.
 - If the connection is ok the RED led will be active, when you flash card the Green LED and buzzer would be active also.

2. Connect the controller to PC

Based on project and kind of controller you may decide which method to connect controller to PC. There are 3 methods, the TC3XYNT supports RS232/RS485/TCP, the TC3XYMT supports RS232/RS485.

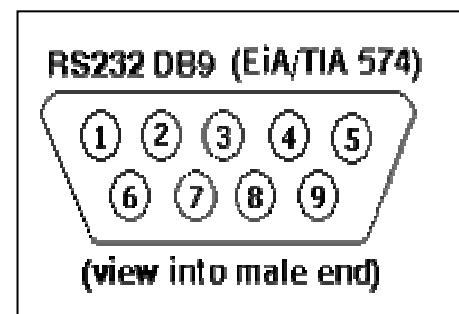
2.1. Setup the ID of Controller

- There are 8 switches on the top of controller board.
- Switch 1 to Switch 7 used to define the ID of controller. They are according to binary for example: S1=ON, S2=...=S7=OFF meaning ID=1
S1=S2=ON, S3=...=S7=OF meaning ID=3
- After changing status of those switches, please press and hold the reset button (next to battery) within 5 seconds or turn OFF and then turn ON the controller again.
- When pressing the controller will reset all input, output includes ID setting.
- To make a super reset which clear all data and setting please change switch 8 to ON then press and hold the Reset button within 5 seconds.

2.2. Connect the TC3XYMT/TC3XYNT to PC directly through RS232.

- Connect DB9 connector to controller using 3 wires:
 - Connect RxD of COM port to TX of controller.
 - Connect TxD of COM port to RX of controller.
 - Connect GND of COM port to GND of controller.
- DB9 PINOUT:

| Pin No. | Name | Notes/Description |
|---------|------|-------------------------|
| 1 | DCD | |
| 2 | RD | Receive Data (RxD, Rx) |
| 3 | TD | Transmit Data (TxD, Tx) |
| 4 | DTR | |
| 5 | SGND | GND |
| 6 | DSR | |
| 7 | RTS | |



| | | |
|---|-----|--|
| 8 | CTS | |
| 9 | RI | |

- Plug DB9 connector to a free COM port on your PC

2.3. Connect the TC3XYMT controller to PC through IC232 RS232-RS485

- Print out TC3XYHardwareUserManualx.xx.doc (x.xx meaning version).
- Please refer to the last page of the connection diagram (it is better to view it on the PC display because of the color code).
- Connect RS485+, RS485- of converter to RS485+, RS485- of controller follow the diagram.
- Connect IC232 to a free COM port of PC using RS232 cable.
- Connect USB plug to your computer to get power if there is no USB port available please use an external power supply (7-15VDC) for IC232 converter.

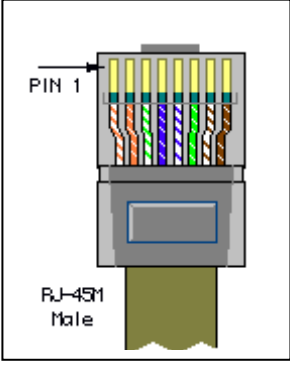
2.4. Connect the TC3XYMT controller to PC through C2000 TCP-RS485

- Connect the C2000 to HUB/Switch using a regular network cable.
- Connect power supply (7-15VDC) to C2000.
- Connect RS485+, RS485- of TC066 to RS485+, RS485- of controller.
- Make sure your PC is connecting to network properly.

2.5. Connect the TC3XYNT controller to HUB/Switch.

- Print out TC3XYHardwareUserManualx.xx.doc (x.xx meaning version).
- Please refer to the last page of the connection diagram (it is better to view it on the PC display because of the color code).
- Connect TC3XYNT to HUB/Switch by using “Straight Through” cable. If you want to connect the controller to your PC directly, please use a “Crossover” cable.
- Discussion

| Crossover Cable | | Straight Through Cable | |
|-----------------|-----------|------------------------|-----------|
| RJ-45 PIN | RJ-45 PIN | RJ-45 PIN | RJ-45 PIN |
| 1 Rc+ | 3 Tx+ | 1 Tx+ | 1 Rc+ |
| 2 Rc- | 6 Tx- | 2 Tx- | 2 Rc- |
| 3 Tx+ | 1 Rc+ | 3 Rc+ | 3 Tx+ |
| 6 Tx- | 2 Rc- | 6 Rc- | 6 Tx- |



3. Install Sphinx Software

- Print out SphinxTC3XYSoftwareUserManualx.xx.doc (x.xx meaning version)
- Install the software in CD which is provided belongs to controller. It should be SphinxTC3XYSetupxxx.exe (xxx meaning version) or download the latest version from our download site <http://www.key-king.com/download>
- Please contact to our support support@key-king.com for user name and password
- Follow the setup instruction.

4. Setup TCP settings for TC3XYNT/C2000 controller.

- There are 2 switches next to the battery on the controller board. They are used to change the status of TCP configuration.
SW1=ON, Configurable Mode, user can read/write the TCP setting of controller.
SW1=OFF, Protected Mode, user can read but cannot write the TCP setting of controller.
SW2=ON, Forced Default IP Mode, the IP of controller will be back to default (IP: 10.1.1.10, subnet mask=255.255.255.0).
SW2=OFF, Normal Mode, the IP of controller will be the one in TCP setting.

To prepare for setting up TCP configuration of controller please change the SW1 to ON, then you can able to find and save the new TCP setting of controller. After finishing please change those switches back to OFF to apply for new setting.

- Using Sphinx (Hardware Setup -->Search --> Search IP) to search and setup the TCP settings of controller if you are using Win2K, XP or higher.

- Using C2000 Converter Setting Software to search and setup the controller if you are using Win9x.

5. Checking if the connection is correct or not

- Run the icon from the desktop or Start→Program→Sphinx Access Control Software\Sphinx.exe.
- Enter Hardware Setup → Click on Search to enter Search Controller screen.
- Specify the COM port (Physical or Virtual) which your controller is being connected and then click on Start button.
- If the connection is ok, the software will find the controller and its parameters such as firmware version, model number....
- If not, please check the USB connector and the RS485 connection of RS485+ and RS485- wires to make sure they are connected properly (RS485 controller).

6. Connection diagrams

