

SK-NET™

TROUBLESHOOTING GUIDE

1. RS232/RS485 or LAN (TCP/IP) communications setup:

- a. From the **Tree View**, right click on All Readers or the **Connection Group** (version 4 or higher).
- b. Select **Properties**.
- c. Click on the **Connection Tab**.
- d. Verify there is a com port showing in the 'Connect using' box and then run the **Connection Wizard**.
- e. If the **Wizard** finds the connection, **click OK, Apply**. You will now be able communicate to your readers.

LAN connection (version 4 only):

- a. From the **Tree View**, right click on **All Readers** or the **Connection Group** (version 4 or higher).
- b. Select **Properties**.
- c. Click on the **Connection Tab**.
- d. Select **LAN-internet (TCP/IP)** in the 'Connect using' box and then run the **Connection Wizard**.
- e. If the **Wizard** finds the proper IP address, **click OK, Apply**. You will now be able communicate to your readers.

2. RS232 communications failure:

Using RS-232 Voltage Measurements to Check for Communication Problems. If you cannot connect, it will be necessary to take voltage measurements to identify whether the problem is with the SK-ACP/28SA+ or with the computer.

Setup for voltage measurements:

- a. From the **Tree View**, right-click on **All Readers** or the **Connection Group** (version 4 or higher).
- b. Select **Properties**.
- c. Click on the **Connection tab**.
- d. Uncheck the box next to "**Gateway (RS-232)**".
- e. Click on the **Connect** button.

Measure voltages

The system will fail to connect, but in the process it will open the computer's COM port, making the voltage test possible. Measure voltages for the gateway at the 28SA+ terminal block or J7 (ACP), communications pins 1 to 5. Connect the ground lead to pin 1 (logic ground) for all measurements.

- a. Pin 2 (Receive Data, RXD). The voltage should read between -5 VDC to -12 VDC. This voltage comes from the PC. If the voltage is wrong or missing, disconnect the reader from the PC, and measure the voltages at the reader (should be 0.0 VDC) and at the PC (should be between -5 VDC to -12 VDC).

- b. Pin 3 (Clear to Send, CTS). The voltage should read between +5 VDC to +12 VDC. This voltage comes from the PC. If the voltage is wrong or missing, disconnect the reader from the PC, and measure the voltages at the reader (should be 0.0 VDC) and at the PC (should be between +5 VDC to +12 VDC).
- c. Pin 4 (Request to Send, RTS). The voltage should read between -5 VDC to -12 VDC. This voltage comes from the Card Reader. If the voltage is wrong or missing, disconnect the reader from the PC, and measure the voltages at the reader (should be -9.5 VDC) and at the PC (should be 0.0 VDC).
- d. Pin 5 (Transmit Data, TXD). The voltage should read between -5 VDC to -12 VDC. This voltage comes from the Card Reader. If the voltage is wrong or missing, disconnect the reader from the PC, and measure the voltages at the reader (should be -9.5 VDC) and at the PC (should be 0.0 VDC).

Check com ports using a different PC.

- a. Another quick test you can run to verify if the failure is the PC or the card reader system, try connecting another PC, install SK-NET and just run the connection wizard (step 1) to see if it finds the connection.

Check com ports using a different 28SA+ or SK-ACP board

- a. Another quick test you can run to verify if the failure is the 28SA+/ACP board or the card reader system, try connecting a different 28SA+/ACP board and just run the connection wizard (step 1) to see if it finds the connection.

3. Login Failure (RS485)

- a. In the **Tree View**, look for a red arrow next to the **Location** icon. This indicates you are connected to the **Location**.
- b. Click on the "+" next to **All Readers** or the **Connection Group** (version 4 or higher). If the reader shows a green check mark, this indicates the reader is logged in. An icon with a red "X" indicates lost communications with that reader. If this occurs, perform a Power Reset for the reader.

Power reset:

A power reset does three things. **1)** it changes the node ID to each reader, **2)** it defaults the readers password back to 12345, and **3)** it resets the baud rate back to 38400.

- a. Disconnect power from the reader or panel (including any backup battery)
- b. Hold down the reset button.
- c. While holding the reset button, restore power. Continue holding the button for a few seconds. This procedure will change the node ID for the reader(s). You must now find the reader(s) as new to the system and then clone them.

To clone the readers after a power reset:

- a. From the **Tree View**, right click on **All readers** or the **Connection Group** (version 4 or higher).
- b. Select **New**.
- c. Select **Readers**.
- d. Select **Quick Find** (with less than 20 readers), or **Search** (with more than 20 readers).
- e. SK-NET will find the original reader(s) as new ones.
- f. Click **OK** to bring them into the system. Do not log in at this time.
- g. Look under **All Readers** or the **Connection Group** (version 4 or higher) and you will notice that you now have duplicate reader(s) names. The old one will still have the red X through the icon, and the new one will not.
- h. Drag and drop the **New** reader(s) on to the old reader(s) with the same name that have the red check mark. You will be asked to **Replace the reader**, click **Yes**. This will clone the original reader settings in to the 'new' reader. Right click on the Location Name and select **Login**. Now all the readers should log-in and show a green check next to each reader.

4. Data errors:

When receiving any kind of data errors after starting SK-Net or during any operations you will need to run the database utility which will re-index all your database files.

- a. Exit SK-NET
- b. Left click on the Windows start button.
- c. Select 'All Programs'
- d. Locate SK-Net
- e. Select to run the 'Database Utility' and close.
- f. Restart SK-NET

5. Card Send failures:

If the Send Users Full or Send Users Changes fail, you will need to run SK-NET's database utility which will re-index all your database files.

- a. Exit SK-Net
- b. Left click on the Windows start button.
- c. Select 'All Programs'
- d. Locate SK-Net
- e. Select to run the 'Database Utility' and close.
- f. Restart SK-Net

6. Replacing a 28SA+ or the SK-ACP

NOTE:

Do not delete the original readers from SK-NET.

Only replace one reader or ACP board at a time.

After replacing the 28SA+ or SK-ACP connect to the location like you normally would. You will notice that the reader(s) will fail the login, this is to be expected.

- a. Click on the "+" next to **All Readers** or the **Connection Group** (version 4 or higher). Each reader icon will show a red "X" which indicates lost communications with the reader(s).

Now it is time to clone the reader(s):

- a. From the **Tree View**, right click on **ALL Readers** or the **Connection Group** (version 4 or higher).
- b. Select **New**.
- c. Select **Readers**.
- d. Select **Quick Find** (with less than 20 readers), or **Search** (if more than 20 readers).
- e. SK-NET will find your new reader(s).
- f. Click **OK** to bring them into the system. Do not log in at this time.
- g. Look under **All Readers** or the **Connection Group** (version 4 or higher) and you will notice that you now have added the new reader(s) to the system. The old one will still have the red X through the icon, and the new one(s) will not.
- h. Click on **All Readers** or the **Connection Group** (version 4 or higher) from the tree. On the right side of the screen, you will notice all of the readers listed with name, node ID, serial number etc.
- i. Drag and drop the New reader on to the old reader for the 28SA+, or the new -1 serial number to the old -1 serial number for the ACP board. You will be asked to **Replace the reader**, click **Yes**. This will clone the original reader settings in to the 'new' reader. Repeat for the -2 serial number when using the ACP board. Right click on the Location Name and select **Login**. Now all the readers should log-in and show a green check next to each reader. Be sure to Send Users Full, and after the job has been completed the readers are now ready to be used.

7. Power Reset

A power reset does three things: 1) it changes the node ID to each reader, 2) it defaults the readers password back to 12345, and 3) it resets the baudrate back to 38400.

- a. Disconnect power from the reader or panel (including any backup battery)
- b. Hold down the reset button.

- c. While holding the reset button, restore power. Continue holding the button for a few seconds. This procedure will change the node ID for the reader(s). You must now find the reader(s) as new to the system and then clone them.

To clone the readers after a power reset:

- a. From the **Tree View**, right click on **All readers** or a **Connection Group** (version 4 or higher).
- b. Select **New**.
- c. Select **Readers**.
- d. Select Quick Find (with less than 20 readers), or Search (with more than 20 readers).
- e. SK-NET will find the original reader(s) as new ones.
- f. Click **OK** to bring them into the system. Do not log in at this time.
- g. Look under **All Readers** or the **Connection Group** (version 4 or higher) and you will notice that you now have duplicate reader(s) names. The old one will still have the red X through the icon, and the new one will not.
- h. Drag and drop the **New** reader(s) on to the old reader(s) with the same name. You will be asked to **Replace the reader**, click **Yes**. This will clone the original reader settings in to the 'new' reader. Right click on the Location Name and select **Login**. Now all the readers should log-in and show a green check next to each reader.

8. Net-conv-p (RS232to RS485) connection Failure

If you cannot connect and you are using the NET-CONV converter, measure the following voltages:

- a. Measure input voltage from the converter power supply, it should read between 9vdc to 16vdc.
- b. Measure voltage between ground (minus side of the power supply) and TD (A), it should read 0vdc.
- c. Measure voltage between ground (minus side of the power supply) and TD (B), it should read 2.5vdc to 5vdc.

If these voltages are not correct, disconnect J8 from all the ACP boards or disconnect the network connection from the 28SA+ readers and re-measure.

- a. If the voltage is correct, then connect one reader at a time and remove any reader which causes the voltage to change. The reader(s) which cause a big change in the voltage must be replaced.
- b. If the voltage is still bad, then replace the converter.

9. New transactions are not appearing on the Transaction Screen

If you are not seeing your newest (or up to date) transactions then try the following procedures:

Are your transactions being filtered?

- a. From the transaction view, select the filter icon.
- b. Select the default button, click OK.

Are you logged into your Location?

- a. From the tree view, open **All Readers** or the **Connection Group** (version 4 or above) to view your reader icon(s) and verify each reader has a green check mark next to each one.
- b. If reader(s) do not have a green check mark (or have red lines through them) be sure that you are connected to that Location or Connection Group (version 4 or above).
- c. If you are connected to the **Location or Connection Group** (version 4 or above) then click on the login icon located on the toolbar to login.
- d. If you are not connected to the **Location or Connection Group** (version 4 or higher) then highlight it and select connect.

Have you excluded any transactions?

- a. Right click on **All Readers** or the **Connection Group**.
- b. Click on the **Transaction** tab.
- c. Review all the **Transaction Types**, to see if there are any which have a check mark on the box beside each one. If you want the transaction to appear, uncheck the box(s) and close.

10. Cards show Void after creating a new Access Group

If you have added a new **Access Group** and the users for that group are showing void in the **Transaction** screen review the following:

Did you add the proper reader(s) in to the new group?

- a. from the tree view, click on the **Access Group**.
- b. You will need to drag and drop the reader(s) into the new group from **All Readers** or the **Connection Group** into the new Access Group. Click on the (+ or triangle) next to the Access Group to verify that all the reader(s) are now part of the group.
- c. Click on **Send Users Full** to update your users.

Did you perform a card send?

- a. Click on **Send Users Full** to update your user

11. Invalid Facility Code when using new cards

If you receive an Invalid Facility Code message from the transaction screen, perform the following steps:

- a. Goto to the 28SA+ or SK-ACP board and take a sample card with each facility code being used in the system. Press the reset button and **within 8 seconds** present each card to the reader while the **reader (Secure Key) is flashing red/green.**
- b. Go back to the computer and select the reader where you just presented sample cards with all of the **Facility Codes** and right click and select **Properties.**
- c. Select the **Service tab**, and on the right side you will see all the codes you have entered.

If you have more than one reader in the system perform the following:

- a. click on the edit button.
- b. Select the Send All button, this will send all the Facility Codes to all the readers in the system.
- c. Exit the reader properties, and be sure to **save the changes when prompted.**



20301 Nordhoff Street, Chatsworth, CA 91311
PHONE (818) 882-0020 • FAX (818) 882-7052
TOLL-FREE (800) 891-0020
Website: www.securakey.com
E-mail: mail@securakey.com