MAKING MODERN LIVING POSSIBLE

AK-SC255/355
Troubleshooting Guide

REFRIGERATION &
AIR-CONDITIONING

AK-SC255/355 Troubleshooting Guide Table of Contents

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Note: Before calling Danfoss Technical Support on any of the following concerns please do the following: ***Power down*** the controller, check all wiring and cabling connections (both screw terminals, Fig. 1 or plug-in connections, Fig 2. Check that to see that the CPU card, Fig. 3 is firmly in place. If found to be unevenly seated press firmly on its corners until it no longer moves. Finally, power up the unit and recheck for the initial complaint. See diagrams below.

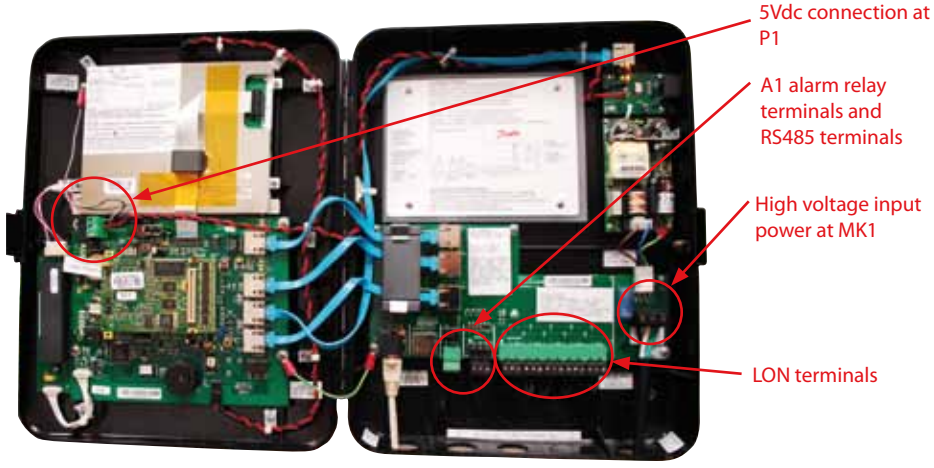

Figure 1

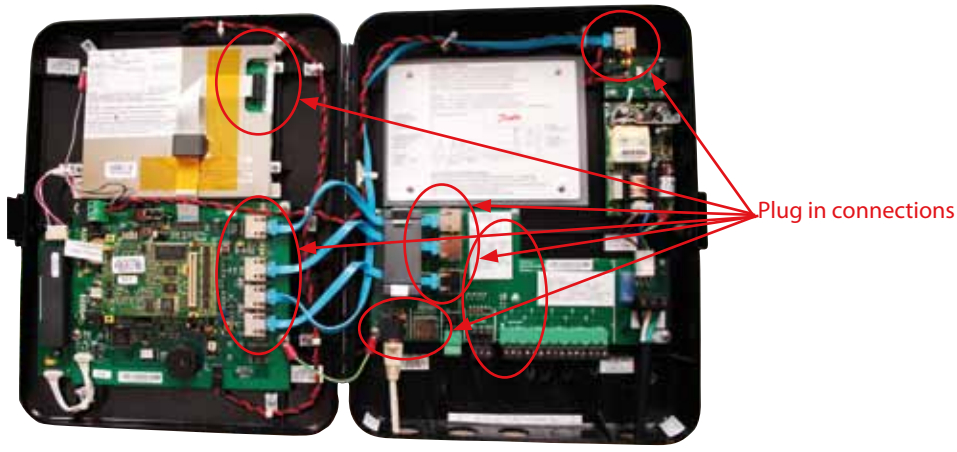

Figure 2

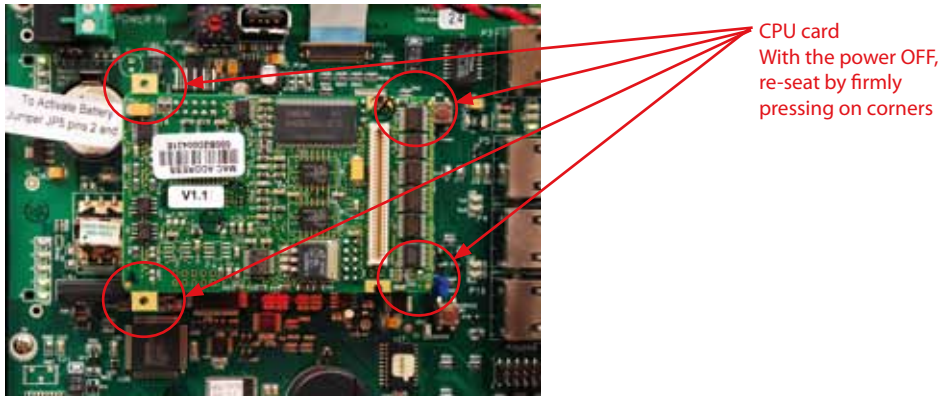

Figure 3

For Danfoss Technical Support call +1-410-931-8716.

Does Not Communicate with AK-SC255/355 (I/O with AK-SC255/355 Controller)	• Check address configuration of the Comm Module associated with your I/O and insure that it matches what you have configured. • Check to insure that there is 24 volts present at the Comm Module. • Cycle power to the Comm Module on the lineup with the problem. • Rescan I/O Network.
Comm module issues associated with the AK-SC255/355	• Check all wiring and physical connections. • Check that all Comm Modules and associated I/O are powered on and are addressed as configured. Remember, if you have made an address change to Comm Module for your I/O it must have power cycled before it will hold the new address. • Check to see that you are scanning the correct communication buss by going to Communications, I/O Network, Rescan Channels. If you have questions about which buss you should be scanning for call Danfoss Technical Support for further assistance. • I/O Comm failures do not necessarily indicate that an individual module is bad but rather that for some reason communication messages are getting dropped. Check with Danfoss Technical Support for other options before replacing the suspect module.
Will not scan (Scanning Issues)	• Check that all Comm Modules and associated I/O are powered on and are addressed as configured. Remember, if you have made an address change to Comm Module for your I/O it must have power cycled before it will hold the new address. • Check all wiring and physical connections. See Figures 1, 2 and 3 on page 2. • Check to see that you are scanning the correct communication buss by going to Communications, I/O Network, Rescan Channels. If you have questions about which buss you should be scanning for call Danfoss Technical Support for further assistance.
I/O Network Failure	• This message indicates that the AK-SC255/355 does not see any attached I/O. • Check that all I/O powered on and is addressed as configured. Remember, if you make an address change to Com Mod for your I/O it must have power cycled before it will hold the new address. • Check to see that you are scanning the correct communication buss by going to Communications, I/O Network, Rescan Channels. If you have questions about which buss you should be scanning for call Danfoss Technical Support for further assistance. • Fig. 1 on page 3 shows a TP-78 unit with a full row of 5 LON terminals. An RS-485 version is also available. Note: it is important that you have the correct Comm modules to match the specific type of AK-SC255/355 that you have.

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License Error	• Do not remove the unit from the wall… • Contact Danfoss Technical Support. They can correct most license issues via phone or email in minutes. • Have the MAC Address of the AK-SC255/355 in question ready when you call.
Lost License **Important note:**	• Do not remove the unit from the wall… • Contact Danfoss Technical Support. They can correct most license issues via the phone or email in minutes. • Have the MAC Address of the AK-SC255/355 in question ready when you call. ***Field software "upgrades" can only be done within respective Versions, (e.g. VR02.083 to VR02.101 etc.) Changing versions (e.g. VR02.101 to VE02.101 etc. will automatically void the warranty.***
White Screen **Flickering Screen** **Blank Screen**	• Most likely after performing the checks at the top of page 2, issues with a white screen or a flickering screen will have been resolved. • If the flickering re-occurs, note if the red/black twisted pair which carries 5vdc to the Baseboard is soldered to the other end (Fig. 4) below, at the PROGBD or is plugged into a Molex connector there…then contact Danfoss Technical Support for further assistance. • Look closely to see if there are actually dark characters/icons on the screen or if it is totally blank. If it is totally blank check for or establish 5vdc at the Baseboard. • If there are characters or icons on the screen but the screen is not lit (the back light is not working)…replace the unit, it is not field repairable. *Figure 4*
World Map doesn't disappear	• Make sure the jumper at JP2 (Fig. 5) on the Baseboard is correctly in position across both pins (vertical position) and then press the SW2 reset switch. Contact Danfoss Technical Support for further assistance. *Figure 5*

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Won't Power up	• Check for incoming power at MK1 connector. • Check fuse at F1 (Fig. 6). • Check for input power at the base of the power supply. • Check for 5vdc between MH5 and MH6 on the 255PROGBD (the yellow 5v in LED and the green 5v out should be lit. *Figure 6*
Receiving error message(s)	• Contact Danfoss Technical Support to resolve source and resolution of your particular error messages.
Database History isn't available or is lost	• Insure that the battery jumper at JP5 on the base board (Fig. 7) is set on the right two pins (this is the enabled position). • Check to see that there is a valid database with history configured. • Check to see that history status is Collecting and not Suspended • See if you can access history retrieval via the keypad via the AKA65 • If you can still not access history contact Danfoss Technical Support for further options. *Figure 7*
Clock doesn't work	• Insure that the battery jumper at JP5 on the base board (see Fig. 7) is set on the right two pins (this is the enabled position). • Now try resetting the correct date and time. Observe this new time for several minutes. • If, after several minutes, the clock appears to be correct you have most likely corrected the perceived problem. • If, after a short time, the date returns to 01/31/95 and the clock to 00:00:00… call Danfoss Technical Support for further assistance.
EDF Message	• The most common EDF message is one saying "Could not Load…," this usually implies that the necessary EDF was not in the correct directory or folder. Make sure the EDF mentioned in the error message is in your list of EDF's. • Remember, after loading EDF's or a Device List you must reset the AK-SC255/355. • If your problem is still not resolved, call Danfoss Technical Support for assistance..

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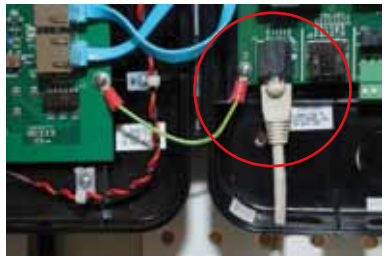
Keypad not responsive	• Try resetting the AK-SC255/355 • If that fails to regain control of the keypad contact Danfoss Technical Support for further assistance.
Ethernet Doesn't Work	• Check to see that your Ethernet connection is a valid one. • Check the plug in connection (lower left most connector, Fig. 8) on the 9AK255CONNBD (connector board). • Check configuration by going to Communications, Internet and Status to see that your unit has a valid IP Address. • If you are just setting this feature up you may need to reset the unit for the new setting to take effect. • If none of these things has helped call Danfoss Technical Support for further assistance  *Figure 8*
Web Browser Issues	• The Web browser is currently supported only in the "E" and "CS" versions of 255 applications. If you have one of these 2 versions and have concerns about the correct functioning of your Web Browser contact Danfoss Technical Support for further assistance.
Authorization Code Issues	• Check to make sure the keypad is functioning correctly • If the database has been lost the default is 12345 Enter, 50 Enter • If this does not work, call Danfoss Technical Support for assistance. • The last option is to contact the "chain" head quarters, they are responsible for maintaining or dispensing Auth codes.

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