CARMIX TROUBLESHOOTING PROCEDURES

I GENERAL

Components and Descriptions

1. CarMix Scale with QWERTY Keyboard (P/N CM8200-X00TNA).
2. CarMix " Safe Area" Power Supply (P/N YPS01-ZKR).
3. Fiber Optic Converter (P/N YCO03) - this converts the Fiber optic cable to DB25 Female for RS232 protocol.
4. Fiber optic cable (P/N YCC01-0012M15, M30, M60 or M90)
5. Arcnet Card (P/N YDO01PC-0002) - Internal PC Arcnet adapter for use with network applications, has a fiber optic interface to connect with F/O cable.
6. PCMCIA Memory Card - Terminal Versions YMC01-C1 or C3, YMC01-IC, IC1 or IC2. Network Versions- YMC01-90, or YMC01-P2.

II MAJOR DIAGNOSIS

1. General scale checks - Press **"T"** at logo during boot-up. Choose CarMix Test and perform all tests.
2. No display and no backlighting - Repair or replace power supply.
3. No backlighting - Replace backlight.
4. The scale boots up to standard weighing (0.0g) - Install PCMCIA Memory Card (see CarMix packages for card designation)
5. Scale boots to standard weighing mode, but Err 310, 311, or 312 appears in weigh window – Faulty power supply. Contact Sartorius for service.
6. Backlighting OK, but no characters displayed - Adjust contrast (CM page 19), if no change the scale is damaged. Send in for service.
7. Scale boots up and then stops - PC software, memory card or communication problem.
8. Weighing improperly (poor color matches) - linearity out, or a defective weight cell. Send unit in for service.
9. Scale reboots during middle of mix - Bad scale power converter. Send in for service.
10. Scale locks-up during mix - Perform keyboard check. If OK, refer call to Support Entity for software checks.

III COMMUNICATION FAILURES

A. **Network Systems** - Error message: **"There are no servers running on the network"**

1. Verify that the scale has the correct Com Port selected. Set-up in configuration #2 **"SETUP_2" (**CM p. 33)

2. Verify that the scale and computer have different Node ID's and that neither has a Node ID of zero. Particularly on new installs. (CM p.21, AC p.7)

III A. Network Systems COMMUNICATION FAILURES (continued)

3. Run Arctest software on the PC or on the PCMCIA card (YMC01-P2 or YMC01-90) installed in the scale. When the Arctest program starts it initializes the arcnet adapter and tests it's electronics. Perform tests as follows:

a. From the PC [Support Entity] - Run Loop in the tools directory on the CDROM (i.e. g:\tools\loop.bat)

b. From the scale **[Sartorius**] if scale boots up to a logo press **"T"** during the logo then select **CarMix test,** then ARCNET **test**.

c. Once you have started the Arcnet test, perform a node ID test. The blinking hi-lighted # represents the node ID of the PC. The solid hi-lighted # represents node ID of the scale. If the solid # is missing it means either the PC is improperly configured or there are cable defects or Arcnet card defects (Red LED should be on for good Arcnet card).

4. If ARCNET tests pass, have appropriate Support Entity's help desk check the PC's software & network configuration. (see Support Entities)

5. If all else fails, substitute a different scale or fiber optic cable. Send loaners as required.

B. **Terminal (serial RS232) Systems** - Blinking cursor only (some people say the scale is locked up but really there is just no communication).

1. Was scale on before software transfer to scale? Scale must be on first, then transfer control from PC.

2. Verify that scale has the correct Com Port selected. **"SETUP_1"** (CM p. 33)

3. Perform a loop back test on the scale and YCO03 Fiber Optic Converter (silver box) as follows:

a) Jump pins # 2 & 3 on the YCO03 with a paper clip.

b) Run **"Loop Com Port "** test from the memory card by typing **"T"** when he scale boots up and displays the Sartorius or Customer logo. Or if Loop test is unavailable allow scale to boot-up to blinking cursor. This test will also check out the associated Com port.

c) Press any character on the keyboard. Depending upon the test software it will either echo singly or repeatedly across the screen of the scale.

d) If the loop back fails, remove the F/O cable from the YCO03 and verify that there is a red light in one side of the opening where the F/O cable was installed.

e) If there is no red light then either the AC power adapter or the YCO03 fiber optic converter is defective.

f) If there is a red light then the fault is probably in the cable and possibly in the scale (but not likely, only a small percentage of comm. problems are due to the scale). Also, you can remove the cable from both the PC and the scale, shine a flashlight into each channel of the cable. Light should be visible on the other end of the cable.

5. If all these tests pass, have appropriate Support Entity's help desk check the computer's software & network configuration. (See Support Entities)