UPGRADE ADAM EXTERNAL CONTROLLER
to
INTERNAL CONTROLLERS
(single frame system)

The following steps are necessary to convert existing external FR9510 controller to internal ADAM Master Controller cards. Expected time required for conversion: 4-5 hours.

General Requirements

- *ADAM CSedit software ver 8.4.0. (size specific)*
- *ADAMedit software ver 1.04.03 or higher.*
- *PC running Windows 3.11, 95 or NT.*
- *Upgraded Master Control Card/Cards (see below).*

Master Controller Card Requirements

- All 8 - 512K RAM (4 meg) must be installed on master controller card U10-U13, U15-U18.
- U3 & U5 configuration flash must be 4 meg, 29F040 (both ADAM and ADAM-CS).
- U2 & U4 program flash must be 4 meg, 29F040, and programmed with v. 9.0 or higher.
- Master Controller Altera (U19) must be v. 4.1 or higher.

Hardware & System Requirements

- All XCP-40-RJ breakout panels must be replaced with modified versions consisting of appropriate circuit trace cuts and jumper additions.
- All XCP-40-DB9 breakout panels must be replaced with modified versions consisting of only appropriate circuit trace cuts. No jumper additions are needed.
- All addressable peripheral panels must have their baud rate settings changed from 76.8 kb to 9600
- If FR9528 relay chassis are used, special cable must be installed to operate with the new Internal controller scheme. (Telex # 9020729707) see figure 1
- If UIO256 is used in system, upgrade its firmware to ver 2.0 and re-set dip switches.
- If CDP is used in the system, upgrade its firmware to ver 7.x.

General Procedure

Pre-Installation
Prior to System Shutdown

Install the following:

- ❖ New XCP-40-XX breakout panels near the existing ones supporting the FR9510 external controller.
- ❖ One XCP-MC-ADAM panel in a location near the ADAM frame.
- ❖ Snap in one set of card guides in standby controller slot (#20), front card and back card.
- ❖ One each back card for both Master Controller cards from rear of frame in slot positions 19 & 20.
- ❖ Two new SCSI cables from XCP-ADAM-MC panel to Master Controller back cards per ADAM system drawing. *(fig. 4)*

DO NOT insert internal M/C cards at this time.

Upgrade from External Controller

Phase I

Power down the system.

Disconnect all 9 pin data (J6,7,8) and SCSI cables (J1,2,3,4) from each existing XCP, carefully documenting each existing cable location. (*see fig 3)*

Remove all AIO cards from the ADAM frame and re-install two AIO cards with upgraded firmware into card slots #8 & #9 (clock card locations).

Install one Master Controller card with upgraded firmware card into card slot 19. Double check dip switch settings on SW-1. (see M/C card jumper configuration reference)

Connect SCSI cable removed from J1 of “old” existing XCP and connect it to J1 on the new replacement XCP modified for use with ADAM Internal Controllers.

Move two (2) keypanels from the existing XCP from ports 1-8 and put into same port location in the new XCP. (document where they were removed from)

Check baud rate dip switches on keypanels to be sure they are set for 9600.

Phase II

Power up the ADAM frame and observe the new Master Controller and AIO card waking up.

Run ADAM CSedit 8.4.0 from DOS and load a previously converted operating file into ADAM.

Check status of controller, AIO cards and the presence of an operating system.

Check the two keypanels panels connected to the system and verify they report “ok-current” and they display system alphas.

Next Exit ADAM CSedit and run ADAMedit from Windows and confirm it recognizes the ADAM configuration currently running with the two keypanels.

After confirmation, save this configuration under ADAMedit and exit.

Re-run ADAMedit to confirm it still reads the current setup.

Install second Master Controller card in the standby slot (#20) and observe its wake up.

Check its status in ADAMedit and be certain it reports “ok-current”.

Upgrade from External Controller

Phase III

Now, upgrade all remaining AIO cards to current firmware and install each remaining card.

Verify all AIO's wake up and show "ok-current" in ADAMedit status.

Next transfer all peripheral devices from old XCP's to the new ones in ***exactly*** the same port locations.

Update all dip switches on all data communicating devices so they are communicating with the ADAM frame at 9600 baud. (all "****" may indicate improper baud rate setting)

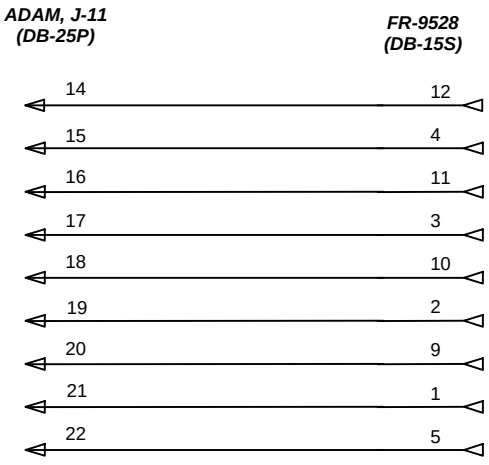
Transfer any UIO256, PAP, etc. to new MC-ADAM breakout panel using wiring convention shown in *fig. 2*.

If using FR9528 relay chassis, replace existing cable with that shown in *fig. 1*.

Phase IV

Confirm all devices report appropriately to system status inquiry.

Remove FR9510 fame, 9 pin data cables, old XCP breakout panels and ship to factory.



ADAM / ADAM-CS
FR-9528 Interconnect
Telex part # 9020729707
Fig 1

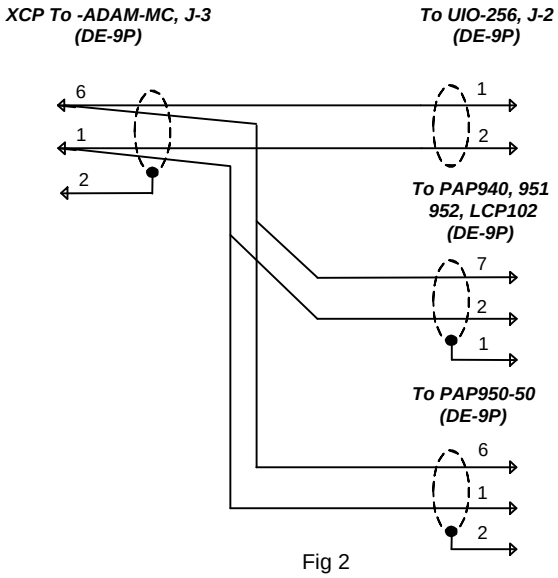


Fig 2

NOTE: If using a FR-9528 relay panel with UIO256's, the FR9528 panel will use GPI output block 1-16 in ADAMedit. GPI outs 1-8 will be active and 9-16 will not be assignable.

Assign UIO256's to GPI outs beginning with GPI # 17 and continue in blocks of 16 for each UIO256 in the system.

Upgrade from External Controller

System Diagram
ADAM-136 & FR-9510 External Controller

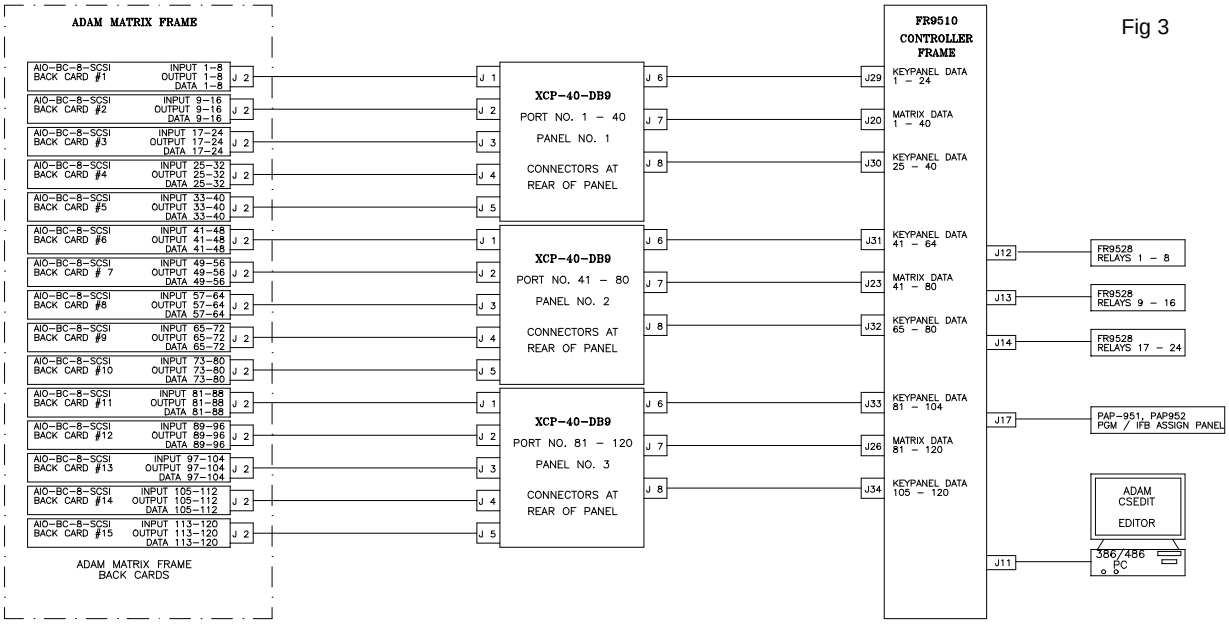


Fig 3

System Diagram
Upgraded ADAM-136 with Internal Controller

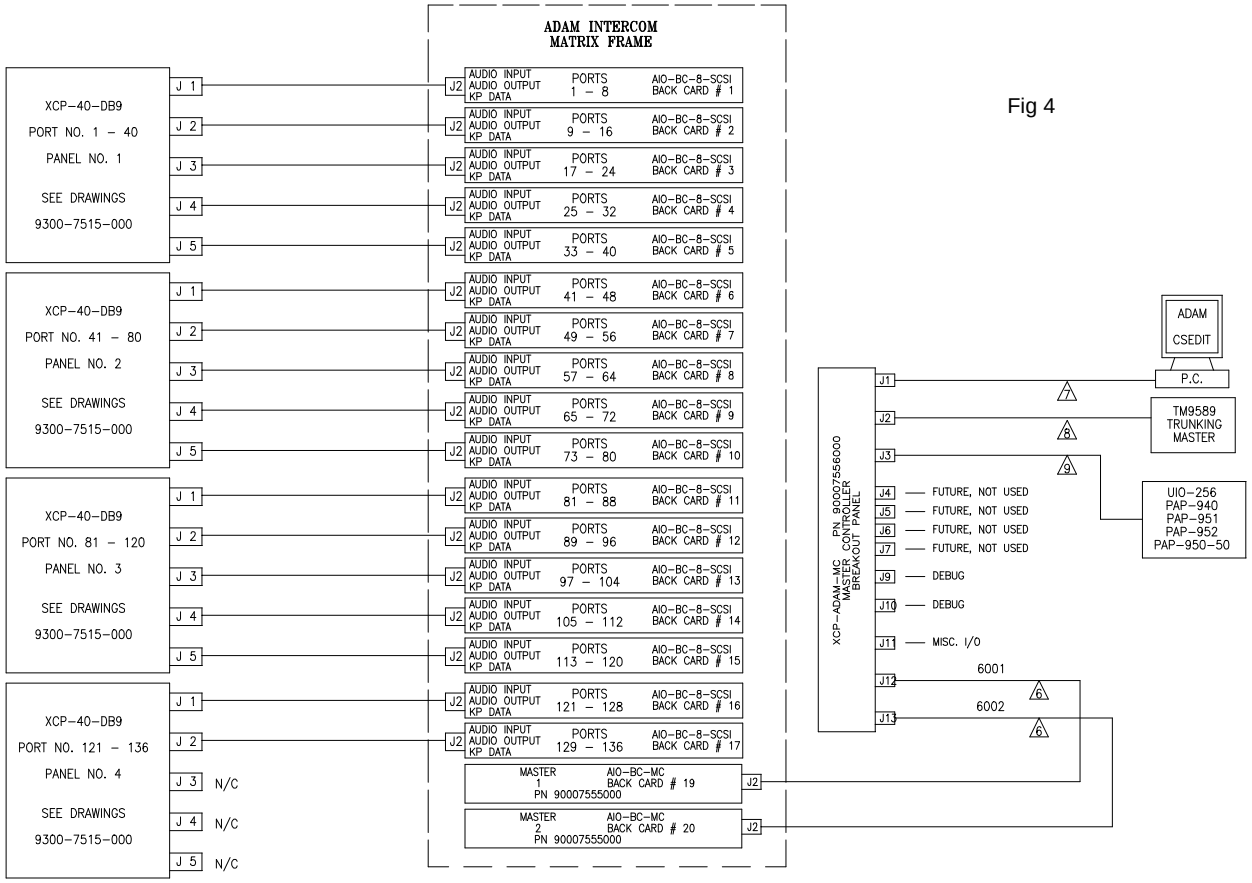


Fig 4