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7011 RETAIN TIPS
(as of 05/16/98 at 07:36:33 EDT)

RETAIN Technical Data

May 16, 1998

IBM Confidential

PREFACE Preface

This document was edited on 05/16/98 at 07:36:43 by using the BKRETAIN package.

Technical data records obtained from the IBM RETAIN database have been sorted and categorized by type. Modification to the format of the online records has been limited to relocating the abstract to the beginning of the record. The records may have been translated to lower case if the original record was in upper case.

Special thanks to Terry Judkins in Atlanta for developing the BKRETAIN package utilized in this offering.

We also want to thank Dave Schaefer for developing the code to automate this process and sharing the code with us.

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1.0 7011 RETAIN TIPS

Subtopics

1.1 Chapter 1. Engineering Change Announcements

Subtopics

1.1.1 ECA103 NEW EPROM FOR D/T7011 MOD220 TO SUPPORT GT1X GRAPHICS

Record number: H12843

Device:	D/T7011	Service code:	33
ECA number:	ECA103	Parts source:	AUST
EC number:	ECD18213	Publish flag:	R
Mandatory:	N	Hit count:	UHC00369
Automatic shipment:	N	Success count:	USC0000
Availability date:	93/07	Publication code:	PC50
Plant of control:	26	Date created:	O93/07/15
Tip key:		Date last altered:	A94/01/04
		Owning B.U.:	USA

PURPOSE:

Install EC D18213 on the 7011 models 220, 22G, 22S or 22W to allow the system to use the GT1X Graphics Adapter.

FEATURES:

Type, Model, Stage	With B/M	Machines Affected and/or Feature/Device Description	B/M to be Installed	Service Hours	System Hours
7011	B/M9999999	7011-MODELS 220, 22G, 22S OR 22W WITH PLANAR EC LEVEL D18174	B/M51G8257	01.0	01.0

PHYSICAL CHECK:

PREREQUISITES:

NONE

COMPANION:

NONE

CONCURRENT:

NONE

DETAIL:

Replace the VPD/IPL EPROM module, U16, on the main planar assembly with the EPROM included with this ECA. Follow the directions included with the ECA to change out the EPROM.

NOTES:

Please use Service Code 33, ECA103 to account for your time and travel expenses.

SAS KEYWORDS:

701X	7011	701XECA	7011ECA
701X ECA	7011 ECA	7011GRAPHICS	7011ADAPTER
701X GRAPHICS	701X ADAPTER	701XGRAPHICS	701XGRAPHICS
7011 GRAPHICS	7011 ADAPTER	7011EPROM	7011 EPROM

1.1.2 ECA119 CHANGE EPROM TO CORRECT VPD PROBLEM ON D/T7011 MOD220

Record number: H121529

Device:	D/T7011	Service code:	33
ECA number:	ECA119	Parts source:	AUST
EC number:	ECD18275	Publish flag:	R
Mandatory:	N	Hit count:	UHC00941
Automatic shipment:	N	Success count:	USC0000
Availability date:	93/07	Publication code:	PC50
Plant of control:	26	Date created:	O93/07/13
Tip key:		Date last altered:	A93/10/15
		Owning B.U.:	USA

PURPOSE:

Duplicate Ethernet Addresses and Processor IDs can be found on d/t7011 mod 220 with planar EC level D18174.

Symptoms: Two distinct symptoms are related to the same problem:

1) The Ethernet problems that will be experienced when two or more 7011 systems are attached to the same local Ethernet network varies depending on if the systems are setup as a stand alone or a diskless workstation. In the stand alone setup, the 7011's with the same Ethernet hardware address will not be able to communicate between themselves, but still communicate with other workstations. It will look very similar to a bad cable symptom. For diskless setups, the 7011's will not be able to communicate with themselves. Other workstations may or may not be able to communicate with them depending on the protocols being used. The "ping" command will suffice for the stand alone systems but it is recommended to use the "ftp" or "tn" commands for the diskless systems. The "ping" command gives erroneous results in the diskless setups.

2) Problems with applying for a software license for a LPP (licensed program product) that indicate that the license for the particular Processor ID has already been issued to another party. Many software vendors use the unique processor ID value as a way of keeping track of the number of workstations running their software packages. At the time an activation "KEY" is applied for, if there is any indication from the vendor that the particular processor ID has already had an activation key assigned to it, then one should follow the steps below to find out if they have one of the affected systems.

Note: You may come across a system that has neither of the above symptoms but you may still wish to change out the EPROM if the customer has the future likelihood of hooking several of their 7011 mod 220's up to the Ethernet or wish to ensure a unique processor ID for their systems. You may certainly do this, but first be sure to verify that they have one of the affected systems. If they do NOT have one of the affected systems, changing the EPROM may cause unpredictable behavior.

FEATURES:

Type, Model, Stage	With B/M	Machines Affected and/or Feature/Device Description	B/M to be Installed	Service Hours	System Hours
7011	B/M9999999	7011/220 WITH PLANAR EC LEVEL D18174	B/M9999999	01.0	01.0

PHYSICAL CHECK:

IDENTIFYING AFFECTED SYSTEMS:

This can be done one of two ways. If the customer is running AIX, have them sign on as root and type the following command to determine the planar level:

```
Lscfg -v -l sysplanar0 | pg
```

If you get the response:

```
Part Number.................51G7940
EC Level....................D18174
Processor Identification....00007328
```

Then you are affected by this ECA. Proceed to the "Detail" section at the end of this document. Any other response means you are not affected by this ECA, and you should NOT install this ECA.

If AIX is not accessible, or the system is powered down, you may use built-in diagnostics to determine if this system has the affected planar level installed. This procedure is

contained in the 7011 Setup and Operator Guide, but is reproduced here for completeness. Power down the system. Put the keyswitch to the <SECURE> position. Power up, and wait for LED 200 to appear. Put the key in <SERVICE> position, and immediately press the reset button on the front of the system unit. After about one minute, LED 260, 261, or 262 will be displayed and the main menu should appear on your monitor. If not, hit any key on the keyboard to display the menu. Type a "4" to Show Hardware Configuration. The following will be displayed. On the affected machines, the values of the fields identified with an arrow will be exactly as shown.

```
     Planar Part Number                51G7940
     EC (Engineering Change) level     D18174
     Processor Identification          007328         <---
     ROS version                       1.1 level .01
     Ethernet Hardware Address         008005A4D1CA3  <---
```

If the fields indicated by an arrow match the ones on your machine, then you are affected by this ECA.

PREREQUISITES:

To Install B/M	ECA Required	EC Required	Physical Check for Prerequisites
B/M9999999	ECA999	EC999999	SEE TEXT

COMPANION:

To Install B/M	ECA Required	Machine Type	Comments
B/MNONE	ECA999	XXXX	

CONCURRENT:

To Install B/M	ECA Required	Machine Type	Comments
B/MNONE	ECA999	9999	

DETAIL:

If you have an affected machine, ECA 119 has been issued which requires that the EPROM module, U16, be changed with one that has a unique Processor ID and Ethernet address. Follow the instructions included with the ECA to change out the EPROM.

If you do not have an affected machine, DO NOT install ECA 119. It may cause system problems since code on the EPROMs are matched to specific planar levels.
To order ECA 119, in case you are experiencing this problem, contact FIELD SUPPORT CENTER at 800-426-2472.

NOTES:

Please use Service Code 33, ECA 119 to account for your time and travel expenses.

SAS KEYWORDS:

7011	7011ECA	7011 ECA	701X
701XECA	7011CA	701XEC	7011EC
701XMISC	7011MISC	7011PLANAR	701XPLANAR
701XETHERNET	7011ETHERNET		

1.1.3 ECA138 REPLACE EPROM ON GXT150 GRAPHICS ADATPER

Record number: H122217

Device:	D/T7011	Service code:	33
ECA number:	ECA138	Parts source:	AUST
EC number:	ECD18200A	Publish flag:	R
Mandatory:	N	Hit count:	UHC00572
Automatic shipment:	N	Success count:	USC0000
Availability date:	93/12	Publication code:	PC30
Plant of control:	26	Date created:	O93/12/20
Tip key:		Date last altered:	A97/04/15
		Owning B.U.:	USA

PURPOSE:

Replace the VPD/CCM ROM module on D/T7011 model 250's with out disk or diskette, that hang on IPL.

FEATURES:

Type, Model, Stage	With B/M	Machines Affected and/or Feature/Device Description	B/M to be Installed	Service Hours	System Hours
7011	B/M9999999	MODEL 25 WITH GXT150 INSTALLED	B/M51G8091	01.0	01.0

PHYSICAL CHECK:

If the ASM P/N on the adapter is P/N8184069 or above installation of this ECA is not necessary.

PREREQUISITES:

To Install B/M	ECA Required	EC Required	Physical Check for Prerequisites
B/M9999999	ECA999	ECD18200A	9999999999999999999

COMPANION: NONE

CONCURRENT: NONE

DETAIL:

NOTES:

SAS KEYWORDS:

7011	701X	7011CA	701XCA
7011ECA	701XECA	7011ADAPT	701XADAPT
GXT150	GXT	7011250	

1.1.4 ECA 148 16 PORT CONCENTRATOR LINE PROTECTORS

Record number: H123714

Device:	D/T7013	Service code:	33
ECA number:	ECA148	Parts source:	AUST
EC number:	ECD18314	Publish flag:	R
Mandatory:	N	Hit count:	UHC01544
Automatic shipment:	N	Success count:	USC0002
Availability date:	94/05	Publication code:	PC30
Plant of control:	26	Date created:	O94/04/26
Tip key:		Date last altered:	A98/02/23
		Owning B.U.:	USA

PURPOSE:
Protect 16 port concentrators from lightning or ESD damage.
Kit includes: two lightning protection devices (each protects 8 ports) and short cables (16) and instructions.

FEATURES:

Type, Model, Stage	With B/M	Machines Affected and/or Feature/Device Description	B/M to be Installed	Service Hours	System Hours
701X	B/M9999999	ALL 701X WITH F/C 6401 W/O LIGHTNING PROTECTORS INSTALLED.	B/M8184324	01.0	00.0

PHYSICAL CHECK: NONE

PREREQUISITES: NONE

COMPANION: NONE

CONCURRENT: NONE

DETAIL:
These 16 port lightning/ESD protector kits should be ordered for 64 port customers with the following conditions:
Concentrators that have been BLOWN DURING THUNDERSTORMS.
(Replace currently bad concentrators and order this ECA for concentrators on the system)
Concentrator port hangs that CANNOT BE RESET.
(Replace currently bad concentrators if any, install LP kits on all concentrators on the system)
Concentrator port hangs that CAN BE RESET.
(Not necessary to replace concentrator, install LP kit which should prevent further occurances unless bad cable conditions exist)
Customers located in storm hazardous area with medium to long (100 - 200ft) cabling distances to terminal devices.
Customers located in highly industrial areas with long (150-200ft) cabling distances to terminal devices.
THESE KITS SHOULD NEVER BE USED IN PLACE OF OUTDOOR SURGE PROTECTORS WHEN GOING OUT OF DOORS OR BETWEEN BUILDINGS.

NOTES:
Please account for time and travel with S/C 33 and ECA 148.

SAS KEYWORDS:

701XECA	7011	701X	7012
7013	7015	RS/6000	16 PORT ECA
7013ECA	7011ECA	7012ECA	7013ECA
7015ECA	7011COMM	7012COMM	7013COMM
7015COMM	ECA148	ECA	148

1.2 Chapter 2. Service Aids and Additional Information

Subtopics

1.2.1 "QUAD" MEMORY REQUIREMENTS ON RISC MODELS

Record number: H121662

```
Device:               D/T701X
Model:                M
Tip key:              169
Date created:         O93/10/27
Date last altered:    A96/04/12
```

MACHINES/MODELS AFFECTED:

D/T7006 MODELS 41T & 41W; D/T7009 MODEL C10; D/T7011 MODELS 250, 25E, 25F, 25S, 25T & 25W; D/T7013 MODELS 58H & 590; D/T7015 MODELS 98H, 990, 99B, 99E & 99F.

The machine types/models listed above must have memory installed in "QUADS". When the term QUAD is used it means that memory cards in the 7013 & 7015 models listed above and SIMMS in the 7006, 7009 & 7011 models listed above are installed in groups of four and all four cards or SIMMS must be the same memory size.

The following conditions must be met when installing memory in these RISC models.
Above listed models of 7006, 7009 & 7011:

1. Memory SIMMs may be installed in either one or two quads.
2. The first SIMM quad must be installed in memory slots A-D.
3. The second SIMM quad must be installed in memory slots E-H.
4. If two quads of memory are installed the size of memory in the second quad does not have to match the size of memory in the first quad.

Above listed models of 7013 & 7015:

1. Memory cards may be installed in either one pair, one quad, or two quads.
2. If only one pair of memory cards is installed they must be in slots D & H and they must be the same size.
3. If one quad of memory cards is installed they must be in memory slots B, D, F, & H and they must be the same size.
4. If a second quad of memory cards is installed they must be in memory slots A, C, E, & G and they must be the same size.
5. If two quads of memory are installed the size of memory in the second quad does not have to match the size of memory in the first quad.

NOTE: Refer to TDR # H062205 for information concerning compatibility of memory SIMMs on 16MB memory cards.

SAS KEYWORDS:

701X	7011	7013	7015
RISC	RISC/6000	701XMEM	7011MEM
7013MEM	7015MEM	7006	7009
7006MEM	7009MEM	580	58H
590	RS6000	7013-580	7013-58H
591	7013-590	7013-59H	QUAD
MEMORY	PAIR		

1.2.2 AIX 3.2.1 OR ABOVE LOADED ON SCSI DISK PRIOR TO 9333 INSTALL

Record number: H097801

```
Device:               D/T701X
Model:                M
Tip key:              118
Date created:         O92/05/29
Date last altered:    A92/06/29
```

PRIOR TO INSTALLATION OF A 9333 MODEL 010 OR MODEL 500, AIX 3.2.1 OR ABOVE MUST BE INSTALLED ON A SCSI ATTACHED DISK DRIVE. THE CURRENT RELEASE OF AIX DOES NOT PROVIDE THE ABILITY TO LOAD SOFTWARE TO A SERIAL ATTACHED 9333.

```
A FUTURE SOFTWARE RELEASE WILL ALLOW THE STANDALONE INSTALLATION
OF 9333'S.
```

SAS KEYWORDS:

RS6000	RS/6000	RISC	RISC6000
D/T7011	D/T7012	D/T7013	D/T7015
D/T7016	D/T7018	D/T9333	9333
7011	7012	7013	7015
7016	7018	7011	

1.2.3 AIX 3.2.5 DIAGNOSTIC PROBLEM ON D/T7011 MOD220 WITH GT1

Record number: H122000

```
Device:              D/T7011
Model:               M220
Tip key:             011
Date created:        O93/12/07
Date last altered:   A93/12/07
```

THERE IS A PROBLEM WITH DIAGNOSTIC LEVEL 2.4 (AIX 3.2.5) ON D/T 7011 MOD 220 AND D/T 7008 MOD M20 WITH A GT1 OR GT1b ADAPTER INSTALLED. THIS PROBLEM OCCURS ONLY WHEN RUNNING DIAGNOSTICS FROM HARDFILE. THE DIAGNOSTIC TEST WILL FAIL WITH LED FLASHING 888 - 102 - 300-0C4-CCC-103-804-880-C01-100-200-300-420. THIS LED WILL OCCUR EVEN IF THE ADAPTER IS FUNCTIONAL. DIAGNOSTICS RUN FROM DISKETTE ARE NOT AFFECTED WITH THIS LED.

NOTE: 7011 MODELS 230 OR 250 ARE NOT AFFECTED BY THIS PROBLEM.

DIAGNOSTICS ON A 7011 SHOULD ONLY BE RUN ON SYSTEMS IN STAND-ALONE MODE (FROM DISKETTE). CONCURRENT DIAGNOSTICS WILL CAUSE THE SYSTEM TO HANG. IF DIAGNOSTICS ARE BEING RUN OVER A NETWORK, THE HANG WILL AFFECT ANY USERS ON THE SYSTEM.

THE FIX FOR THIS PROBLEM IS CURRENTLY UNDER INVESTIGATION. THE FIX WILL PROBABLY RESULT IN A NEW PTF. THIS TIP WILL BE UPDATED WITH THE PTF NUMBER WHEN IT BECOMES AVAILABLE.

SAS KEYWORDS:

7011	7008	701X	701X DIAGS
7011DIAGS	7008DIAGS	701XDIAGS	7011 DIAGS
7008 DIAGS	701X LED	701XLED	

1.2.4 CAMBEX DISK AND TAPE DRIVE DIAGNOSTICS AVAILABILITY

Record number: H121562

```
Device:               D/T1535
Model:                M
Tip key:              002
Date created:         O93/05/03
Date last altered:    A93/08/31
```

Cambex Corporation ships diagnostics to distributors who re-sell their tape and disk drives. If these diagnostics are not present at the customer's machine, they may be acquired by calling Cambex Corporation Technical Support at 1-800-325-5594 between the hours of 8: 30AM and 5: 30PM EST.

These diagnostics come as installp images on diskette.

SAS KEYWORDS:

D/T1535	D/T7011	D/T7012	D/T7013
D/T7015	1535	7011	7012
7013	7015	POEM	701X

1.2.5 CURSOR KEYS DON'T WORK ON TTY AFTER INSTALLING AIX 3.2.3

Record number: H015309

```
Device:               D/T701X
Model:                M
Tip key:              136
Date created:         O92/10/28
Date last altered:    A93/02/04
```

MACHINES AFFECTED: D/T7011, D/T7012, D/T7013, D/T7015

A PROBLEM HAS BEEN IDENTIFIED THAT CAUSES THE CURSOR MOVEMENT KEYS TO BE NON-FUNCTIONAL ON ATTACHED ASCII TERMINALS (TTY) AFTER INSTALLING AIX VERSION 3.2.3.

AS A TEMPORARY WORKAROUND <CNTL>N MAY BE USED TO MOVE THE CURSOR DOWN AND <CNTL>P TO MOVE THE CURSOR UP WHEN SELECTING ITEMS IN A LIST.

THIS PROBLEM WILL ALSO CAUSE GARBAGE TO BE DISPLAYED ON THE TTY IDENTIFIED AS THE SYSTEM CONSOLE DURING IPL. ANY MESSAGES DISPLAYED PRIOR TO THE LOGIN PROMPT WILL BE UNREADABLE.

PTF U412816 IS AVAILABLE FROM AIX SW DEFECT SUPPORT TO FIX THIS PROBLEM.

SAS KEYWORDS:

701X	7011	7012	7013
7015	701XDISP	7011DISP	7012DISP
7013DISP	7015DISP	701XMISC	7011MISC
7012MISC	7013MISC	7015MISC	RS/6000
RS6000	3151	AIX	

1.2.6 D/T7011 MOD 250 LED/888 OR SRN803/942 IN SERVICE MODE

Record number: H125369

```
Device:               D/T7011
Model:                M
Tip key:              016
Date created:         O94/10/21
Date last altered:    A97/04/15
```

A problem has been identified with D/T7011 model 250 with the GTX150 adapter installed and IPLed in service mode. Error code LED888/103 803/942 or SRN803/942 may be displayed on the 7011 if the GTX150 adapter switch are set to 1.ON 2.ON 3.OFF 4.ON for a refresh rate of 77 Hz. The work around for this failure is to change the switch setting to switch 1.OFF 2.ON 3.ON 4.OFF for a refresh rate of 74 Hz on the GTX 150 adapter. The failure is only seen IPLing the system in service mode from the hard drive. For further information please contact RISC/6000 Support in Chicago.

SAS KEYWORDS:

7011	7011LED	7011SRN	7011IPL
7011GRAPHICS	7011250	7011ADAPT	7011
GTX150	803/942	LED803/942	803
942			

1.2.7 D/T7011 MODEL 250 INVALID SRN OR DISKETTE ERR2

Record number: H122137

```
   Device:               D/T7011
   Model:                M
   Tip key:              012
   Date created:         O93/12/22
   Date last altered:    A97/04/15

   A problem has been identified on some 7011 model 250 systems
when writing to or reading from a 1.44mb diskette.
This error can be identified in one of two ways:
-- If the error occured when running diagnostics, look for
   SRN935/109.
-- If the error occurred when executing an AIX command, look for
   a DISKETTE_ERR2 error in the error log that has 0A34 8A08 as
   the first byte of the sense data.  When the error occurs
   an error message (which will depend on the command being
   executed) will also be posted to the display.  For example,
   the "DD" command will indicate device not ready or write
   error.

   If you encounter this problem, DO NOT REPLACE ANY PARTS.
Order and install PTF # U426338.
SAS KEYWORDS:
   7011              701X              7011DIAG          701XDIAG
   7011SRN           701XSRN           7011DISKETTE      701XDISKETTE
   7011ERR           701XERR           7011 250          SRN935/109
   SRN 935/109       935/109           935               109
   DSKT
```

1.2.8 D/T7011 MOD250 PLANAR SPEEDS
Record number: H062012

```
Device:               D/T7011
Model:                M
Tip key:              015
Date created:         O94/08/29
Date last altered:    A94/08/29
```

The 7011 model 250 now comes in a 80Mhz version. The orginal mod250 was 66MHz. It's model numbers include 250, 25T, 25W, 25S, and 25E(field upgrade). Beginning in August, 1994, the 7011 model250, 25T, 25W, or 25S can be ordered with feature code 8000 which is an 80MHz planar. Any 7011 can be graded to a 7011 model 25F(80MHz). The 80MHz machines come with a sticker on the inside of the operator panel door that reads "80MHz". The rear label of the 80MHz machine also states it is an 80MHz machine.

Both planars look identical. You must verify the FRU number you are installing is the same as the one you have pulled from the machine, and verify the information on the rear label of the machine before replacing all planars on the 7011 model 25X. The FRU numbers are found by looking on the underneath side of the planar once it is removed from the machine.

FRU numbers for both planars are:

51G8101 - System planar (66Mhz)
8184306 - System planar (80MHz)

In addition, the 80Mhz model 250 requires a faster GXT100 or GXT150 local bus attached graphics card. The FRU numbers for the GXT100 (pn51G8070) and GXT150 (pn51G8092) have been subbed to the faster card. Either FRU will function in a 66MHz 25X, however, only the new cards will function in the 80MHz machines. All model upgrades will include the faster graphics card. All new build 7011 mod 250's are being shipped with the faster graphics card installed.

FRU numbers for the GXT100 and GXT150 graphics card are:

GXT100 - pn52G3206(new) subs from pn51G8070
GXT150 - pn52G3207(new) subs from pn51G8092

SAS KEYWORDS:

7011	701X	7011MOD250	701XMOD250
7011 80MHZ	7011PLANAR	701XPLANAR	7011 PLANAR
701X PLANAR	7011GXT100	7011GXT150	GXT100
GXT150			

1.2.9 ECA 148 (LINE SURGE PROTECTOR) JUMPER PLUG STICKING

Record number: H125200

```
   Device:              D/T701X
   Model:               M
   Tip key:             193
   Date created:        O94/09/12
   Date last altered:   A94/09/14
```

PROBLEM: SOME LINE PROTECTORS HAVE TIGHT SOCKETS THAT MAKE REMOVING THE JUMPER PLUGS VERY DIFFICULT.

FIX: LOCATE THE TIGHT JUMPERS, GRIP THE CONNECTOR HOUSING AND SQUEEZE THE LOCK TAB (ON THE BOTTOM), PUSH THE CONNECTOR DEEPER INTO THE SOCKET. THEN WHILE COCKING THE WHOLE CONNECTOR SLIGHTLY UP,FORCEFULLY PULL UP AND OUT.

THE CONNECTOR MAY NEED TO BE ROCKED UP AND DOWN A BIT TO LOOSEN, HOWEVER SUCCESSIVE REMOVALS SHOULD LESSEN THE TIGHTNESS.

SAS KEYWORDS:

D/T701X	D/T7011	D/T7012	D/T7013
D/T7015	D/T7016	D/T7018	7011
7012	7013	7015	7016
7018	64PORT	ECA148	

1.2.10 ECA121 POSSIBLE DATA CORRUPTION WITH 8MM 5GB TAPE DRIVE

Record number: H133018

```
Device:               D/T7208
Model:                M
Tip key:              011
Date created:         O96/03/11
Date last altered:    A96/03/11
```

THIS EC RELEASES A NEW LEVEL OF MICROCODE TO CORRECT A POSSIBLE DATA CORRUPTION PROBLEM WHEN AN IBM 8MM 5GB TAPE DRIVE IS USED TO LOAD AIX BASE OPERATING SYSTEM SOFTWARE CODE.

If the SCSI microchannel adapter card is p/n 71f0913 or p/n 00G2362 or p/n 00G1887, then this ECA121 should be applied.

NOTE: THIS ECA WAS ORIGINALLY RELEASED AS ECA104 BUT THEN RE-RELEASED AS ECA121 BUT WAS INADVERNTENTLY REMOVED FROM RETAIN

Notification about the possible exposure problem was released via HONE Flash and in NATBOARD in 05/93. A copy of the notice was also mailed to all customers of record whom had purchased a tape drive a that time.
Since this time, newer hardware and uplevel software had resolved most field exposures but, there may be customers who are still using "older" hardware level and this eca121 may be needed.

ECA121 can be ordered via the Chicago Advanced Workstation Support Center through TEMPEC.
Please see eca105-eca108 for similar information.

Use Service Code=33, Service Hours=01.3, System Hours=01.3 to record time and expenses associated with installation of this eca.

SAS KEYWORDS:

701X	7208	5GB	TAPE DRIVE
RS/6000	RS6000	RISC SYSTEM	AIX
ECA121	ECA 121	7006	7009
7011	7012	7013	7015
7020	7248	7024	SCSI
MICROCHANNEL	ADAPTER	DATA INTEGRITY	CORRUPTION
MICROCODE	UCODE	D/T7011	D/T7012
D/T7013	D/T7015	D/T7208	8MM
MKSYSB			

1.2.11 INTERNAL HARDFILE CABLE ON D/T7011

Record number: H034521

```
Device:               D/T7011
Model:                M
Tip key:              014
Date created:         O94/08/29
Date last altered:    A97/04/15
```

The internal hardfile cable on 7011 machines can be damaged easily and should be removed from the machine carefully. The cable does not have a cable pull on it because it is very short (3 inches) and the 7011 has very limited internal space. If the cable is pulled too hard, the connector end can separate from the ribbon cable.

In addition, if the cable must be replaced, the new cable does not come with a new ferrite. The ferrite must be taken off the old cable and re-used on the new cable. This ferrite is used to prevent soft errors on 7011 machines with 1GB hardfiles installed. The ferrite is available as a FRU p/n8184385.

There are 2 different cables: single drive cable = p/n31f4284
dual drive cable = p/n51g7648

SAS KEYWORDS:

7011	701X	7011SCSI	701XSCSI
7011CABLE	701XCABLE	SCSI	FERRITE
NOISE	SUPPRESSION		

1.2.12 LED185 OR LED186 ON D/T7006 AND D/T7009

Record number: H125562

```
Device:              D/T7009
Model:               M
Tip key:             003
Date created:        O94/11/07
Date last altered:   A95/02/15
```

LED 186 is the same as it is for a 7011-250. This is documented in the 7009 Operator Guide. What causes the led 186 can vary between boxes. On the 7011-250, problems with the GXT100 or GXT150 riser can cause led 186(see note). For the 7006 if the system has a GXT150T card, check the seating on it as well. On all models, remove ANY microchannel cards (take to minimum configuration) to see if led 186 goes away. If not, on 7011 or 7006, the system planar must be replaced. On 7009,, most likely the CPU card (which contains the chip that controls this function). Don't forget also, that on the 7009, there is a microchannel riser card/connector that can also cause problems if it not seated correctly. This is true for the 7006 & 7011 riser cards as well.. Make sure all adapter cards are well seated also (if the problem only occurs when the cards are installed but goes away in minimum configuration).

```
*NOTE* DO NOT REMOVE THE RUBBER BUMPERS ON THE GRAPHICS CARD
BECAUSE THEY APPLY PRESSURE TO THE RISER TO ENSURE A GOOD
CONTACT WITH THE SYSTEM PLANAR.
```

SAS KEYWORDS:

7006	7009	LED 186	LED186
GXT150	GXT150T	GXT 150	GXT 150T
RISER	RISER CARD	7011	7011-250
7011 250	D/T7009	D/T7006	D/T7011
RISC SYSTEM	RISC/6000	RISC 6000	RISC
701X	700X	101/186	SRN101/186
LED185	LED 185		

1.2.13 LED185 OR LED186 ON D/T7006 AND D/T7009

Record number: H016051

```
Device:              D/T7009
Model:               M
Tip key:             009
Date created:        O97/03/12
Date last altered:   A97/03/12
```

LED 186 is the same as it is for a 7011-250. This is documented in the 7009 Operator Guide. What causes the led 186 can vary between boxes. On the 7011-250, problems with the GXT100 or GXT150 riser can cause led 186(see note). For the 7006 if the system has a GXT150T card, check the seating on it as well. On all models, remove ANY microchannel cards (take to minimum configuration) to see if led 186 goes away. If not, on 7011 or 7006, the system planar must be replaced.

On 7009s, the first thing to look for is the seating of the riser card and the interposer between the riser and the system planar. Reseat bot of these and try replacing first the interposer then the riser prior to replacing the CPU asm. Make sure to inspect and reseat the memmory simms also. This seating of the riser/interposer cards also hold true for the 7011 and 7006 models.

Make sure all adapter cards are well seated also (if the problem only occurs when the cards are installed but goes away in minimum configuration).

NOTE DO NOT REMOVE THE RUBBER BUMPERS ON THE GRAPHICS CARD BECAUSE THEY APPLY PRESSURE TO THE RISER TO ENSURE A GOOD CONTACT WITH THE SYSTEM PLANAR.

SAS KEYWORDS:

7006	7009	LED 186	LED186
GXT150	GXT150T	GXT 150	GXT 150T
RISER	RISER CARD	7011	7011-250
7011 250	D/T7009	D/T7006	D/T7011
RISC SYSTEM	RISC/6000	RISC 6000	RISC
701X	700X	101/186	SRN101/186
LED185	LED 185		

1.2.14 LED8|-8 OR LED8T8
Record number: H122733

```
Device:              D/T701X
Model:               M
Tip key:             181
Date created:        O94/02/15
Date last altered:   A94/02/15
```

LED8T8 OR 8|-8 is an led indication that appears in the op panel display as an 8, the letter 'T' on its side, 8 or led8t8. This should be treated the same as an led185. To troubleshoot, use MAP1540 or miniumum configuration. This error usually is the result of a defective cpu, system planar or memory. As noted, minimum configuration should be used to isolate the problem.

SAS KEYWORDS:

7011	7012	7013	7015
7018	RS6000	RISC6000	701X
D/T7011	D/T7012	D/T7013	D/T7015
LED8T8	8T8	LED 8T8	CPU
RISC	MEMORY	SYSTEMPLANAR	SYSTEM PLANAR

1.2.15 LED888/102 700/XCX RUNNING 2.4.3 DIAGS

Record number: H124763

```
Device:               D/T701X
Model:                M
Tip key:              188
Date created:         O94/07/29
Date last altered:    A94/07/29
```

When running stand-alone diagnostics 2.4.3 and using a 3151 as a console be sure to hit the RETURN key and not the SEND key when identifying your terminal. If SEND is hit the machine may crash with an 888/102 700/xCx. This may cause someone to replace unneeded parts.

SAS KEYWORDS:

LED888/102 700	888/102 700/XCX	888-102-700-XCX	LED888-102-700
D/T7006_ 7006	D/T7009 7009	D/T7011 7011	D/T7012 7012
D/T7013 7013	D/T7015 7015	D/T7018 7018	D/T7030 7030
DIAGS	DIAGNOSTICS	DISKETTES	CDROM
DIAGS2.4.3	2.4.3	RS6000	RISC6000
FLASHING LED888	FLASHING 888	3151	CONSOLE
IBM3151	888/102 700/0C4	888/102 700/0C0	888-102-700-0C0
888 - 102 - 700-0C4	888/102 700/0CX		

1.2.16 LOCATION OF 'COMPRESSION CONNECTORS'

Record number: H095891

```
Device:              D/T9404
Model:               M
Tip key:             064
Date created:        O92/01/16
Date last altered:   A92/01/17
```

Parts that are affected: P/N73F8994 and P/N93X0901. Rochester has seen several 'New Defective' frame electronic FRU packs returned because of missing 'Compression Connectors'. Upon examining the returned FRU packs, the three 'Compression Connectors' were still present. The connectors were found in the three foam slots that are designed to hold and protect the 'Compression Connectors' while in the FRU pack. These slots are located just above the area that holds the extra screws, extra clips and clip removal tool. Once you locate the slots, make sure that the connectors have not been pushed down into the slots where they would be out of sight. Inspect these slots carefully. The 'Disk Enclosure and Logic Card Removal Instructions' were updated in October of 1991 to assist in identifying the location of the 'Compression Connectors' within the FRU packs. Other machine types that would use these are: D/T9406 D/T9402 D/T8595 D/T8580 D/T7011 SAS KEYWORDS: 9404DISK 9404LOGIC 9404MISC

1.2.17 MACHINE TYPE 1333 (4MM TAPE DRIVE)

Record number: H096323

Device:	D/T701X
Model:	M
Tip key:	191
Date created:	O94/09/07
Date last altered:	A94/09/07

Use the following procedure to remove a stuck cartridge in a 4mm tape drive m/t1333.

1) Turn the power switch to the OFF position
2) With the eraser end of a pencil or pen, apply pressure to the end of the cassette closest to the door. Lift gently to raise the end of the tape.
3) While maintaining pressure on the "edge" of the cassette turn the power switch to the ON position.
4) While continuing to apply pressure to the edge of the cassette press the EJECT button to dislogge the cassette.
5) After removing the cassette, turn the power switch to the OFF position.
6) Turn the power switch to the ON position to "recycle" the tape drive.

IF THIS TAPE DRIVE P/N93F5556 IS REPLACED IT "MUST" BE WRITTEN OFF TO M/T1333.

SAS KEYWORDS:

M/T1333	M/T 1333	D/T1333	D/T 1333
7006	7008	7011	7012
7013	7015	D/T7006	D/T7008
D/T7011	D/T7012	D/T7013	D/T7015
RS6000	DICKENS	RISC	RISC
TAPE	4MM		

1.2.18 POWER GT1 DISPLAY JUMPER SETTING

Record number: H103947

```
Device:               D/T7011
Model:                M
Tip key:              007
Date created:         O92/08/27
Date last altered:    A92/10/12
```

Early level GT1 adapters had only 2 jumpers (0,1)for setting the display type instead of the 3 jumpers (0,1,2) that are used on later level adapters. The values of these jumpers can either be set to "0" (off) or "1" (on).

For the purposes of selecting display types on the early level card, the value of the missing jumper (2) defaults to "1" (on) and cannot be changed.

SAS KEYWORDS:

701X	701XMISC	701XGRAPH	RISC
7011	7011MISC	7011GRAPH	RS/6000
701XADAPT	7011ADAPT	701XADAPTDISP	7011ADAPTDISP

1.2.19 PROBLEMS WITH AIX 3.2 MEMORY SCRUBBING FEATURE

Record number: H101858

```
Device:              D/T701X
Model:               M
Tip key:             132
Date created:        O92/10/08
Date last altered:   A92/10/12
```

MACHINES AFFECTED: D/T7011, D/T7012, D/T7013, D/T7015, D/T7016

THE FOLLOWING PROBLEMS ARE ASSOCIATED WITH THE MEMORY SCRUBBING FEATURE PROVIDED IN AIX VERSION 3.2 AND ABOVE.

1. INTERMITTENT LED888 SYSTEM HALTS.

2. SYSTEM HANGS APPROXIMATELY 3-4 HOURS AFTER IPL. NO ERRORS ARE LOGGED IN THE ERROR LOG AND THE LED DISPLAY REMAINS BLANK. IF A SYSTEM DUMP IS ATTEMPTED BY TURNING THE KEY TO THE SERVICE POSITION AND PRESSING THE RESET BUTTON, LED100 WILL APPEAR IN THE LED DISPLAY. THIS SYMPTOM HAS BEEN REPORTED ON SYSTEMS WITH MORE THAN 128MB OF MEMORY INSTALLED.

3. ERROR LOG ENTRIES AND CONSOLE ERROR MESSAGES REPORTING DEFECTIVE MEMORY. IN SOME CASES THE AMOUNT OF DEFECTIVE MEMORY CONTINUES TO INCREASE EACH TIME DIAGNOSTICS ARE RUN. REPLACEMENT OF HARDWARE DOES NOT CORRECT THE PROBLEM.

THESE THREE PROBLEMS ARE CURRENTLY BEING INVESTIGATED. IF THESE OR OTHER UNUSUAL SYMPTOMS ARE BEING REPORTED AND AIX VERSION 3.2 OR ABOVE IS INSTALLED, MEMORY SCRUBBING SHOULD BE TURNED-OFF.

DO THE FOLLOWING TO CHECK/TURN-OFF MEMORY SCRUBBING.

1. Login as root
2. ENTER smit AT AIX COMMAND PROMPT
3. SELECT System Environments
4. SELECT Change / Show Characteristics of Operating System
5. CHANGE Enable memory SCRUBBING to FALSE
6. Press ENTER

After turning-off memory scrubbing the system should be shutdown and rebooted to clear the defective memory map created during memory scrubbing.

SAS KEYWORDS:

701X	7011	7012	7013
7015	701XLED	7011LED	7012LED
7013LED	7015LED	701XHANG	7011HANG
7012HANG	7013HANG	7015HANG	7016
7016LED	7016HANG		

1.2.20 RELOCATION KIT PART NUMBERS FOR 6611 ROUTERS

Record number: H12265

```
  Device:               D/T6611
  Model:                M
  Tip key:              023
  Date created:         O95/02/03
  Date last altered:    A95/02/03

BELOW ARE THE PART NUMBERS FOR THE 6611 RELOCATION KITS
(PACKAGE).  THESE ARE THE KITS THAT ARE USED BY THE
RISC/6000.

6611 MODEL    RISC     PART NUMBER
-----------------------------------
 M120/M125 - D/T7011 -  P/N00G1976
  M140     - D/T7012 -  P/N58F2891
  M170     - D/T7013 -  P/N58F2890

SAS KEYWORDS:
   6611              6611PACKAGING      6611SHIPPING       6611RELOCATING
   6611MISC          6611PART.          6611 PART.         6611KIT
   KIT               PACKAGING          PACKING            6611PACKING
```

1.2.21 SCSI-2 F/W CONTROLLERS (ALL VARIETIES) MAY CAUSE PROBLEMS

Record number: H133050

```
  Device:               D/T701X
  Model:                M
  Tip key:              258
  Date created:         O96/03/13
  Date last altered:    A96/03/18
```

** MACHINES AFFECTED **:
All M/T that use Corvette (SCSI-2 F/W), including integrated versions.

** PROBLEM **:
The Corvette SCSI-2 F/W Controller contains a chip called Malibu which is used to interface with the MicroChannel.

A problem was found with a certain datecode of Malibu that can cause system problems. The datecode is printed on the chip itself (NOT on the card/assy barcode). The Malibu chip contains three lines of markings. The first line should have the chip p/n (61G2323). Skip the second line. The datecode is printed on the third line and the following datecodes are suspect:

```
1Q010013N
1Q010023N
1Q03K023N
1Q04T003N
1Q06K013N
```

The location of the Malibu chip on the card/assy varies depending on which version of the controller you have. Here is a list of the U-location on the card/assy of the Malibu chip for each controller type. The U number is silkscreened on the card assembly.

SCSI-2 F/W Controller Type	FRU p/n	U-location
* Integrated	52G4325	U60
MicroChannel SE	11H3600	U5
MicroChannel DE	11H7660	U13
Enhanced Microchannel DE	52G3380	U16

Note (*): The Integrated SCSI-2 F/W controller is the one on the I/O planar of the 7012-380/390/39H and 7012-3AT/3BT/3CT systems.

Although you may have one of the suspect datecodes, be aware that this may not be your problem. The entire datecode is not bad, but because of this, the whole lot is suspect. If you have any of the symptoms below, keep in mind the SCSI-2 F/W adapter may be the problem to assist in Problem Determination.

** SYMPTOMS **:
There are three types of symptoms you may see....

1) Checkstops
   For the 7012/7013/7015 boxes, analysis of the checkstop file will show an SCU (SIO BUS 0 PARITY, or SIO BUS 1 PARITY) checkstop occurred.

   On the 7006/7009/7011 boxes, a checkstop cannot be decoded further.

   On the SMP boxes, you will get a "Data Bus Parity Error" checkstop.

2) System Hang/Unresponsive
   The system may hang (with no other symptoms) or it may be unresponsive to any inputs typed in. In the latter case, you may enter a simple command like 'ls', but will receive no response. You can usually Ctl-C to break out to another prompt, but any other command will not produce any responses.

3) DMA_ERR in the Error Log
   You may periodically see DMA_ERR in the error log. The "CHANNEL UNIT ADDRESS" will point to the arbitration level of the SCSI-2 F/W Controller.

** WORKAROUND **:
None

** PERMANENT FIX **:

SCSI-2 F/W CONTROLLERS (ALL VARIETIES) MAY CAUSE PROBLEMS

Replace the card/assy if you suspect this is your problem.
Insert a note with the suspect card/assy when returning it to
Austin with the words "Bad Malibu datecode lot".
SAS KEYWORDS:

7006	7008	7009	7011
7012	7013	7015	FAST/WIDE
F/W	CORVETTE	MALIBU	CHECKSTOP
HANG	DMA_ERR	SCSI-2	SCSI2
I/O	INTEGRATED	U60	U5
U13	U16	D/T7006	D/T7008
D/T7009	D/T7011	D/T7012	D/T7013
D/T7015			

1.2.22 SCSI-2 FAST/WIDE BOOT SUPPORT

Record number: H125159

```
Device:              D/T701X
Model:               M
Tip key:             192
Date created:        O94/09/08
Date last altered:   A96/09/06
```

SCSI-2 Fast/Wide adapters available for the RISC/6000 are recognized as boot devices on all POWER2 and PowerPC systems. They are not recognized as boot devices on POWER- based models. Any devices attached to a POWER-based model via a SCSI-2 Fast/Wide adapter may be used for storage but cannot be used as a boot device.

These adapters cannot be used in any POWERPC based system that does not have a Micro Channel I/O bus. This means that the Multi-bus systems such as D/T 7024, 7025, 7248 (which have PCI and ISA I/O busses) cannot use these adapters.

SCSI-2 F/W ADAPTER (4-6, 4-7, 4-C) BOOT SUPPORT

MACH TYPE	MODEL	PROCESSOR	SCSI-2 F/W BOOT SUPPORT
7006	41T,41W	POWER PC 601	YES
	42T,42W	POWER PC 604	YES
7007	N40	POWER PC 601	NO (N/A)
7008	M20	POWER RSC	NO
	M2A	POWER RSC	NO
7009	C10	POWER PC 601	YES
	C20	POWER PC 604	YES
7010	120	XSTATION	NO (N/A)
	130	XSTATION	NO (N/A)
	140	XSTATION	NO (N/A)
	150	XSTATION	NO (N/A)
	160	XSTATION	NO (N/A)
7011	220	POWER RSC	NO
	22G	POWER RSC	NO
	22S	POWER RSC	NO
	22W	POWER RSC	NO
	22Z	POWER RSC	NO
	230	POWER RSC	NO
	23S	POWER RSC	NO
	23T	POWER RSC	NO
	23W	POWER RSC	NO
	250,S,T,W	POWER PC 601	YES
	25R RPQ	POWER PC 601	YES
7012	320	POWER	NO
	32H	POWER	NO
	340	POWER	NO
	34H	POWER	NO
	34L RPQ	POWER	NO
	34R RPQ	POWER	NO
	350	POWER	NO
	355	POWER	NO
	35R RPQ	POWER	NO
	360	POWER	NO
	365	POWER	NO
	36T	POWER	NO
	370	POWER	NO
	375	POWER	NO
	37T	POWER	NO
	380	POWER2	YES
	390	POWER2	YES
	39H	POWER2	YES
	G30	POWER PC 601/SMP	YES
	G40	POWER PC 604/SMP	YES

MACH TYPE	MODEL	PROCESSOR	SCSI-2 F/W BOOT SUPPORT
7013	520	POWER	NO
	52H	POWER	NO
	530	POWER	NO
	53H	POWER	NO
	540	POWER	NO

	550	POWER	NO
	55L	POWER	NO
	560	POWER	NO
	570	POWER	NO
	580	POWER	NO
	58H	POWER2	YES
	590	POWER2	YES
	591	POWER2	YES
	59H	POWER2	YES
	J30	POWER PC 601/SMP	YES
	J40	POWER PC 604/SMP	YES
7015	930	POWER	NO
	950	POWER	NO
	970	POWER	NO
	97B	POWER	NO
	980	POWER	NO
	98B	POWER	NO
	990	POWER2	YES
	R10	POWER	NO
	R20	POWER2	YES
	R21	POWER2	YES
	R24	POWER2	YES
	R30	POWER PC 601/SMP	YES
	R40	POWER PC 604/SMP	YES
7030	3AT	POWER2	YES
	3BT	POWER2	YES
	3CT	POWER2	YES
7016	730	POWER	NO
7018	740	POWER	NO
	741	POWER	NO
	770	POWER	NO
	771	POWER	NO
7020	40P	POWER PC	NO (N/A)
7024	E20	POWER PC 604	NO (N/A)
	E30	POWER PC 604	NO (N/A)
7025	F30	POWER PC 604	NO (N/A)
7247	82X	POWER PC 603E	NO (N/A)
7248	43P	POWER PC	NO (N/A)
7249	851	POWER PC 603E	NO (N/A)

SAS KEYWORDS:

7006	7009	7011	7012
7013	7015	D/T7006	D/T7009
D/T7011	D/T7013	D/T7015	RS6000
RISC	RISC/6000	RS/6000	RISC6000
SCSI2	FAST/WIDE	SCSI/2	SCSI-2
E30	G40	J40	R40
7247	7249	82X	851
POWERPC 601	POWERPC 604	POWERPC	7248
7025	7024		

1.2.23 SCSI-2 FAST/WIDE BOOT SUPPORT

Record number: H136181

```
Device:              D/T701X
Model:               M
Tip key:             307
Date created:        O97/01/17
Date last altered:   A97/07/02
```

SCSI-2 Fast/Wide adapters type 4-6, 4-7 and 4-C are available for the RS/6000 MicroChannel systems only and are recognized as boot adapters on all POWER2 and PowerPC systems. They are not recognized as boot devices on POWER-based models. Any devices attached to a POWER-based model via a SCSI-2 Fast/ Wide adapter may be used for storage but cannot be used as a boot device.

These adapters cannot be used in any POWERPC based system that does not have a Micro Channel I/O bus. This means that the Multi-bus systems such as D/T 7024, 7025, 7248 (which have PCI and ISA I/O busses) cannot use these adapters.

There are no ULTRA SCSI adapters for MicroChannel systems.

NEW LEVELS to be released 3Q97. Changes are microcode rev levels 75 & C7, also CE MARK labels to meet EMEA requirements. see *

Feature Code/FRU/Assembly Information for MicroChannel Adapters

Label	Feat Code	SCSI Interface	FRU	Assembly
4 - 6	2416	Differential	p/n11h7660	p/n06H7274
*4 - 6	2416	Differential	p/n93H8817	p/n93H8815
4 - 7	2415	Single Ended	p/n11H3600	p/n71G2589
*4 - 7	2415	Single Ended	p/n93H8814	p/n93H8813
4 - C	2412	Differential	p/n52G3380	p/n40H2842
*4 - C	2412	Differential	p/n93H7896	p/n73H7893

****
* ADAPTERS FOR MULTI-BUS SYSTEMS 4A 4B 4K 4L *
****

SCSI-2 Fast/Wide adapters type 4-A, 4-B, 4_A, 4_B,4-K and 4-L are available for some RS/6000 Multi-bus systems as boot adapters. 4 - K and 4-L are ULTRA SCSI adapters and can only be used as boot devices on systems that support them. In addition certain AIX levels are required to support these adapters. ONLY AIX 421 install media can be used to install AIX with ULTRA adapter. If you want to use these adapters with AIX 415 or AIX 420, you must first install with a SCSI-2 F/W adapter; after the PTF's for ULTRA SCSI support have been installed you can use the ULTRA SCSI adapter(s).

--> ORDER APAR IX65866 TO GET ULTRA SUPPORT FOR AIX4.1.5

--> ORDER APAR IX65868 TO GET ULTRA SUPPORT FOR AIX4.2.0

--> THE PCI SCSI RAID ADAPTER (4-H) IS NOT SUPPORTED AS A BOOT ADAPTER IN ANY SYSTEM.

Feature Code/FRU/Assembly Information for PCI Adapters

Label	Feat Code	SCSI Interface	FRU	Assembly
4 - A	2408	Single Ended	p/n11H8085	p/n40H0107
4 - B	2409	Differential	p/n11H8090	p/n11H8088
4_A,4 - E	6208	Single Ended	p/n73H3562	p/n73H3560
4_B,4 - F	6209	Differential	p/n73H3568	p/n73H3566
4 - K	2406	Single Ended	p/n93H3809	p/n93H3805
4 - L	2407	Differential	p/n40H6595	p/n40H6593

****
* SCSI-2 F/W ADAPTER (4-6, 4-7, 4-C) BOOT SUPPORT *
* FOR RS/6000 MODELS *
****

MACH TYPE	MODEL	PROCESSOR	SCSI-2 F/W BOOT SUPPORT
7006	41T,41W	POWER PC 601	4-6, 4-7, 4-C
	42T,42W	POWER PC 604	4-6, 4-7, 4-C
7007	N40	POWER PC 601	NO (N/A)
7008	M20	POWER RSC	NO
	M2A	POWER RSC	NO

7009	C10	POWER PC 601	4-6, 4-7, 4-C
	C20	POWER PC 604	4-6, 4-7, 4-C
7010	120	XSTATION	NO (N/A)
	130	XSTATION	NO (N/A)
	140	XSTATION	NO (N/A)
	150	XSTATION	NO (N/A)
	160	XSTATION	NO (N/A)
7011	220	POWER RSC	NO
	22G	POWER RSC	NO
	22S	POWER RSC	NO
	22W	POWER RSC	NO
	22Z	POWER RSC	NO
	230	POWER RSC	NO
	23S	POWER RSC	NO
	23T	POWER RSC	NO
	23W	POWER RSC	NO
	250,S,T,W	POWER PC 601	4-6, 4-7, 4-C
	25R RPQ	POWER PC 601	4-6, 4-7, 4-C
7012	320	POWER	NO
	32H	POWER	NO
	340	POWER	NO
	34H	POWER	NO
	34L RPQ	POWER	NO
	34R RPQ	POWER	NO
	350	POWER	NO
	355	POWER	NO
	35R RPQ	POWER	NO
	360	POWER	NO
	365	POWER	NO
	36T	POWER	NO
	370	POWER	NO
	375	POWER	NO
	37T	POWER	NO
	380	POWER2	4-6, 4-7, 4-C
	390	POWER2	4-6, 4-7, 4-C
	39H	POWER2	4-6, 4-7, 4-C
	G30	POWER PC 601/SMP	4-6, 4-7, 4-C
	G40	POWER PC 604/SMP	4-6, 4-7, 4-C

MACH TYPE	MODEL	PROCESSOR	SCSI-2 F/W BOOT SUPPORT
7013	520	POWER	NO
	52H	POWER	NO
	530	POWER	NO
	53H	POWER	NO
	540	POWER	NO
	550	POWER	NO
	55L	POWER	NO
	560	POWER	NO
	570	POWER	NO
	580	POWER	NO
	58H	POWER2	4-6, 4-7, 4-C
	590	POWER2	4-6, 4-7, 4-C
	591	POWER2	4-6, 4-7, 4-C
	59H	POWER2	4-6, 4-7, 4-C
	595	POWER2	4-6, 4-7, 4-C
	J30	POWER PC 601/SMP	4-6, 4-7, 4-C
	J40	POWER PC 604/SMP	4-6, 4-7, 4-C
7015	930	POWER	NO
	950	POWER	NO
	970	POWER	NO
	97B	POWER	NO
	980	POWER	NO
	98B	POWER	NO
	990	POWER2	4-6, 4-7, 4-C
	R10	POWER	NO
	R20	POWER2	4-6, 4-7, 4-C
	R21	POWER2	4-6, 4-7, 4-C
	R24	POWER2	4-6, 4-7, 4-C
	R30	POWER PC 601/SMP	4-6, 4-7, 4-C
	R40	POWER PC 604/SMP	4-6, 4-7, 4-C
7030	3AT	POWER2	4-6, 4-7, 4-C
	3BT	POWER2	4-6, 4-7, 4-C
	3CT	POWER2	4-6, 4-7, 4-C
7016	730	POWER	NO
7018	740	POWER	NO

	741	POWER	NO
	770	POWER	NO
	771	POWER	NO
7020	40P	POWER PC	NO (N/A)
7024	E20	POWER PC 604	4-A, 4-B, 4_A, 4_B 4-K, 4-L
	E30	POWER PC 604	4-A, 4-B, 4_A, 4_B 4-K, 4-L
7025	F30	POWER PC 604	4-A, 4-B, 4_A, 4_B 4-K, 4-L
	F40	POWER PC 604	4_A, 4_B, 4-K, 4-L
	F50	POWER PC 604e1/SMP	4_A, 4_B, 4-K, 4-L
7026	H10	POWER PC 604e1/SMP	4_A, 4_B, 4-K, 4-L
7043	140	POWER PC 604e	4-A, 4-B, 4_A, 4_B 4-K, 4-L
	240	POWER PC 604e/SMP	4-A, 4-B, 4_A, 4_B 4-K, 4-L
7247	82X	POWER PC 603E	NO (N/A)
7248	100	POWER PC 604	4-A, 4-B, 4_A, 4_B
	120	POWER PC 604	4-A, 4-B, 4_A, 4_B
	132	POWER PC 604	4-A, 4-B, 4_A, 4_B
7249	851	POWER PC 603E	NO (N/A)
	860	POWER PC 603ev	NO (N/A)
7317	F3L	POWER PC 604	4-A, 4-B, 4_A, 4_B 4-K, 4-L
9076	120thin	P2SC	4-6, 4-7, 4-C
	66thin2	POWER2	4-6, 4-7, 4-C
	135wide	P2SC	4-6, 4-7, 4-C
	77wide	POWER2	4-6, 4-7, 4-C
	604high	POWER PC 604	4-6, 4-7, 4-C

SAS KEYWORDS:

7006	7009	7011	7012
7013	7015	D/T7006	D/T7009
D/T7011	D/T7013	D/T7015	RS6000
RISC	RISC/6000	RS/6000	RISC6000
SCSI2	FAST/WIDE	SCSI/2	SCSI-2
E30	G40	J40	R40
7247	7249	82X	851
POWERPC 601	POWERPC 604	POWERPC	7248
7025	7024	7043	420
421	415	AIX	

1.2.24 SLOW SCSI BUS PERFORMANCE ON D/T7011 MODEL250

Record number: H034522

```
Device:               D/T7011
Model:                M
Tip key:              013
Date created:         O94/08/29
Date last altered:    A94/08/30
```

If SCSI bus read performance is "slow", the following PTFs may help alleviate the problem:

U428016 - Turn read look-ahead on
U430552 - Turn SCSI fairness off

These PTFs may be applied either separately or together as required. They have been integrated into AIX 3.2.5 plus PowerPC Enhancements. To determine if you already have these PTFs installed on a system, run the rollowing command at an AIX prompt:

```
Lslpp -ah box.obj | grep Uxxxxxx
where Uxxxxxx is the PTF number (ie. U428016)
```

To determine if you have the PowerPC Enhancements to AIX 3.2.5 installed on your system run the following command at an AIX prompt:

```
Lslpp -A | grep IX42627
```

Note: This applies to the 66 MHz model 250 ONLY. The 80MHz machine requires AIX 3.2.5 plus PowerPC Enhancements to operate.

SAS KEYWORDS:

7011	701X	7011MOD250	7011SCSI
701XSCSI	7011AIX	AIX3.2.5	701XAIX

1.2.25 3153 INFO&COLON. MARKETING REFERENCE GUIDE (G520-9415)

Record number: H16288

```
Device:               D/T3153
Model:                M
Tip key:              016
Date created:         O97/05/29
Date last altered:    A97/12/04
```

A 30-page 3153 Marketing Reference Guide (G520-9415) is available for IBM Customers, IBM Representatives and IBM Business Partners. The 3153 Marketing Reference Guide contains:

- 3153 Feature/Function Information
  - Communication and Parallel Ports
  - Dual Session
  - Programmable Keys
  - Setup Menu
  - Character Sets and Code Pages
- 3153 Keyboards and Keyboard Languages
- 3153 Ordering Information
- 3153 Warranty/Service/Maintenance Information
- 3153 Model, Part Number Information (Worldwide)
- 3153 Technical Specifications Information
  - Communication and Parallel Ports
  - Screen Formats
  - Physical
- 3153 Host/Printer Cabling/Communication Information
  - RS/6000, AS/400
- 3153 Recommended Setup Values/Configuration Information
  - RS/6000, AS/400, 3745, 4690

The 3153 Marketing Reference Guide is a great technical and sales support document.

To obtain a copy of the 3153 Marketing Reference Guide via:

IBM Market Tools (MKTTOOLS):
- Enter the follow OV/VM Command:
  TOOLS SENDTO USDIST MKTTOOLS MKTTOOLS GET G5209415 PACKAGE

IBMFAX Information Service:
- call 1 - 800-IBM-4FAX (US only) and request document #5704
- IBMFAX intranet: http: //w3.ibmfax.ibm.com

IBM PC Company Fax System:
- call 1 - 800-IBM-3395 (US only) and request document #43009

IBM Austin Intranet:
http: //w3.rs6000.ibm.com/mktmat

IBM Canadian AIX Support Centre Intranet:
http: //w3.toraix.can.ibm.com/hdw/menu/3153.mnu

SAS KEYWORDS:

D/T3153	7006	7015	3153
7008	7024	MARKETING	7009
7025	REFERENCE	7010	70XX
GUIDE	7011	700X	RS/6000
7012	701X	RS6000	ATTACHMENT
702X	AS/400	CONFIGURE	3745
AS400	CONFIGURATION	4680	G5209415
4690	SCO	UNIX	OPENSERVER
D/T701X	D/T70XX	D/T702X	SETUP
CABLING	INFO	INFORMATION	GENERAL
D/T7006	D/T7008	D/T7009	D/T7010
D/T7011	D/T7012	D/T7015	D/T7024
D/T7025	D/T4680	D/T4690	SERVER
H16288	PART	PARTS	WARRANTY
SERVICE	SPECIFICATIONS	CABLING	ATTACH
ATTACHMENT	AIX	OS400	OS/400
HOST	PRINTER	CONSOLE	HELP
RISC	RISC/SYSTEM		

1.2.26 3153 INFO&COLON. MARKETING REFERENCE GUIDE (G520-9415)

Record number: H16288

```
Device:               D/T3153
Model:                M
Tip key:              016
Date created:         O97/05/29
Date last altered:    A97/12/04
```

A 30-page 3153 Marketing Reference Guide (G520-9415) is available for IBM Customers, IBM Representatives and IBM Business Partners. The 3153 Marketing Reference Guide contains:

- 3153 Feature/Function Information
  - Communication and Parallel Ports
  - Dual Session
  - Programmable Keys
  - Setup Menu
  - Character Sets and Code Pages
- 3153 Keyboards and Keyboard Languages
- 3153 Ordering Information
- 3153 Warranty/Service/Maintenance Information
- 3153 Model, Part Number Information (Worldwide)
- 3153 Technical Specifications Information
  - Communication and Parallel Ports
  - Screen Formats
  - Physical
- 3153 Host/Printer Cabling/Communication Information
  - RS/6000, AS/400
- 3153 Recommended Setup Values/Configuration Information
  - RS/6000, AS/400, 3745, 4690

The 3153 Marketing Reference Guide is a great technical and sales support document.

To obtain a copy of the 3153 Marketing Reference Guide via:

IBM Market Tools (MKTTOOLS):
- Enter the follow OV/VM Command:
  TOOLS SENDTO USDIST MKTTOOLS MKTTOOLS GET G5209415 PACKAGE

IBMFAX Information Service:
- call 1 - 800-IBM-4FAX (US only) and request document #5704
- IBMFAX intranet: http: //w3.ibmfax.ibm.com

IBM PC Company Fax System:
- call 1 - 800-IBM-3395 (US only) and request document #43009

IBM Austin Intranet:
http: //w3.rs6000.ibm.com/mktmat

IBM Canadian AIX Support Centre Intranet:
http: //w3.toraix.can.ibm.com/hdw/menu/3153.mnu

SAS KEYWORDS:

D/T3153	7006	7015	3153
7008	7024	MARKETING	7009
7025	REFERENCE	7010	70XX
GUIDE	7011	700X	RS/6000
7012	701X	RS6000	ATTACHMENT
702X	AS/400	CONFIGURE	3745
AS400	CONFIGURATION	4680	G5209415
4690	SCO	UNIX	OPENSERVER
D/T701X	D/T70XX	D/T702X	SETUP
CABLING	INFO	INFORMATION	GENERAL
D/T7006	D/T7008	D/T7009	D/T7010
D/T7011	D/T7012	D/T7015	D/T7024
D/T7025	D/T4680	D/T4690	SERVER
H16288	PART	PARTS	WARRANTY
SERVICE	SPECIFICATIONS	CABLING	ATTACH
ATTACHMENT	AIX	OS400	OS/400
HOST	PRINTER	CONSOLE	HELP
RISC	RISC/SYSTEM		

1.2.27 3153 SERVICE AID TIP LIST, INDEX

Record number: H161186

```
Device:              D/T3153
Model:               M
Tip key:             064
Date created:        O97/09/24
Date last altered:   A98/03/19

The following is a list of TIPS for the
Infowindow 3153 ASCII Display Terminal

RECORD
NUMBER   ABSTRACT:
-------  ------------------------------------------------------
H16288   3153 INFO:  MARKETING REFERENCE GUIDE (G520-9415)
H163091  3153 INFO:  INTERNET/INTRANET WEB SITES SUPPORTING 3153
H16273   3153 INFO:  ASCII TERMINAL BASIC PRINCIPLES
H161155  3153 INFO:  SETUP PARAMETER AND SETUP MENUS
H16278   3153 INFO:  RS/6000-ATTACHMENT AND CABLING
H161154  3153 INFO:  RS/6000-RECOMMENDED SETUP PARAMETERS
H161178  3153 INFO:  AS/400-ATTACHMENT AND CABLING
H16275   3153 INFO:  AS/400-RECOMMENDED SETUP PARAMETERS
H161179  3153 INFO:  AS/400-INITIALIZE/CONFIGURING FROM HOST
H161153  3153 INFO:  3745-RECOMMENDED SETUP PARAMETERS
H16279   3153 INFO:  HOST PRINTER CABLING COMMUNICATION
H16280   3153 INFO:  COMMUNICATION PORT, PARALLEL PORT INTERFACE
H16291   3153 INFO:  MANUALS AND PUBLICATIONS
H16295   3153 INFO:  NATIONAL LANGUAGE SUPPORT (NLS)
H003501  3153 INFO:  WORLDWIDE MODEL AND PART NUMBER
H16294   3153 INFO:  ASCII VERSUS PC STYLE KEYBOARD
H16296   3153 INFO:  WHAT IS PROVIDED, SHIPPED
H16293   3153 INFO:  COMPARING 3151 FEATURES AND FUNCTIONS
H16284   3153 INFO:  ENTERING EXITING SETUP MENUS
H161145  3153 INFO:  DUAL, MULTIPLE SESSIONS
H16292   3153 INFO:  SCREEN FORMATS - ROWS AND COLUMNS
H161144  3153 INFO:  PHYSICAL, ELECTRICAL SPECIFICATIONS
H162182  3153 INFO:  PACKAGING MATERIALS
H16290   3153 INFO:  RESETTING TO IBM FACTORY DEFAULT SETTINGS
H161146  3153 INFO:  DEBUG (MONITOR) MODE
H161183  3153 INFO:  HOW TO DETERMINE THE KEY ASCII SEQUENCES
H161147  3153 INFO:  INDEPENDENT PASS THROUGH PRINTING
H161148  3153 INFO:  MODULAR RJ KEYBOARD CONNECTOR
H161149  3153 INFO:  SIMULTANEOUSLY DISPLAY AND PRINTING DATA
H161151  3153 INFO:  PRINTING DATA ONLY (NO DATA DISPLAYED)
H161152  3153 INFO:  ATTACHING A WEDGE, SCANNER, READER, MOUSE
H161170  3153 KEY NOT WORKING:  PRESSING ANY KEY ON KEYBOARD
H16274   3153 KEY NOT WORKING:  FUNCTION KEYS
H126198  3153 KEY NOT WORKING:  F1, F3, F7, F8, OR F12
H16286   3153 KEY NOT WORKING:  INSERT
H161127  3153 KEY NOT WORKING:  DELETE
H161128  3153 KEY NOT WORKING:  PRINT OR PRINT LINE
H161129  3153 KEY NOT WORKING:  ENTER
H161130  3153 KEY NOT WORKING:  RETURN
H161131  3153 KEY NOT WORKING:  RESET
H161132  3153 KEY NOT WORKING:  SEND OR SEND LINE
H161133  3153 KEY NOT WORKING:  PAGE UP, PAGE DOWN
H161134  3153 KEY NOT WORKING:  CURSOR UP, DOWN, LEFT, RIGHT
H161140  3153 KEY NOT WORKING:  BACKSPACE
H161141  3153 KEY NOT WORKING:  END
H161180  3153 DISPLAYS NOTHING (NO VIDEO)
H16287   3153 DISPLAYS EXTRA BLANK LINES BETWEEN LINES OF DATA
H161172  3153 DISPLAYS APPLICATION OR MENUS INCORRECTLY
H16300   3153 DISPLAYS A LARGE BLOCK IN THE CENTER OF SCREEN
H16298   3153 DISPLAYS A SINGLE ROW, LINE OF CHARACTERS, DATA
H161143  3153 DISPLAYS DOUBLE CHARACTERS
H161142  3153 DISPLAYS DOUBLE SHELL PROMPT
H162340  3153 DISPLAYS 'CHECK' DURING POWER ON CYCLE
H16281   3153 DISPLAYS PARALLEL PORT TRANSMIT ERROR CONDITION
H162239  3153 CURSOR IS BLINKING, NOT BLINKING, NOT VISIBLE
H16277   3153 ATTACH PRINTER NOT PRINTING ANY DATA, CORRECTLY
H16283   3153 DUAL, MULTIPLE SESSION NOT WORKING
H16285   3153 LINE DRAWING, BOX CHARACTERS NOT DISPLAYING
H16289   3153 NOT SAVING (LOSING) SETUP PARAMETERS
H162229  3153 NOT SAVING (LOSING) TIME, CLOCK, DATE SETTINGS
H161181  3153 BLANK SCREEN, CURSOR DOES NOT MOVE, NO DATA
H16299   3153 DOES NOT COMMUNICATE, NO COMMUNICATION
H161156  3153 BEEPS EVERY TIME A KEY IS PRESSED
H161282  3153 LOCKS UP, HANGS, STOPS COMMUNICATING
H161157  3153 SCREEN GOES BLANK, BLANKS OUT
H161185  3153 NOT DISPLAYING CORRECTLY WHEN USING VI EDITOR
H161120  3153 SCREEN IS WAVY, ROLLING OR HAS FLICKER, JITTER

SAS KEYWORDS:
```

D/T3153	3153	INFOWINDOW	TERMINAL
DISPLAY	DISPLAYS	VIDEO	SCREEN
CRT	MONITOR	ASCII	ANSI
ASYNC	DUMB	MODEM	LOCAL
REMOTE	TTY	LIST	AID
SERVICE	DEVICE	HELP	INFO
INDEX	INFORMATION	PROBLEM	PROBLEMS
CONFIGURE	CONFIGURATION	TIPS	TIP
RS/6000	RS6000	AIX	SMIT
HCON	70XX	701X	702X
7009	7011	7012	7013
7015	7024	7025	D/T7009
D/T7011	D/T7013	D/T7014	D/T7024
70XX	701X	702X	D/T701X
D/T702X	D/T70XX	AS/400	AS400
940X	9402	9404	9406
D/T940X	D/T940X	D/T9404	D/T9406
3745	D/T3745	TERMCAP	TERMINFO
5308	D/T5308	WYSE	DEC
KBD	KEYBOARD	4680	4690
D/T468X	D/T469X	SCO	UNIX
OPENSERVER	CONSOLE	RISC	6000
400	HELP	RISC/SYSTEM	3174
D/T3174	AEA	EMULATION	EMULATE
3174AEA	3174	CABLE	CABLES
CABLING	CONNECT	CONNECTION	D/T3151
3151			

1.2.28 5081-16 DISLPAY ATTACHMENT

Record number: H1089

```
Device:              D/T7011
Model:               M
Tip key:             010
Date created:        O92/12/02
Date last altered:   A92/12/02
```

To connect a 5081-16 to a 7011, RPQ 8k1700 (p/n39f8245) is needed. This RPQ for the 5081-16 is a new panel for attaching a 5 lead cable from 7011.

SAS KEYWORDS:

7011	5081	CABLE	RPQ
RS6000	RISC	GRAPHICS	DISPLAY
7011CABLE	7011RPQ	7011GRAPHICS	7011DISPLAY

1.2.29 540MB DISK DRIVE - END OF MANUFACTURING

Record number: H163205

Device:	D/T701X
Model:	M
Tip key:	344
Date created:	O98/03/30
Date last altered:	A98/03/30

Due to the End of Manufacturing of the 540MB disk drive, P/N51G8237 will sub to a different drive. The replacement drive that will be used when the sub takes place will be the 2.2GB drive, P/N74G6996. The form factor will remain constant, however the address jumper setting will be different. Use the following table when setting the address jumpers on the replacement drive.

****

2.2GB (new replacement)
P/N74G6996

VALID ADDRESSES

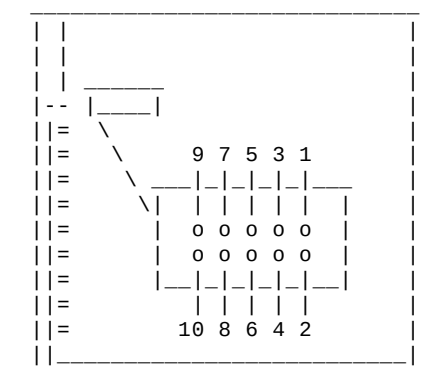
Address	Jumper 2	Jumper 1	Jumper 0
0	OFF	OFF	
1	OFF	OFF	ON
2	OFF	ON	OFF
3	OFF	ON	ON
4	ON	OFF	OFF
5	ON	OFF	ON
6	ON	ON	OFF

****

540MB (old drive)
P/N51G8237

VALID ADDRESSES

Address	Jumper 5 - 6	Jumper 3 - 4	Jumper 1 - 2
0	OFF	OFF	OFF
1	OFF	OFF	ON
2	OFF	ON	OFF
3	OFF	ON	ON
4	ON	OFF	OFF
5	ON	OFF	ON
6	ON	ON	OFF



****

Note: The 540MB drive was use in the following RS6000 Machine types. 7006, 7011, 7012 and 7013.

SAS KEYWORDS:

710X	RISC	RS6000	DISK
7013	7012	7011	7006
D/T7006	D/T7011	D/T7012	D/T7013

1.2.30 7006, 7009 AND 7011 QUICK DIAGNOSTIC GUIDE

Record number: H125022

Device: D/T701X
Model: M
Tip key:
Date created: O94/06/22
Date last altered: A94/08/29

Austin Product Engineering has developed a QUICK DIAGNOSTIC GUIDE for d/t7006, d/t7009, and d/t7011. This guide contains a brief Start of Call MAP, Power MAP, LED MAP, and Minimum Configuration MAP. It also contains tips regarding system configuration problems, the procedure for running Built-in Diagnostics, and various other problem determination techniques common to all three machine types that should be used before replacing parts. These techniques include checking SCSI terminators, switch settings, memory simm information, etc. The Guide also contains publication numbers for the Service Guides and Operator Guides for each of these three products.

The QUICK DIAGNOSTIC GUIDE was shipped to each branch office along with the maintenance documentation for the 7006 and 7009. This Guide is a pilot document, therefore it is not available via publication number or softcopy at this time. It will be included in the next release of the SRN Cross Reference Guide (SA23 - 2629 - 10).

SAS KEYWORDS:

701X	7006	7009	7011
701XDIAG	7006DIAG	7009DIAG	7011DIAG

1.2.31 7011 PARTS MANUAL UPDATE

Record number: H127904

Device: D/T7011
Model: M
Tip key: 017
Date created: O95/06/01
Date last altered: A95/06/01

When ordering the front BEZEL p/n00G2309, you should also order p/n00G2096 (key mode decal ENGLISH) and p/n00g2098 (reset button decal ENGLISH).
You CANNOT order a new "serial number" decal.

SAS KEYWORDS:

7011	7011-220	7011/220	7011-230
7011/230	7011-250	7011/250	250
220	230	BEZEL	DECAL
DECALS	COVERS	COVER	

1.3 Chapter 3. Parts Information Tips

Subtopics
1.3.1 5 PACK (8MM TAPES) NO LONGER AVAILABLE THROUGH PARTS SYSTEM
1.3.2 7011 EXTERNAL SCSI TERMINATOR

5 PACK (8MM TAPES) NO LONGER AVAILABLE THROUGH PARTS SYSTEM

1.3.1 5 PACK (8MM TAPES) NO LONGER AVAILABLE THROUGH PARTS SYSTEM

Record number: H037577

```
Device:              D/T701X
Model:               M
Part number:         P/N21F8595
Tip key:             117
Date created:        O92/05/21
Date last altered:   A92/05/21
```

THE PACKAGE OF FIVE 8MM BLANK TAPES (P/N 21F8595) HAS BEEN REMOVED FROM THE MECHANICSBURG PART SYSTEM. THIS SUPPLY ITEM CAN BE ORDERED FROM IBM'S AUTHORIZED DISTRIBUTORS OR BY PART NUMBER FROM IBM DIRECT RESPONSE MARKETING AT 1-800-426-2468.

CE'S NEEDING A BLANK TAPE FOR TEST PURPOSES ONLY SHOULD ORDER P/N 21F8575.

SAS KEYWORDS:

RS6000	RS/6000	D/T7012	D/T7013
D/T7011	D/T7015	D/T7016	D/T7018
8MM	MEDIA	D/T7208	7011
7012	7013	7015	7016
7018	RISC	RISC/6000	701XTAPE
701XPART	701XMISC		

1.3.2 7011 EXTERNAL SCSI TERMINATOR

Record number: H104337

```
Device:              D/T7011
Model:               M
Part number:         P/N43G0467
Tip key:             008
Date created:        O92/09/30
Date last altered:   A92/09/30
```

CE SHOULD ENSURE D/T7011 EXTERNAL SCSI TERMINATOR IS P/N43G0467.
THIS TERMINATOR IS REQUIRED TO INSURE PROPER SCSI BUS OPERATION
ON D/T7011 SYSTEMS.

THIS TERMINATOR REQUIREMENT IS ONLY APPLICABLE TO 7011S.

FRU PART NUMBER INFORMATION WILL BE INCLUDED IN A FUTURE RELEASE
OF SERVICE DOCUMENTATION.

SAS KEYWORDS:

7011SCSI 7011ADPTR 7011MISC 7011DISK

1.4 Chapter 4. Symptom/Fix Tips

Subtopics

1.4.1 MALL, RECEIVE TIMEOUT FROM NEW RS6000 (D/T701)*

Record number: H124151

Device: D/T3745
Model: MALL
Tip key:
Date created: O94/05/26
Date last altered: A94/06/02

SYMPTOM: Ce had just installed a RISC6000 system to a 3745 via a direct attached v.35 LIC3. The line would not activate. This problem could arise when attaching a RISC 6000 to a d/t3720 d/t3721 , d/t3746 , d/t3725 , d/t3726 and d/t3705 .

3745 3746 3720 3721 3725 3726 3705 7012 risc6000 6000 d/t7012 rs/6000 rs6000 d/t701x 701x d/t7013 7013 d/t7015 7015 d/t7016 7016 d/t7018 7018 d/t7011 7011

PROBLEM ISOLATION AIDS: No BERs were logged. All TSS diags and wrap tests ran without errors. We compared the NCP gen parameters that we saw in the LID with the setup screens on the d/t 7012 . All seemed to be correct. Next we ran a SIT trace on the failing line from the support center. We saw " RECEIVE TIMEOUT , (no response from SDLC ADDRESS " 21 "). At that point we knew that problem was either a broken or incorrectly configured RISC6000 .

FIX: The configuration setup screens on the D/T7012 use DECIMAL values instead of HEX. They had entered " 21 " into the setup screen thinking that it was SDLC station address HEX 21. When they changed it to " 33 " and reactivated the line it came right up !

SAS KEYWORDS:

3745CNFG	3745CS	3745CSSIT	3745FESL
3745LSSERR	3745TSS	3745INST	3745LIC
3745LIC1	3745LIC3	3745MODALL	3720CNFG
3720CS	3720CSSIT	3720FESL	3720LSSERR
3720TSS	3720INST	3720LIC	3720LIC1
3720LIC3	3746CNFG	3746CS	3746CSSIT
3746FESL	3746LSSERR	3746TSS	3746INST
3746LIC	3746LIC1	3746LIC3	3721CNFG
3721CS	3721CSSIT	3721FESL	3721LSSERR
3721TSS	3721INST	3721LIC1	3721LIC3
3725CNFG	3725CS	3725CSSIT	3725FESL
3725LSSERR	3725TSS	3725INST	3725LIC
3725LIC1	3725LIC3	3725MODALL	3726CNFG
3726CS	3726CSSIT	3726FESL	3726LSSERR
3726TSS	3726INST	3726LIC	3726LIC1
3726LIC3	3705CNFG	3705CS	3705CSSIT
3705FESL	3705LSSERR	3705TSS	3705INST
3705LIC	37051D	1D	

1.4.2 NVRAM UNEXPECTEDLY CHANGED

Record number: H127058

```
Device:               D/T701X
Model:                M
Tip key:
Date created:         O95/04/07
Date last altered:    A95/05/18
```

SYMPTOM:

The ethernet setup in NVRAM is unexpectedly changed after the system was booted up in service mode and having run built-in or hard disk diagnostics on the following machines: 7011-250, 7006 - 41T, 7006-41W, 7009-C10 systems

PROBLEM ISOLATION AIDS:

1. The setup of the ethernet changes to the BNC type when the system is booted up after running built-in diagnostics.
2. The system may fail to boot up from the ethernet because the SETUP in NVRAM have been changed.

FIX:

USE EITHER OF THE FOLLOWING:

1. THROUGH AIX
   - A. Login as ROOT
   - B. Use SMIT to reset the ethernet back to original setting.
   - C. Use chdev -l ent0 -a bnc_select=dix (if changed to bnc)
     Use chdev -l ent0 -a dix_select=bnc (if changed to dix)

2. THROUGH BUILT-IN DIAGNOSTICS
   - A. Power up system in secure mode and wait for led200
   - B. Turn key to service mode and hit the reset button
   - C. Wait for led260, the built-in diag menu will be on screen (if led262, hit enter, menu will come up)
   - D. Select option 1 "Select boot device <enter> (screen will show all bootable devices including the internal hard disk and both DIX and BNC connections)
   - E. Choose the connection the ethernet will boot through (even if you do not boot through it set the type of connection the card will use)
   - F. Type 99 <enter>
   - G. If you want to boot up from the ethernet, choose option 6 to boot the system. (Be sure key is in NORMAL)
   - H. If you want to boot from the default setting choose option 1 and select default booting device. (Be sure key is in NORMAL)

SAS KEYWORDS:

7011 - 250	7011/250	7011MOD250	7011MODEL250
7006 - 41T	7006/41T	7006MOD41T	7006MODEL41T
7006 - 41W	7006/41W	7006MOD41W	7006MODEL41W
7009 - C10	7009/C10	7009MODC10	7009MODELC10
MOD 250	MOD 41T	MOD 41W	MOD C10
7011	7006	7009	ETHERNET
BUILT-IN	BUILT IN	DIAGNOSTICS	DIAGS
NVRAM	BNC	DIX	D/T7009
D/T7011	D/T7006		

1.4.3 SCSI FERRITE TORROID

Record number: H057091

```
Device:               D/T7011
Model:                M
Tip key:
Date created:         O94/01/17
Date last altered:    A96/01/22
```

SYMPTOM: Machine logging disk soft errors against 1gb hardfile. Machines affected: all 7011-2xx boxes equiped with the INTERNAL 1gb hardfile (either Corsair or Spitfire). This does not affect hardfiles mounted outside the 7011-2xx i.e. bridge boxes.

PROBLEM ISOLATION AIDS: On all recent 7011 boxes equiped with 1gb hardfiles, as well as MES upgrades (to the 1gb) a ferrite torroid has been added to the internal SCSI cable. The torroid is intended to be re-used if the SCSI ribbon cable has to be replaced.

FIX: If the internal SCSI cable is defective use the following procedure to remove the torroid from it. (The torroid consists of 2 pieces of ferrite held together by 2 metal clips) Remove the 2 metal clips while holding the 2 pieces of ferrite and then let the ferrite fall away from the cable.
To reinstall the torroid on the new cable hold the 2 pieces of ferrite together around the cable simply push the clips back on the ends.
The new SCSI cable is 31f4284.
The FBM corresponding to the FERRITE is 8184385.
The FRU corresponding to the FERRITE is 8184386.

SAS KEYWORDS:

7011	7011220	7011230	7011250
701X	7011-220	7011-230	7011-250
7011MOD220	7011MOD230	7011MOD250	MACH701X
7011MODEL220	7011MODEL230	7011MODEL250	7011-220
7011 - 230	7011-250	MODEL220	MODEL230
MODEL250	TORROID	FERRITE	7011SCSI

1.4.4 SCSI FERRITE TORROID

Record number: H02585

```
Device:               D/T7011
Model:                M
Tip key:
Date created:         O94/01/17
Date last altered:    A97/04/15
```

SYMPTOM: Machine logging disk soft errors against 1gb hardfile. Machines affected: all 7011/2xx boxes equiped with the INTERNAL 1gb hardfile (either Corsair or Spitfire). This does not affect hardfiles mounted outside the 7011/2xx i.e. bridge boxes.

PROBLEM ISOLATION AIDS: On all recent 7011 boxes equiped with 1gb hardfiles, as well as MES upgrades (to the 1gb) a ferrite torroid has been added to the internal SCSI cable. The torroid is intended to be re-used if the SCSI ribbon cable has to be replaced.

FIX: If the internal SCSI cable is defective use the following procedure to remove the torroid from it. (The torroid consists of 2 pieces of ferrite held together by 2 metal clips) Remove the 2 metal clips while holding the 2 pieces of ferrite and then let the ferrite fall away from the cable.
To reinstall the torroid on the new cable hold the 2 pieces of ferrite together around the cable simply push the clips back on the ends.
The new SCSI cable is p/n31f4284 for a single drive cable and p/n51g7648 for a dual drive cable.

The FBM corresponding to the FERRITE is p/n8184385.
The FRU corresponding to the FERRITE is p/n8184386.

SAS KEYWORDS:

7011	7011220	7011230	7011250
701X	7011MOD220	7011MOD230	7011MOD250
MACH701X	7011MODEL220	7011MODEL230	7011MODEL250
7011/220	7011/230	7011/250	MODEL220
MODEL230	MODEL250	TORROID	FERRITE
7011SCSI			

1.4.5 7011 MODEL 250 PLANAR WILL NOT BOOT

Record number: H036055 Number of altered copies: 1

```
Device:              D/T7011
Model:               M
Tip key:
Date created:        O94/09/29
Date last altered:   A98/05/11
```

SYMPTOM: A DEFECT HAS BEEN FOUND WITH A CERTAIN LEVEL OF THE 7011 250 PLANAR. THIS DOES NOT AFFECT THE 7011 250 TURBO (80MHz) OR EARLIER LEVELS OF THIS PLANAR.

THIS PLANAR IS COMMONLY REFERED TO AS A PASS 10 PLANAR. IT CAN BE IDENTIFIED BY LOOKING IN THE VITAL PRODUCT DATA (VPD) FOR ASSEMBLY P/N52G3286 EC LEVEL D18367 OR BY DOING A VISUAL INSPECTION OF THE BAR CODE LABEL UNDER THE MICROCHANNEL ADAPTERS AND LOOKING FOR P/N52G3286.

THE DEFECT WILL ONLY OCCUR IN CONFIGURATIONS WITH ALL 8 SLOTS POPULATED WITH MEMORY SIMMS (2 QUADS OF 4 SIMMS EACH). FURTHER, THE PROBLEM ONLY OCCURS WHEN THERE IS A SPECIFIC MIXTURE OF SIMMS BETWEEN THE TWO QUADS. ONE QUAD MUST HAVE SIMMS WITH 16MB OR 32MB EACH AND THE OTHER QUAD MUST HAVE SIMMS WITH A CAPACITY OF 2MB, 4MB, OR 8MB EACH.
THE SYMPTOMS THAT MAY BE SEEN WILL DEPEND ON WHAT MEMORY CONFIGURATION THE CUSTOMER HAS. YOU MAY SEE ONE OF SEVERAL LED SYMPTOMS WHEN RUNNING IPLROS TESTING AT BOOT UP.

FLASHING LED888/102 206 (MEMORY ECC ERROR)
FLASHING LED888/103 202/220 (UNIDENTIFIED MEMORY ERROR)
FLASHING LED888/103 202/219 (ROM -> RAM REMAP)
SOLID LED 186 (OCCURS AFTER IPLROS AND IT TAKES A WHILE)

MOST OF THESE LEDS POINT TOWARDS A MEMORY TYPE ERROR.
DO NOT REPLACE MEMORY. THE MEMORY IS NOT THE PROBLEM.

PROBLEM ISOLATION AIDS:

FIX: THE ONLY FIX AVAILABLE IS TO REPLACE THE PLANAR. IF THIS CONFIGURATION IS FOUND IN THE FIELD, CONTACT THE CHICAGO SUPPORT CENTER. ENGINEERING L3 WILL REPLACE THE PLANAR AT NO COST TO THE FIELD. IF THE CUSTOMER CAN NOT WAIT FOR THE PLANAR, THEN REMOVE THE SMALLER QUAD OF MEMORY UNTIL THE PLANAR IS OBTAINED.

SAS KEYWORDS:

7011	7011/250	LED888	701X
7011MEM	7011PLANAR	RISC	D/T7011
LED186	LED888	888/103	SRN202/220
SRN202/219	202/219	202/220	SRN
LED	186		

L A S T P A G E