

2000/3000 TPU NVRAM REPLACEMENT

The procedure for replacing the chip is as follows:

- 1) Shut down and power OFF the system.
- 2) Remove the MVME147 board from the chassis.
- 3) Remove the original NVRAM chip from the MVME147 board, noting the orientation of the chip.
- 4) Install the replacement chip in the same orientation as the one removed (PN: 029-43340-01).

NEXT: From this point, perform the following TPU setup procedures for bringing up the TPU:

- Environment Setup (ENV)
 - Enabling Auto Boot (AB)
 - I/O Teach (IOT;T)
 - Date and Time (SET)
-

NVRAM Initialization

Power up the system (2000 or 3020) and stop at the debugger prompt (147-Bug>) by pressing <Break> if the following message appears:

```
147-Bug>Autoboot in progress. . .To Abort Hit <Break>
```

At the prompt, type `env;d` and the system will respond with a series of questions. Initialize the NVRAM as follows:

```
147-Bug> ENV;D
Update with Auto-Configuration Defaults
Update Non-Volatile RAM [Y,N] N? Y <return>
CPU Clock Frequency [16,20,25,32] = 25? 25 <return>
Reset System [Y,N] N? Y <return>
```

... the system will reset and return you to the 147-Bug prompt.

```
147-Bug>
```

I/O Teach

This utility is used to tell the TPU which SCSI devices are installed in the system. It is also handy if you need to know if the TPU is recognizing all devices properly. The example below shows what a system with a 300 Mb hard disk and system floppy drive will look like:

```
147-Bug> IOT;T <return>
```

```
scanning the system for available disk/tape controllers.....  
Disk Controllers Available
```

LUN	Type	Address	# dev	SCSI Addr =	
0	VME147	\$FFFE4000	1	0	- CDC 94171-9 5950
1	VME147	\$FFFE4000	1	1	- TEAC FC-1 JHF 01RV F
	VME147	\$FFFE4000	*	7	

```
Align LUNs to SCSI Addresses [Y,N] N? Y <return>
```

```
Disk Controllers Available
```

LUN	Type	Address	# dev	SCSI Addr =	
0	VME147	\$FFFE4000	1	0	- CDC 94171-9 5950
1	VME147	\$FFFE4000	1	1	-
2	VME147	\$FFFE4000	1	2	-
3	VME147	\$FFFE4000	1	3	-
4	VME147	\$FFFE4000	1	4	-
5	VME147	\$FFFE4000	1	5	-
6	VME147	\$FFFE4000	1	6	- TEAC FC-1 JHF 01RV F
	VME147	\$FFFE4000	*	7	

```
Save map in NVRAM [Y,N] N? Y <return>
```

```
147-Bug>
```

Setting the System's Date and Time

You can change the date and time from the debugger or from the UNIX prompt (if you login as root). Below is an example of setting the date and time from the debugger:

```
147-Bug> SET <return>  
Tuesday 4/27/92 17:49:33:  
Preset calibration value = -0  
Enter Date as MM/DD/YY  
06/14/93 <return>  
Enter calibration value +/- (0 to 31)  
<return>  
Enter time as HH:MM:SS (24 hour clock)  
16:52:00 <return>  
147-Bug>
```

Cycle power and the system should boot up and be ready for duplication. For additional help on the above utilities you can refer to the Motorola's MVME147BUG 147Bug Debugging Package User's Manual or call Trace Customer Support.

Environment Setup

At the prompt, type `env` and the system will respond with a series of questions. Set the environment parameters as follows:

```
147-Bug> ENV <RETURN>
Bug or System environment [B, S] = B? B <RETURN>
Execute/Bypass Bug Self Test [E, B] = B? B <RETURN>
Maintain Concurrent Mode (if enabled) through a Power Cycle/Reset [Y/N] = Y? Y <RETURN>
Set VME Chip:
Board ID (def is 0) [0-FE] = $00? 00 <RETURN>
GCSR base address offset (def is 0F) [0-FF] = 0F? 0F <RETURN>
Utility Interrupt Mask (def is 0) [0-FE] = $00? 00 <RETURN>
Utility Interrupt Vector number (def is 60) [8-FE] = $60? 60 <RETURN>
VMEbus Interrupt Mask (def is FE) [0-FE] = $ FE <RETURN>
VMEbus Requestor Level (def is 0) [0-3] = $00? 00 <RETURN>
VMEbus Requestor Release (def is ROR)[ROR, RWD, NVR] = ROR? ROR <RETURN>
147-Bug>
```

Enabling Auto Boot

Setting the system to auto boot will allow it to boot automatically rather than having the user boot the system manually. To enable auto boot, type the following command at the debugger prompt and set the parameters as follows:

```
147-Bug> AB <RETURN>
Controller LUN ? 00 <RETURN>
Device LUN ? 00 <RETURN>
Default String ? <RETURN>
Boot at Power up only or any board reset [P, R] = R? R <RETURN>
147-Bug>
```