
Mauna Loa Solar Observatory Observer's Log

Wed Nov 27 16:56:48 GMT 1996

Year: 96 Doy: 332

Observer: yasukawa

WEATHER COMMENT: Wed Nov 27 16:56:55 GMT 1996

In moderate cirrus overcast. Southeast wind.

COMMENT: Wed Nov 27 16:57:35 GMT 1996

Since I am in moderate cirrus, I will opt to not turn on CHIP or DPMON in order to concentrate on troubleshooting the MKIII.

Wed Nov 27 16:58:58 GMT 1996 CHIP Startup--Initializing new tape

MKIII COMMENT: Wed Nov 27 17:41:25 GMT 1996

I found the problem. All of symptoms were the same as the 11/19-11/21 failure except that the Vcc at the driver card in the barrel was at 5V and not pulled to ground like the last failure. Upon pulling the HEI sensor/half-wave plate transmission gear assembly out for inspection, I found that one side of the HEI sensor had been ground up by the teeth of the encoder wheel. This has happened once before, I recall. I will have to replace the HEI (again... sigh!) and assure better alignment this time when remounting all of the hardware.

MKIII COMMENT: Wed Nov 27 19:46:57 GMT 1996

Detour encountered. Mount for HEI onto formica block was stripped. tried to enlarge the hole and tap for 4-40 screw but the formica split. fortunately. it looks like the spare mounting block is identical. Unfortunately, the HEI wires are routed thru a hole in the formica so I will have to unsolder the HEI to exchange blocks.

MKIII COMMENT: Wed Nov 27 20:41:22 GMT 1996

Another problem has surfaced. There is an intermittent in the orange and in the black wire in the Microtech cable/connector assembly at the hermetically sealed cable. Break may have occurred yesterday or today when the connector was disconnected to troubleshoot. These guys are very small and consequently can't take much pulling to disconnect. I will try to fashion a jumper to bypass the intermittent until a new cable can be delivered.

MKIII COMMENT: Wed Nov 27 22:31:42 GMT 1996

There is a very slight discrepancy in the overall height of the HEI in relation to the old one--or a slight lack of concentricity in the encoder wheel. The HEI rubs one spot on the wheel's hub section. lowering the HEI by removing the shim causes the 1/rot sensor to read the 64/rot teeth. will try shaving down the top of the HEI a bit if a slightly thinner shim does not work. The signals are back, by the way. The jury rigged jumper works. I haven't tried to put covers back on, yet, though. May get some pinching of the jumper cable.

MKIII COMMENT: Wed Nov 27 23:11:25 GMT 1996

1/rot and 64/rot now appear with a slightly thinner shim. I hear a slight "rattle" as motor spins 1/2-wave plate. I will pull the HEI out again to check that there is no scraping.

MKIII COMMENT: Wed Nov 27 23:26:34 GMT 1996

DAMN! The spare microtech cable was a real poorly made one.

No matter how carefully one connects/disconnects it, the wires at the connector keep breaking off. Now almost all of the wires are intermittent. By wiggling it around at the connector, I can get any and all signals to appear or disappear.

MKIII COMMENT: Thu Nov 28 00:22:55 GMT 1996

Must be tired.... connector was rung out again and output wires were OK, connector was probably not in the socket all the way. reassembled rig with jury rigged power connection and signals returned. I will let it run for a while before buttoning things up.

Thu Nov 28 00:41:30 GMT 1996 CHIP CHIP Start Patrol

Thu Nov 28 00:44:19 GMT 1996 dPMon Start Patrol

Thu Nov 28 01:02:57 GMT 1996 dPMon Flat

Thu Nov 28 01:03:52 GMT 1996 dPMon End Flat

Thu Nov 28 01:03:47 GMT 1996 CHIP Bias

Thu Nov 28 01:04:50 GMT 1996 CHIP End Bias

Thu Nov 28 01:04:59 GMT 1996 CHIP Water

Thu Nov 28 01:05:37 GMT 1996 CHIP End Water

COMMENT: Thu Nov 28 00:48:57 GMT 1996

Starting obs in clear sky while I do GONG PM. I think I will take tomorrow off for mental health reasons.

MKIII COMMENT: Thu Nov 28 01:25:30 GMT 1996

I see P+S instability and associated radial noise on the coronal trace in the northwest.

DPMON COMMENT: Thu Nov 28 01:27:17 GMT 1996

Forgot to turn clock drive on. stem was rotating.

MKIII COMMENT: Thu Nov 28 01:38:41 GMT 1996

Not sure what that instability and noise is, timing pulses look

OK at Digital isolator.

Thu Nov 28 01:44:50 GMT 1996 dPMon End Patrol

COMMENT: Thu Nov 28 01:53:40 GMT 1996

Activity report:

QP: 55-63; 110-116; 120; 202; 214; 227; 265-270;

No coronal activity detected.

TAPES: MKIII: H01442

DPMON: P00768

CHIP: C00185

LOWL: L00428

SCAN-LOG

SCAN-LOG 17:02:58. 11/27/96 DOY 332

0:48:48	0:52:03	0:55:17	0:58:32	1:01:45
1:04:59	1:08:12	1:11:26	1:14:39	1:17:53
1:21:06	1:24:21	1:27:34	1:30:48	1:34:01

1:37:15
0 ERRORS

1:40:28

1:43:42

OK

Thu Nov 28 02:03:50 GMT 1996	CHIP	Bias
Thu Nov 28 02:04:59 GMT 1996	CHIP	End Bias
Thu Nov 28 02:05:06 GMT 1996	CHIP	Water
Thu Nov 28 02:05:36 GMT 1996	CHIP	End Water
Thu Nov 28 02:12:33 GMT 1996	CHIP	CHIP End Patrol
Thu Nov 28 02:12:57 GMT 1996	CHIP	ending tape