
Mauna Loa Solar Observatory Observer's Log

Tue Aug 1 16:36:14 GMT 2006

Year: 06 Doy: 213

Observer: yasukawa

WEATHER COMMENT: Tue Aug 1 16:36:27 GMT 2006

Clear, S wind 13 mph, temp 40 F.

____end____

MKIV PROBLEM: Tue Aug 1 16:37:35 GMT 2006

Found the likely suspect TO MK4 startup problem.

Symptoms are consistent with Sunday and Monday summaries.

Allen put probes on the synchro power supplies yesterday afternoon.

This morning, 5VDC supply is reading 1.547VDC.

+ and - 15 VDC supplied reading supplying correct values.

Barrel synchro pulses showing low, 1V p-p at 25% duty cycle.

Barrel CW pulses normal for what it should be doing.

____end____

Tue Aug 1 16:42:31 GMT 2006 CHIP Start Patrol

Tue Aug 1 16:42:46 GMT 2006 PICS Start Patrol

SBM COMMENT: Tue Aug 1 16:42:55 GMT 2006

Observing.

____end____

PSPT COMMENT: Tue Aug 1 16:44:53 GMT 2006

Starting up.

____end____

PSPT COMMENT: Tue Aug 1 16:57:03 GMT 2006

Observing.

____end____

A NEW TAPE HAS BEEN PUT INTO KAIEE DLT DRIVE, Tue Aug 1 17:02:42 GMT 2006

MKIV PROBLEM: Tue Aug 1 17:40:01 GMT 2006

Back in late 2001, we had a similar barrel failure attributed to a degradation of the Semiconductor Circuits (SC) +/-15 and 5V PS. The 5V side wasn't supplying enough current to support the synchro circuits. To fix this, a separate 5V ps (in the black box mounted below the synchro panel) was added to boost the capacity. The additional unit now powers the Binary-BCD module and the original SC power supply mounted on the panel powers the Vernitech module. This is the supply that is now probably flaky, running at only 1.5V (the 5V side of the triple-output supply) in the early morning.

____end____

Tue Aug 1 17:46:29 GMT 2006 MKIV Start Patrol

MKIV PROBLEM: Tue Aug 1 17:45:35 GMT 2006

Just turned around and noted that the SC power supply is now providing 5.07 VDC and the barrel is turning. Starting Patrol.

____end____

MKIV PROBLEM: Tue Aug 1 17:47:05 GMT 2006

Synchro LSB pulses now look normal, barrel is turning and barrel pulses look fine.

Replacing the SC ps will require obtaining another unit -- no spares -- or rigging a temporary alternate supply.

____end____

Tue Aug 1 18:00:51 GMT 2006 CHIP LSD

Tue Aug 1 18:01:18 GMT 2006 PICS Flat

Tue Aug 1 18:02:34 GMT 2006 CHIP End LSD

Tue Aug 1 18:02:43 GMT 2006 CHIP BiasLSD

Tue Aug 1 18:03:26 GMT 2006 CHIP End BiasLSD

Tue Aug 1 18:03:37 GMT 2006 CHIP Bias

Tue Aug 1 18:03:47 GMT 2006 PICS End Flat

Tue Aug 1 18:03:54 GMT 2006 PICS ReStart Patrol

Tue Aug 1 18:04:19 GMT 2006 CHIP End Bias

Tue Aug 1 18:04:32 GMT 2006 CHIP ReStart Patrol

PSPT PROBLEM: Tue Aug 1 18:20:54 GMT 2006

Crashed at 1732, k/r

____end____

Tue Aug 1 18:28:05 GMT 2006 MKIV End Patrol

Tue Aug 1 18:28:11 GMT 2006 MKIV Start Cal

Tue Aug 1 18:46:54 GMT 2006 MKIV End Cal

Tue Aug 1 18:47:00 GMT 2006 MKIV Start Patrol
NICE MK4 IMAGE: 1816
NICE CHIP IMAGE: 1816
NICE PICSLIMB IMAGE: 1816
NICE PICSDISC IMAGE: 1816

Tue Aug 1 19:33:43 GMT 2006 CHIP End Patrol
Tue Aug 1 19:33:57 GMT 2006 PICS End Patrol
Tue Aug 1 19:34:34 GMT 2006 MKIV End Patrol

MKIV PROBLEM: Tue Aug 1 19:32:17 GMT 2006
Barrel culprit appears to be Semiconductor Circuits MP1.5.500/2.15.100 encapsulated power supply. That unit has been replaced by MP35-070. Ron ordered a replacement and a spare for us. Replacement is in stock, spare will take 6 weeks.

__end__
Tue Aug 1 19:41:22 GMT 2006 MKIV Start Patrol
COMMENT: Tue Aug 1 19:41:30 GMT 2006
Reconfigured dome shutter.

__end__
Tue Aug 1 19:41:37 GMT 2006 CHIP Start Patrol
Tue Aug 1 19:41:47 GMT 2006 PICS Start Patrol
MKIV COMMENT: Tue Aug 1 21:09:03 GMT 2006
Set up bench power supply next to KCC cabinet to allow temporary hookup of 5VDC @ 1A (using adjusted +32V@1A terminal rather than the 8V@3A terminal adjusted to 5V) to the +5V@500mA supply in the morning when the SC power supply is flaked-out. This will allow an extra 1-1.5 hours of observation early in the morning.

__end__
WEATHER COMMENT: Tue Aug 1 21:20:26 GMT 2006
In orographic clouds.

__end__
Tue Aug 1 21:21:32 GMT 2006 CHIP End Patrol
Tue Aug 1 21:21:41 GMT 2006 PICS End Patrol
Tue Aug 1 21:23:50 GMT 2006 MKIV End Patrol
Tue Aug 1 21:34:06 GMT 2006
MkIV

17_46.rawmk4	18_31.rawmk4	19_19.rawmk4	20_07.rawmk4	20_48.rawmk4
17_49.rawmk4	18_37.rawmk4	19_22.rawmk4	20_10.rawmk4	20_51.rawmk4
17_52.rawmk4	18_43.rawmk4	19_25.rawmk4	20_13.rawmk4	20_54.rawmk4
17_55.rawmk4	18_47.rawmk4	19_28.rawmk4	20_16.rawmk4	21_00.rawmk4
17_58.rawmk4	18_49.rawmk4	19_31.rawmk4	20_19.rawmk4	21_04.rawmk4
18_01.rawmk4	18_52.rawmk4	19_41.rawmk4	20_22.rawmk4	21_07.rawmk4
18_04.rawmk4	18_55.rawmk4	19_44.rawmk4	20_25.rawmk4	21_10.rawmk4
18_07.rawmk4	18_58.rawmk4	19_47.rawmk4	20_28.rawmk4	21_14.rawmk4
18_10.rawmk4	19_01.rawmk4	19_50.rawmk4	20_31.rawmk4	21_17.rawmk4
18_13.rawmk4	19_04.rawmk4	19_53.rawmk4	20_34.rawmk4	21_20.rawmk4
18_16.rawmk4	19_07.rawmk4	19_56.rawmk4	20_37.rawmk4	c18_28.rawmk4
18_19.rawmk4	19_10.rawmk4	19_58.rawmk4	20_40.rawmk4	c18_34.rawmk4
18_21.rawmk4	19_13.rawmk4	20_01.rawmk4	20_42.rawmk4	c18_40.rawmk4
18_24.rawmk4	19_16.rawmk4	20_04.rawmk4	20_45.rawmk4	