E05-102 Shift Check List

Date: 06/01/09

	Owl	Day	Swing
Time (hh/mm,24:00)	06:00	12:15	22:10
Your Name	M. MIHOVILOVIC	W. Boeglin	D. Flay
Visual Hall Inspection	✓	✓	✓
Beam Energy (MeV)	2425.4907	2425.51	2425
Beam Current (uA)	11.044 μA	11.4	10
# beam trips last hour	7	9	6
SPOT++ size X/Y (mm)	4×4 mm	4x4 m	4x4
SPOT++ saved in Halog ?	✓	✓	
Beam Position at 1H04A X/Y (mm)	-0.474 / 2.171	-.485/2.170	-0.488/2.180
Beam Position at 1H04B X/Y (mm)	-0.50 / 2.003	-.503/2.007	-0.496/1.998
Hall A beam position feedback	ON (YES)	on	On
Alarm Handler running ?	YES	Yes	yes
Saved Hall A tools screen into Halog ?	YES	Yes	yes
Wien angle	66.92	66.92	66.92
Beam half-wave plate IN/OUT ?	IN	IN	in
Most recent Hall A Moller date/result	05/26/09	5/27/09	5/27/09
Target position	3He	3He	3He
Pol. ^{3}He optical pumping direction	Long	long	Long +
Pumping laser on ?	Yes.	Yes	yes
Temperature in laser optics enclosure	~~230~~	?	237.803
Pol. ^{3}He oven heater ON ?	~~Yes~~ Yes.	Yes	yes
^{3}He cell oven temperature (RTDs)	~~230/230/230/230/230~~	250/230/225	230°C.
^{3}He cell temperature (RTDs)	42/48/52/80	75/50/50/50/50	76°.
^{3}He cell polarization, recent NMR	62%	61%	61.515%
^{3}He cell polarization, recent EPR	/	—	---
Spin-flip ON ?	OFF	OFF	off
Target cooling jet flow	42.5.	?	43.2
Ref. cell gas type	D_2.	D2	N_2.
Ref. cell low pressure gauge (left)	1 Torr	1 torr	900 psig
Ref. cell high pressure gauge (right)	~~134psig~~	134 psig	1 psig
Ref. cell tempreture (RTDs)	~~100, 20, 20.~~	~~BAD~~ 80/25/25	50
Left Arm Angle	14.5°	14.5	12.5
Left Arm Momentum (GeV/c)	2.277	2.277	2.320
Left Arm NMR locked ?	✓	✓	✓
Left Arm Helium flow OK ?	✓	✓	✓
Left Arm liquid level OK ?	✓	✓	✓
Left Arm Quad #1 (A)	1713.230	1713.2	1745.327
Left Arm Quad #2 (A)	980.39	980.42	999.0
Left Arm Dipole (A)	777.99	777.79	793.27
Left Arm Quad #3 (A)	906.42	906.45	923.77

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Date:

	Owl	Day	Swing
Right Arm Angle	18°	18°	18
Right Arm Momentum (GeV/c)	2.175	2.175	2.175
Right Arm NMR locked ?	✓	✓	✓
Right Arm Helium flow OK ?	NO!	Yes	✓
Right Arm liquid level OK ?	YES	Yes	✓
Right Arm Quad #1 (A)	1635.309	1635.31	1635.309
Right Arm Quad #2 (A)	936.00	936.03	936.03
Right Arm Dipole (A)	758.64	758.64	758.64
Right Arm Quad #3 (A)	865.29	865.32	865.33
Argon pressure (PSI)	2187.266	2187	2087.402
Ethane pressure (PSI)	508.544	555	501.270
CO2 pressure (PSI)	791.238	875	791.398
Left VDC gas flow (top/bottom)	5.48/ 5.87	5.35/5.86	~~5.48/5.87~~ 5.76/5.87
Left Cerenkov pressure (PSI)	—	—	—
Left VDC HV on (top/bottom) ?	3.993/4.000	3.993/4.000	3.981/4.000
Left VDC threshold on (top/bot.) ?	3.90/ 3.97	3.90/3.96	3.90/3.97
Left S1/S2 HV on ?	✓	✓	✓
Left Cerenkov HV on ?	✓	✓	✓
Right VDC gas flow (top/bottom)	6.171/5.985	6.124/5.966	6.109/5.841
Right Cerenkov pressure (PSI)	—	—	—
Right VDC HV on (top/bottom) ?	~~-4.0004/4.007~~	-4.000/4.006	-0.013/4.017
Right VDC threshold on (top/bot.) ?	3.87/3.84	3.87/3.84	3.87/3.84
Right S1/S2 HV on ?	✓	✓	✓
Right Cerenkov HV on ?	✓	✓	✓
Happex-run started/run-# ?	02:21 || #31458	10:26/31460	20:55/31961
Last-Left-HRS run number	3043	3058	3081
Left-HRS-DAQ deadtime	4%	4%	5%
Left-HRS-DAQ CODA rate	2kB/s inleg	1.5 (inkgt.)	~2kHz.
Left-HRS-prescale PS3/PS4	5/4	5/4	100/5
Left-HRS-rates T3/T4	~~1123/2242 Hz~~ 11/11Hz	9.8/	~~2.51x10^4 Hz~~/9.147 Hz.
Last Left-HRS run replayed	~~2[illegible]~~ 3040	3058	3081
Left VDC eff./wiremap OK ?	✓	✓	✓
Last-Right-HRS run number	21921	21936	21954
Right-DAQ deadtime	12%	lost beam	~8%
Right-DAQ CODA rate	475kB/s inf	lost beam	~1.5kHz
Right-prescale PS1/PS2	1/1	1/1	1/1
Right-rates T1/T2	11/7 Hz	lost beam	2.16x10^3 Hz/6.114 x10.
Last Right-HRS run replayed	21918	lost beam	21954
Right VDC eff./wiremap OK ?	✓	lost beam	✓

E05-102 Shift Check List

Date: 6/2/09

	Owl	Day	Swing
Time (hh/mm,24:00)	5:52		21:50
Your Name	E. Jensen		H.Ly
Visual Hall Inspection	✓		✓
Beam Energy (MeV)	2425.49		2425.49
Beam Current (uA)	10.23		10
# beam trips last hour	10		4
SPOT++ size X/Y (mm)	4x4		4x4
SPOT++ saved in Halog ?	✓		✓
Beam Position at 1H04A X/Y (mm)	-.467/2.193		-0.484/2.164
Beam Position at 1H04B X/Y (mm)	-.493/1.980		-0.512/2.016
Hall A beam position feedback	✓		✓
Alarm Handler running ?	✓		✓
Saved Hall A tools screen into Halog ?	✓		✓
Wien angle	66.92		66.92
Beam half-wave plate IN/OUT ?	in		on
Most recent Hall A Moller date/result	5/27/09		
Target position	^{3}He		^{3}He
Pol. ^{3}He optical pumping direction	Long		long
Pumping laser on ?	yes		yes
Temperature in laser optics enclosure	✓		✓
Pol. ^{3}He oven heater ON ?	Yes		Yes
^{3}He cell oven temperature (RTDs)	230		230
^{3}He cell temperature (RTDs)	41/46/51/77		41/48/52/80
^{3}He cell polarization, recent NMR	62.8%		61.79%
^{3}He cell polarization, recent EPR	✓		✓
Spin-flip ON ?	off		~~off~~
Target cooling jet flow	42.7		43.1
Ref. cell gas type	N2		N2
Ref. cell low pressure gauge (left)	900psig		900
Ref. cell high pressure gauge (right)	20psig		20
Ref. cell tempreture (RTDs)	50		50
Left Arm Angle	12.5		12.5
Left Arm Momentum (GeV/c)	2.320		2.436
Left Arm NMR locked ?	✓		✓
Left Arm Helium flow OK ?	✓		✓
Left Arm liquid level OK ?	✓		✓
Left Arm Quad #1 (A)	1745.327		1832.914
Left Arm Quad #2 (A)	978.99		1049.12
Left Arm Dipole (A)	793.27		835.22
Left Arm Quad #3 (A)	79.8		969.70

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Date:

	Owl	Day	Swing
Right Arm Angle	18.0°		18.0
Right Arm Momentum (GeV/c)	2.175		2.175
Right Arm NMR locked ?	✓		✓
Right Arm Helium flow OK ?	✓		✓
Right Arm liquid level OK ?	✓		✓
Right Arm Quad #1 (A)	1635.309		1635.309
Right Arm Quad #2 (A)	936.06		936.04
Right Arm Dipole (A)	758.64		758.64
Right Arm Quad #3 (A)	865.35		865.33
Argon pressure (PSI)	2048.438		2012.109
Ethane pressure (PSI)	503.908		602.930
CO2 pressure (PSI)	778.418		950.977
Left VDC gas flow (top/bottom)	5.16/5.86		5.21/5.87
Left Cerenkov pressure (PSI)	—		✓
Left VDC HV on (top/bottom) ?	3.994/3.999		3.998/4.000
Left VDC threshold on (top/bot.) ?	3.90/3.96		4.0/4.0
Left S1/S2 HV on ?	✓		✓
Left Cerenkov HV on ?	✓		✓
Right VDC gas flow (top/bottom)	6.011/5.782		5.76/5.83
Right Cerenkov pressure (PSI)	—		✓
Right VDC HV on (top/bottom) ?	-0.012/4		-0.012/4.007
Right VDC threshold on (top/bot.) ?	3.87/3.84		0.0/4.0 ✓
Right S1/S2 HV on ?	✓		✓
Right Cerenkov HV on ?	✓		✓
Happex-run started/run-# ?	5:14/#31463		31465
Last-Left-HRS run number	#3098		3122
Left-HRS-DAQ deadtime	10.72%		9%
Left-HRS-DAQ CODA rate	2238.41		2540
Left-HRS-prescale PS3/PS4	5/4		2/2
Left-HRS-rates T3/T4	10 kHz/200Hz		5.9K/0.3K
Last Left-HRS run replayed	#3098		3122
Left VDC eff./wiremap OK ?	✓		✓
Last-Right-HRS run number	# 21971		21996
Right-DAQ deadtime	11.59%		12%
Right-DAQ CODA rate	1363.20		1669
Right-prescale PS1/PS2	1/1		1/1
Right-rates T1/T2	3.3 kHz/89Hz		2.2K/65
Last Right-HRS run replayed	#21971		21996
Right VDC eff./wiremap OK ?	✓		✓

E05-102 Shift Check List

Date: 6/3/09

	Owl	Day	Swing
Time (hh/mm,24:00)	05:00	12:30	8:30
Your Name	Eric Jensen	E. Long	Haijiang Lu
Visual Hall Inspection	✓	OK	✓
Beam Energy (MeV)	2427.2	2427	2427
Beam Current (uA)	9.583	9	9
# beam trips last hour	8	8	12
SPOT++ size X/Y (mm)	4 x 4	4x 4	4x 4
SPOT++ saved in Halog ?	✓	Yes	✓
Beam Position at 1H04A X/Y (mm)	-.508/2.177	-0.49/2.17	-0.5/2.166
Beam Position at 1H04B X/Y (mm)	-.491/2.014	-049/2.00	-0.5/1.971
Hall A beam position feedback	✓	On	✓
Alarm Handler running ?	✓	Yes	✓
Saved Hall A tools screen into Halog ?	✓	Yes	✓
Wien angle	66.92	66.92	66.92
Beam half-wave plate IN/OUT ?	IN	In	In
Most recent Hall A Moller date/result	5/27/09	5/27/09	5/27/09
Target position	^{3}He	Pol. ^{3}He	Pol ^{3}He
Pol. ^{3}He optical pumping direction	Longitudinal	Long.	Long
Pumping laser on ?	Yes	Yes	Yes
Temperature in laser optics enclosure	/	—	/
Pol. ^{3}He oven heater ON ?	Yes.	Yes	Yes
^{3}He cell oven temperature (RTDs)	230.	230	230
^{3}He cell temperature (RTDs)	40/45/52/58	80/50	80/48/30/40/55
^{3}He cell polarization, recent NMR	62.3%.	62.53%	62.53
^{3}He cell polarization, recent EPR	/	—	/
Spin-flip ON ?	off	Off	off
Target cooling jet flow	43.1	42.8	42.8
Ref. cell gas type	D_2	D_2	D_2
Ref. cell low pressure gauge (left)	1 Torr	1 torr	900 Torr
Ref. cell high pressure gauge (right)	37 psig	37 psig	20 Psig
Ref. cell tempreture (RTDs)	50	25/25	25/25
Left Arm Angle	12.5°	12.5°	12.5
Left Arm Momentum (GeV/c)	2.320	2.320	2.320
Left Arm NMR locked ?	✓	Yes	✓
Left Arm Helium flow OK ?	✓	Yes	✓
Left Arm liquid level OK ?	✓	Yes	✓
Left Arm Quad #1 (A)	1745.380	1745	1745
Left Arm Quad #2 (A)	998.85	998	998
Left Arm Dipole (A)	792.31	792	792
Left Arm Quad #3 (A)	923.71	923	923

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Date:

	Owl	Day	Swing
Right Arm Angle	18°	18.0°	18°
Right Arm Momentum (GeV/c)	2.175	2.175	2.175
Right Arm NMR locked ?	✓	Yes	✓
Right Arm Helium flow OK ?	✓	Yes	✓
Right Arm liquid level OK ?	✓	Yes	✓
Right Arm Quad #1 (A)	1635.309	1635	1635
Right Arm Quad #2 (A)	936.04	936	936
Right Arm Dipole (A)	758.64	758	758
Right Arm Quad #3 (A)	865.33	865	865
Argon pressure (PSI)	1931.250	1988	862
Ethane pressure (PSI)	538.770	706	565
CO2 pressure (PSI)	851.367	1094	927
Left VDC gas flow (top/bottom)	5.24/5.87	5.2/5.9	5.34/5.6 ~~3.88/5.979~~
Left Cerenkov pressure (PSI)	—	—	—
Left VDC HV on (top/bottom) ?	3.995/3.997	3.9/4.0	3.998/3.999
Left VDC threshold on (top/bot.) ?	3.90/3.97	3.9/4.0	4.0/4.0
Left S1/S2 HV on ?	✓	✓	✓
Left Cerenkov HV on ?	✓	✓	✓
Right VDC gas flow (top/bottom)	6.080/5.864	6.2/5.9	6.22/6.0
Right Cerenkov pressure (PSI)	—	—	—
Right VDC HV on (top/bottom) ?	-4.004/4.009	4.0/4.0	-0.014/4.0
Right VDC threshold on (top/bot.) ?	3.87/3.84	3.9/3.8	0/4.0
Right S1/S2 HV on ?	✓	✓	✓
Right Cerenkov HV on ?	✓	✓	✓
Happex-run started/run-# ?	02:12/31466	11:02/31468	19:58/31469
Last-Left-HRS run number	3126	3144	3161
Left-HRS-DAQ deadtime	5.13%	7%	7%
Left-HRS-DAQ CODA rate	1864	5434 KB/s	2162
Left-HRS-prescale PS3/PS4	2/2	200/8	200/40
Left-HRS-rates T3/T4	1074/67	22kHz/4000Hz	22K/343
Last Left-HRS run replayed	3126	3143	3161
Left VDC eff./wiremap OK ?	✓	Ok	✓
Last-Right-HRS run number	22000	22017	22033
Right-DAQ deadtime	7.39%	4%	10%
Right-DAQ CODA rate	1355	1470 KB/s	@1514 KB/s
Right-prescale PS1/PS2	1/1	1/1	1/1
Right-rates T1/T2	642/26	1.7kHz/500Hz	1.8K/56
Last Right-HRS run replayed	22000	22017	22033
Right VDC eff./wiremap OK ?	✓	Ok	✓

E05-102 Shift Check List

Date: 6/4/09

	Owl	Day	Swing
Time (hh/mm,24:00)	04:00		
Your Name	Eric Jensen		
Visual Hall Inspection	✓		
Beam Energy (MeV)	2425.49		
Beam Current (uA)	9.33		
# beam trips last hour	10		
SPOT++ size X/Y (mm)	4x4		
SPOT++ saved in Halog ?	✓		
Beam Position at 1H04A X/Y (mm)	-.489/2.167		
Beam Position at 1H04B X/Y (mm)	-.489/1.981		
Hall A beam position feedback	✓		
Alarm Handler running ?	✓		
Saved Hall A tools screen into Halog ?	✓		
Wien angle	66.92		
Beam half-wave plate IN/OUT ?	in		
Most recent Hall A Moller date/result	5/27/09		
Target position	^{3}He		
Pol. ^{3}He optical pumping direction	Long.		
Pumping laser on ?	✓		
Temperature in laser optics enclosure	✓		
Pol. ^{3}He oven heater ON ?	Yes		
^{3}He cell oven temperature (RTDs)	230		
^{3}He cell temperature (RTDs)	41/46/52/77		
^{3}He cell polarization, recent NMR	63.8%		
^{3}He cell polarization, recent EPR	✓		
Spin-flip ON ?	off		
Target cooling jet flow	430		
Ref. cell gas type	D2		
Ref. cell low pressure gauge (left)	900 Torr		
Ref. cell high pressure gauge (right)	20 PSIG		
Ref. cell tempreture (RTDs)	25/25		
Left Arm Angle	12.5°		
Left Arm Momentum (GeV/c)	2.320		
Left Arm NMR locked ?	✓		
Left Arm Helium flow OK ?	✓		
Left Arm liquid level OK ?	✓		
Left Arm Quad #1 (A)	1745.380		
Left Arm Quad #2 (A)	998.87		
Left Arm Dipole (A)	792.31		
Left Arm Quad #3 (A)	923.73		

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Date: 6/4/09

	Owl	Day	Swing
Right Arm Angle	18°		
Right Arm Momentum (GeV/c)	2.175		
Right Arm NMR locked ?	✓		
Right Arm Helium flow OK ?	✓		
Right Arm liquid level OK ?	✓		
Right Arm Quad #1 (A)	1635.309		
Right Arm Quad #2 (A)	936.05		
Right Arm Dipole (A)	758.64		
Right Arm Quad #3 (A)	865.35		
Argon pressure (PSI)	1782.422		
Ethane pressure (PSI)	522.656		
CO2 pressure (PSI)	817.090		
Left VDC gas flow (top/bottom)	5.20/5.87		
Left Cerenkov pressure (PSI)	—		
Left VDC HV on (top/bottom) ?	3.997/3.998		
Left VDC threshold on (top/bot.) ?	3.89/3.96		
Left S1/S2 HV on ?	✓		
Left Cerenkov HV on ?	✓		
Right VDC gas flow (top/bottom)	6.015/5.784		
Right Cerenkov pressure (PSI)	—		
Right VDC HV on (top/bottom) ?	-4.000/4.007		
Right VDC threshold on (top/bot.) ?	3.87/3.84		
Right S1/S2 HV on ?	✓		
Right Cerenkov HV on ?	✓		
Happex-run started/run-# ?	31471		
Last-Left-HRS run number	3175		
Left-HRS-DAQ deadtime	7.7%		
Left-HRS-DAQ CODA rate	2133.27		
Left-HRS-prescale PS3/PS4	200/40		
Left-HRS-rates T3/T4	100.5/9.4		
Last Left-HRS run replayed	3175		
Left VDC eff./wiremap OK ?	✓		
Last-Right-HRS run number	22047		
Right-DAQ deadtime	10.6%		
Right-DAQ CODA rate	1481.50		
Right-prescale PS1/PS2	1/1		
Right-rates T1/T2	1635.4/48.7		
Last Right-HRS run replayed	22047		
Right VDC eff./wiremap OK ?	✓		

E05-102 Shift Check List

* just at time of beam off

Date: 06/05/09

	Owl	Day	Swing
Time (hh/mm,24:00)	05:40:	9:25	23:30 *
Your Name	W. Boeglin	Boeglin	S. Sirca
Visual Hall Inspection	✓	✓	✓
Beam Energy (MeV)	2.425	2.425	2.425
Beam Current (uA)	9.7	9.4	9.5
# beam trips last hour	4	4	6
SPOT++ size X/Y (mm)	4×4	4×4	4×4
SPOT++ saved in Halog ?	✓	✓	✓
Beam Position at 1H04A X/Y (mm)	-0.489/2.109	-0.501/2.113	-0.5/2.1
Beam Position at 1H04B X/Y (mm)	-0.506/1.992	-0.495/2.001	-0.5/2.0
Hall A beam position feedback	on ✓	On	ON
Alarm Handler running ?	✓	✓	✓
Saved Hall A tools screen into Halog ?	✓	✓	✓
Wien angle	66.97	66.92	66.92
Beam half-wave plate IN/OUT ?	out	Out	OUT
Most recent Hall A Moller date/result	5/27/09	5/27/09	5/27/05
Target position	He3	3He	3He
Pol. ^{3}He optical pumping direction	Long	long	long
Pumping laser on ?	✓		✓
Temperature in laser optics enclosure	/		
Pol. ^{3}He oven heater ON ?	Yes	✓	Yes
^{3}He cell oven temperature (RTDs)	230		230
^{3}He cell temperature (RTDs)	41/45/51/78		76/[illegible]/43/48/52/[illegible]
^{3}He cell polarization, recent NMR	62.2%	62.77	61.11
^{3}He cell polarization, recent EPR	/		-
Spin-flip ON ?	off		Yes
Target cooling jet flow	[illegible]42.9		42.9
Ref. cell gas type	[illegible] D_2	Vacuum	Vacuum
Ref. cell low pressure gauge (left)	001 Torr	001	001
Ref. cell high pressure gauge (right)	-015 psig	-015	-014
Ref. cell tempreture (RTDs)	25/25		-/
Left Arm Angle	12.5°	12.5	12.5
Left Arm Momentum (GeV/c)	2.32	2.32	2.320
Left Arm NMR locked ?	✓		✓
Left Arm Helium flow OK ?	✓	✓	✓
Left Arm liquid level OK ?	✓	✓	✓
Left Arm Quad #1 (A)	1745.39	1745.36	1745.360
Left Arm Quad #2 (A)	998.88	998.69	998.87
Left Arm Dipole (A)	792.31	792.31	792.31
Left Arm Quad #3 (A)	923.74	923.74	923.73

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Date:

	Owl	Day	Swing
Right Arm Angle	18	18	18.0
Right Arm Momentum (GeV/c)	2.175	2.175	2.175
Right Arm NMR locked ?	✓		✓
Right Arm Helium flow OK ?	✓	✓	✓
Right Arm liquid level OK ?	✓	✓	✓
Right Arm Quad #1 (A)	1635.309	1635.309	1635.309
Right Arm Quad #2 (A)	936.09	936.07	936.05
Right Arm Dipole (A)	758.64	758.64	758.66
Right Arm Quad #3 (A)	865.45	865.45	865.45
Argon pressure (PSI)	1591	1597	1481
Ethane pressure (PSI)	483	521	486
CO2 pressure (PSI)	747	763	757
Left VDC gas flow (top/bottom)	5.34/5.87	5.33/5.67	5.4/5.9
Left Cerenkov pressure (PSI)	—		✓
Left VDC HV on (top/bottom) ?	3.992/4.007	4.000/4.011	4/4
Left VDC threshold on (top/bot.) ?	3.90/3.97	3.90/3.97	4/4
Left S1/S2 HV on ?	✓		✓
Left Cerenkov HV on ?	✓		✓
Right VDC gas flow (top/bottom)	6.07/5.92	6.14/5.95	6.1/5.9
Right Cerenkov pressure (PSI)	—		✓
Right VDC HV on (top/bottom) ?	4000/4.009	3.992/4.007	4/4
Right VDC threshold on (top/bot.) ?	3.87/3.84	3.90/3.97	4/4
Right S1/S2 HV on ?	✓		✓
Right Cerenkov HV on ?	✓		✓
Happex-run started/run-# ?	✓/31474	31475	31480
Last-Left-HRS run number	3207	3214	3239
Left-HRS-DAQ deadtime	7%	7	8%
Left-HRS-DAQ CODA rate	2.06 kHz	1783	2.3kHz
Left-HRS-prescale PS3/PS4	200/40	200/40	200/40
Left-HRS-rates T3/T4	216Hz/390Hz	23k/410	
Last Left-HRS run replayed	3207		3238
Left VDC eff./wiremap OK ?	✓	✓	✓
Last-Right-HRS run number	22079	22086	22102
Right-DAQ deadtime	11%	10	10
Right-DAQ CODA rate	1.46kHz	1318	1.3kHz
Right-prescale PS1/PS2	1/1	1/1	1/1
Right-rates T1/T2	1.7kHz/54Hz	1.8k/52	
Last Right-HRS run replayed	22079		22101
Right VDC eff./wiremap OK ?	✓	✓	✓