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iPRO HPHT Main Menu Bar

Sensor Display Mode	3 C	Ť	ត្ ស្	7 8 9
BE OTATE POINT	00:00:00	MOTOR	COOLANT MEATER PRESSURE UP	SENSORS
IPSO Consistometer Control System	LOCK SCREEN	SREN	FRESSURE IN	EXIT
	10 11	12	13 14	10.

- Current Values. Displays four real-time readings for the current test: Bc – Consistency of the slurry mixture in Bearden constants. Aux. Temp. – Auxiliary temperature in ?F.
 S. Temp. Slurry temperature in ?F.
 - Pressure. Pressure in PSI.
- Test Set-point. Displays four values for each Set-point: SP. Set-point number.
 - Aux. Temp. Auxiliary temperature in ° F.
 - **S. Temp.** Slurry temperature in ° F.
 - Pressure . Pressure in PSI.
- **3. Times.** Displays Test Time.
- **4. Motor.** Switches the motor ON/OFF.
- **5. Coolant.** Switches the coolant ON/OFF.
- **6. Heater.** Switches the heater ON/OFF.
- 7. SENSOR. Goes to Sensor Mode.
- **8. MENU**. Goes to Menu Mode.
- **9. EXIT.** Exits the system.
- **10.** Locks and Unlocks screen.
- **11. Alarm.** Switches Alarm ON/OFF.
- 12. Siren. Switches Siren ON/OFF.
- **13. Pressure Up.** Takes pressure up.
- 14. **Pressure Dn.** Takes pressure down.

Menu Display Mode

	1 1	7 8 9		
I ST ST	SCHEDULE	CALIFACTOR	Fains Textment Company IPED HPIRT	NSORS
MONITOR	WEB			IENU
REPORT	HISTORY	SYSTEM		EXIT

- **1. Test.** Displays screen for running a test.
- 2. Monitor. Displays screen to allow remote monitoring and controlling of tests via Ethernet network or Internet connections.
- 3. Report. Displays screen to view reports and graphs.
- 4. Schedule. Displays screen to create and maintain all Test Schedules
- 5. Web. Displays iPRO HPHT and related web sites.
- 6. History. Displays system maintenance history screen.
- 7. Calibration. Displays calibration screen.
- 8. Manual. Displays On-Line User Manual.
- 9. Systems. Displays user's configurable parameters.



- 1. Schedule. Displays name of the currently loaded schedule.
- 2. Alarms. Hides/Shows ALARMS panel.
- 3. Menu. Hides/Shows MENU panel.
- 4. Schedule. Hides/Shows Schedule panel (No. 28).
- 5. User Msg. Hides/Shows User Message panel (No. 29).
- 6. Sys. Msg. Hides/Shows System Message (No. 30).
- 7. All Msg. Hides/Shows Schedule, User Message, and User Message panels.
- 8. MENU. Menu panel containing all buttons for test control.
- **9. Tuning.** Panel that displays system tuning parameters.
- 10. PTOL. Displays Pressure tolerance. Click on the display to change the value.
- 11. SAMPAVG. Number of sample points to average.
- **12. STDYSLOP.** Temperature tuning parameter.
- 13. Save. Saves all tuning parameters.
- **14. Test.** Panel that displays all test related buttons.
- **15.** Load Schedule. Selects and loads a Test Schedule.
- **16. Project Info.** Enters test's project information.
- 17. Start Test. Starts a test after loading Schedule and entering project information.
- 18. Pause/Resume. Pauses or Resumes a test in progress.
- **19. Done.** Click this button when a test is completed.
- 20. ALARMS. Panel that displays and configures all alarm types.
- **21. Bc.** Tab that displays Consistency Alarms.
- 22. Time. Tab that displays Time Alarms.
- 23. R. Click here to turn off alarm siren for this particular alarm.
- 24. Shows Alarm status: Active (A), Disable (D) or Shutdown (SD).
- 25. Click on this display to set new alarm value. A Zero value disables the alarm.
- **26.** Saves all alarm settings.
- 27. Alarm value indicator.
- 28. Schedule Panel. Displays current selected test schedule.
- 29. User Msg. Panel. Displays various messages to users.
- 30. System Msg. Panel. Displays various system messages.

Schedule Screen

PRO™(Con	sistoi	neter	Control	Sys	tem		Neo Schedule
Schedule	Name		Deny	ation		Date		
MENT TEST OUT		12000	FT SQ		1/11/200		End.	27 Dalete
5FINABROWN	21131	10000	FT D4SING		1/12/200			
47 2001 TEST 1	1	FD4M	CER SHOW FX		7/12/200		- Pev	(Edit)
COLLARD DAYS IED		HITCH	ET LEVENE		1/16/20	-	+	
ET 1		50 21	100.000		1/20/200	1	Ned	E Sone AL
94.1		ENER	EN 9320 CASING		7/21/200	1	+	
473.2		12600	CSG		7/24/200	11	-	General a Ramp
475 2		ENEFI	SEN TAIL		1/25/200	11	Lat	
479 1		10474	50		T/25/200	1		Neisdan
BOD DASING		PPEN	NEAT AT 16 POIN	IT 2	72317200	1	*	
			_				<u>ا</u> ا	Done
Stop	Time		emperature.	Pressure	Stiring	0		
1		0	91	1880	Y	•	A 400	
							58/6-	1
2		36	238	8450	Y		1 12	
						-	Defeat	
3		50	234	8458	Y	-	Hereso	
						and the		
4		55	234	9078	Y	-	Deate	
						-		

- 1. 2. Panel that displays all existing schedules. **Last.** Selects last schedule.
- Next. Selects next schedule. 3.
- **Prev.** Selects previous schedule. 4.
- 5. First. Select first schedule.
- Create New. Creates new schedule. 6.
- 7. **Delete.** Deletes selected schedule.
- Edit. Edits selected schedule. 8.
- 9. Save As. Saves selected schedule as a new schedule.
- 10. Generate Ramp. Generates detail Ramp step for selected schedule.
- Done. Exits this schedule module.
 Add. Adds a new Set-point for selected schedule.
- **13.** Save. Saves changes made to selected schedule.
- 14. **Refresh.** Re-reads schedule's Set-point from the database.
- 15. Delete. Deletes selected Set-point of selected schedule.
- **16.** Panel that displays Set-points for the selected schedule.

User Configuration Screen



- 1. User Settings. Displays various parameters that user can customize.
- 2. System Settings. Displays various setting that affects the performance of the system.
- **3. Title.** Title to be displayed in reports and graphs.
- **4. Sub Title.** Sub-Title to be displayed in reports and graphs.
- 5. Temperature Scale Auto. Scales temperature automatically in test report graph.
- 6. Bc Scale Auto. Scales Bc scaled automatically in test report graph.
- 7. Temperature Max. Value. If Temperature Scale Auto (No. 5) is not checked then enter the maximum value for the scale here.
- 8. Bc Max.Value. If Bc Scale Auto (No. 6) is not checked then enter the maximum value for the scale here.
- 9. Sample Avg. Number of points to be averaged in the report graph. The larger the number, the smoother the graph line will look.
- 10. Touch Screen. Switches between Touch screen mode and Keyboard mode.

System Configuration Screen



- 1. User Settings. Displays User Setting screen.
- 2. System Settings. Displays System Setting screen.
- 3. Program Directory. Displays location of iPRO HPHT executables.
- 4. Browse Icon. Displays screen to allow for selection of Program Directory.
- 5. Database Name. Displays location of iPRO HPHT database file.
- 6. Temp Directory. Displays directory to be used for temporary files.
- 7. User Settings. Displays User Setting screen.
- 8. System Settings. Displays System Setting screen.
- **9. Done.** Exits this module.
- 10. Apply. Saves changes made to this screen
- 11. Pressure Control Thread Interval. Specifies how often the system should examine the pressure value to and control it.
- 12. Temp. Control Thread Interval. Specifies how often the system should examine the temperature value and to control it.
- 13. Read data from hardware every. Specifies how often the system should look at the data from the hardware and to control it.
- 14. Low Down. Specifies how long the pressure pump's valve should stay opened to decrease pressure if the current pressure is less than High/Low Divider value.
- **15.** Low Up. Specifies how long the pressure pump's valve should stay opened to increase pressure if the current pressure is less than High/Low Divider value.
- 16. High/Low Divider. Displays boundary between high and low pressures.
- 17. High Down. Specifies how long the pressure pump's valve should stay opened to decrease pressure if the current pressure is more than High/Low Divider value.
- **18. High Up.** Specifies how long the pressure pump's valve should stay opened to increase pressure if the current pressure is more than High/Low Divider value.

Important Note: The new configuration does not take effect until the system is rebooted.

Calibration Screen

nsistency Calibrat	ion Ausiliary Temp. (Calibration Slumy Ter	ap. Calibration Press	sure Calibration	
	Co	nsistency Cal	ibration		E Riving La
lumber of Da	ta Points 9	Curr	ent Reading	0.094237	Skiry Te
Point No.	Weight (g)	Torque (Bc)	Existing Value	s New Values	Pressure
	50	9	0.107177	0 093920	Done Dane
	100	22	0.267919	0.094091	
	150	36	0.435814	0.093920	
	200	48	0.595995	0.094359	
	260	61	0.760082	0.093822	
	300	74	0.760033	0.095238	
	350	87	1.089257	0.094188	
	400	100	1.250365	0.093944	

- 1. Consistency Calibration. Displays Consistency Calibration Screen.
- 2. Auxiliary Temp. Calibration. Displays Auxiliary Temperature Calibration Screen.
- 3. Slurry Temp. Calibration. Displays Slurry Temperature Calibration Screen.
- 4. Pressure Calibration. Displays Pressure Calibration Screen.
- 5. Numbers of Data Points. Displays number of points to calibrate.
- 6. Current Reading. Displays currents reading from the hardware.
- 7. Done. Exits Calibration module.
- 8. Pressure. Displays Pressure Calibration Screen.
- 9. Slurry Temp. Displays Slurry Temperature Calibration Screen.
- 10. Aux. Temp. Displays Auxiliary Temperature Calibration Screen.
- **11. Consistency.** Displays Consistency Calibration Screen.
- 12. Save. Saves calibration values.
- **13.** Displays calibration data.
- 14. Cancel. Cancels current calibration session and keep previous calibration data.

Main Report Screen

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Test F	Result											In Street
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1396-20	01#1		24. – C	ANADARKO-R	09/16/2001	23:40	ANAL DAR	10	4-2			B POX Deta
1/80 - 80	DI TEST #3			PETRO CORP-	09/16/2001	1444	FETF 0.0	JORP .	2-23			10.000
158h400	1 #4 #3			WINDHESTER	09/15/2001	03.05	WINCHE	STER PRO	1			E np. some
1097 200	1#3 #2			WINCHESTER	09/15/2001		WINCHE	STER PRO	1			12 Cont
1587-20	OT TEST #1			WINCHESTER	09/14/2001	18.20	WINCHE	STER	1			12 Calpr
1676-20	01 TEST #2			NATADOR 18.	09/14/2001	10.40	NATADO	8	1			. Dulata
1682-20	01.446			TOTAL FINA-II	09/13/2001	15.49	TOTALE	INA.	1			-10060
1582.520	OT TEST #5			TOTAL PINA - II	09/13/2001	10.22	TOTALE	INA.	1			37.00
1593,200	1 #2 #2			SULPHUR RIVE	09/12/2001	2356	SJUPHU	RRIVER	8			- Gilea
1580-20	01-#2			SULPHUR RVB	09/12/2001	11:38	SULPHU	RANER	5			and the second
570.2				9700FT CASIN	09/08/2001	15:22	HUNTE	TROLEUN	1			ar ban
10003500	THE HE			ANADARKO RI	05/05/2001	2313	ANADAD	5.0	4.2			100
PSE1-20	01 #1			EVANCE RESIDE	05/05/2001	1.610	ENANCE	ISSOLUTION	1			
103500	1.#2			10500 casion	09/05/2000	0241	STO EN	B/W	205			
1051-20	11 11			16700 casing	05/01/2001	1241	ENALTE OF	ARSON RUD	1			
				10000 1000 9		12.77			1		1	
0												
			-			-	-		-			
Section	Tell Tinle	80	Cerent Temp	Cenent Tenp. 5	PIONE	nip.	Pressure	PIENUK	TAP N	pererel	-	
4	00.00	14	50	80	24	_	117	900		-		
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1	00:00	14	50	80	56	_	1145	- 960		1		
1	00.00	13	.91	60	90		1990	960		1		
1	00:01	14	90	84	95		1802	.1170	12.	-1	vi	

1.

- Rpt. Detail. Displays detail report for selected test.
 Rpt. Summary. Displays summary page report for selected test.
 Graph. Displays plot for selected report.
 Delete. Deletes selected report.
 Edit. Edits header information of selected report. 2.
- 3.
- 4.
- 5.
- 6.
- **Done.** Exits Report module. Displays all reports. Displays records for selected report. 7. 8.

Detail Report Screen



- **1. Zoom.** Enlarges report.
- Next Page. Goes to next page.
 Previous Page. Goes to previous page.
- Save As. Saves report under a different name.
 Email Result. Emails report.
- 6. Printer Setting. Displays dialog to configure printer's setting.
- 7. Print. Prints selected report.
- 8. Done. Exits Report module.
- 9. Report page.

Web Screen



- HPHT Support Web Site Tab. Displays iPRO HPHT Web Site. 1.
- Fann Instrument Web Site Tab. Displays Fann Instrument Site. 2.
- 3. Halliburton Company Web Site Tab. Displays Halliburton Web Site.
- 4.
- **Back.** Goes to previous web page. **Forward.** Goes to next web page. 5.
- Refresh. Refreshes current web page. 6.
- 7. Displays Web page contents.
- Exit. Exits Web Browser module. 8.

System History Screen



- 1. Note Type. Displays all Note Categories.
- 2. All notes for selected category.
- 3. Note Tile. Shows Note's Title.
- **4. Enter By.** Shows person who entered the notes.
- 5. Changed Date. Shows note's date.
- 6. Calendar. Shows calendar to select a date.
- 7. Notes. Displays note's content.
- 8. Add New. Adds new note.
- 9. Save. Saves new note.
- **10.** Edit. Edits existing note.
- **11. Delete.** Deletes selected notes.
- 12. Report. Displays and Print reports for notes
- 13. Done. Exits System History Screen.

Email Report Screen



- **1. To Email address.** Shows email address to send report to.
- 2. From. Shows email address of the person who sends the report.
- 3. CC. Shows Email carbon copy list.
- 4. BCC. Shows Email blank carbon copy list.
- 5. Subject. Shows email subject.
- 6. Displays screen to maintain address book.
- 7. Saves From (No. 2) email address.
- 8. Send. Sends email.
- 9. Compress to Zip. Compresses file before send
- 10. Include Report Viewer. Sends Report Viewer program to view files in Fann Report format.
- 11. Message panel. Displays email content send.
- 12. Include Quick Report File. Sends report in Fann report format ...
- 13. Include Bitmap File. Sends graphs as bitmap format.

14. Close. Exits this dialog.

Create New Test Schedule

1) Press Create New (No. 6 from Schedule Screen). The Create New Schedule pop-up box displays.

Schedule Name	SCHEDULE NO. 1	
Description		

- 2) Enter appropriate name for the new Test Schedule and optional Schedule description. Press **OK** to save the information and return to the Schedule screen.
- 3) The Schedule screen is displayed with a single row of blank fields across the bottom. [Step, Time, Temperature, Pressure, Stirring]

Schedule Name	De	ucaption	Date			516.446
AV45			3/12/2001		2	
NER 30E	15 9 GPS WATER		3/18/2001		- FIR.	Cross New
ESISTATION SQUE	LINER		3/19/2001	- 11	Prec	
ARLAND			3/20/2001	15.1	- +	Delete
ES T0157			9/10/2001	- 11	Next	
CATEST			8/26/2001			Sugar
CSAMBIENT TEMT			10/1/2001	- 10	_	- Clear
LICE 2			10/9/2001		Lad	10,555,500
APIL P	31H		1/8/2002	- 11		E Saveda
ELD			1/9/2002			
CHEDULE NO. 1	TEST SCHEDULE		1/11/2002			P. Connector P.
1				2		Dane
Stop Time	Текрецие	Pressure	Stiring	J	₹i Add	(Dy Done
Stop Tase	Texperature	Pressure	Stone	1	Add Save	Dr Dave
Stop Tase	Texpession	Pressure	55mg		TI Add Save Roboth	(Dr Dane
Stop Tase	Texpelature	Pressure	Shing		Add Save Retects Dence	(Dr Dane
Step Tase	Tempetature	Pressue	Story		Add Save Conce Decre	Dr Done

- 4. Press the **Step** field (No. 17). A keypad displays. Enter the number of the set-point. The system automatically reorders the entries according to this field, beginning with the number 1.
- 5. Press the **Time** field (No. 18). A keypad displays. Enter the number of minutes into the test at which the set-point occurs **Note:** Always enter zero (0) for the time field of the first set-point.
- 6. Press the **Temperature** field (No. 19). A keypad displays. Enter the temperature in F^o for the set-point. **Note:** Temperature value for first set-point is usually 80 degree F.
- 7. Press the **Pressure** field (No. 19). A keypad displays. Enter the pressure setting in PSI for the set-point.
- 8. Press the **Stirring** field (No. 20). Choose in the dropdown list **Y** for yes, **N** for no, or **A** for alternating.
- 9. Press Add (No.12) to add another set-point (row of blank fields).
- 10. Repeat step No. 4 to step No. 10 to define data for the new step
- 11. When done with creating all set-points, press Save (No. 13).
- 12. Press Generate Ramp (No. 10) to create the Ramp steps.
- 13. Press Done (No. 11) to exit this module.

Run a Test



- 1) If the iPRO HPHT Main menu bar is not in Menu mode then press **MENU** to switch into Menu display mode.
- 2) Press **TEST**(No. 1) on the menu to have **Main Test Screen** appears.



3) Press Load Schedule (No. 15) and the Select a Test Schedule pop-up window displays.



- 4) Select a schedule by pressing on a name (use **First**, **Prev**., **Next**, or **Last** for browsing the list). The details of the selected schedule are displayed across the bottom of the dialog.
- 5) Press **OK** to finish the selecting test schedule.
- 6) Press **Project Info**. (No. 16) from the Main Test Screen. A dialog displays.

Enter Project	Information	1912
Project Name:	HPHT Test	
Test Type:	High Temperature Test	
Apparatus	HPHT Consiston enter	
Customer name	[
Lease Name	[
Well Number	1	
Field Location:	(
Consinents	[
✓ OK	🐺 Touch Streen	Clear X Cancel

- 7) Enter appropriate name for the **Project Name**, **Test Type** and optional **Apparatus**, **Customer name**, **Lease Name**, **Well Number**, **Field Location**, or **Comments**. Press **OK** to save the information and return to the Test screen.
- 8) Press Start Test (No. 17) from Main Test Screen from the Main Test Screen. A dialog displays.

-02	Enter Test Name
	project name #141
	V Start Test

- 9) Enter appropriate name for the **Project Name** or choose the name appeared in the box and press **OK** to start the test.
- 10) Press Done (No. 19) from Main Test Screen when the test finishes.

Calibrate Sensors: Pressure

1 7 1	1 5 6	789		
TEST T	SCHEDULE	CALIFIATION	Fam Technolet Cargoling (PED HPRT	5085
MONITOR	WLB	MANUAL		NU
REPORT	HISTORY	SYSTEM		XIT

- 1) If the iPRO HPHT Main Menu Bar is not in Menu mode then press **MENU** to switch into Menu display mode.
- 2) Press CALIBRATION (No. 7) on the Main Menu Bar to have Calibration Screen appears.

alistenity Calibrati	on Austiny Temp. Cal	heatine Shary	Temp Calibration P	ressure Calibration		Aue Te
umber of Dat	a Points 5	Cur	rent Reading	-0.018	182	EN Skop T
Point No.	Pressure	(psi) E	xisting Values	New Valu	••	- R Prenu
	0	-0.0	06610			- 🗈 Doné
	5000	0.30	06054			
	10000	0.62	2314			
	15000	0.93	6205			
	20000	1.25	51928			
E Save					Cancel	
CURRENT Y	ues 10		1965	MOTOR	COOLANT HEAT	ER SEN
the second se	- C	Torres Phateups	Tert Time Clawk	Tree		

- 3) Press Pressure (No. 8) to have the Pressure Calibration tab displays. There are 5 pressure data points to be calibrated. They are listed in Point No. column (No. 13). Their corresponding pressure values are listed in Pressure column (No. 14). The Existing Values column (No. 15) shows the previous calibration values.
- 4) To calibrate point No. 1 for value of Zero PSI: Touch PRESSURE DN (No. 20) to bring pressure down to Zero PSI. Wait until the corresponding voltage value in Current Reading display (No. 6) to stabilize then touch the 1st cell in New Values column (No. 16) to record the new calibration value for this point.
- 5) To calibrate next point: Touch **PRESSURE UP** (No. 19) to bring the pressure up to the appropriate value then touch the corresponding cell in **New Values** (No. 16) column to record it.
- 6) Repeat the above step no. 5 for all points to be calibrated.
- 7) Touch **Save** (No. 12) to save the calibration result. Otherwise, press **Cancel** (No. 18) to discard all new calibration values and to restore the previous calibration values.
- 8) Reboot the system for changes to take effect.

Calibrate Sensors: Auxiliary Temperature

111	1 5 6	789		
TIST	SCHEDULE	CALIBRATION	Fan Technist Languey IPRD IIPRT	SENSORS
MONITOR	WLB	MANUAL		HENU
REPORT	HISTORY	SYSTEM		EXIT

- 1) If the iPRO HPHT Main Menu Bar is not in Menu mode then press MENU to switch into Menu display mode.
- 2) Press CALIBRATION (No. 7) on the Main Menu Bar to have Calibration Screen appears.

county contains	Auxiliary	Temperatu	re Calibration			📲 dun Ter
Number of Data	Points	Curr	ent Reading	0,24929		They To
Point No.	Temp (F)) E)	isting Values	New Valu	45	Pressure
			000			Dane 🗗
	50	0.1897	21			A
	100	0.3982	17			
	150	0.9090	66			
	200	0.8173	09			
	260	1.0269	03			
	300	1.2361	32			
	350	1.4495	34			
	100	1.000	•••			
Basove					🖉 Cavoel	
CURSENT VAL	as [T SET DOD T	TEST TIMES	- I war o	CONLAST HP	ATPS SENS
Во ОТенр БТен	Avenue SP 9	Tanp Piesser	00:00 00			_ _
0 64 69	10040 0	0 0	00.000	16,169	Personart	
And in case of the local division of the loc		and the second second	LOCK CODEEN	SIRE	PRESSURE D	IS EX

- Press Aux. Temp (No. 10) to have the Auxiliary Temp. Calibration tab displays. There are 9 temperature data points to be calibrated. They are listed in Point No. column (No. 13). Their corresponding temperature values are listed in Temp. (F) column (No. 14). The Existing Values column (No. 15) shows the previous calibration values.
- 2) Plug in a warmed up and charged Biddle to Chamber Thermocouple port (located underneath the cabinet).
- 3) Biddle: Dial to 0 degree F.
- 4) iPRO HPHT Auxiliary Temperature Calibration Screen: Wait until the corresponding voltage value in Current Reading display (No.6) to stabilize then touch the cell in New Values column (No. 16) that is on the same line with Point No. 1 to record the new auxiliary Temperature Calibration value for the first point.
- 5) Biddle: Dial to 50 degrees F. Note: Do not spend too much time in trying to get the Biddle at exactly 50.0 degrees or other degree points! If it is close, i.e. 48, touch the corresponding cell in **Temp. (F)** column and enter 48 for this point.
- 6) iPRO HPHT Auxiliary Temperature Calibration Screen: Wait until the corresponding voltage value in **Current Reading** display (No. 6) to stabilize then touch the cell in **New Values** column (No. 16) that is on the same line with Point No. 2 to record the new auxiliary Temperature Calibration value for this point.
- 7) Repeat the above step no. 14 and 15 for all temperature points to be calibrated.
- 8) Touch **Save** (No. 12) to save the calibration result. Otherwise, press **Cancel** (No. 18) to discard all new calibration values and to restore the previous calibration values.
- 9) Disconnect and store Biddle.
- 10) Reboot the system for changes to take effect.

Calibrate Sensors: Slurry Temperature

1 7 1	4 5 6	7 8 9		
TIST 1	SCHEDULE	CALIBRATION	Fana Texthornet Campung IPRD HPHT	SENSORS
MONITOR	WEB	MANUAL		HENU
REPORT	HISTORY	SYSTEM		EXIT

- 1) If the iPRO HPHT Main Menu Bar is not in Menu mode then press **MENU** to switch into Menu display mode.
- 2) Press CALIBRATION (No. 7) on the Main Menu Bar to have Calibration Screen appears.

	Slurry Tem	perature Calibration	soure Calibration	R ALL TER
Number of Data I	Points 9	Current Reading	4.997558	Skay Tem
Point No.	Temp (F)	Existing Values	New Values	Prome
	0	0.219720	ا و طعم اسم	pr Does
	50	0.048144		
	100	0.326732		
	150	0.508617		
	200	0.901688		
	200	1.505517		
	350	1 796703		
	400	2,094823		
En Sava			(D) Cancel	
FURDENT VAL I	15 1617 5 17	PINET 12-01	MOTOR COOLANT PEA	TUR SENSO
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	لبسالك الشسا			

- 3) Press Slurry. Temp (No. 9) to have the Slurry Temp. Calibration tab displays. There are 9 temperature data points to be calibrated. They are listed in Point No. column (No. 13). Their corresponding temperature values are listed in Temp. (F) column (No. 14). The Existing Values column (No. 15) shows the previous calibration values.
- 4) Plug in a warmed up and charged Biddle to Cement Temp Thermocouple port (located on the front panel).
- 5) Biddle: Dial to 0 degree F.

iPRO HPHT Slurry Temperature Calibration Screen: Wait until the corresponding voltage value in **Current Reading** display (No. 6) to stabilize then touch the cell in **New Values**

- 6) column (No. 16) that is on the same line with Point No. 1 to record the new auxiliary Temperature Calibration value for the first point.
- 7) Biddle: Dial to 50 degrees F. Note: Do not spend too much time in trying to get the Biddle at exactly 50.0 degrees or other degree points! If it is close, i.e. 48, touch the corresponding cell in **Temp. (F)** column and enter 48 for this point.
- 8) iPRO HPHT Slurry Temperature Calibration Screen: Wait until the corresponding voltage value in Current Reading display (No. 6) to stabilize then touch the cell in New Values column (No. 16) that is on the same line with Point No. 2 to record the new auxiliary Temperature Calibration value for this point.
- 9) Repeat the above step no. 14 and 15 for all temperature points to be calibrated.
- 10) Touch Save (No. 12) to save the calibration result. Otherwise, press Cancel (No. 18) to discard all new calibration values and to restore the previous calibration values.
- 11) Disconnect and store Biddle.
- 12) Reboot the system for changes to take effect.

Calibrate Sensors: Consistency

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- 1) If the iPRO HPHT Main Menu Bar is not in Menu mode then press MENU to switch into Menu display mode.
- 2) Press CALIBRATION (No. 7) on the Main Menu Bar to have Calibration Screen appears.

Current Reading 0.094237 T star Point No. Weight (g) Torque (Bc) Existing Values New Values 50 9 0.107377 0.092929 # 100 22 0.27379 0.094001 # 1150 35 0.435814 0.093020 # 200 48 0.695956 0.09169 #
Point No. Weight (g) Torque (Bc) Existing Values New Values C Point Poin
50 9 0.167177 0.093620 # 100 22 0.267393 0.093620 # 1150 35 0.428544 0.093620 # 200 48 0.565625 0.094369 #
100 22 0.267919 0.094091 150 35 0.435614 0.093920 200 48 0.695925 0.094359
150 35 0.435814 0.093920 200 48 0.695965 0.094369
200 48 0.695995 0.094369
250 81 0.760052 0.093822
300 74 0.760033 0.095238
350 87 1.089257 0.034188
400 100 1.260366 0.053944
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- 3) Setup the Potentiometer/Weight Calibrator kit.
- 4) CALIBRATOR: Connect wires to the chamber and apparatus.
- 5) PRO HPHT Consistency Calibration Screen: Wait until the corresponding voltage value in **Current Reading** display (No. 6) to stabilize then touch the cell in **New Values** column (No. 16) that is on the same line with Point No. 1 to record the new Consistency Calibration value for the first point with zero weight and Bc Value of zero.
- 6) CALIBRATOR: Hang 50 grams on potentiometer string.
- 7) PRO HPHT Consistency Calibration Screen: Wait until the corresponding voltage value in Current Reading display (No. 6) to stabilize then touch the cell in New Values column (No. 16) that is on the same line with Point No. 2 to record the new Consistency Calibration value for the second point with 50 grams in weight and Bc Value of 9.
- 8) Repeat the above step no. 6 and 7 for all consistency points to be calibrated.
- 9) Touch **Save** (No. 12) to save the calibration result. Otherwise, press **Cancel** (No. 18) to discard all new calibration values and to restore the previous calibration values.
- 10) Reboot the system for changes to take effect.

Remote Test Monitor

The optional iPRO HPHT Remote Control feature allows you to view and control up to four tests being run on four different iPRO HPHT units remotely via Ethernet or Internet connection. You can view real time graphs and test related data such as temperature, pressure, etc. You can also make changes to system tuning parameters, stop a test, view test reports, etc. remotely using this service.

This chapter shows you how to remotely monitor an iPRO HPHT test session using Microsoft Internet Explorer Browser.

1) At the top of your Internet Explore window, next to ADDRESS, type <u>http://www.fann-ipro.com</u> to go to Fann Instrument's iPRO support web site. The following screen is displayed.



- 2) Click on Support (No. 1). The following screen is displayed.
 - Image: Sector Sector
- 4) Click on Remote Control link (No. 1) (Note: If this is the first time you access to this link on the current computer then there will be a delay of several minutes as the additional software is downloaded to the computer). The following screen is displayed. Please note that if your computer monitor is of smaller size, you will not able to see all four screens.

2) 3)



5) Type in the name of the iPRO HPHT unit that you wish to monitor in the Machine Name field (No. 1) and click **Connect** (No. 2). The following dialog is displayed.

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6) Enter the password for this particular iPRO unit then press ENTER. If there is a test currently running on this iPRO HPHT then you will see a screen with the following message:



7) Click YES to only monitor the test. You will see the Main Menu Control bar being displayed at the bottom of the screen as in the following screen.

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KONTOR	WEB	MANUAL		MENU
REPORT	HISTORY	SYSTEM		EXIT

8) Click on MONITOR (No. 1) to start monitoring the test. The following screen is displayed.

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If you want to exit the session but still want to leave the monitor session running so that you can log back in (from the same or from a different computer) to continue monitoring the test, simply click **Disconnect** button located at the top of the screen (or you can simply exit the Microsoft Internet Explore browser). This will log you out of the monitoring session but your monitoring session is still kept alive. When you reconnect to this machine later, you will be at the point where you left.

If you want to exit the session and to quit the monitoring session altogether, do the followings:

a. Click Done button (No. 8) from the iPRO HPHT Remote Test Monitor screen to quit the Remote Monitoring program.

b. Click Exit button from the Main Menu Control Bar at the bottom of the screen to complete the log out.

9) From iPRO HPHT Remote Test Monitor screen you can modify tuning parameters such as Pressure Tolerance (No. 1), Number of sample points to average (No. 2 Heat Controller Tracking (No. 3), and number of seconds to refresh this Remote Test Monitor Screen (No. 4). You can also stop a test by clicking on Stop Test (No. 5).

Remote Video Monitor

The optional Remote Video Monitor feature allows you to remotely monitor your lab where the iPRO HPHT Consistometer is located. You can have up to four video sessions from one single computer. You can control image quality, video screen size, zoom, move camera in/out, and capture video frames to disk. Among many applications for this features are visual collaboration, training, maintenance, and security.

This chapter shows you how to start an iPRO video monitor session using Microsoft Internet Explorer Browser.

1) Follow instructions from step no. 1 to step no. 7 of the previous chapter (Remote test Monitor) to connect to the desired iPRO HPHT Consistometer. To activate the camera for remote monitor, click on Video Camera (No. 7). The following screen is displayed.



 To start the camera, click on the Play button (No. 9). You should see video image from the remote location being displayed similar to the following screen:



3) To capture a video frame to disk, click on Video-Capture button (No. 11). A dialog is displayed as shown below. Select folder where you want to save the image, type in file name (No. 1), select the desired bitmap format (No. 2) and click on Save button to save the image.

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- 10) To Pan, tilt or zoom, click on Video Source button (No.13) on iPRO HPHT Remote Test Monitor screen. The Video Source dialogis displayed. Click on Pan/Tilt/Zoom tab. Within this tab, you can control location of the image in the field of view.
- 11) To stop video monitoring, click Stop button (No. 10) on the iPRO HPHT Remote Test Monitor screen.

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Pan – moves across the image horizontally. This option does not work when the camera is zoomed all the way out or when the capture size is 640×480 .

Tilt – moves across the image vertically. This option does not work when the camera is zoomed all the way out or when the capture size is 640 x 480.

Zoom In – zooms in on the portion of the image currently visible in the video window. The size of the rectangle shows the amount that the camera is zoomed.

Zoom Out - zooms out on the portion of the image currently visible in the video window. The size of the rectangle shows the amount that the camera is zoomed.

Tip: Right-clicking the mouse inside the pan area brings up a menu with the following:

MaxZoom In - the camera zooms all the way in

MaxZoom Out - the camera zooms all the way out

Center View - places the image in the center of the field of view. .

12) To change the size of the video display window, click on **Video Format** button (No. 12). The Video Format dialog is displayed. Click on the drop down box (No. 1) to select the desired resolution.



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