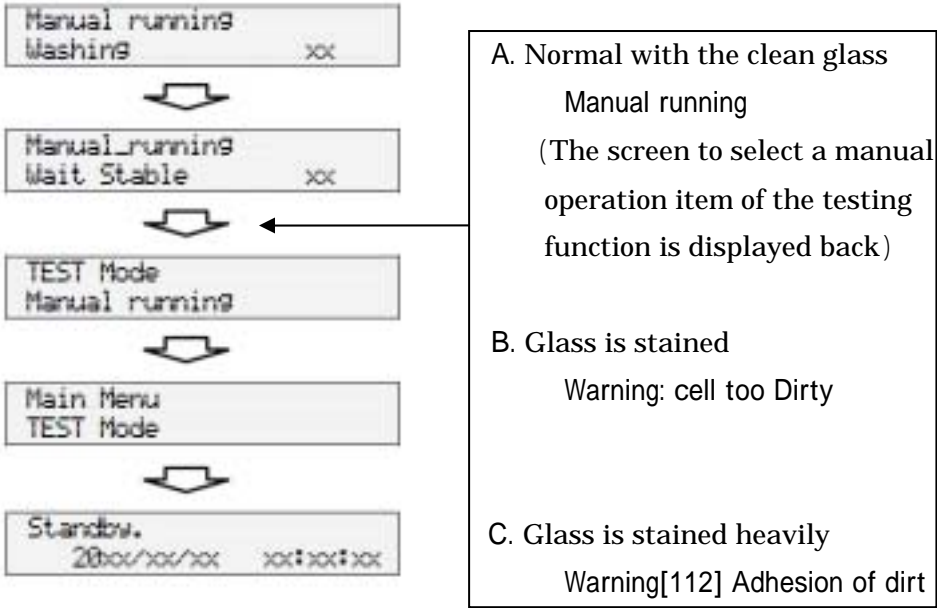
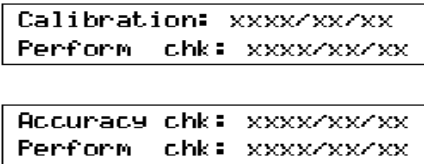


Postscript and emendation of FOCAS-2000 instruction manual (2012-04 ver.1)

Postscript Emendation	Page No.	Contents			
Postscript	P2	<p>1.General 1-2.Product Features</p> <p>When effecting every-5-years renewal of precision certificate, you can choice as follows,</p> <ul style="list-style-type: none"> · Replace calibrated sensor unit (sold separately) on board and use it. · Precision test by maker or authorized person by maker. 			
Emendation Postscript	P3	<p>2.Specifications 2-1.Product Specification</p> <p>Measurement method</p> <p>(Before) Optional continuous measurement</p> <p>(Revised) Optical continuous measurement</p> <p>(Postscript)</p> <p>Bearable vibration · · · 2Hz to 13.2Hz, amplitude $\pm 1.0\text{mm}$, 13.2Hz to 80Hz, acceleration $\pm 0.7\text{G}$</p>			
Emendation Postscript	P6	<p>RECout(output of 4 to 20mA) right side.</p> <p>(Before)See Item 2 “Various settings” under Section 5-2 “Setting(details and procedure)</p> <p>(Revised)See Item 6-3-1 “Setting data and ranges” under Section 6 “Setting”</p> <p>During power outage and Warm up is in-possible to arbitrary setting.</p>			
Emendation	P19	<p>7.Operation and Maintenance</p> <p>Requirements</p> <p>(Revised)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Desiccant (silica gel)</td> <td style="width: 20%;">Every month</td> <td style="width: 50%;">Replace desiccant when the indicator change in color as below two types, Became pink(normally from blue to light purple) Became red dot on white base(normally black dot on white base)</td> </tr> </table> <p>8. Maintenance and Checking 8-1-1Manual operation(Manual running)</p> <p>The 7th line from the top</p> <p>(Wrong)Close the valve provided before the sample water inlet.</p> <p>(Correct)Close the valves at sample water line and at fresh water line.</p>	Desiccant (silica gel)	Every month	Replace desiccant when the indicator change in color as below two types, Became pink(normally from blue to light purple) Became red dot on white base(normally black dot on white base)
Desiccant (silica gel)	Every month	Replace desiccant when the indicator change in color as below two types, Became pink(normally from blue to light purple) Became red dot on white base(normally black dot on white base)			

<p>Postscript</p>	<p>P20</p>	<p>8.Maintenance and Checking Continued from the preceding page (8-1-1, Manual operation) the 5th screen</p>  <p>A. Normal with the clean glass Manual running (The screen to select a manual operation item of the testing function is displayed back)</p> <p>B. Glass is stained Warning: cell too Dirty</p> <p>C. Glass is stained heavily Warning[112] Adhesion of dirt</p> <p>Regarding details of warning please see P35 9.Troubleshooting</p>
<p>Postscript</p>	<p>P23</p>	<p>8.Maintenance and Checking 8-1-5 Relay operation test During the test, check the alarm (inboard) activated is normal operation.</p>
<p>Emendation Postscript</p>	<p>P24</p>	<p>8. Maintenance and Checking 8-1-7 Operation state monitor Display page Page 3 (Wrong) Sensor level and temperature values displayed in the standby state are those obtained in the running state. (Correct) each sensor level and temperature value are checked while FOCAS-2000 is measuring oil content in sample water or fresh water</p> <p><Reference> If reset or power-off occurred after density measurement, following figures are displayed. They are not abnormal. 1=0000, 2=0000, 3=0000 4=0000, Temp=00.0</p> <p>(Emendation) Page6</p>  <p>Calibration: xxxx/xx/xx Perform chk: xxxx/xx/xx</p> <p>Accuracy chk: xxxx/xx/xx Perform chk: xxxx/xx/xx</p>

Postscript	P29	<p>8.Maintenance and Checking 8-3-2 Outlined and detailed displays of the operational log</p> <p>Regarding details of the log please see enclosed “Display of groups and description of statuses”.</p>										
Emendation Postscript	P32	<p>8.Maintenance and Checking 8-6.Checkup and replacement timing of desiccant(silica gel)</p> <p>(Before) Inspect the color of desiccant (silica gel)in the indicator every month. When desiccant(silica gel)is pink, replace it by new one.(The normal is from blue to light purple)</p> <p>(Revised) Inspect the color of desiccant (silica gel)in the indicator every month. When desiccant(silica gel)is change in color, replace it by new one. There are two type depends on the delivered date.</p> <table border="1" data-bbox="475 824 1469 920"> <tr> <td data-bbox="475 824 518 875">1</td> <td data-bbox="518 824 632 875">Normal</td> <td data-bbox="632 824 951 875">blue to light purple</td> <td data-bbox="951 824 1177 875">change in color</td> <td data-bbox="1177 824 1469 875">Pink</td> </tr> <tr> <td data-bbox="475 875 518 920">2</td> <td data-bbox="518 875 632 920">Normal</td> <td data-bbox="632 875 951 920">Black dot on white base</td> <td data-bbox="951 875 1177 920">Change in color</td> <td data-bbox="1177 875 1469 920">Red dot on white base</td> </tr> </table>	1	Normal	blue to light purple	change in color	Pink	2	Normal	Black dot on white base	Change in color	Red dot on white base
1	Normal	blue to light purple	change in color	Pink								
2	Normal	Black dot on white base	Change in color	Red dot on white base								
Postscript	P33	<p>8. Maintenance and Checking 8-8 Replacing the operational log memory card</p> <p>If the memory card which was used in a certain FOCAS-2000 is inserted in another FOCAS-2000 unit, “Warning [11E] Memory ID different “is displayed. If “Enter button” is pressed in this condition, the unit becomes Standby condition. However density measurement cannot be performed. All you can do is to confirm log.</p> <p>Please note one memory card should be used for only one FOCAS-2000 unit. For details, please check the instruction manual (replacing the operation recording memory of FOCAS-2000) which is attached when you bought the memory card.</p> <p>Notice: The vessels which navigate to US territorial waters, it should be retained record for at least 3 years it may be needed.(accordance with 2.2.2.1of 2013VGP)</p>										
Postscript	P35	<p>9. Troubleshooting</p> <p>Warning [11E] Memory ID different</p> <p>If the memory card which was used in a certain FOCAS-2000 is inserted in another FOCAS-2000 unit, density measurement cannot be performed. All you can do is to confirm log (contents of memory card).</p>										

Issued on 2014.1.30

FOCAS-2000 Display of groups and description of statuses.

FOCAS-2000 グループ表示とステータスの内容

Group indication グループ表示	Code No, コード 番号	Contents (at the time of occurrence) 内容 (発生時)	Code No, コード 番号	Contents (at the time of cancel release) 内容 (解除時)	
All Status 全記録表示		ALL record data is indicated. すべての記録データを表示			
Power 電源関連	40	AC Power ON	41	AC Power OFF	電源の ON と OFF
	42	External reset	----	-----	外部リセット
	43	Stand by	----	-----	待機状態
	44	Power down detect	----	-----	供給電源低下検出
Operation 運転状況	50	Warming up	----	-----	ウォーミングアップ
	53	Enter Manual Operation	54	Exit Manual Operation	手動運転の開始と終了
	55	Start Washing	56	Stop Washing	洗浄モードの開始と終了
	59	Manual stop	----	-----	運転動作停止
	5A	Pressure S/W ON	5B	Pressure S/W OFF	圧力スイッチの ON / OFF
	5E	Renew Parameter	----	-----	設定範囲の変更
Oil Alarm 油分警報	66	/ Alarm Setting	----	-----	AL.1, 2 警報点設定
	60	Alarm 1 ON	61	Alarm 1 OFF	AL. 1 警報点設定超え
	62	Alarm 2 ON	63	Alarm 2 OFF	AL. 2 警報点設定超え
	64	Oil over 30ppm	65	Oil under 30ppm	油分 30ppm 超え
Defect 機器異常 (運転時 エラー等)	0A	Maintenance mode.	2A	ret fm Maintenance mode	メンテナンスモード移行と退出
	01	Over Range	21	ret fm Over Range	測定限界超えの検出と解除
	02	Sensor Down	22	ret fm Sensor Down	センサ光源ダウン
	03	Sensor Error	23	ret fm Sensor Error	センサ部の結露・水没
	04	Temperature Error	24	ret fm Temperature Error	センサ部の温度エラー
	07	No Water found	27	ret fm No Water found	検出管内が空
	08	No Sample flow	28	ret fm No Sample flow	検出管内試料水なし
	09	No Water flow	29	ret fm No Water flow	検出管内清水なし
	11	Foreign material	31	ret fm Foreign Material	検出管内の異物混入
	12	Adhesion of dirt	----	-----	検出管内の汚れ
	13	PCB Open	----	-----	基板開放エラー
	15	RTC adjusted	----	-----	時計調整・再調整
	17	Sensor was no response	----	-----	センサーユニット応答なし
	14	memory Card ejected	1A	memory card inserted	メモ리카ード脱着
	18	Memory Comm. Error	----	-----	メモ리카ード通信エラー
	19	Memory card full	----	-----	メモ리카ード空き容量なし
	1B	no format memory	----	-----	未初期化メモ리카ードの検出
	1C	format memory card	----	-----	メモ리카ード初期化処置
	1D	no memory card	----	-----	メモ리카ード未挿入起動
	1E	Memory ID different	----	-----	違う機器番号のメモ리카ード挿入
1F	FOCAS-1800 card found	----	-----	FOCAS1800 のメモ리카ード挿入	

Group indication グループ表示	Code No, コード 番号	Contents (at the time of occurrence) 内容(発生時)	Code No, コード 番号	Contents (at the time of cancel release) 内容(解除時)	
System 構成 操作不備	70	Difference over 5ppm	----	-----	Zero 点補正 5ppm 超え
	71	Zero adjust fail	----	-----	Zero 点補正未完
	74	Check sensor power cable	----	-----	センサユニット電源ラインケーブル異常
	76	Check sensor sig. cable	----	-----	センサユニット信号ラインケーブル異常
	78	Sensor was Changed	----	-----	センサユニット交換
	79	Ext. osc. Doesn't work	----	-----	センサユニット外部発振器の停止
	7A	Sensor has no calibrated	----	-----	センサユニット未校正品の接続
	7B	Sensor has no serial	----	-----	センサユニットシリアル無し
	7C	RTC lost voltage	----	-----	時計未設定(電池なし)
	7D	RTC no ack.	----	-----	時計機能通信エラー
	7E	Software update	----	-----	ソフト書換え更新
	7F	System Error	----	-----	システムメモリの読込不能
Calibration 補正、確認 社内校正記録	84	Zero adjust	85	Zero adjust done	Zero 点補正の実行と終了
	88	Performance check	89	Performance check done	動作確認の実行と終了
	8A	Accuracy check	8B	Accuracy check done	精度確認の実行と終了
	8C	Exam mineral water zero	8D	Exam mineral water done	Zero 確認の実行と終了 (電磁弁閉)
	8E	Exam clean water zero	8F	Exam clean water done	Zero 確認の実行と終了 (電磁弁開)
	95	Recover (of zero offset)	----	-----	Zero 補正值前に戻す
TEST 試験動作	A0	Operate Alarm Relay	----	-----	AL.1, 2 リレー動作
	A4	Output Manual Current	----	-----	電流出力確認
	A5	Start simulation	A6	Stop simulation	警報動作試験の実行と終了

Clarification of abbreviation

略称説明

2A ~ 29,31	ret fm=return from
15,7C,7D	RTC.= Real Time Clock, ack .=acknowledge
8C ~ 8F	Exam=Examination
66	=5 ~ 15ppm
76	sig.=signal
79	Ext. osc. Doesn't =External oscillator does not