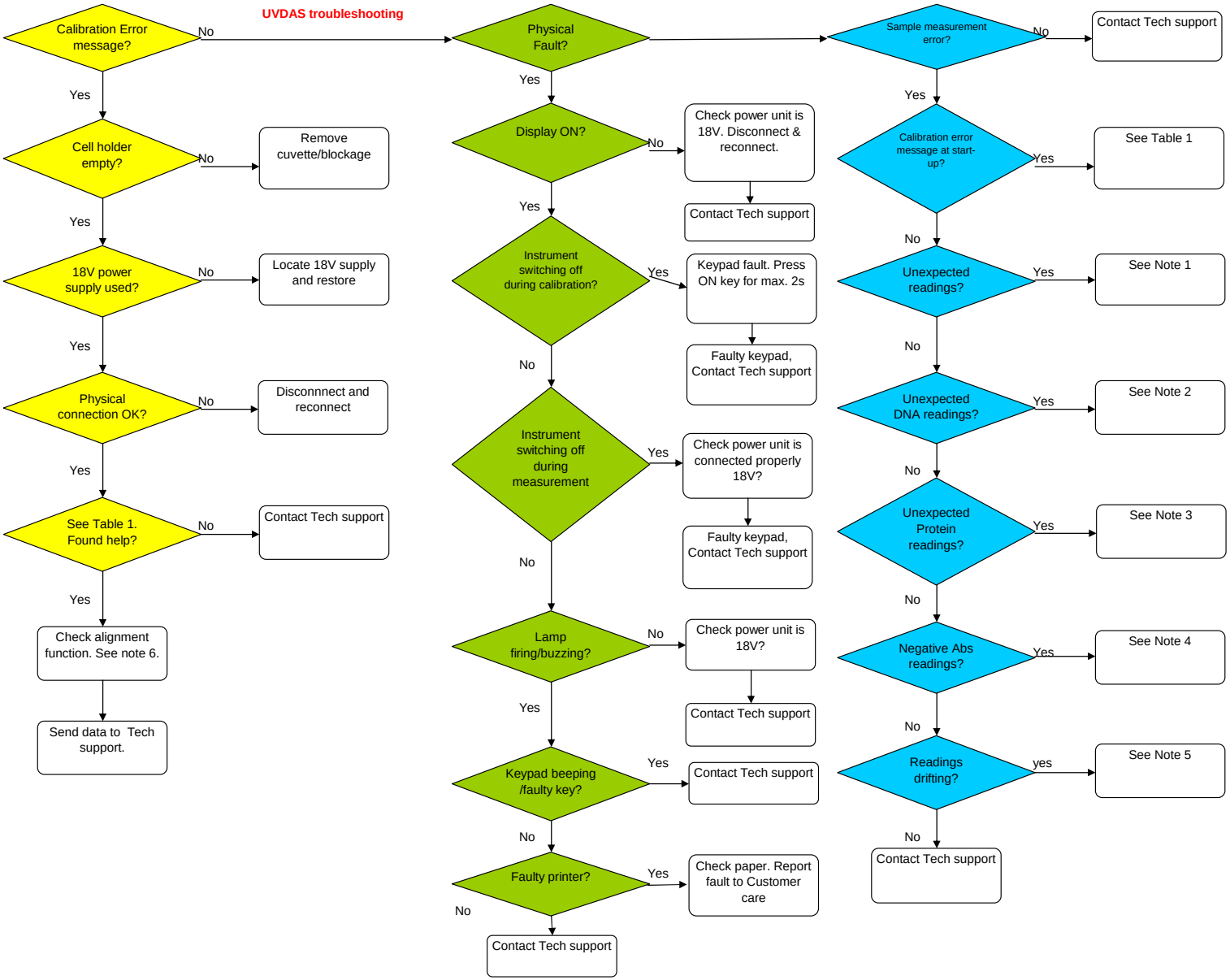

UVDAS troubleshooting
Calibration Error message?
No
Yes
Cell holder empty?
No
Remove cuvette/blockage
Yes
18V power supply used?
No
Locate 18V supply and restore
Yes
Physical connection OK?
No
Disconnnect and reconnect
Yes
See Table 1. Found help?
No
Contact Tech support
Yes
Check alignment function. See note 6.
Send data to Tech support.
Physical Fault?
Yes
Display ON?
No
Check power unit is 18V. Disconnect & reconnect.
Contact Tech support
Yes
Instrument switching off during calibration?
Yes
Keypad fault. Press ON key for max. 2s
Faulty keypad, Contact Tech support
No
Instrument switching off during measurement
Yes
Check power unit is connected properly 18V?
Faulty keypad, Contact Tech support
No
Lamp firing/buzzing?
No
Check power unit is 18V?
Contact Tech support
Yes
Keypad beeping /faulty key?
Yes
Contact Tech support
No
Faulty printer?
Yes
Check paper. Report fault to Customer care
No
Contact Tech support
Sample measurement error?
No
Contact Tech support
Yes
Calibration error message at start-up?
Yes
See Table 1
No
Unexpected readings?
Yes
See Note 1
No
Unexpected DNA readings?
Yes
See Note 2
No
Unexpected Protein readings?
Yes
See Note 3
No
Negative Abs readings?
Yes
See Note 4
No
Readings drifting?
yes
See Note 5
No
Contact Tech support

Table 1

Calibration error messages	Action
Cell Holder obstructed (no light)	Remove any samples. Check cell holder flush with base. Remove & reinsert power connector.Restart.
Cell Holder obstructed (low light)	Remove any samples. Check cell holder flush with base. Remove & reinsert power connector.Restart.
Cell Holder obstructed (Signal fail)	Is lamp coming ON? Remove samples.Check cell holder flush with base.Check power. See note 6.
Calibration problem (UV) on Reference channel	Is the lab temp too low/high?High humidity? Check sample compartment is clear.
Calibration problem (IR) on Reference channel	Check connection. Clear sample compartment. See Note 6.
Calibration problem: possible lamp failure (no light)	Does lamp buzz at start-up. Check 18V connection.
Calibration problem	Check correct power supply 18V is attached.Is lamp firing/buzzing at start-up.? See note 6.
Low light on Reference channel	Check connection. Clear sample compartment. See Note 6.
No light on Reference channel	Check connection. Clear sample compartment. See Note 6.
Cell holder obstructed (UV)	Check connection. Clear sample compartment. See Note 6.
Cell holder obstructed (IR)	Check connection. Clear sample compartment. See Note 6.

Note 1: Unexpected readings

Is your cuvette suitable for this instrument and wavelength range? If yes, see note 7.

If the sample is cloudy, see note 3. If it is DNA/RNA see note 2.

Note 2: Problems with DNA readings

Is absorbance at 260nm >0.1A? Modify sample concentration so that Abs at 260nm is >0.1A and <1A.

Check cell is correct for sample concentration. See Table 2.

Is background correction at 320nm switched on? No. Switch on for cuvettes with black walls.

Does scan of DNA show 260nm peak? See note 7.

Note 3: Unexpected readings with Protein samples

Absorbance reading is a result of scatter and not molecular absorbance. Scatter will vary from one instrument design to another. Need to generate calibration curve for your samples for this instrument.

Check absorbance is not lower than 0.01A. Use large volume cell.

Note 4: Negative absorbance readings

Are there any calibration error messages? See Table 1.

Is your cuvette suitable for this instrument and wavelength range? See table 3.

Is the absorbance reading between 0.1 and 1A? No? Modify sample concentration.

Note 5: Readings drifting

Is driift more than 0.005A, leaving minimum of 10 seconds between readings?

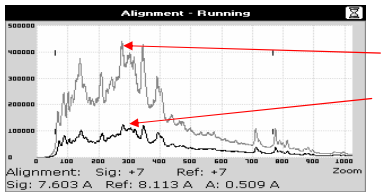
Are there any calibration error messages?

Is sample absorbance >0.01A?

Note 6: Checking the Alignment Function

From the top menu, press Ref, Ref, Test. Select option 1. Check graphs are similar to image shown.

Signal = 40k, Reference = 15k. The Sig and Ref values <= +/-20. Difference between Sig & Ref <=+/-10



Max signal channel

Max reference channel

Note 7 : Fault finding data Send data to customer care for feedback.

Action	*Expected value*
Take 5 readings of air (no cuvette) with air (no cuvette) reference at 546nm.10s between readings.	+/-0.005A
Take 5 readings of DI water in your cuvette at 546nm (air, no cuvette reference), 5 times. 10s between readings.	<0.1A +/-0.005A
Take 5 readings of your dilutant in your cuvette at 546nm (air, no cuvette reference), 5 times. 10s between readings.	<1A Accuracy1%, repeatability
Take 5 readings of your sample in your cuvette at 546nm (air, no cuvette reference), 5 times. 10s between readings.	0.007A
Take 5 readings of your sample in your cuvette at 546nm (air, no cuvette reference), 5 times. 10s between readings.	+/-0.010A

Table 2: DNA concentration vs cell volume

Sample concentration range after dilution (ng/µl) *	Cell sample volume (µl)	Part #	
5 - 125	> 2000	80-2002-58	
	> 500	80-2002-77	
	> 70 µl	80-2103-69	quartz
		80-3000-81	disposable
10 - 250	> 7 µl	80-2103-68	
100 - 2500 **	> 3 µl		

** assuming dsDNA with Abs 260 = 1.0 for 50 µl/ml (= ng/µl) in a 10mm pathlength cell*
between 50 and 200 ng/µl)