Neu Dimension
Your Integrated Solutions Partner

Kaseum K-Set

By Ikram Muslim

INFO SUMMARY

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1. K-Set PCM Test Panel
2. Assembly of Force Gauge to the Slick Rod of the K-Set
3. Programming a Surface Test
4. Initialization period
5. Force Gauge reading
6. Programming a Set Command

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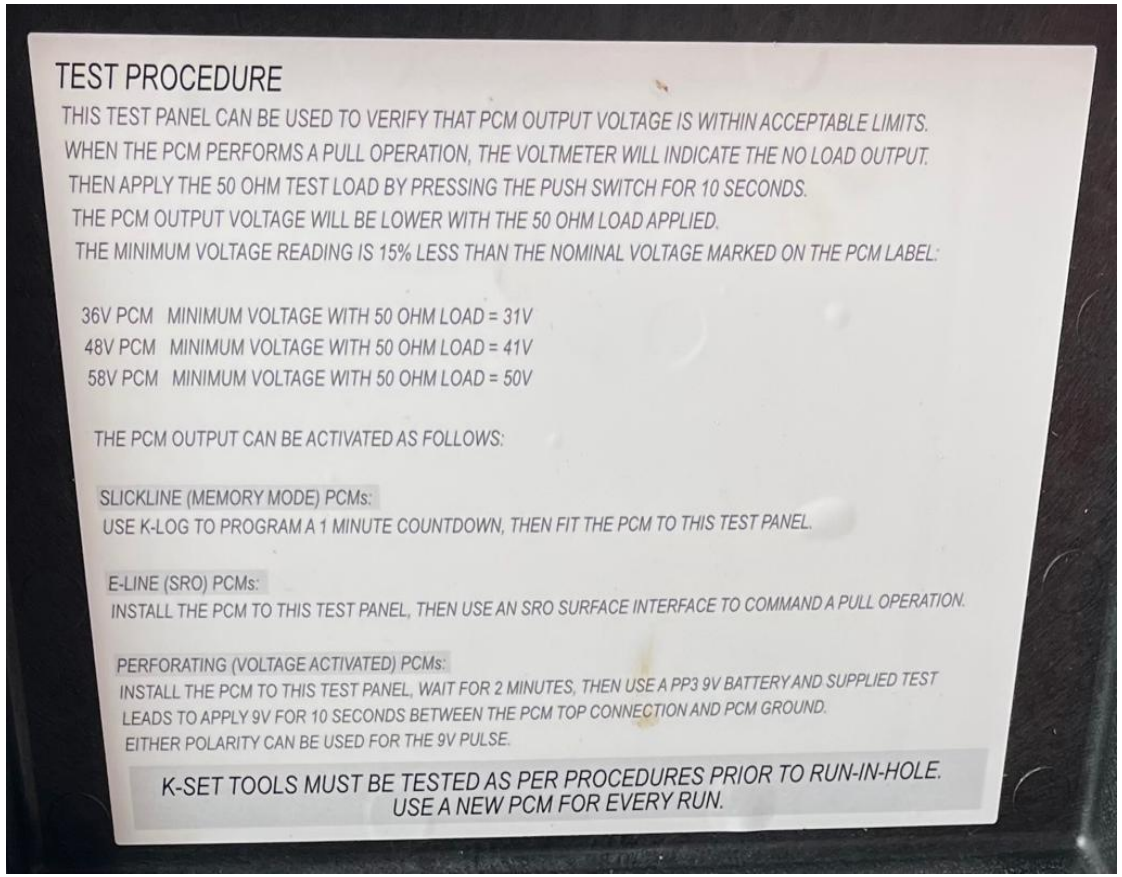
K-Set PCM Test Panel



1

- Verify either PCM output voltage within acceptable limits or not

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Assembly of Force Gauge to the Slick Rod of the K-Set

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②

- Fitting Force Gauge onto the Slick Rod

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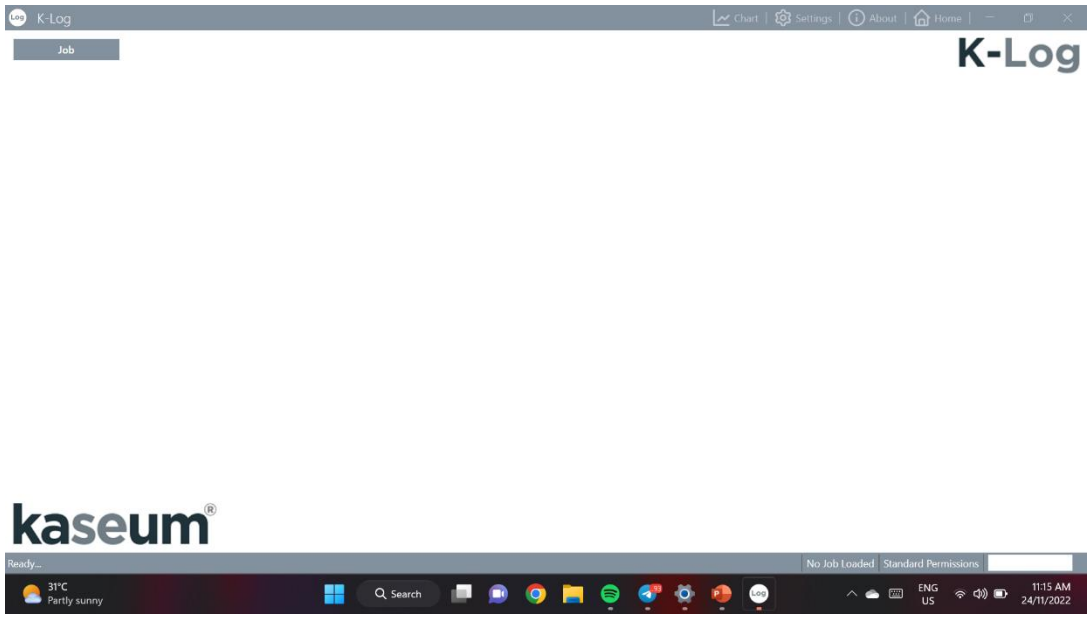
Programming a Surface Test in Slickline Mode using K-Log

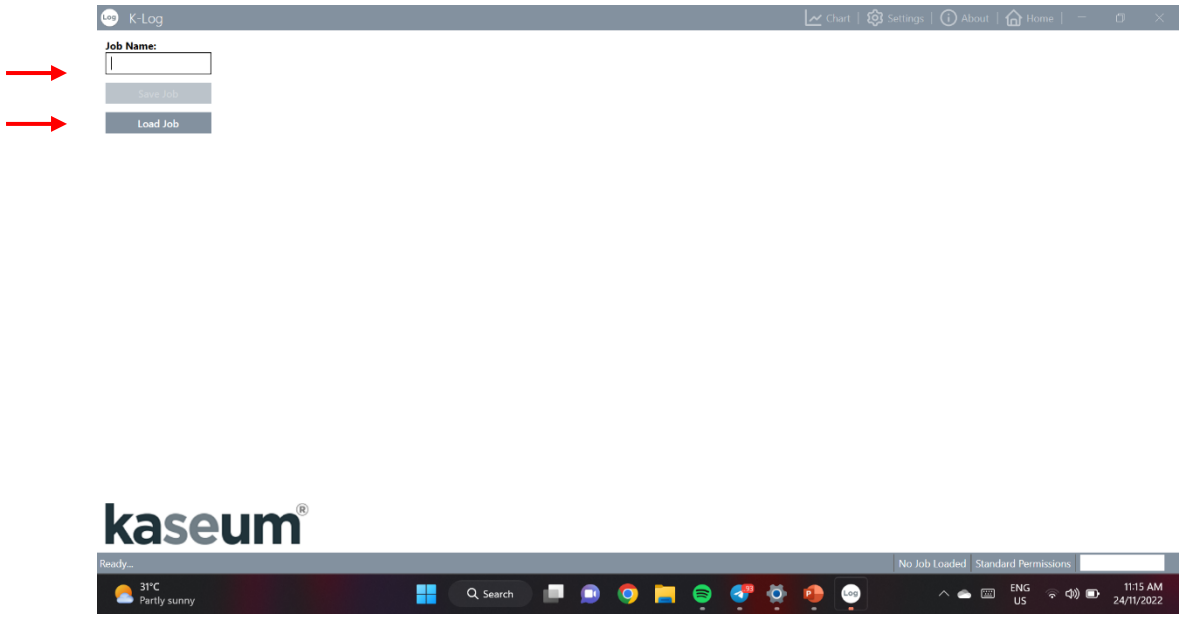
3

- Launch K-Log software
- K-Log home screen will pop out



4

- Job icon must be selected first
- Create new job or load job to find previously created folder



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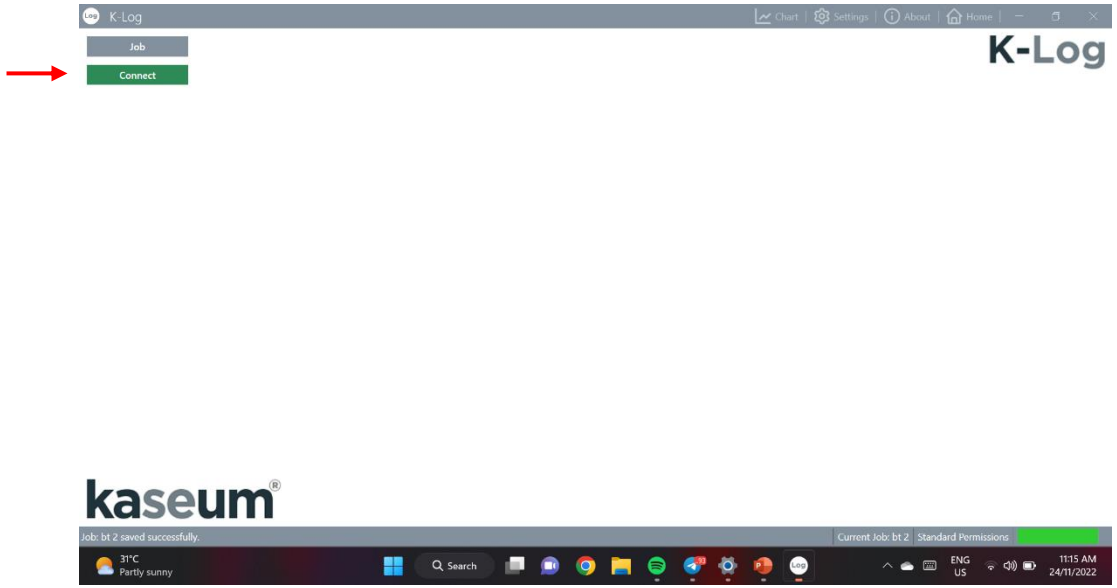
Programming a Surface Test in Slickline Mode using K-Log

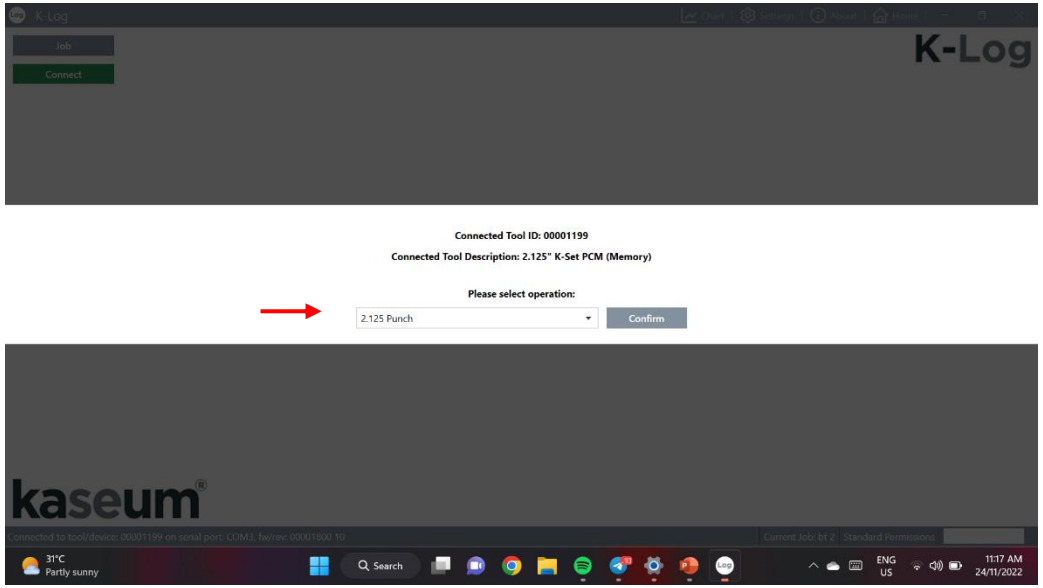
5

- ‘Connect’ icon will appear once a job has been create / selected
- Software will interrogate all connected com ports to establish communication with the PCM by this command



6

- Select the type of operation from the list, either 2.125” punch / 2.125” set
- Then select the ‘Confirm’ icon



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Programming a Surface Test in Slickline Mode using K-Log

7

- Select the type of operation from the list, either 2.125” punch / 2.125” set
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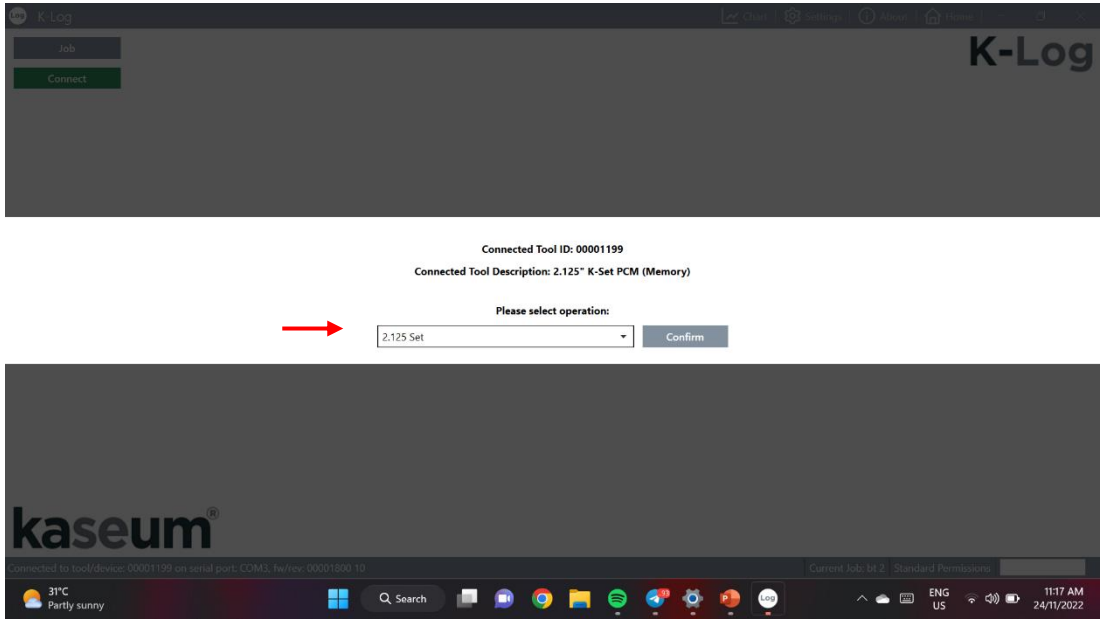
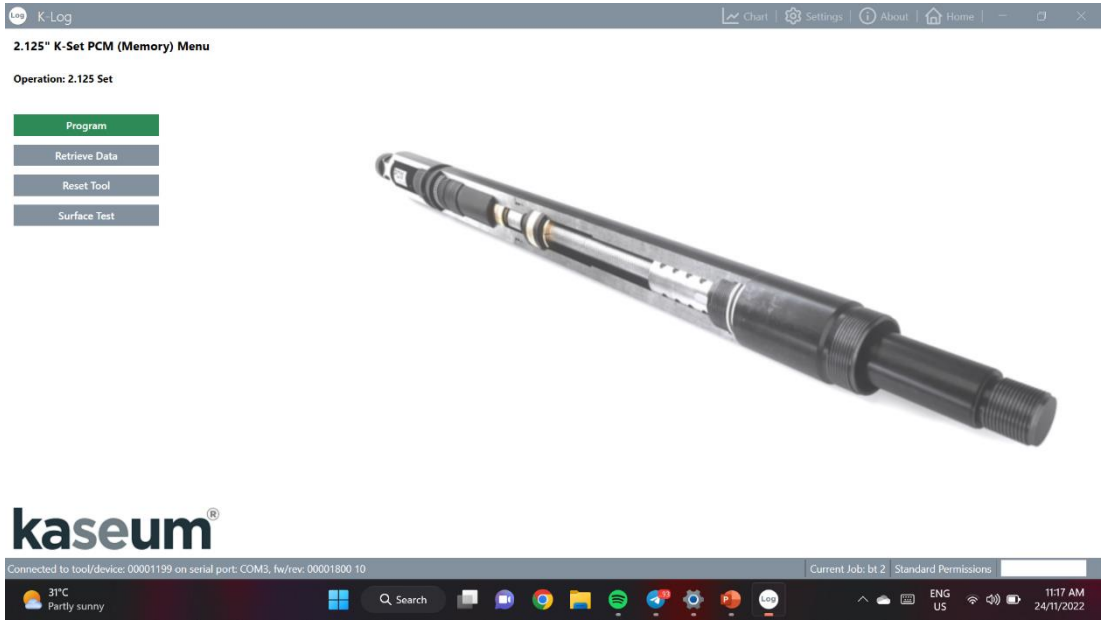


8

- Once operation type has been confirmed, the slickline menu (memory) will pop out
- The message status bar shown if the PCM has been connected or not, along with the PCM part number
- Select ‘Surface Test’ commend icon



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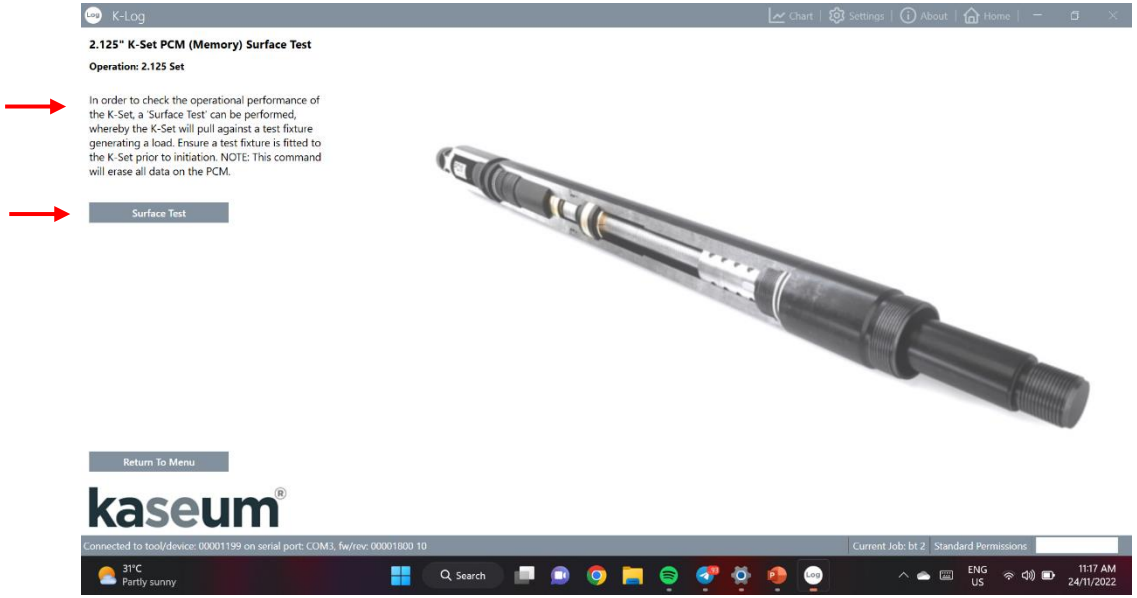
Programming a Surface Test in Slickline Mode using K-Log

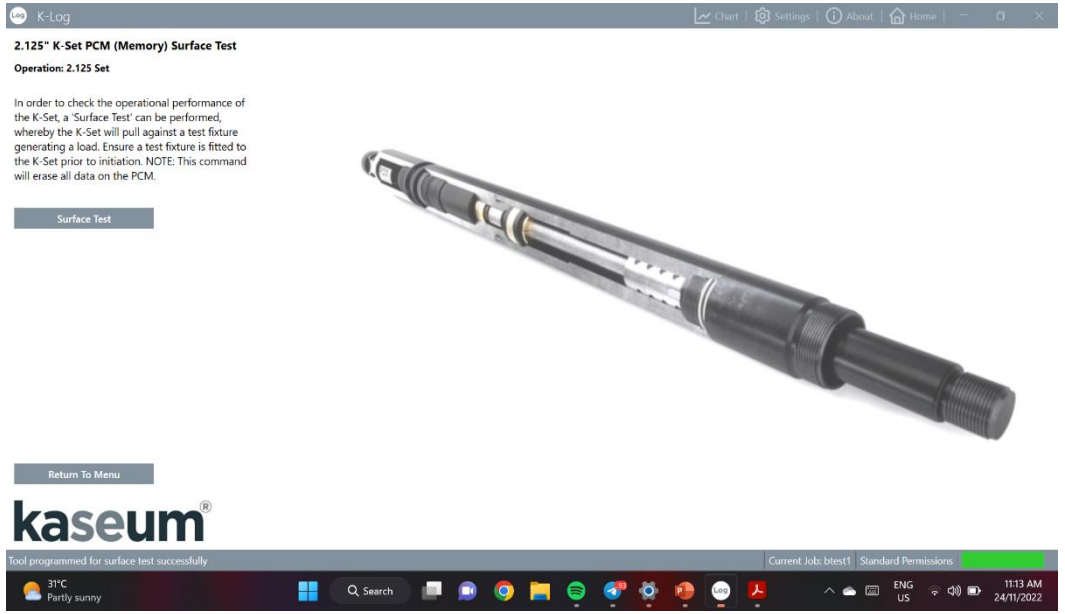
9

- The warning screen explained the function of ‘Surface Test’
- After warning screen appeared, select ‘Surface Test’ command icon



10

- ‘Surface Test’ can be performed once the slickline mode PCM has been programmed with correct parameters
- The PCM ready to perform the ‘Surface Test’ once a ‘Successful’ status message appeared



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Programming a Surface Test in Slickline Mode using K-Log

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- The verification report for the ‘Surface Test’ will generate as below following steps

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Setting Tool Parameter Verification Report

Information

Tool ID	00001199
Tool Description	2.125" K-Set PCM (Memory)
Firmware Revision	00001800 10
Firmware Checksum	0030A046
Date and Time	November 24, 2022 - 11:12:20

Run Configuration

Tool Operation	2.125 Set - Surface Test
Countdown (HH:MM)	00:01
Armed Status	Armed

Program Steps

Step	Action	Duration	Current Limit
1	PULL	180 seconds	Step: 1250mA
2	BRAKE	10 seconds	Absolute
3	PUSH	240 seconds	Step: 1250mA
4	STOP	2 seconds	Absolute
5	PULL	3 seconds	Step: 1250mA
6	STOP	2 seconds	Absolute

On completion of above program steps, the motor will assume a brake state.

Acceleration

Acceleration commands have been disabled.

Logging Configuration

Channel	Logging Rate (K-Set Off)	Logging Rate (K-Set On)
CCL	1 time per second	20 times per second
Motor Current	1 time per second	20 times per second
Battery Voltage	1 time per second	20 times per second
OP MODE	1 time per second	20 times per second
Z-Axis	1 time per second	20 times per second
Pulse Number	1 time per second	20 times per second
CCL Deviation	1 time per second	20 times per second
X-Axis	1 time per second	20 times per second
Y-Axis	1 time per second	20 times per second
Temperature	1 time per second	20 times per second

Other

Under Volt Lockout: 32V
When connected to Setting tool, if the detected battery voltage is less than the Under Volt Lockout value stated above, the Setting tool will shut down and the Countdown Timer WILL NOT be initiated.

Absolute Current Limit: 2500mA
At any point during the operation of Setting tool, if the detected current exceeds the Absolute Current Limit value stated above, the motor will stop. Any further steps in the Program Table will then be executed.

Readings of CCL to be Averaged: 4
Averages of CCL to be Checked for Max Deviation: 4

Report approved by:

PRINT NAME **DATE**

SIGNATURE **DATE**

Report witnessed by:

PRINT NAME **DATE**

SIGNATURE **DATE**

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Initialization period

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- LED in the PCM will flashing once ‘Surface Test’ has been programmed by using K-Log software
- The flash indicate the K-Set is in Countdown Timer mode

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Force Gauge Reading

K-Set OD Size	Force Gauge Assembly to be used	Piston Area of Force Gauge Assembly	Expected Pressure Gauge reading	Acceptable Pressure Gauge Range	Resultant force (Pressure x Piston Area)
2.125"	001553	5in²	3,000psi	≥ 2700 psi	≥ 13,500lb

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- Force Gauge loaded up to 3200 psi, then power down
- The load held for about 10 seconds

- After 10 seconds, K-Set will power up and back to its Ready to Run position, then power down
- Remove Force Gauge from Slick Rod

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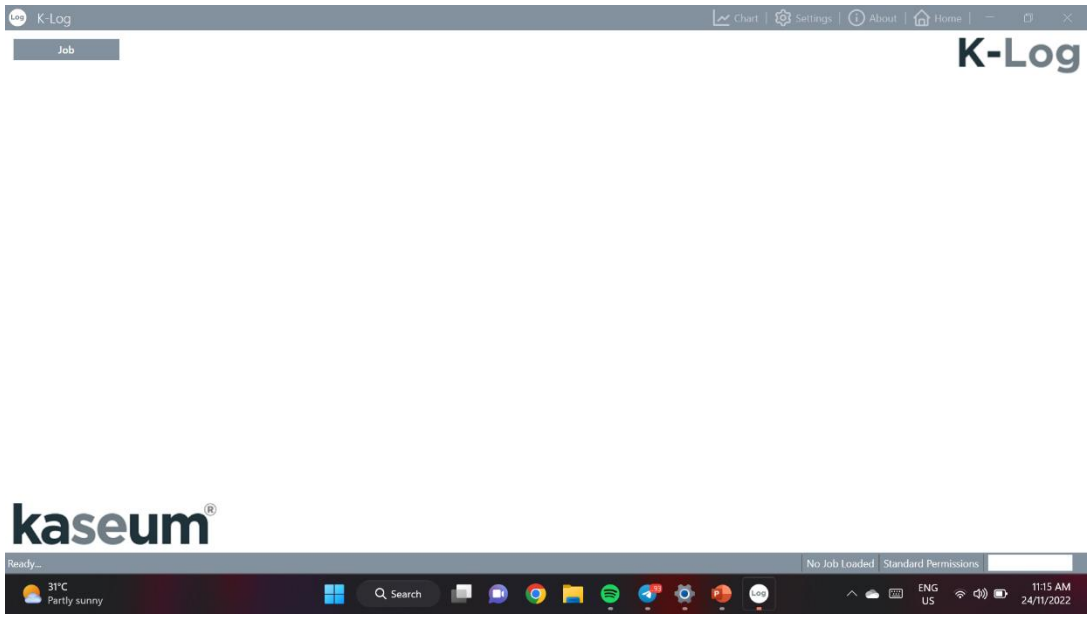
Programming a Set Command in Slickline Mode using K-Log

1

- Launch K-Log software
- K-Log home screen will pop out



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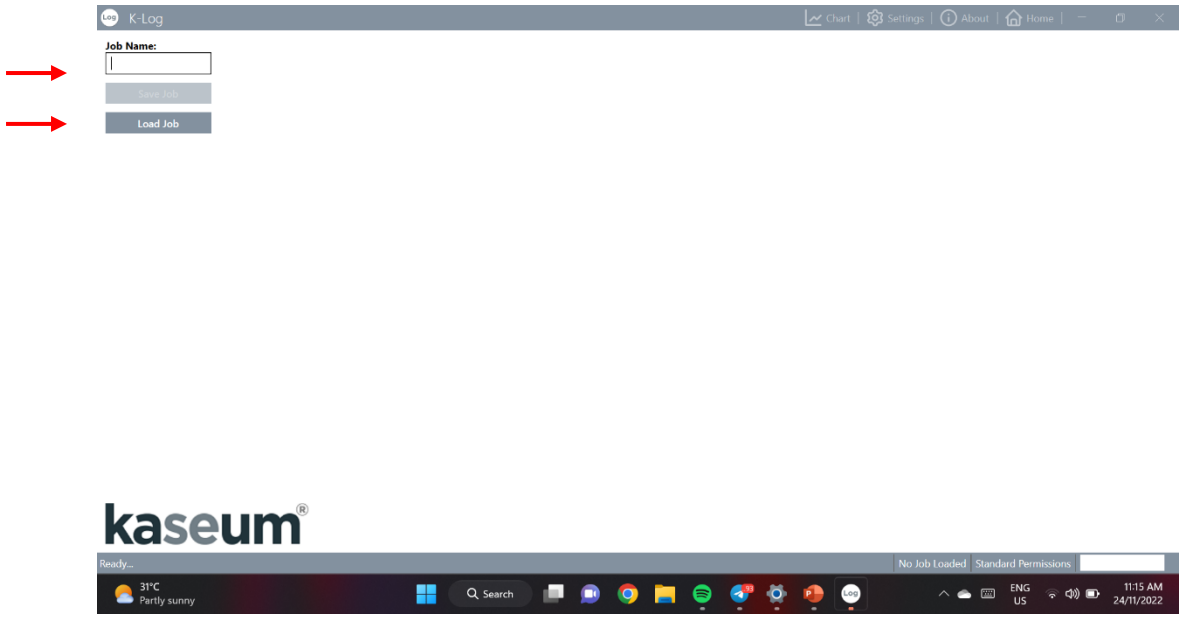

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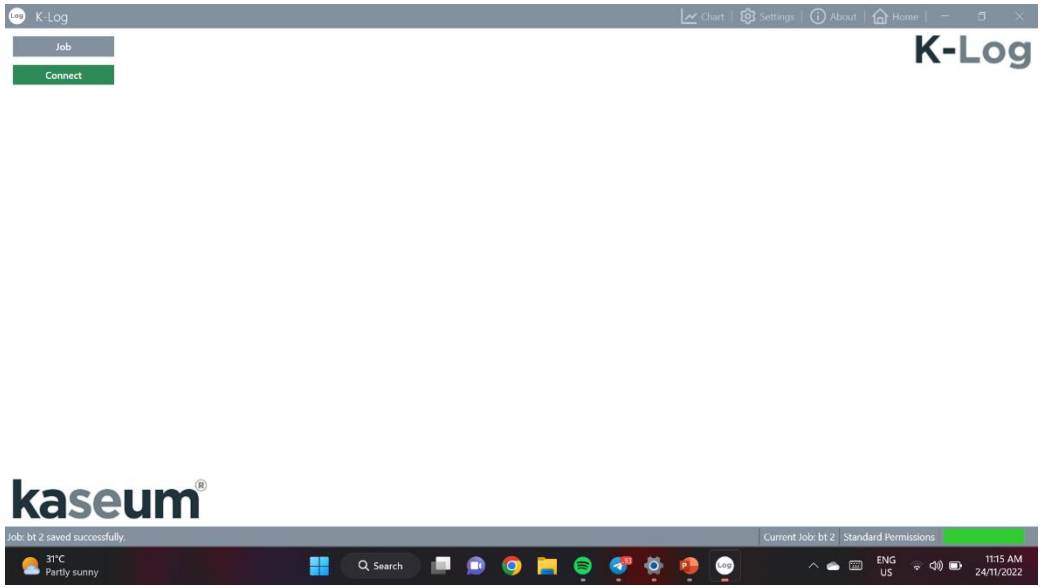
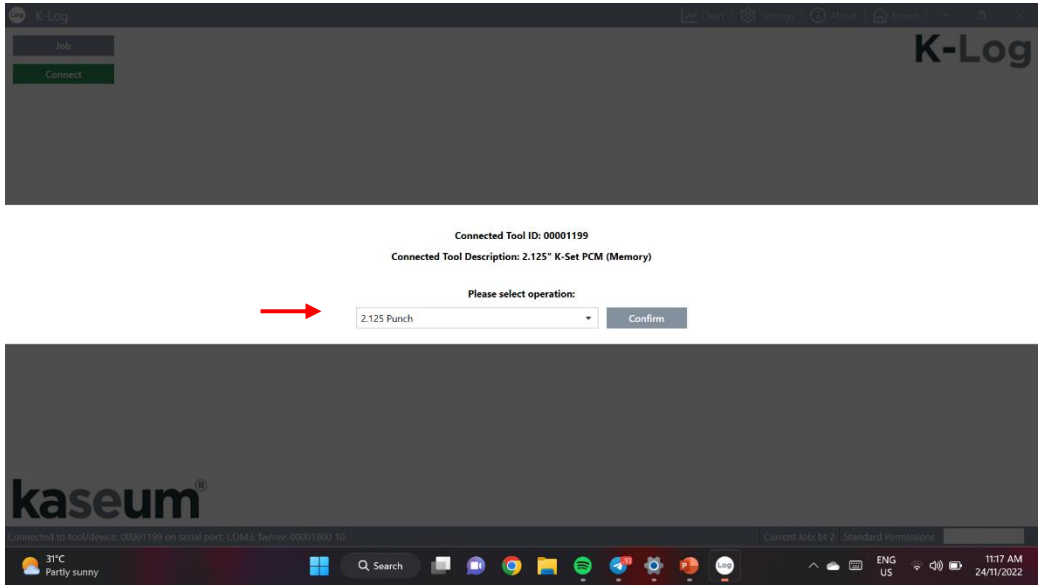
- Software will interrogate all connected com ports to establish communication with the PCM by this command



4

- Select the type of operation from the list, either 2.125” punch / 2.125” set
- Then select the ‘Confirm’ icon



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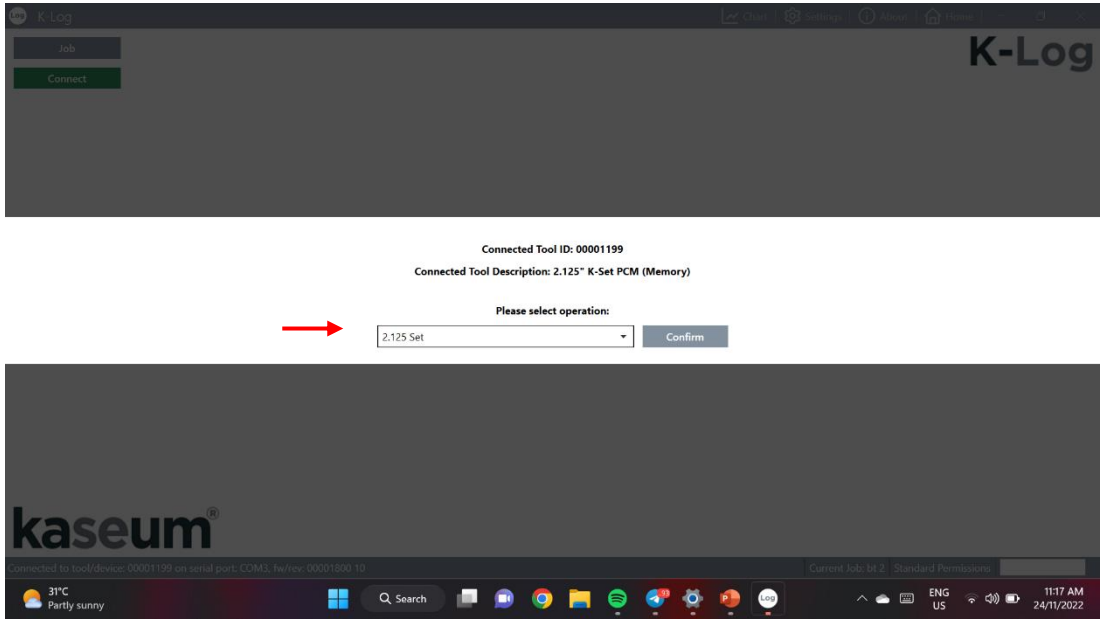

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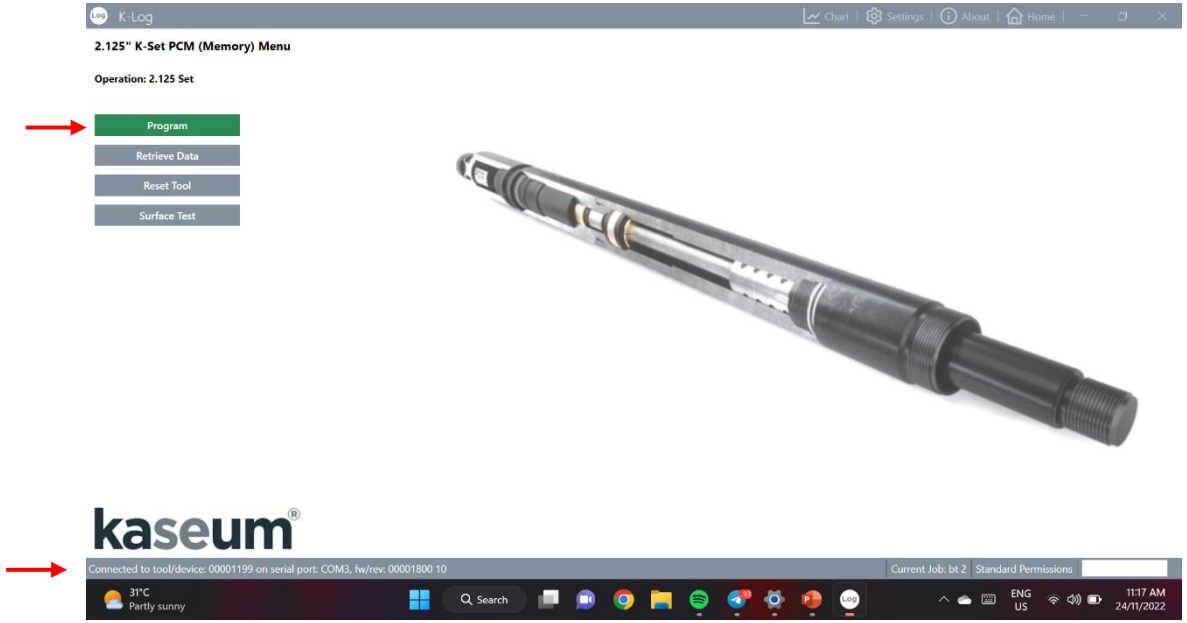
- Once operation type has been confirmed, the slickline menu (memory) will pop out
- The message status bar shown if the PCM has been connected or not, along with the PCM part number
- Select ‘Program’ command icon



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Programming a Set Command in Slickline Mode using K-Log

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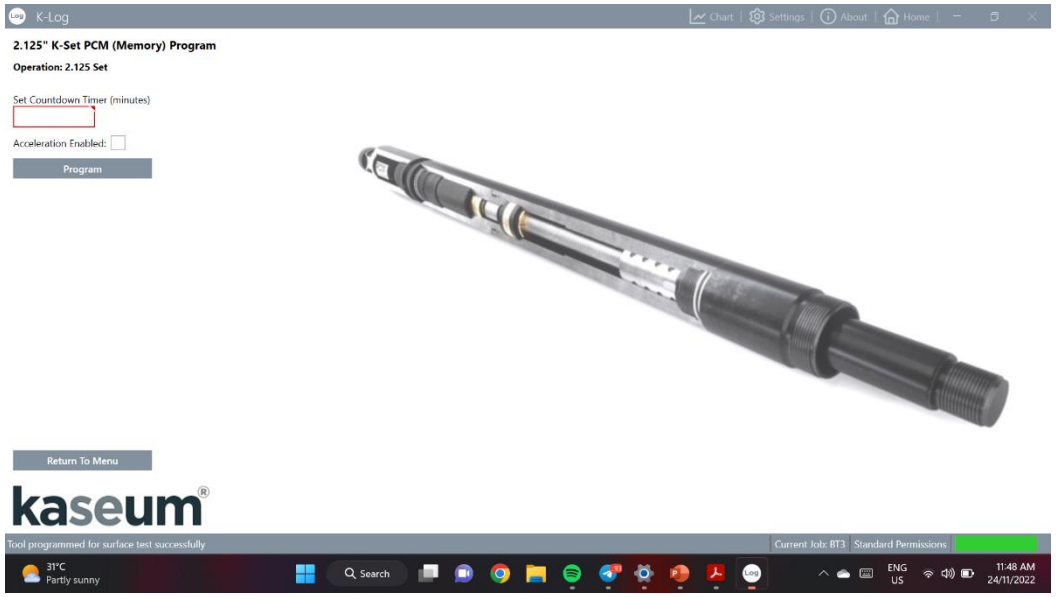
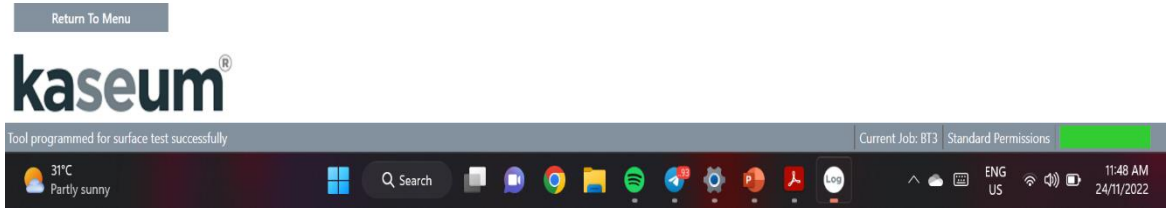
- Insert the Countdown Timer Delay needed in ‘Set Countdown Timer’. Countdown Timer value prior to duration of the running job to reach the Target Depth
- Select on ‘Program’ to commence the programming
- Acceleration will force the tool into a **fail-safe** status by performing a unique acceleration sequence. Only can be enable on Slickline Mode **NOT** Surface Interface Box
- Tick on ‘Acceleration Enable’ if it is required prior to job



8

- A successful completion status will appeared once the programming has been completed



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Programming a Set Command in Slickline Mode using K-Log

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- The verification report for the ‘Surface Test’ will generate as below following steps

kaseum

Setting Tool Parameter Verification Report

Information

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Tool Description	2.125" K-Set PCM (Memory)
Firmware Revision	00001800 10
Firmware Checksum	0030A046
Date and Time	November 24, 2022 - 15:20:28

Run Configuration

Tool Operation	2.125 Set
Countdown (HH:MM)	00:01
Armed Status	Armed

Program Steps

Step	Action	Duration	Current Limit
1	PULL	2400 seconds	Step: 2500mA
2	STOP	2 seconds	Absolute
3	PUSH	3 seconds	Step: 1250mA
4	STOP	2 seconds	Absolute

On completion of above program steps, the motor will assume a brake state.

Acceleration

Acceleration commands have been disabled.

kaseum

Logging Configuration

Channel	Logging Rate (K-Set Off)	Logging Rate (K-Set On)
CCL	10 times per second	20 times per second
Motor Current	10 times per second	20 times per second
Battery Voltage	10 times per second	20 times per second
OP MODE	10 times per second	20 times per second
Z-Axis	10 times per second	20 times per second
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CCL Deviation	10 times per second	20 times per second
X-Axis	10 times per second	20 times per second
Y-Axis	10 times per second	20 times per second
Temperature	10 times per second	20 times per second

Other

Under Volt Lockout: 32V
When connected to Setting tool, if the detected battery voltage is less than the Under Volt Lockout value stated above, the Setting tool will shut down and the Countdown Timer WILL NOT be initiated.

Absolute Current Limit: 3300mA
At any point during the operation of Setting tool, if the detected current exceeds the Absolute Current Limit value stated above, the motor will stop. Any further steps in the Program Table will then be executed.

Readings of CCL to be Averaged: 4
Averages of CCL to be Checked for Max Deviation: 4

Report approved by:

PRINT NAME **DATE**

SIGNATURE **DATE**

Report witnessed by:

PRINT NAME **DATE**

SIGNATURE **DATE**

2

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Thank you !

Questions and Answering Session

Prepared by,

Name : Muhammad Ikram Muslim

Designation : Junior Field Engineer

Date : 24 November 2022

Verified by,

Name : Faris M. Firdaus

Designation : Field Service Manager

Date :

Verified by,

Name : Azahari Suhari

Designation : Operation Manager

Date :