



LOCAL AREA MOTORSCOPES



NAME	STATUS	
MOBI-06C1D8	MAX POWER	2h 34
MOBI-0643F2	UNCALIBRATED	38 sec
MOBI-87D3AE	RUNNING	1d 11h 44
MOBI-889F75	RUNNING	> 2 days
MOBI-043FD1	AUX	15min

- IF BLUETOOTH IS OFF, the table could be replaced by: "Bluetooth is OFF" and an **ON** button.
- Status Values with their respective text, text colour and entire row background fill colour:

VAL	STATUS TEXT	VAL	STATUS TEXT
0	PHASE SEQUENCE	14	INSULATION
1	L1 VOLTAGE	15	BACK EMF
2	L2 VOLTAGE	16	UNKNOWN ERROR
3	L3 VOLTAGE	100	NO DATA
4	MAX POWER	101	RUNNING
5	MAX CURRENT	102	UNCALIBRATED
6	MIN PHI	103	CALIBRATING
7	MIN POWER	104	CAL PAUSED: AUX
8	PHASE IMBALANCE	105	CAL PAUSED: RST
9	AUX	106	RESET ACTIVE
10	NO CURRENT	107	CAL PAUSED: MONO
11	CONTROLLER	108	MONO STARTUP
12	COOL DOWN	127	STARTING
13	SUPPLY FREQUENCY	else	UNKNOWN (<val>)

- When the user taps on anywhere in a specific row, a pop-up or something will appear with more information. Show the content of COLUMN L on the STATUS_SPECIFIC_FRAME_DEFS tab of the file MS_Status_PresentStatus-Spec.xlsx. Perhaps the MAC address of the device could also be shown.
A CLOSE button shall be visible to close the pop-up
A CONNECT button shall also be visible if the device is connectable.
- The time in status column has a clock / watch icon in the heading and has formatting as in example.

OVERVIEW

This screen is a copy of the pop-up extra info screen shown when the user taps a row in the Local Area Motorscopes Table. BUT here the information is not from the Advertisement packets, rather the (ms_status.present_status) characteristic which is the exact one used in the Advertisement packets.

VIEW PARAMETERS

This single scrollable screen contains the following information

ON-SCREEN INFORMATION (Please use the same colours)	VALUE CALCULATION METHOD
POWER	
HIGH LIMIT: 22.5 kW	(ms_controller.protection_limits.power_high_limit) LEFT-SHIFTED BY (ms_controller.protection_limits.limits_binary_exponents.power.value) THEN converted to engineering units with one decimal if unit prefix is k or up.
MEASURED: 18.2 kW	(ms_controller.live_measurements.I3_measured_power) LEFT-SHIFTED BY (ms_controller.live_measurements.measured_binary_exponents.power.value) THEN converted to engineering units with one decimal if unit prefix is k or up.
LOW LIMIT: 15.7 kW	(ms_controller.protection_limits.power_low_limit) LEFT-SHIFTED BY (ms_controller.protection_limits.limits_binary_exponents.power.value) THEN converted to engineering units with one decimal if unit prefix is k or up.
VOLTAGE	
MEASURED L1: 235 Vph-N	(ms_controller.live_measurements.I1_voltage) LEFT-SHIFTED BY (ms_controller.live_measurements.measured_binary_exponents.voltage.value) BUT line is only visible if (ms_controller.protection_limits.general_info.three_measured_voltages) == 1
MEASURED L2: 241 Vph-N	(ms_controller.live_measurements.I2_voltage) LEFT-SHIFTED BY (ms_controller.live_measurements.measured_binary_exponents.voltage.value) BUT line is only visible if (ms_controller.protection_limits.general_info.three_measured_voltages) == 1
MEASURED L3: 228 Vph-N	(ms_controller.live_measurements.I3_voltage) LEFT-SHIFTED BY (ms_controller.live_measurements.measured_binary_exponents.voltage.value) BUT the label "MEASURED L3" should be "MEASURED" if (ms_controller.protection_limits.general_info.three_measured_voltages) == 0
CURRENT	
HIGH LIMIT: 32.5 A	(ms_controller.protection_limits.current_high_limit) * (2 to the power of (ms_controller.protection_limits.limits_binary_exponents.current.value))
MEASURED: 27.1 A	(ms_controller.live_measurements.I3_current) * (2 to the power of (ms_controller.live_measurements.measured_binary_exponents.I3_current.value))
PHI (φ)	
MEASURED: 34 °	((ms_controller.live_measurements.I3_phi) / 10)
LOW LIMIT: 27.0 °	((ms_controller.protection_limits.min_phi_limit) / 10) or "N/A" if (ms_controller.protection_limits.general_info.min_phi_monitored) == 0
AUX INPUT	
STOP MOTOR IF: OPEN	IF (ms_controller.protection_limits.aux_input) == 1 "OPEN", ELSE "CLOSED"
STATUS: CLOSED	IF (ms_controller.live_measurements.aux_input_status) == 0 "OPEN", ELSE "CLOSED"
FREQUENT START PROTECTION	
STATUS: ENABLED	IF (ms_controller.protection_limits.overheat_protection) > 0 "ENABLED", ELSE "DISABLED"

MAX 4 STARTS IN: 16 minutes

8 min * (1 LEFT-SHIFTED by (ms_controller.protection_limits.limits_binary_exponents.current.key))

TIMERS

MOTOR START: 3 sec

OVERLOAD ALLOW: 1 sec

UNDERLOAD ALLOW: 3 sec

UNDERLOAD RESTART DELAY: 1h 20

(ms_controller.protection_timers.t_start)

(ms_controller.protection_timers.overload_allow)

(ms_controller.protection_timers.underload_allow)

(ms_controller.protection_timers.underload_restart_delay)

GENERAL INFO

DEVICE NAME: MOBI-061CD8

MIN PHI MONITORED? YES

THREE MEASURED VOLTAGES? YES

CT POSITION: External

(generic_access.device_name.name)

(ms_controller.protection_limits.general_info.min_phi_monitored.value)

(ms_controller.protection_limits.general_info.three_measured_voltage.value)

(ms_controller.protection_limits.general_info.ct_position.value)

MOTORSCOPE VERSION:

READ

When the READ button is tapped, the app shall disable and then enable notifications for the (ms_controller.device_fw_ver) characteristic. The mobi board shall then attempt to retrieve the Device Firmware values from the Motorscope. If no response was received from the mobi board within 5 seconds, the app shall invoke a READ CHARACTERISTIC. As soon as the READ button is tapped, it shall be replaced by a progress bar which smoothly goes from 0% to 100% in 6 seconds. When 100% is reached, the retrieved value shall be displayed instead of the progress bar. Format: MAJOR.MINOR.BUG_FIX_BUG_FIX. The font colour shall be determined by (ms_controller.device_fw_ver.bug_fix.firmware_type.key): IF 0, red, else green. EXAMPLE: 3.61.2

MOTORSCOPE DATE & TIME:

READ

When the READ button is tapped, the app shall disable and then enable notifications for the (ms_controller.rtc) characteristic. The mobi board shall then attempt to retrieve the RTC values from the Motorscope. If no response was received from the mobi board within 5 seconds, the app shall invoke a READ CHARACTERISTIC. As soon as the READ button is tapped, it shall be replaced by a progress bar which smoothly goes from 0% to 100% in 6 seconds. When 100% is reached, the retrieved value shall be displayed instead of the progress bar. Display format: ONLY the YYYYMMDDHHMM field with all of its bit-fields should be displayed: YYYY/MM/DD HH:mm EXAMPLE: 2016/07/01 08:23