MA APPROVED ECU UPDATE 20.09.2021

Current ECU's and Fuel Metering devises used in the SBK Class.
All current MA approved Manufacturers nominated kit ECUs are all still eligible for use.
A list of approved ECU's and changes can be found under competitor information on the ASBK website.

Additionally the current regulations governing electronics and data acquisition have not changed and are below for reference.

Use of Non-OEM Parts
Wiring loom, plug in fuel injection/ignition control units and the manufacturer nominated Race kit ECU and/or **MA approved ECU**. OEM ECU may be reprogrammed:
    i) Unless authorised and approved by MA, only the existing OEM sensors for the make and model are permitted.
    ii) Unless authorised and approved by MA, the position and location of all OEM sensors and components must remain as OEM.
    iii) Fitment of any other additional sensors is prohibited.
Instruments currently may also be changed

Permitted Additions
Data acquisition is permitted under the following conditions
    i) Only the existing OEM sensors for the make and model are permitted with the only exception being, the addition of front and rear suspension position sensors, air fuel ratio and brake pressure sensors for data logging purposes only.
    ii) Unless authorised and approved by MA the position and location of all OEM sensors and components must remain as OEM
    iii) Fitment of any other additional sensors is prohibited
    iv) Telemetry devices are prohibited
    v) Data available from lap timers as per GCR's and ASBK Sporting Regulations.
Electronic gear shifters currently may also be added.

"MA APPROVED ECU" 2022 Information Motec M130

What is the ECU?
The ECU is the Motec M130 ECU, with an ASBK specific firmware and is an option to manufacturers kit ECUs for use in Superbike class from 2022.

What are the features?
The Motec M130 ECU is a fully featured racing ECU, with fast and accurate control with complete control often not available in the standard or kit ECU options. This ECU & associated components are also completely transferable from different brand bike to bike, so if a team was to change manufacturer, the exact same ECU can be used on any superbike.
The Motec M130 also has data logging capabilities so there is no need for a separate data logger to be fitted to the machine. There are different levels of data logging available in the ECU which is upgradable at an extra cost if you choose to adopt one of the higher levels.

When is it available?
The ECU hardware is currently available, however the final ASBK firmware is being developed and will be finalised by early October.

Where can I buy it?
The approved ECU & kit can be purchased from any Motec dealer, be sure to ask the dealer for the ASBK specification Motec M130 you are wanting to purchase. There is a link to the Motec dealer website below for your reference. The Motec M130 ECU will come pre-loaded with the correct firmware for the ASBK championship and start file for the brand of machine you nominate. Additional tuning will be required to achieve the best results from the Motec M130.

Motec Dealers
https://www.motec.com.au/dealers/dealersau/

What will I need?
The components required for this superbike electronics package are:
- Motec M130 ECU, ASBK Package,
- IGN4 – ignition driver
- Wiring harness or Patch Loom from Motec to existing harness
- Oil pressure sensor (As per approved ECU list).

Optional items as per current regulations:
- Dashboard, there are various options available.
- Handlebar switches – for changing ECU settings by the rider
- Lambda to CAN (LTC) – For air fuel tuning
- Suspension potentiometers - for Data logging & Wheelie control
- Brake pressure sensors for data logging only
- Oil temperature sensor for data logging only (As per approved ECU list)

The following suppliers of additional hardware are a guide only.

Handlebar switches
Aviorace – Italy https://aviorace.it/en
5 button / 3 button CAN bus switches

Wiring loom or patch loom.
Proloom, VIC, Australia – ryan@proloom.com.au
NA Autosport, QLD Australia – sales@naautosport.com.au
Tecnocable SRL – Italy tecnocable@tecnocable.net
Mototronics – UK – info@mototronics.co.uk

The following applies;
1. The MA approved ECU (Motec M130) may be used, with the ASBK firmware as per the bike and manufacturer.
    a. An Ethernet (Female RJ45) Communication Port connector in the wiring harness must be provided and accessible at all times for scrutineering checks, or an adaptor must be provided by the competitor to this MA specified type of connector.
    b. The RPM limit maximum is equal to the Manufacturer Kit ECU.
2. Wiring harness is open as per the current regulations.

Motec M130		Notes
Ignition		Adjustable
Fuelling		Adjustable
Rev Limiter		Limits Engine Speed - different Rev limits per gear (Note 1b. above)
Quickshifter		Control Engine cut on upshift and auto blip on downshift
Drive By Wire		Controls the opening of the butterflies dependant on the riders grip position in place of throttle cables. Has different throttle tables for each gear to restrict throttle opening in lower gears
Traction Control	8 Rider modes	Limits rear wheel spin by using ignition retard then cut, will not close throttles to limit power
Wheelie Control	Either On or Off	Will use ignition retard then cut, will not close throttles to limit power
Launch Control	Either On or Off	Will use ignition retard then cut, and limit throttle opening to limit power
Engine Brake	3 Rider Modes	Opens Throttles if rear wheel is locking up. Can have different Engine Brake settings for each gear
Pit Lane Speed Limiter	Either On or Off	Limits throttle opening and cuts ignition to limit vehicle speed

There is no ability for Distance or GPS Based Mapping as the ASBK firmware is locked and MA & ASBK Technical Departments will be able to confirm that there have been no modifications made.

This ECU uses mainly OEM sensors. However, the following are options that can be used with the Motec M130 ECU as per the current MoMS and ASBK Sporting Regulations:

- IGN4 - Used to drive ignition coils and are part of the harness if required.
- GPS - Used to mark start finish line for lap timing only
- Gear quick shifter, OEM uses digital sensor, Motec uses strain gauge similar to that of Honda sensor
- Suspension potentiometers for data logging & Wheelie Control
- Oil Temperature sensor (Data logging only) and Oil Pressure sensor
- Front and Rear Brake Pressure sensors (Data logging only)
- Lambda sensor(s)
- All other sensors and associated components are as per the current MoMS and or ASBK Sporting Regulations.