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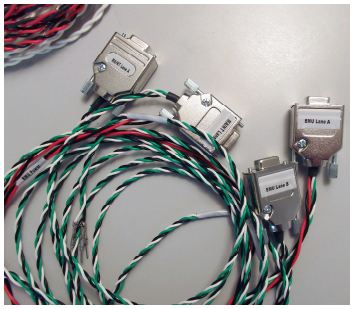
CAV11 : Wiring Harness for Rotax 912iS HIC

A ready-assembled wiring harness to mate with the Rotax Harness Interface Connectors (HICs) and fuse box power connector.

All terminations ready-crimped using original OEM hardware.

Supplied with full fitting instructions.



Applications

- Rotax 912iS engine installations.

Features and Benefits

- Professionally built, ready-crimped harness.
- 35-37 cables in 18 groups (depending on configuration).
- High quality PTFE cable.
- HIC and X3 fuse box terminations using original OEM terminal hardware.
- All other crimp terminals use Pre-Insulated Diamond Grip (PIDG) technology.
- ECU Maintenance bus cables terminated with BUDS compatible 9-pin D-Sub connectors.
- ECU display bus cables available in various terminations to suit popular EMS units.
- Fuse box ground cables included.
- Fuel pump extension cables included.
- Start connection relay included (allows the use of low current Engine Start buttons).
- Full instructions include an improved HIC connection diagram to help reduce installation errors.

Rotax 912iS Electronic Installations

The Rotax 912iS fuel-injected engine brings modern technology to the field of light aviation. It is easier to maintain and operate than a conventional, carburetted engine however its initial installation can appear to be more complex from a wiring perspective for builders without some electrical or electronics experience. This is because most of the wiring interface is presented through a pair of HICs (Harness Interface Connectors) which are not particularly home-builder friendly.

The CAV11 harness contains all the cables required to connect to the HICs. They are of the correct wire gauge, with the correct HIC pins fitted and pre-formed into twisted groups where required. All that is necessary is to pass the cables through the firewall (when required) and then insert the pins into the HICs. The builder has no crimping or joining operations to make. This also applies to the high-current power leads which make up fuse box plug X3, and the two ground leads which are supplied ready terminated. A start relay (with connectors) is also provided to allow the use of low-current Engine Start buttons or circuits.

The cockpit (non-HIC) ends of the cables are terminated to enable switch or bus connections or are left open where appropriate. All leads are marked at both ends and colour co-ordinated to help reduce the possibility of connection errors.

Typical standard harness details in terms of lengths and terminations are shown below.

CAV11: Standard Harness Details (Option C shown)

Cable/Group Name	Wires	Insulation	Size	Termination 1	Termination 2	Length (cm)	Label	Colour(s)
EMU/EMS Lane A	3	PTFE	20AWG	HIC terminal	Wire-ended	150	EMU Lane A	W/B/G
EMU/EMS Lane B	3	PTFE	20AWG	HIC terminal	Wire-ended	150	EMU Lane B	W/B/G
Rotax maintenance Lane A	3	PTFE	20AWG	HIC terminal	9-pin D-Sub	50	Maint Lane A	W/B/G
Rotax maintenance Lane B	3	PTFE	20AWG	HIC terminal	9-pin D-Sub	50	Maint Lane B	W/B/G
Switch leads, Lane A	2	PTFE	16 AWG	HIC terminal	PIDG Faston	120	Lane A	W
Switch leads, Lane B	2	PTFE	16 AWG	HIC terminal	PIDG Faston	120	Lane B	W
Switch leads, Main fuel pump	2	PTFE	16 AWG	HIC terminal	PIDG Faston	120	Fuel Pump 1	W
Switch leads, Aux fuel pump	2	PTFE	16 AWG	HIC terminal	PIDG Faston	120	Fuel Pump 2	W
Lamp leads, Lane A	2	PTFE	18AWG	HIC terminal	Wire-ended	120	Lamp Lane A	R/B
Lamp leads, Lane B	2	PTFE	18AWG	HIC terminal	Wire-ended	120	Lamp Lane B	R/B
Starter leads	2	PTFE	18AWG	HIC terminal	PIDG Faston	120	Starter	W
Fuse box power lead terminal #1	1	PTFE	12AWG	Power terminal	Wire-ended	150	1 Backup	W
Fuse box power lead terminal #2	1	PTFE	12AWG	Power terminal	Wire-ended	150	2 Start Pwr	W
Fuse box power lead terminal #3	1	PTFE	12AWG	Power terminal	Wire-ended	150	3 Battery	W
Regulator A ground lead	1	PPE	12AWG	PIDG Ring M4	Wire-ended	150	Reg A Gnd	B
Regulator B ground lead	1	PPE	12AWG	PIDG Ring M6	Wire-ended	150	Reg B Gnd	B
Main fuel pump extension cable	2	PPE	16AWG	PIDG Butt	PIDG Butt	110	FP1 extn	R/B
Aux fuel pump extension cable	2	PPE	16AWG	PIDG Butt	PIDG Butt	90	FP2 extn	R/B

EMU/EMS Lane Termination Options

Option	EMS Pilot Display CANbus Terminations
A	9 pin D-Sub for Stock Flight EMU912iS display unit
B	9 pin D-Sub for Cambridge Avionics CAV01C Data Hub
C	Free wire ends for user connection

Alternative cable lengths and termination options are available to custom order. Please email with any specific requirements.

Technical Details Summary

- Number of cables: 35-37 total in 18 groups (depending on configuration).
- Insulation: PTFE for all FWF cables, PPE for fuel pump extensions and ground leads.
- Total weight: 870g approx.

For further information please email info@cambridgeavionics.com