

User Manual for Harness	Cod. 662010	Rev 3
EngiMaster + Remote Module ROTAX 912/914		

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19	20	21	22

Connector: "ENGIMASTER CN1" - Microfit 22 poles receptacle

VIEW FROM WIRING SIDE

PIN NO.	SIGNAL TYPE	LABEL	LENGTH	SIZE	NOTE
1	INPUT	GPS INPUT	50 cm	AWG 22 SHLD	GPS Input
3	OUTPUT	+VOUT	50 cm	AWG 24	+VOUT for sensors supply
4	OUTPUT	GND	50 cm	AWG 24	GND for sensors supply
5	OUTPUT	GND	50 cm	AWG 24	GND for sensors supply
6	OUTPUT	GND	50 cm	AWG 24	GND for sensors supply
7	OUTPUT	GND	50 cm	AWG 24	GND for sensors supply
8	INPUT	SWITCH 2	50 cm	AWG 24	External switch input 2
9	OUTPUT	+5V OUT	50 cm	AWG 24	+5V for sensors supply
10	OUTPUT	+VOUT	50 cm	AWG 24	+VOUT for sensors supply
11	INPUT	+V SUPPLY	50 cm	AWG 22	+V Main Supply
14	OUTPUT	GND	50 cm	AWG 24	GND for sensors supply
16	OUTPUT	AUDIO OUT	50 cm	AWG 22 SHLD	Low level audio output (Shield connected to pin 17)
18	OUTPUT	OUT 1	50 cm	AWG 24	Digital output 1
19	OUTPUT	OUT 2	50 cm	AWG 24	Digital output 2
20	INPUT	SWITCH	50 cm	AWG 24	External switch input 1
21	INPUT	LIGHT SENS	50 cm	AWG 24	Ambient light sensor input
22	INPUT	GND SUPPLY	50 cm	AWG 22	GND Main Supply



Connector: "ENGIMASTER CAN1 Uppper" - Microfit 2 poles receptacle

VIEW FROM WIRING SIDE

PIN NO.	SIGNAL TYPE	LABEL	LENGTH	SIZE	NOTE
1 (WHITE) - 2 (BLUE)	I/O	CAN 1	150 cm	AWG 24 SHLD	CAN bus line for connection between EngiMaster and remote module

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

Connector: "REM. MOD. CN1" - Microfit 16 poles receptacle

VIEW FROM WIRING SIDE

PIN NO.	SIGNAL TYPE	LABEL	LENGTH	SIZE	NOTE
1 - 9	INPUT	-	N/D	AWG 24	Jumper wire between pin 1-9 for CAN1 termination
2 (WHITE) - 10 (BLUE)	I/O	CAN 1	150 cm	AWG 24 SHLD	CAN bus line for connection between EngiMaster and remote module (Shield connected to pin 15)
5	INPUT	RPM	200 cm	AWG 24	RPM Signal Input
8	INPUT	+V SUPPLY	50 cm	AWG 22	+V Main Supply
13	INPUT	ROTOR	50 cm	AWG 24	RPM Rotor Input
16	INPUT	GND SUPPLY	50 cm	AWG 22	GND Main Supply

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

Connector: "REM. MOD. CN2" - Microfit 24 poles receptacle

VIEW FROM WIRING SIDE

PIN NO.	SIGNAL TYPE	LABEL	LENGTH	SIZE	NOTE
4	INPUT	-	N/D	AWG 24	This pin is connected to ground (pin 15 of REM.MOD. CN1)
5	INPUT	-	N/D	AWG 24	This pin is connected to ground (pin 15 of REM.MOD. CN1)
12	INPUT	EGT1	20 cm	0.25 mm²	Green wire → to - of thermocouple connector receptacle
24	INPUT		20 cm		Red wire → to + of thermocouple connector receptacle
11	INPUT	EGT2	20 cm	0.25 mm²	Green wire → to - of thermocouple connector receptacle
23	INPUT		20 cm		Red wire → to + of thermocouple connector receptacle
13	INPUT	COOLANT +	200 cm	AWG 24	Coolant temperature sensor input
16	INPUT	CHT3 +	200 cm	AWG 24	See NOTE1
17	INPUT	CHT2 +	200 cm	AWG 24	See NOTE1

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

Connector: "REM. MOD. CN3" - Microfit 22 poles receptacle

VIEW FROM WIRING SIDE

PIN NO.	SIGNAL TYPE	LABEL	LENGTH	SIZE	NOTE
2	INPUT	FUEL FLOW RET	50 cm	AWG 24	Fuel Flow Return Signal Input
4	INPUT	F. LEVEL L	50 cm	AWG 24	Left tank fuel level sensor input
5	INPUT	F. LEVEL M	50 cm	AWG 24	Main tank fuel level sensor input
6 - 17	INPUT	-	N/D	AWG 24	See NOTE2
7	INPUT	OIL T.	200 cm	AWG 24	Oil temperature sensor input
8	INPUT	OAT	200 cm	AWG 24	Outside air temperature sensor input
9	INPUT	CAT	200 cm	AWG 24	Carburetor Air Temperature sensor input
10	OUTPUT	GND	100 cm	AWG 24	GND for sensors supply
11	OUTPUT	+VOUT	100 cm	AWG 24	+VOUT for sensors supply
11	OUTPUT	+VOUT	200 cm	AWG 24	+VOUT for sensors supply
13	INPUT	FUEL FLOW	50 cm	AWG 24	Fuel Flow Signal Input
15	INPUT	F. LEVEL R	50 cm	AWG 24	Right tank fuel level sensor input
16	INPUT	OIL P.	200 cm	AWG 24	Oil pressure sensor input
19	INPUT	CURRENT SENS	100 cm	AWG 24	Current sensor signal input
20	INPUT	FUEL P.	200 cm	AWG 24	Fuel pressure sensor input
21	OUTPUT	GND	200 cm	AWG 24	GND for sensors supply
21	OUTPUT	GND	50 cm	AWG 24	GND for sensors supply
22	OUTPUT	+VOUT	200 cm	AWG 24	+VOUT for sensors supply
22	OUTPUT	+VOUT	50 cm	AWG 24	+VOUT for sensors supply

NOTE1: Input number are directly associated to the cylinder number. Refer to the engine manufacturer manuals for cylinder numbering.

NOTE2: The jumper wire between pin 6-17 is needed for the 4-20mA oil pressure sensor (ROTAX 956413 or FLYBOX 602000)

If you use the old type of Rotax sensor (VDO) you must cut this jumper.

The connectors and terminals manufacturer's codes are:

Molex P/N 43025-0200 (2 pole housing)
Molex P/N 43025-1600 (16 pole housing)
Molex P/N 43025-2200 (22 pole housing)
Molex P/N 43025-2400 (24 pole housing)
Molex P/N 43030-0007 (female crimp terminal)
Flybox P/N 601014 (female EGT connector)
Flybox P/N 601015 (male EGT connector)
Flybox P/N 601016 (2 poles EGT cable)

By confirming the order you confirm the specifications of the wiring as stated in this document. Should changes be necessary, they must be communicated before the order confirmation to sales@flyboxavionics.it.

ANY NON-STANDARD IMPLEMENTATION IS SUBJECT TO FEASIBILITY ASSESSMENT AND EXTRA COSTS.



WARNING:

Insulate not used wires to prevent them from touching metal parts.