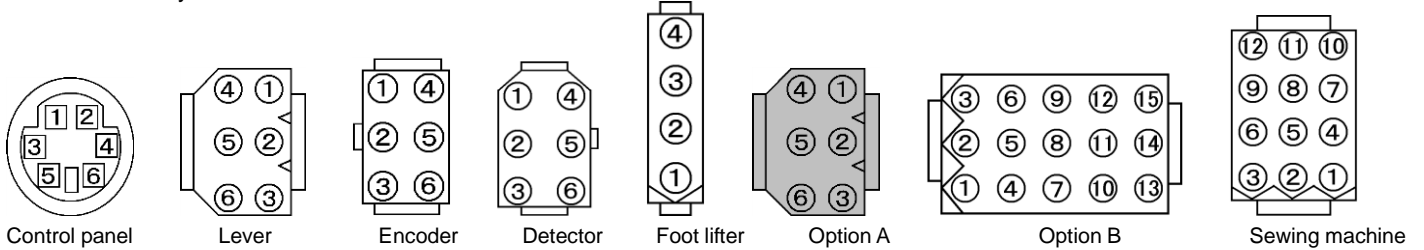


How to Use the Option Connector

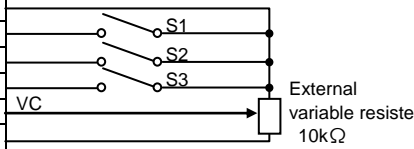
Variable operation are possible by adding external signals to the option connector. A current of approximately 1.5 mA flows through the switches used

1. Connector Layout



Lever (White)

Signal name	Factory setting	
0V	0V	1
IG	S1 : Run (Variable speed)	2
IH	S2 : Thread trimming	3
II	S3 : Presser foot lifter	4
VC	VC : Variable speed command	5
+12V	+12V	6

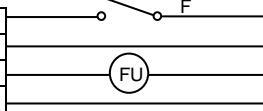


Communication / Control panel (Note 4)

RXD1	1
RXD0	2
TXD1	3
0V	4
+12V	5
TXD0	6

Presser foot lifter

0V	0V	1
IF	F : presser foot input	2
OF	FU+ : presser foot lifter output + FU- : presser foot lifter output -	3, 4

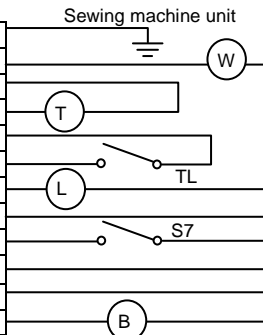


Encoder (Note 4)

0V	1
EA	2
EB	3
+12V	4
Ground	5
-	6

Sewing machine

Ground	Ground	1
OB	W : Wiper output	2
+24V/(+30V)	+24V	3
OA	T : Thread trimming output	4
0V	0V	5
ID	TL : Thread trimmer cancel input	6
OD	L : Thread release output	7
+24V/(+30V)	+24V	8
IE	S7 : Backstitch input	9
0V/(+5V)	0V	10
+24V/(+30V)	+24V	11
OC	B : Backstitch output	12

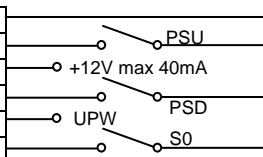


Detector (Note 4)

0V	1
-	2
Ground	3
UP	4
DN	5
+12V	6

Option A (Black)

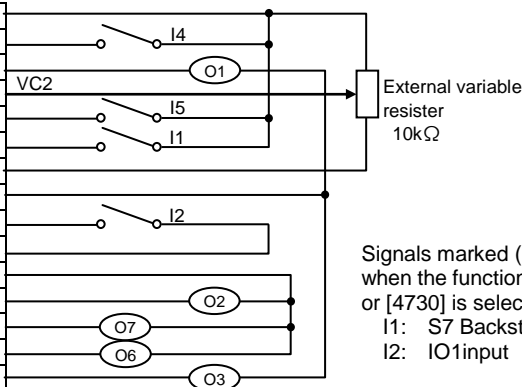
0V	0V	1
IA	PSU : Up position stop input	2
+12V/(+5V)	+12V	3
IB	PSD : Down position stop input	4
O4	UPW : Needle Up position output	5
IC	S0 : Low speed input	6



Note 1 : Pin number 5 is for the signal output.

Option B

0V	0V	1
I4	No setting	2
O1	OT1 : Virtual output	3
VC2	VC2 : Variable speed command	4
I5	No setting	5
I1	(*) IO1 : Virtual input	6
+5V/(+12V)	+5V	7
+24V/(+30V)	+24V	8
I2	(*) U : Needle lift signal	9
0V	0V	10
+24V/(+30V)	+24V	11
O2	NCL : Needle cooler output	12
O7	No setting	13
O6/CP	No setting	14
O3	TF : "TF" output	15



Signals marked (*) will be changed as follows when the function of name [4650], [4652], [4710] or [4730] is selected in simple setting
 I1: S7 Backstitch input
 I2: IO1input

Note 2 : Pin number 3,12,15 are for the solenoid output.

Note 3 : Pin number 13,14 are for the air valve output. (not for the solenoid output)

Note4 : Please do not connect the connector of the control panel /communication, the encoder, and detector excluding our company's products with the above connectors. Moreover, please do not take out these signals besides an original usage, and do not connect them with other devices. It causes the malfunction and the control box breakdown, and our company doesn't assume the responsibility.