



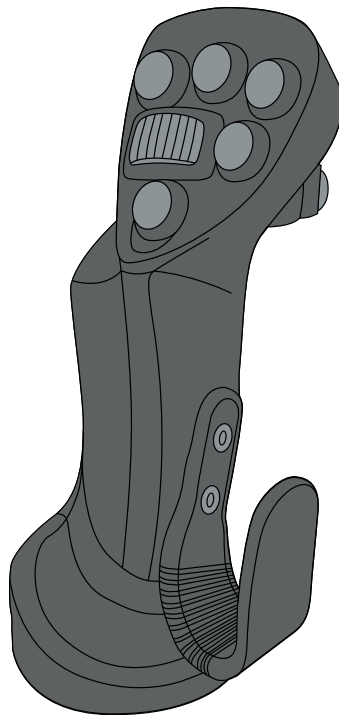
engcon[®]

INSTALLATION INSTRUCTIONS

engcon DC2

Version | 201702
Part no. | 841616

| ENGCON MIG2 |



General

These instructions are designed to describe replacement of the original base machine joystick with the joystick supplied with the engcon DC2. It is important that the joysticks are used together with engcon DC2 for the Declaration of Incorporation in the installation instructions to be valid.

In addition to these installation instructions, you must study and understand the safety information applicable to the base machine concerned, as well as any other equipment involved.



WARNING!

Do not attempt to install, use or maintain your tiltrotator/rotator and its supplied equipment before reading and understanding all information about the tiltrotator/rotator, its supplementary equipment and the base machine. Pay particular attention to the safety information.



WARNING!

Other safety instructions are found in the engcon DC2 instruction manual.

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1 Safety directives

1.1 General

It is of the utmost importance that you study and understand all the warning texts before beginning to install/use the engcon DC2. The warning texts highlight potential risks and how to avoid them.

If in the slightest doubt, contact your employer or supplier.

Remember: a great many unnecessary risks can be mitigated through sound judgement and knowledge of the machinery. The intended operator should therefore set aside time to learn how to safely handle the engcon DC2 before the machine is used.

1.2 Safety checklist



WARNING!

Defective or damaged equipment can cause personal injury, damage to the environment and/or property damage. Ensure that service and maintenance are carried out as recommended.



WARNING!

Assembly and installation may only be carried out at a workshop authorised by the supplier. Changes to the assembly may not be carried out without the manufacturer's consent.



WARNING!

Never attempt to increase the maximum capacity of the equipment by modifications not approved by the supplier.



WARNING!

If you have the slightest doubt concerning your knowledge or work regarding safety details, contact your dealer or engcon Sweden.



WARNING!

Replace damaged and/or illegible decals and warning signs before the machine is used. Risk of personal injury.



WARNING!

Check that the function decal matches the machine functions before commencing work. Risk of personal injury.



WARNING!

Maintenance and repair of the electrical system may only be carried out by professionally qualified persons.



WARNING!

Crushing risk from moving parts. Risk of personal injury.

1.3 The environment

engcon's tiltrotators comprise at least 99 per cent recyclable material. engcon makes constant efforts to reduce its environmental impact. All assembly and/or service work must take place in compliance with applicable legislation and ordinances within the environmental, health and occupational safety areas. This includes all work, handling, storage and processing of residual materials.


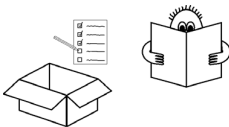


Spillage must be avoided and taken care of when it occurs to prevent pollution of soil and water.

Note that hazardous waste may only be handled by people so authorised. All waste produced must be taken care of in compliance with applicable legislation and ordinances:

- Metallic materials must be recycled.
- Hydraulic hoses are normally used for energy recovery (sort as hazardous waste).
- Oils and greases are normally used for energy recovery (sort as hazardous waste).
- Electronic components must be recycled for materials (sort as hazardous waste).
- Packaging to be source sorted and recycled for materials.
- Paper to be source sorted and recycled for materials.

If in doubt, contact the environmental manager at engcon.

2 Symbols in the installation instructions

Symbol	Description
 WARNING	Risk of personal injury and/or property damage
	Read the accompanying documentation for more information.
	No/Incorrect measure
	Yes/Correct measure

3 Checking delivered parts

3.1 841519 MIG2 2 rollers

Position	Part	Designation	Quantity
1	841288	Joystick MIG2, left, one roller	1
2	841289	Joystick MIG2, right, one roller	1
3	841190	Joystick cabling	1
4	841868	Decal, MIG2	1
5	841869	Decal, MIG2	1
6	841161	Decal, machine functions symbol library – transparent	2
7	841858	Installation kit	1
8	841184	Warning decals for original instructions for use	1

3.2 841520 MIG2 3 rollers

Position	Part	Designation	Quantity
1	841291	Joystick MIG2, left, two rollers	1
2	841289	Joystick MIG2, right, one roller	1
3	841190	Joystick cabling	1
4	841868	Decal, MIG2	1
5	841869	Decal, MIG2	1
6	841161	Decal, machine functions symbol library – transparent	2
7	841858	Installation kit	1
8	842047	Warning decals for original instructions for use	1

3.3 841521 MIG2 3 rollers, FNR

Position	Part	Designation	Quantity
1	841291	Joystick MIG2, left, two rollers	1
2	841290	Joystick MIG2, right, one roller, FNR	1
3	841190	Joystick cabling	1
4	841868	Decal, MIG2	1
5	841869	Decal, MIG2	1
6	841161	Decal, machine functions symbol library – transparent	2
7	841858	Installation kit	1
8	842047	Warning decals for original instructions for use	1

3.4 841522 MIG2 4 rollers

Position	Part	Designation	Quantity
1	841291	Joystick MIG2, left, two rollers	1
2	841292	Joystick MIG2, right, two rollers	1
3	841190	Joystick cabling	1
4	841868	Decal, MIG2	1
5	841869	Decal, MIG2	1
6	841161	Decal, machine functions symbol library – transparent	2
7	841858	Installation kit	1
8	842047	Warning decals for original instructions for use	1

3.5 841523 MIG2 4 rollers, FNR

Position	Part	Designation	Quantity
1	841291	Joystick MIG2, left, two rollers	1
2	841293	Joystick MIG2, right, two rollers, FNR	1
3	841190	Joystick cabling	1
4	841868	Decal, MIG2	1
5	841869	Decal, MIG2	1
6	841161	Decal, machine functions symbol library – transparent	2
7	841858	Installation kit	1
8	842047	Warning decals for original instructions for use	1

3.6 841524 MIG2 5 rollers

Position	Part	Designation	Quantity
1	841294	Joystick MIG2, left, three rollers	1
2	841292	Joystick MIG2, right, two rollers	1
3	841190	Joystick cabling	1
4	841868	Decal, MIG2	1
5	841869	Decal, MIG2	1
6	841161	Decal, machine functions symbol library – transparent	2
7	841858	Installation kit	1
8	842047	Warning decals for original instructions for use	1

3.7 841525 MIG2 5 rollers, FNR

Position	Part	Designation	Quantity
1	841294	Joystick MIG2, left, three rollers	1
2	841293	Joystick MIG2, right, two rollers, FNR	1
3	841190	Joystick cabling	1
4	841868	Decal, MIG2	1
5	841869	Decal, MIG2	1
6	841161	Decal, machine functions symbol library – transparent	2
7	841858	Installation kit	1
8	842047	Warning decals for original instructions for use	1

3.8 841528 MIG2 6 rollers

Position	Part	Designation	Quantity
1	841294	Joystick MIG2, left, three rollers	1
2	841295	Joystick MIG2, right, three rollers	1
3	841190	Joystick cabling	1
4	841868	Decal, MIG2	1
5	841869	Decal, MIG2	1
6	841161	Decal, machine functions symbol library – transparent	2
7	841858	Installation kit	1
8	842047	Warning decals for original instructions for use	1

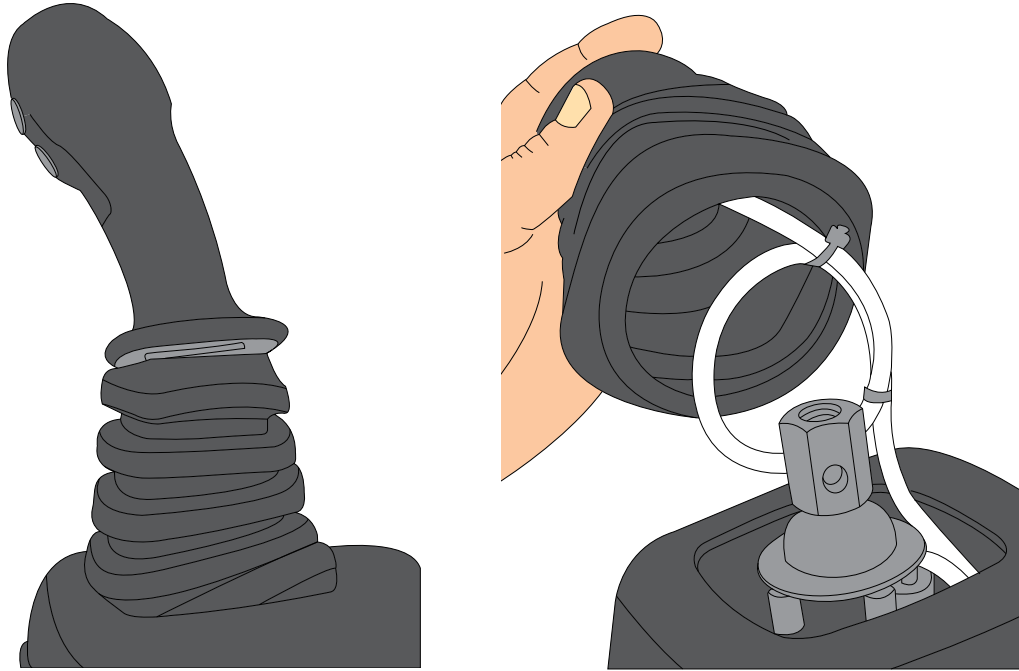
3.9 841529 MIG2 6 rollers, FNR

Position	Part	Designation	Quantity
1	841294	Joystick MIG2, left, three rollers	1.
2	842008	Joystick MIG2, right, three rollers, FNR	1
3	841190	Joystick cabling	1
4	841868	Decal, MIG2	1
5	841869	Decal, MIG2	1
6	841161	Decal, machine functions symbol library – transparent	2
7	841858	Installation kit	1
8	842047	Warning decals for original instructions for use	1

4 Joystick installation

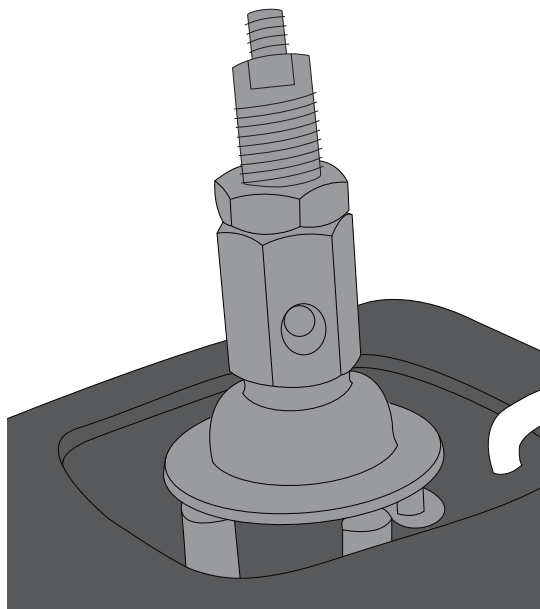
4.1 Area A

4.1.1 Removal of original joystick

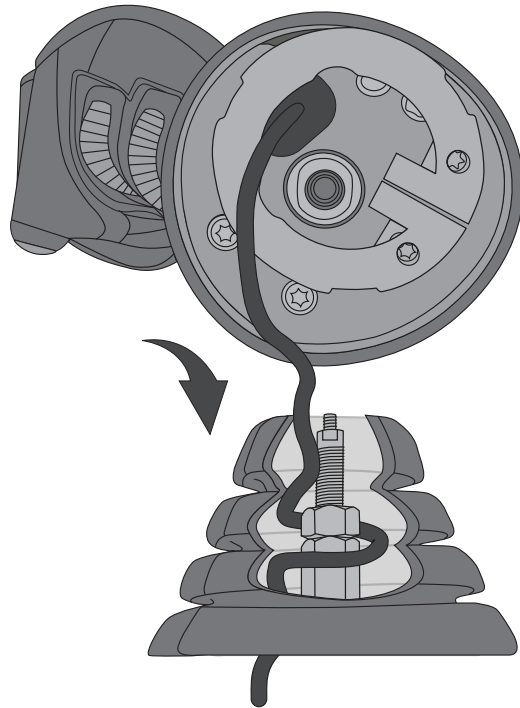


4.1.2 Installation, screw

You may need to shorten the screw to the appropriate length before you mount it as shown in the picture below.



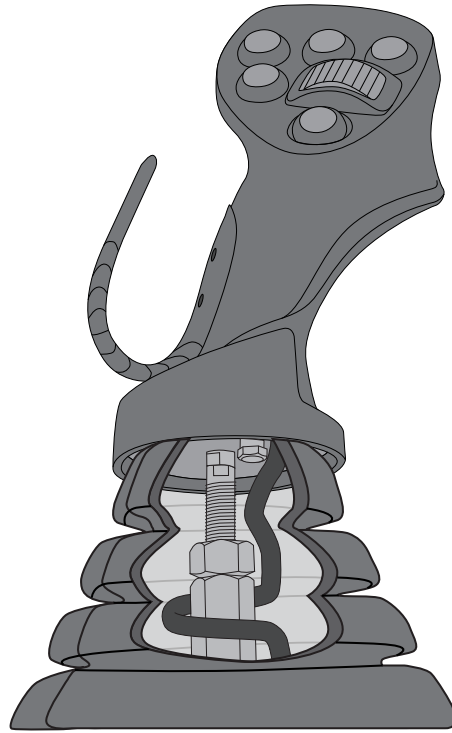
4.1.3 Cable routing



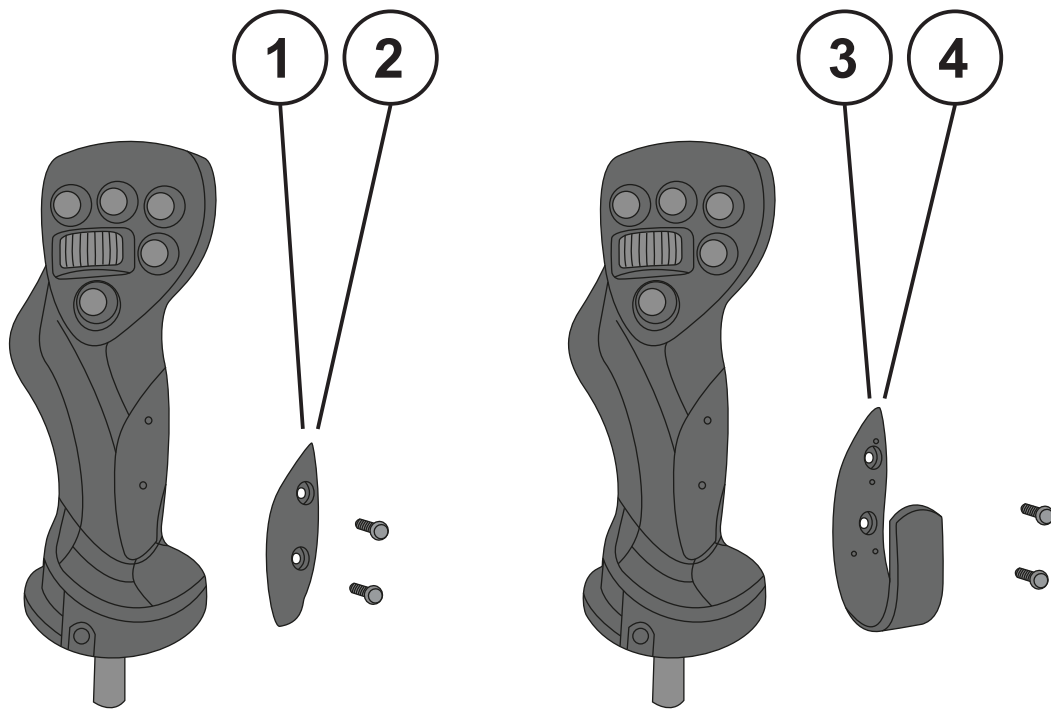
4.1.4 Attachment



4.1.5 Reinstallation

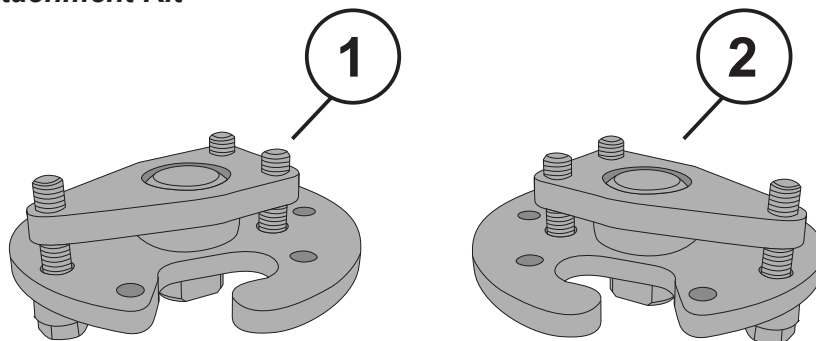


4.1.6 Hand support



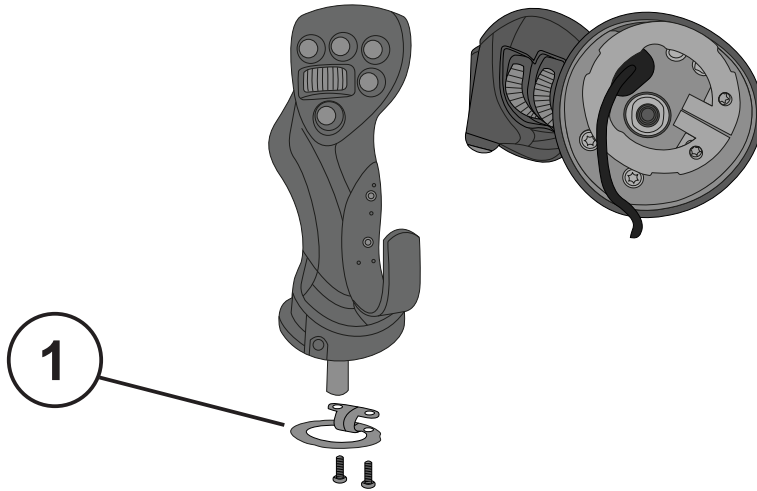
Position	Part	Designation
1	841892	Cover Disc Hand Support Left
2	841893	Cover Disc Hand Support Right
3	841865	Hand Support Left
4	841866	Hand Support Right

4.1.7 Attachment Kit



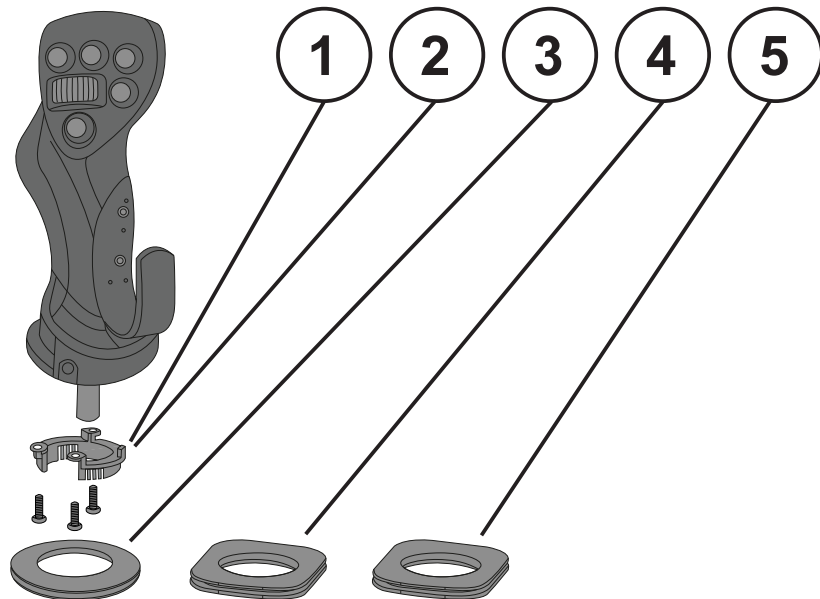
Position	Part	Designation
1	8000196	Attachment Kit MIG2 Left
2	8000195	Attachment Kit MIG2 Right

4.1.8 Standard Bellow Adapter



Position	Part	Designation
1	1033831	Bellow Adapter

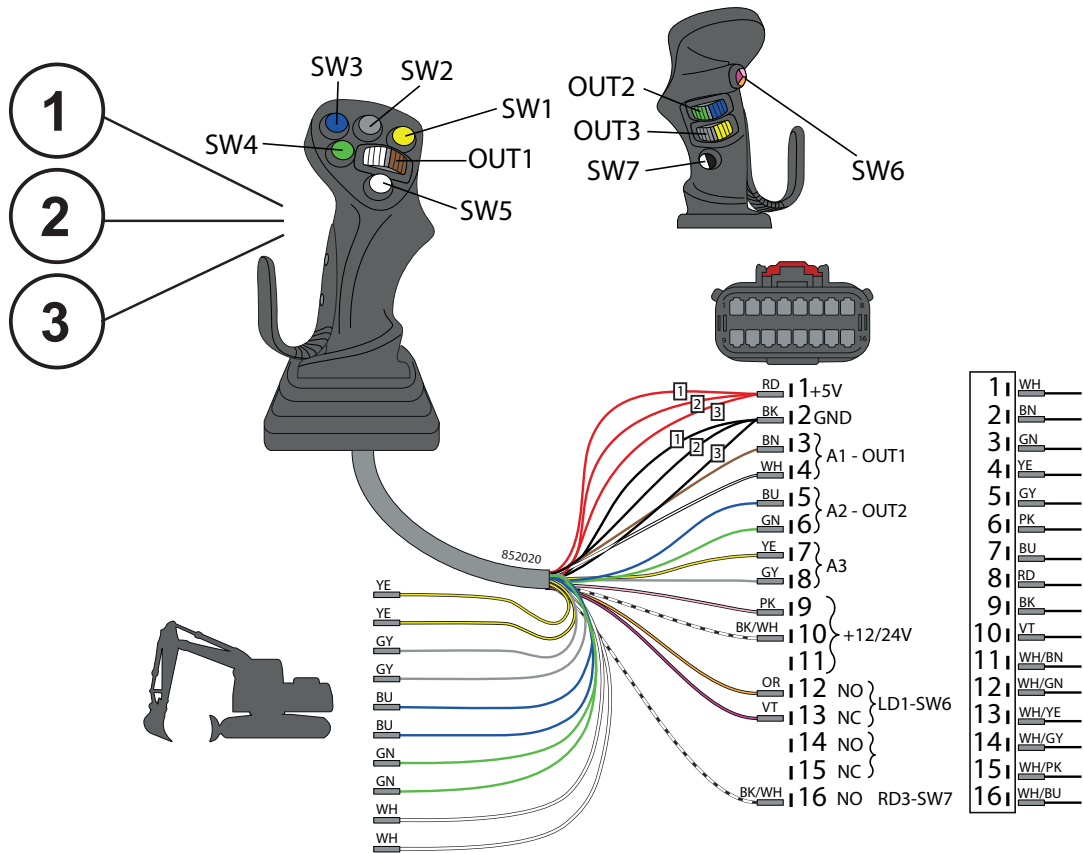
4.1.9 Bellow Adapter Kit



Position	Part	Designation
1	1039301	Bellow Adapter Left
2	1039300	Bellow Adapter Right
3	8000191	Bellow Adapter Kit - CAT 308E - MIG2
4	8000190	Bellow Adapter Kit - Liebherr - MIG2
5	8000291	Bellow Adapter Kit Hyundai

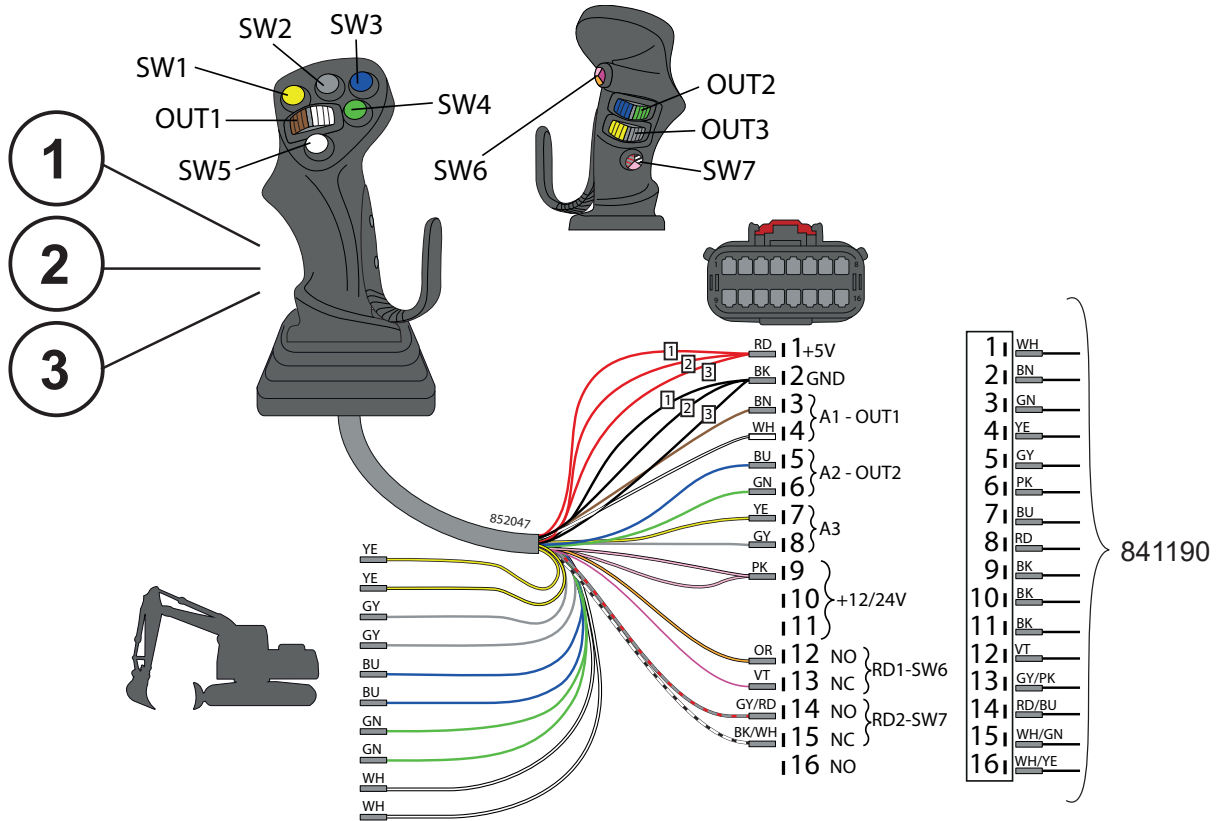
4.2 Area B

4.2.1 MIG2 Left (842020)



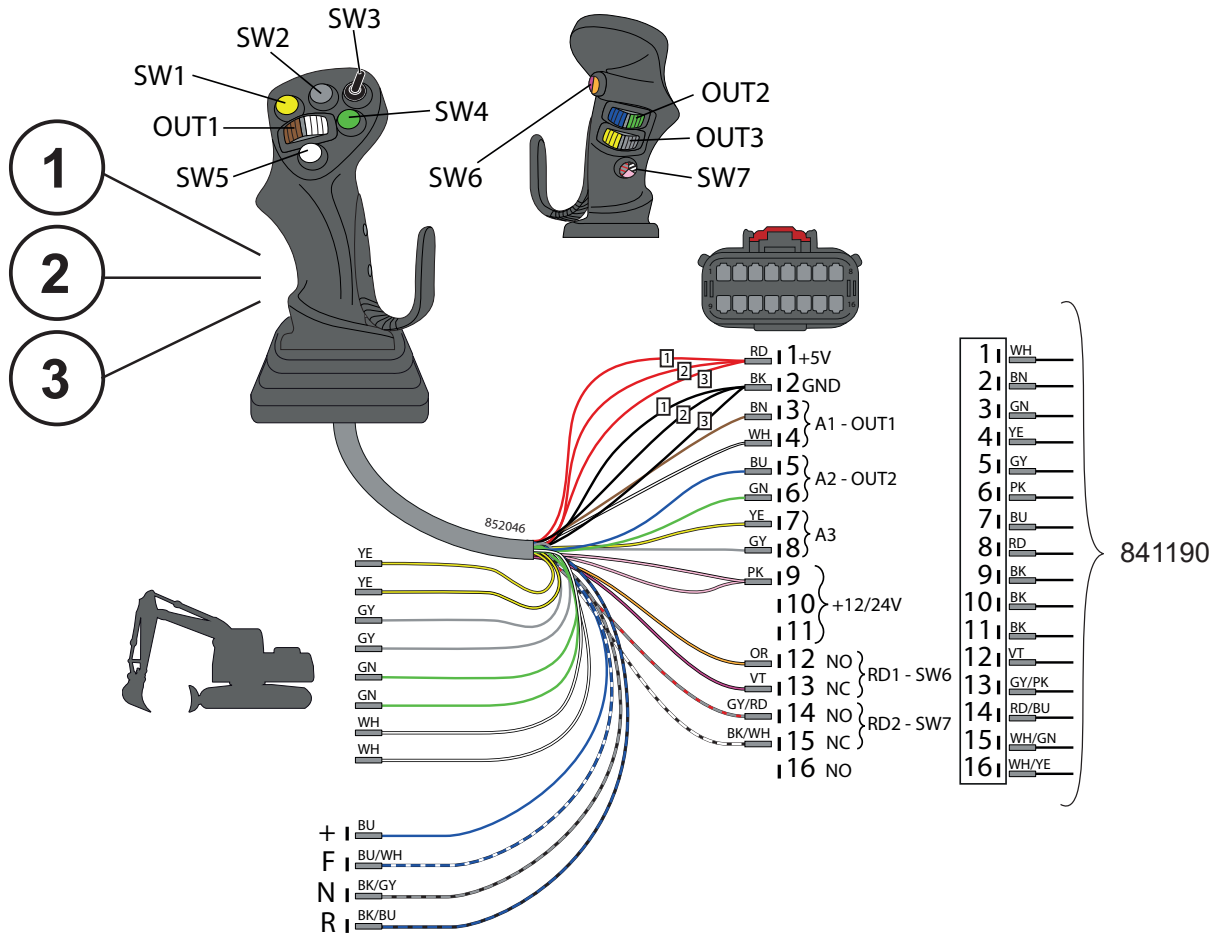
Position	Part	Designation
1	841288	Joystick MIG2, left, one roller
2	841291	Joystick MIG2, left, two rollers
3	841294	Joystick MIG2, left, three rollers

4.2.2 MIG2 Right (852047)



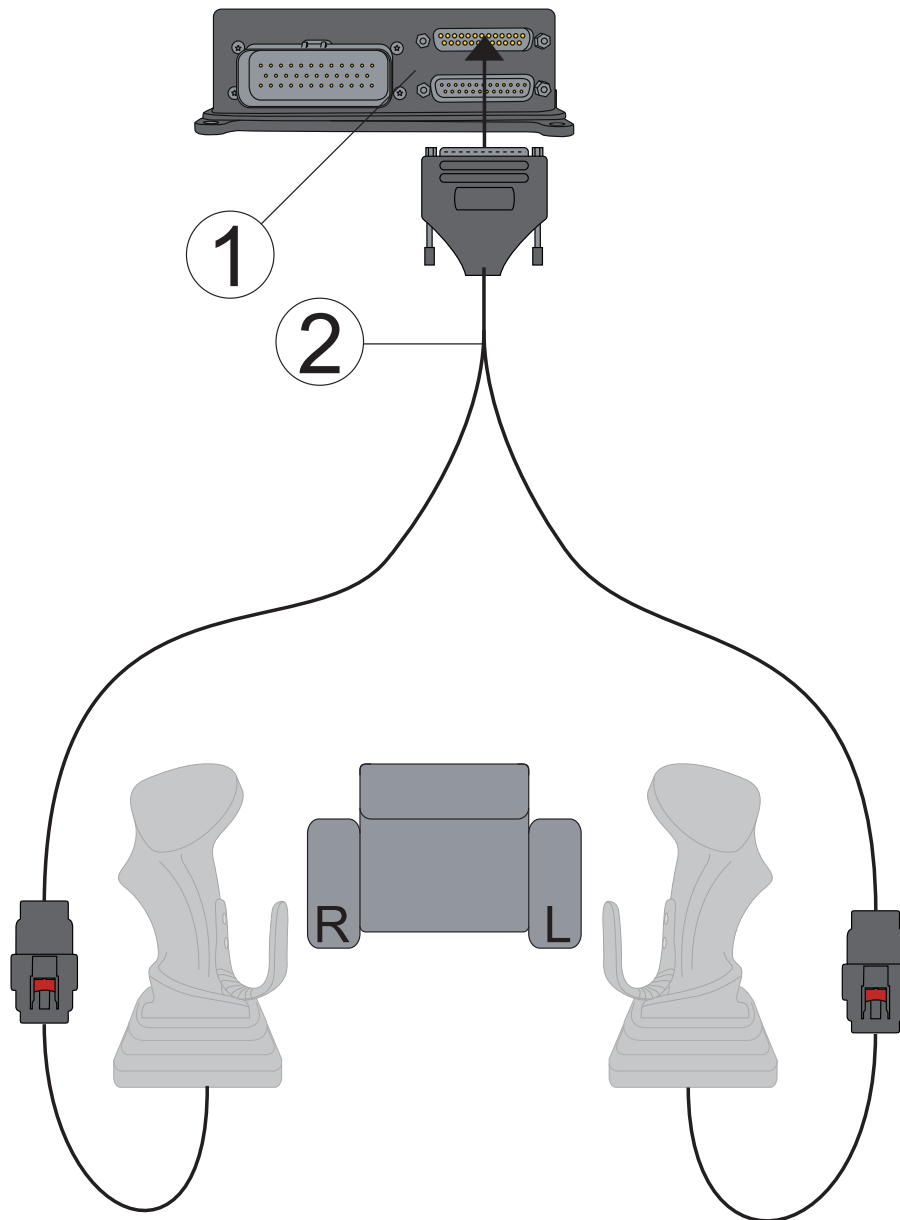
Position	Part	Designation
1	841289	Joystick MIG2, right, one roller
2	841292	Joystick MIG2, right, two rollers
3	841295	Joystick MIG2, right, three rollers

4.2.3 MIG2 Right FNR (852046)



Position	Part	Designation
1	841290	Joystick MIG2, right, one roller, FNR
2	841293	Joystick MIG2, right, two rollers, FNR
3	842008	Joystick MIG2, right, three rollers, FNR

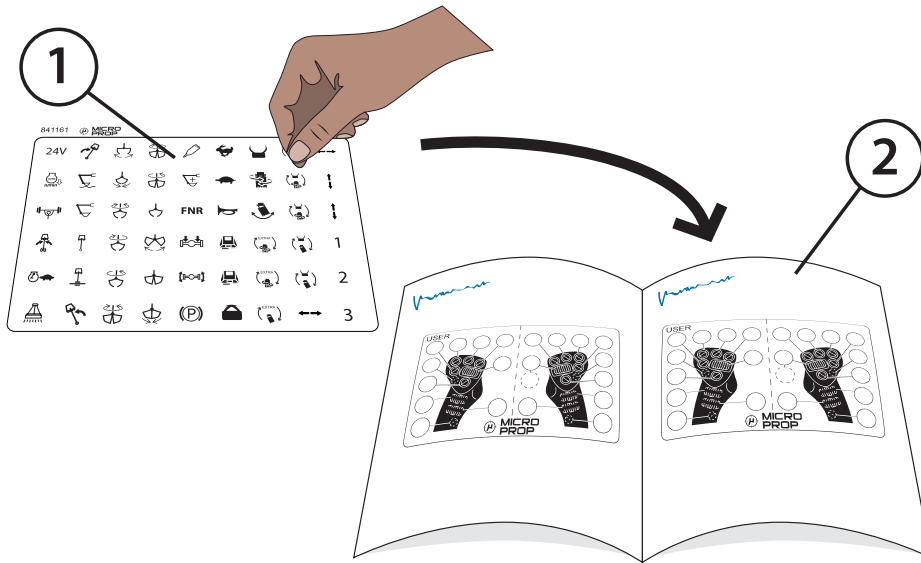
4.3 Area C



Pos	Part
1	841105
2	841190

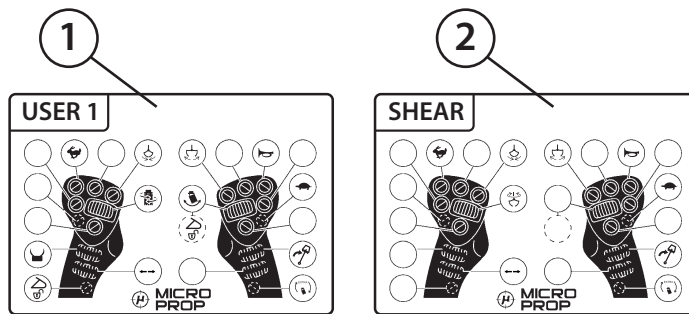
5 Documenting the installation

5.1 Build your own decal



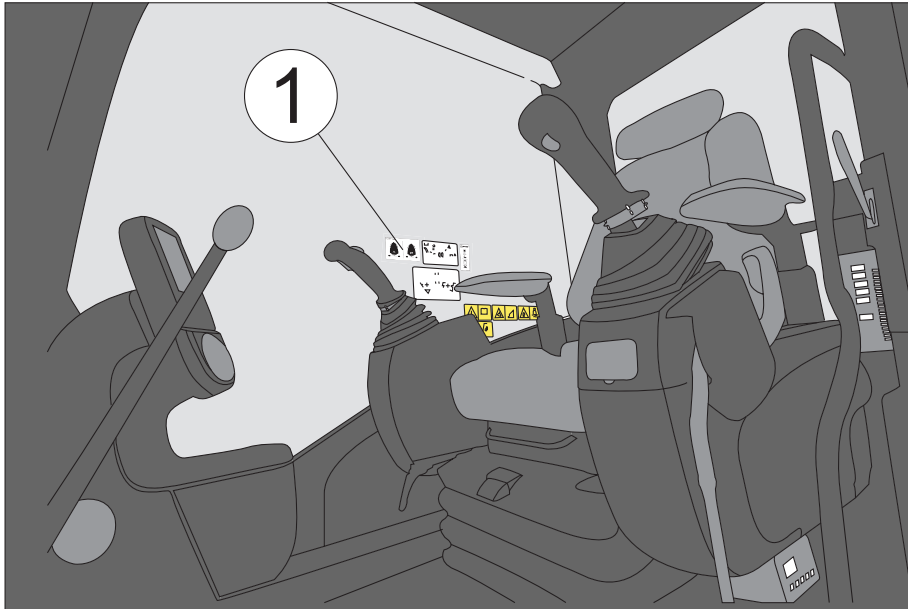
Pos	Designation
1	841161
2	841868 or 848869

Examples:



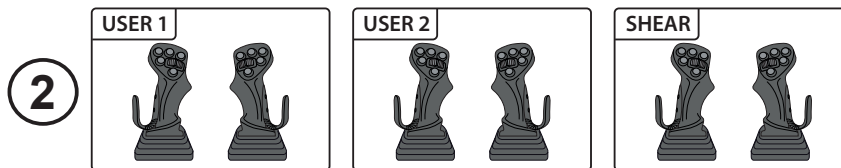
Pos	Designation
1	USER 1 decal
2	SHEAR decal (tilt hydraulics)

5.2 Affix the decals in a spot easily visible to the driver



Pos Designation

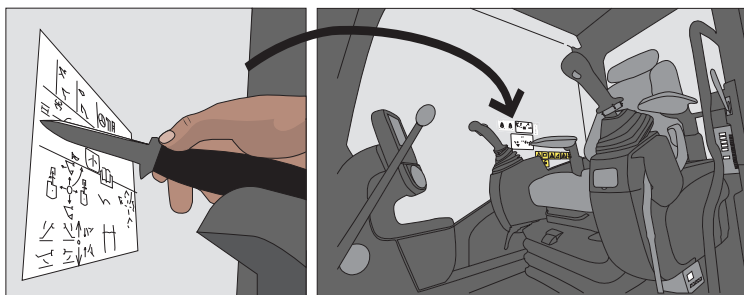
1 Joystick decals



Pos Designation

2 Example, decal location

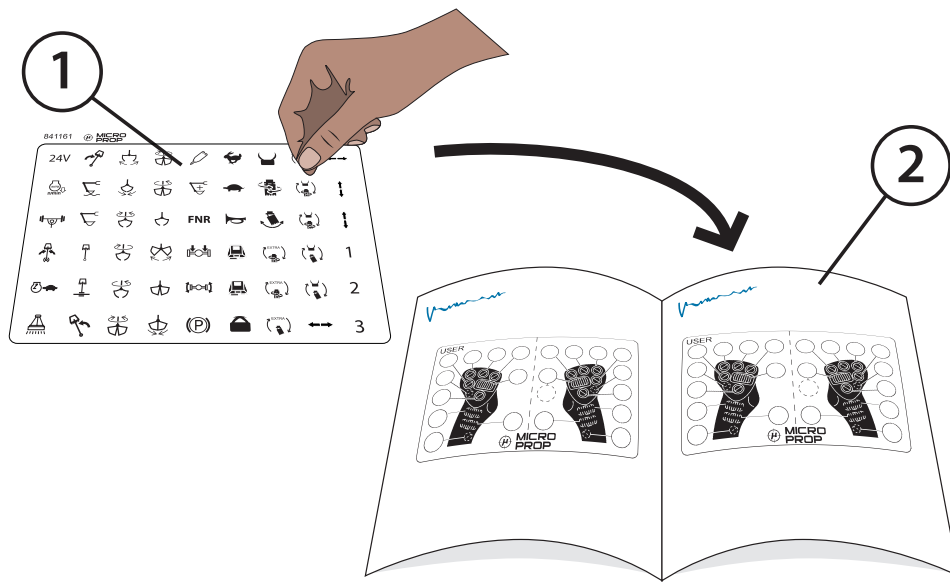
5.3 Cut away misleading information on the original decals



Note that machine functions that still apply must not be cut away.

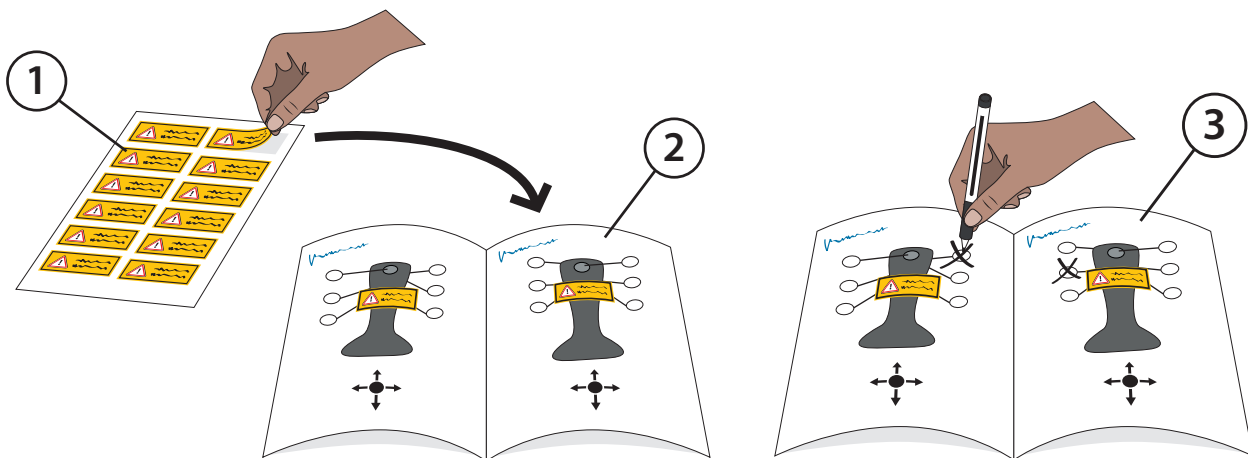
Note that engcon decals do not fully replace the machine's original decals.

5.4 Update the engcon instructions for use



Pos	Designation
1	841161
2	Instructions for use, engcon

5.5 Update the machine's original instructions for use

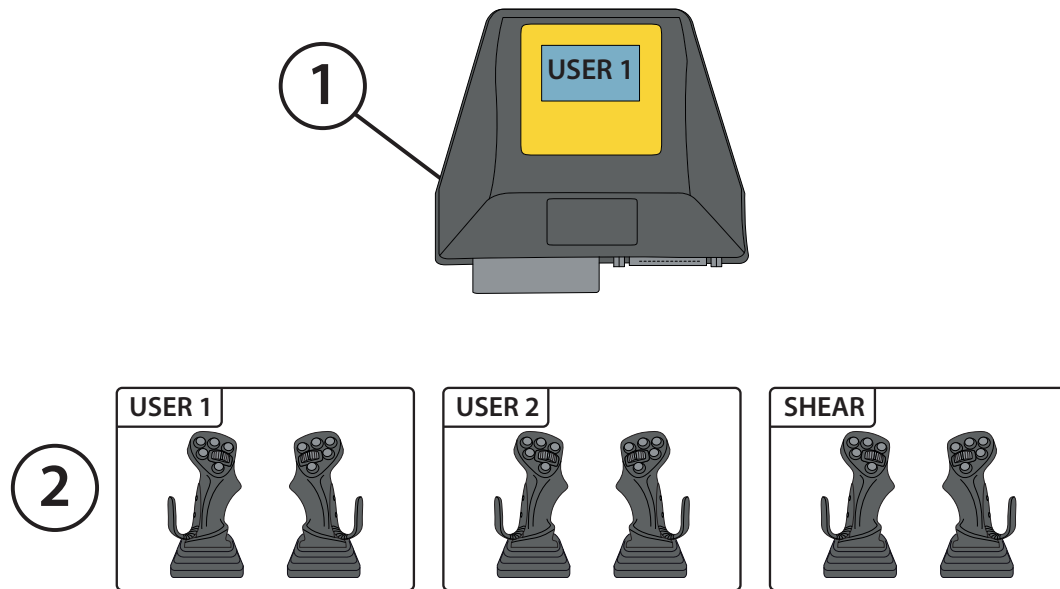


Pos	Designation
1	842047
2	Locate the decal such that it makes clear the joystick has been replaced and that there is information on new functions in the engcon instructions for use.
3	Where necessary, emphasise changes by crossing out misleading or ambiguous information.

5.6 Decals for multiple user banks

If more than one user bank is activated, the installer must affix one decal per user bank. The cab module must then also be fitted so that the driver can see the display and thereby see which user bank is active.

The installer is then responsible for ensuring that there is one decal per user bank and that the base machine's instruction manual is updated with this information.



Pos	Designation
1	The current user is shown in the display
2	Each user must have a corresponding decal

Notes

A series of horizontal dotted lines for writing notes.

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