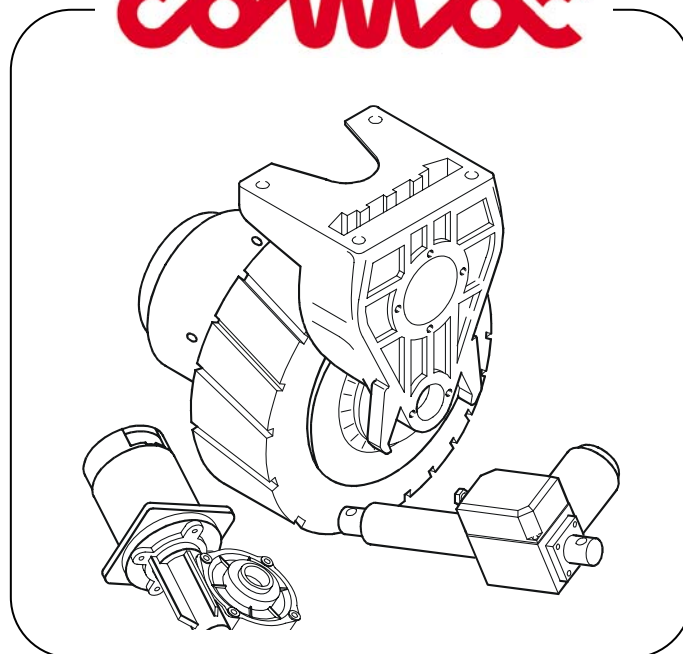




Technical bulletin

No. 26

DOC. 10017930 ver. AA

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by
Ing. M. Zanardi

The information in this Bulletin is strictly confidential and cannot be disclosed without Comac S.p.A.'s written permission.

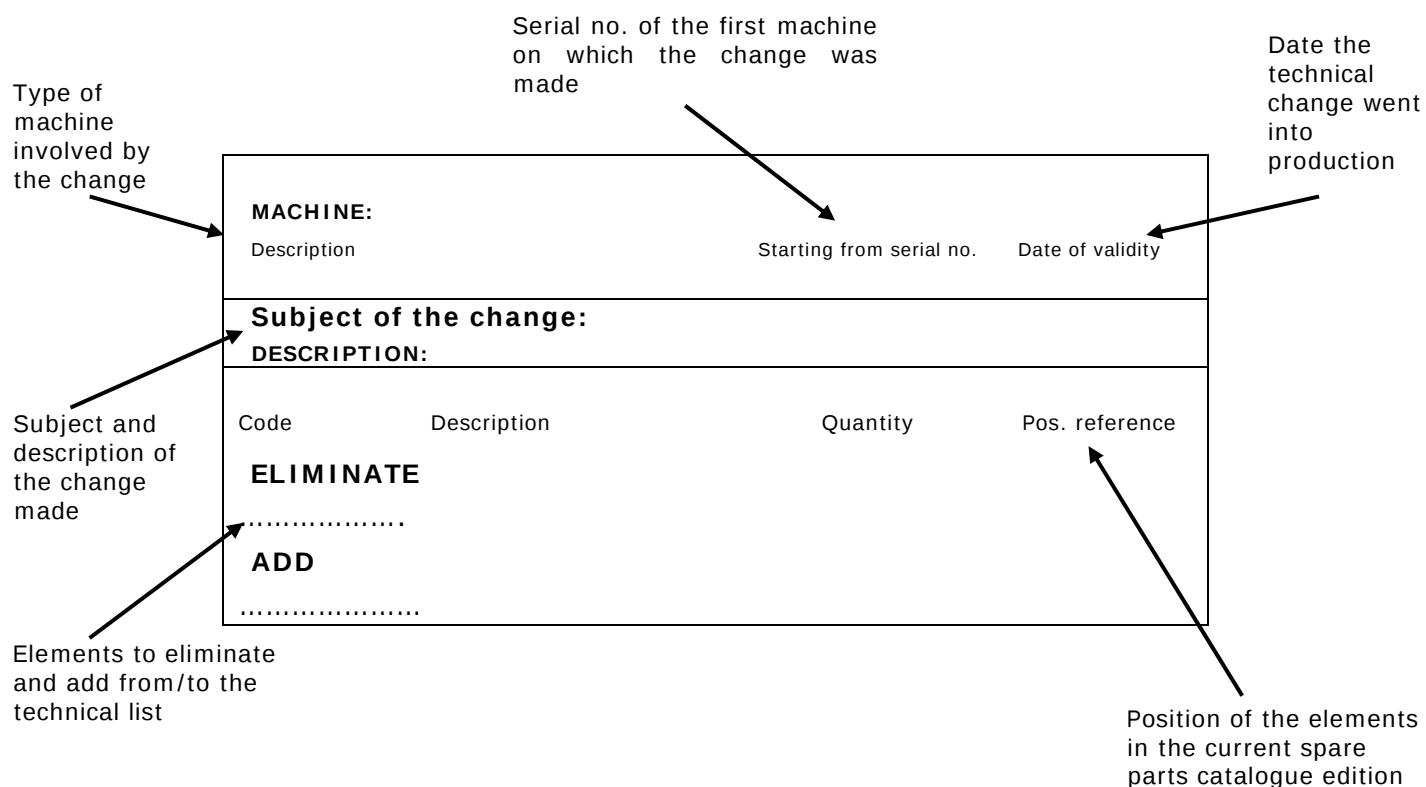
Technical Assistance Service
21 January 2009

Introduction

This bulletin explains the technical changes that have been made from 1 July 2008 to 31 December 2008 to improve the working and use of the Comac floor scrubber-dryers.

Some of the changes made come with attached instructions for mounting the new piece or a kit the change refers to, or a photo illustrating the change made.

All the parts of the table model used in this bulletin to facilitate reading are explained below.



ABILA

MACHINE: ABILA 20		
Description	Starting from serial no.	Date of validity
FLOOR SCRUBBER-DRYER ABILA 20	109000128	14/01/2009
Subject of the change 179 : ADDED EXTENDED SQUEEGEE <u>DESCRIPTION:</u> An extended squeegee (755 mm long) has been added to the Abila 20 floor scrubber-dryer replacing the one used previously on Abila 17-42-52 (660 mm long).		
Code	Description	Quantity
REMOVE		
201886	SQUEEGEE ASSEMBLY ABILA 17-42-52	1
ADD		
203078	SQUEEGEE ASSEMBLY ABILA 20	1

**200820
SQUEEGEE ASSEMBLY
ABILA 17-42-52**



**203078
SQUEEGEE ASSEMBLY
ABILA 20**



LIST OF SQUEEGEE RUBBERS

- 202281 front squeegee rubber
- 202280 rear squeegee rubber
- 406234 33 shore central squeegee rubber
- 406235 40 shore central squeegee rubber
- 406236 60 shore central squeegee rubber
- 406237 40 shore central polyurethane squeegee rubber

LIST OF SQUEEGEE RUBBERS

- 202276 front squeegee rubber
- 202277 rear squeegee rubber
- 405498 33 shore central squeegee rubber
- 405497 40 shore central squeegee rubber
- 405499 60 shore central squeegee rubber
- 405500 40 shore central polyurethane squeegee rubber

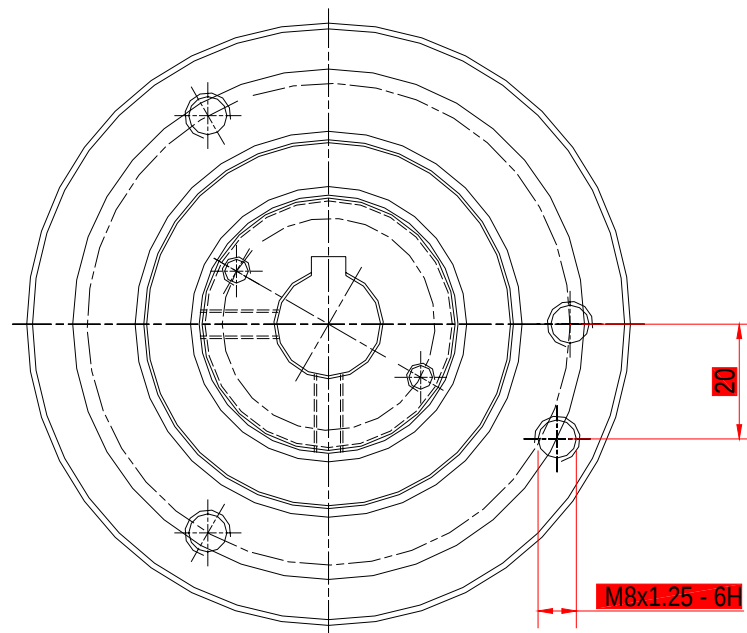
A device is added to the flange attachment of the Abila 17-20 that prevents the brush from dropping off when the machine is being transported.

List of components:

- 213640 flange attachment
- 427905 presser
- 409048 nut M8x5

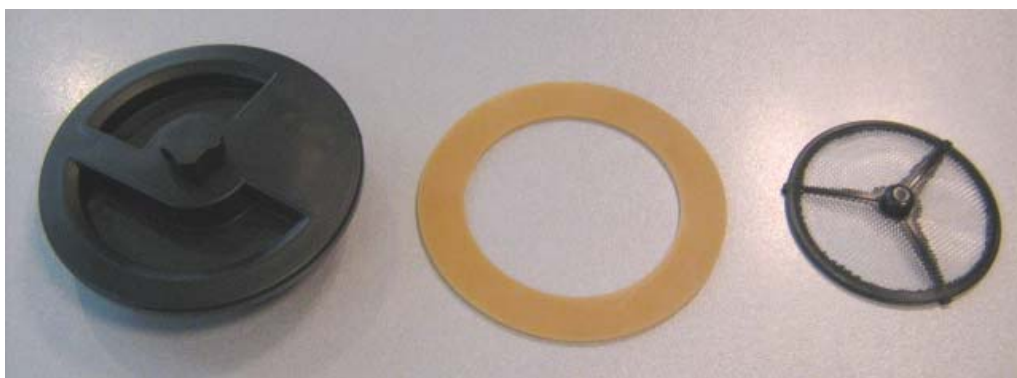


Drawing of the flange showing where the M8 threaded hole must be made to insert the brush attachment system:



VISPA

MACHINE: VISPA		
Description	Starting from serial no.	Date of validity
VISPA FLOOR SCRUBBER-DRYER	109000255	07/01/2009
Subject of the change 153 : NEW SOLUTION CAP AND FILTER <u>DESCRIPTION:</u> A new solution cap has been added with a manual vent hole plus a new steel mesh filter.		
Code	Description	Quantity
REMOVE		
422064	O-RING	1
423100	WHITE DISC FILTER	1
422004	THREADED CAP	1
ADD		
424090	SEAL IN PARA RUBBER	1
425742	18 MESH FILTER	1
216411	CAP WITH VENTING PIN	1



**CAP WITH VENT
216411**

**SEAL
424090**

**FILTER
425742**

ATTENTION: Make sure the pin is lowered when working, lifting it when the machine has to be transported (to prevent water leaking from it).

MACHINE: VISPA		
Description	Starting from serial no.	Date of validity
VISPA FLOOR SCRUBBER-DRYER		
Subject of the change: PLASTICISED PLATE TO PROTECT THE SQUEEGEE OPENING <u>DESCRIPTION:</u> A plate has been added to protect the squeegee opening: if the machine has to be transported with the squeegee lowered and the brush or disc rotating, the latter will not scratch the opening.		
Code	Description	Quantity
REMOVE		
217520	OPENING PROTECTION PLATE	1



**217520 – PLASTICISED SQUEEGEE
OPENING PROTECTION PLATE**

MOUNTING THE PLATE: to place under the screws that are already on the squeegee.



SIMPLA

MACHINE: SIMPLA		
Description	Starting from serial no.	Date of validity
SIMPLA 45-50-61 B FLOOR SCRUBBER-DRYER	-----	November 2008
SIMPLA 65B FLOOR SCRUBBER-DRYER	-----	November 2008
Subject of the change 171 : BRUSH BASE MOTOR CHANGED <u>DESCRIPTION:</u> The brush base motor code has been changed; consequently, in the case of spare parts, the motor will be sent together with its tongue.		
Code	Description	Quantity
REMOVE		
407711	MOTOR 24V 560W 1400G	1
408400	FEATHER KEY 5x4.5x20	1
ADD		
407709	MOTOR 24V 560W 1700G	1
408402	TONGUE 5x5x20	1



Simpla brush motor

MACHINE: SIMPLA		
Description	Starting from serial no.	Date of validity
SIMPLA 45-50-61 B FLOOR SCRUBBER-DRYER	108013752	07/11/2008
Subject of the change 165 : SQUEEGEE WHEELS CHANGED		
<u>DESCRIPTION:</u> The wheels of the squeegee unit have been changed from red antiskid to grey antiskid.		
Code	Description	Quantity
REMOVE		
405683	WHEEL SUPERLAN RED	2
ADD		
427251	WHEEL SUPERLAN GREY	2



Grey wheels of the squeegee support

TRIPLA 24-26

MACHINE: TRIPLA 24-26

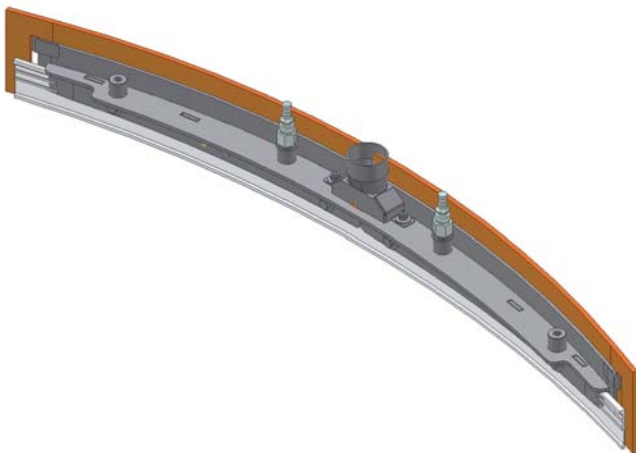
Description	Starting from serial no.	Date of validity
TRIPLA 24-26 FLOOR SCRUBBER-DRYER	108011345	22/09/2008

Subject of the change 136 : **REPLACING THE SQUEEGEE**

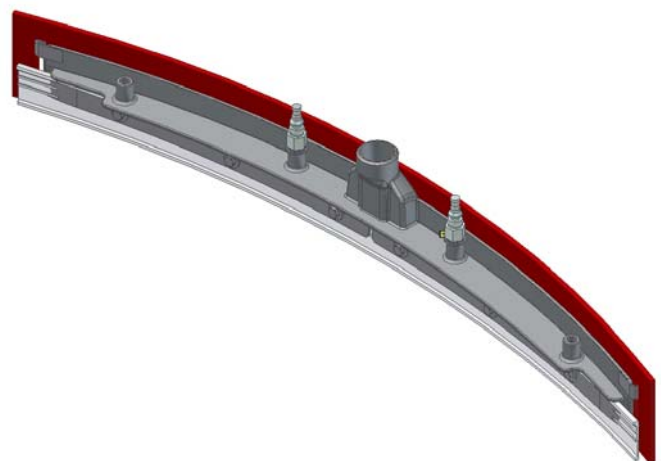
DESCRIPTION:

The currently welded steel squeegee has been replaced with one in die-cast aluminium.

Code	Description	Quantity
REMOVE		
212623	SQUEEGEE RUBBER PRESSING BLADE IN STEEL	1
ADD		
215550	SQUEEGEE RUBBER PRESSING BLADE IN DIE-CAST ALUMINIUM	1

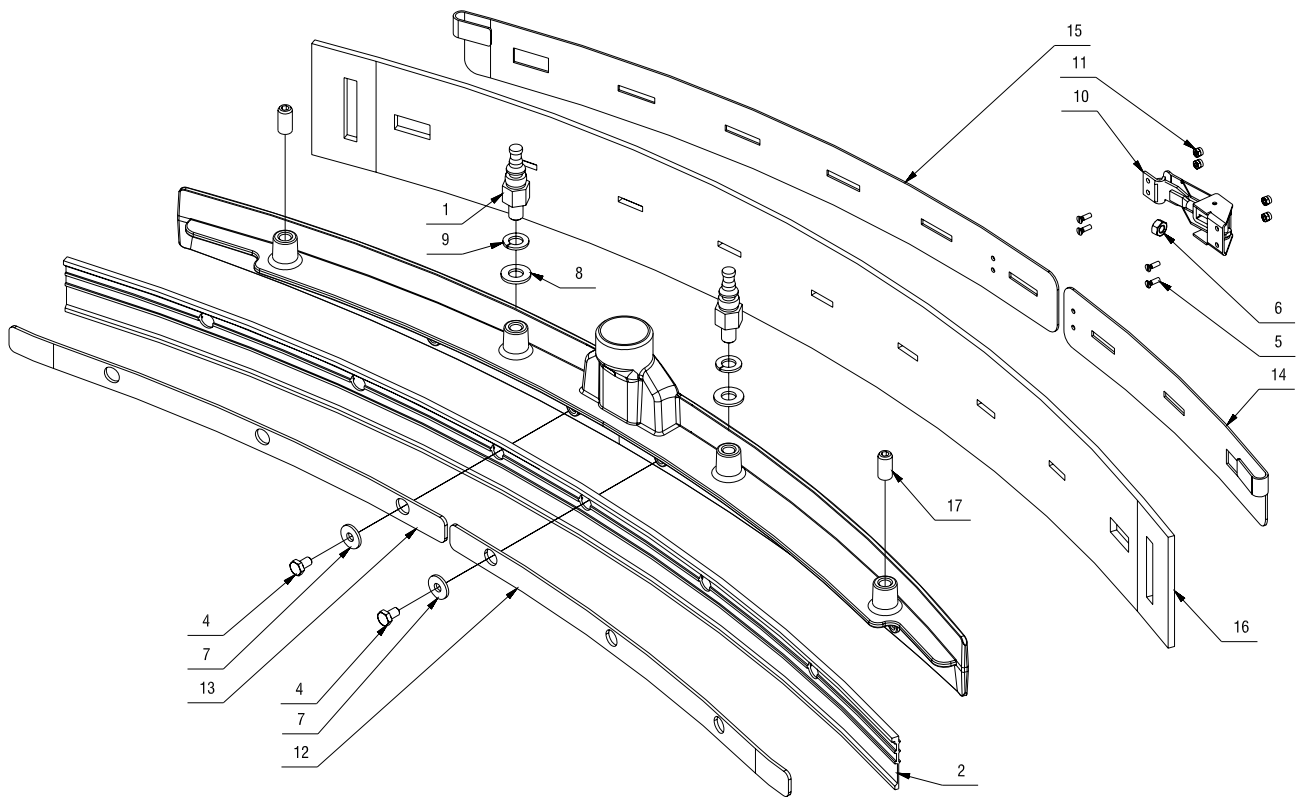


SQUEEGEE RUBBER PRESSING
BLADE IN STEEL
212623



SQUEEGEE RUBBER PRESSING
BLADE IN ALUMINIUM
215550

SQUEEGEE IN DIE-CAST ALUMINIUM (215550)



LIST OF COMPONENTS

POS.	Q.TY	CODE	DESCRIPTION
01	2	206805	M10 fastening stud bolt
02	1	212502	Front squeegee rubber
03	1	213700	Squeegee body
04	6	407658	M6x10 TE screw
05	4	408922	M3x10 TPS screw
06	1	409043	M6x5 nut
07	6	409161	6.6x18x2 washer
08	2	409192	10x21x2 washer
09	2	409200	10x2.5x2.5 Grower washer
10	1	410329	Hook
11	4	415897	M3 self-locking nut
12	1	420791	Front left-hand rubber pressing blade
13	1	420792	Front right-hand rubber pressing blade
14	1	420793	Short rear rubber pressing blade
15	1	420794	Long rear rubber pressing blade
16	1	420860	33 shore, 5 mm rear squeegee rubber
17	2	420953	M10x20 stainless steel dowel

OPTIONAL REAR SQUEEGEE RUBBERS:

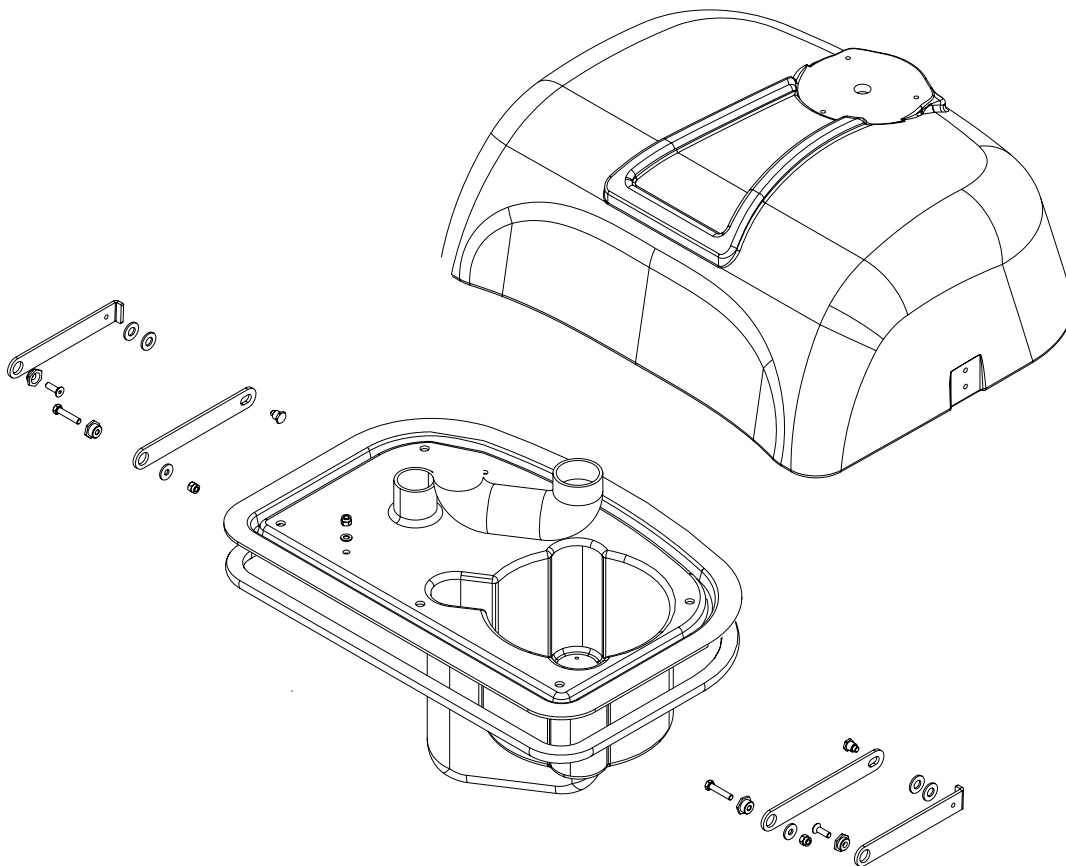
- 422122 40 shore, 5 mm para rubber
- 422123 50 shore, 5 mm para rubber
- 422124 33 shore, 4 mm para rubber
- 422432 40 shore, 5 mm polyurethane rubber

SUCTION HEAD OPENING KIT

TRIPLA 24-26

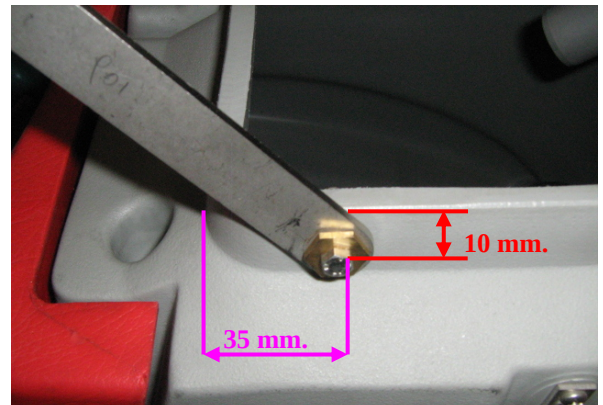
LIST OF COMPONENTS

Code	Qty	Description
407648	2	M5x25 TE screw
408959	2	M5x16 TPSEI screw
409081	2	M5x7 self-locking nut
409152	2	5x15x1.5 washer
409177	4	8x17x1.6 washer
425900	2	Suction cap rotation fulcrum pin
425901	2	Suction cap fulcrum blade
425902	2	Bush
425903	2	Bush
425904	1	Right-hand cap rotation blade
425910	1	Left-hand cap rotation blade
409124	2	M5 serpress nut
409828	2	Snap-on black cap
410275	2	Plastic clamp 3.6x140
410277	1	Plastic clamp 4.5x200
409661	8	30 A connector contact
409660	8	30 A red connector

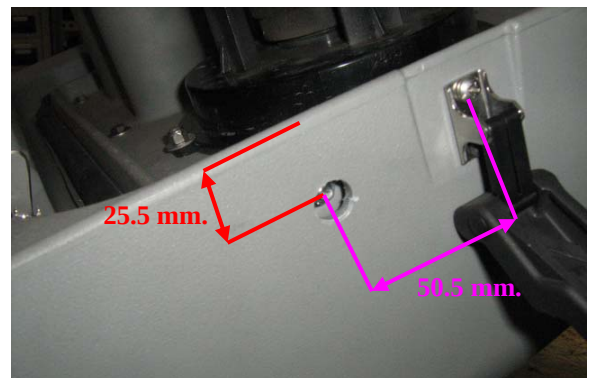


ASSEMBLY INSTRUCTIONS

1. Drill a 5 mm diameter hole on both sides of the tank at the distances indicated (with the middle of the hole **10 mm** from the top edge and **35 mm** from the front outer edge).
2. Insert the suction cap fulcrum blade (425901) in the inside of the tank using an M5x25 screw, relative bush and a washer with an M5 self-locking nut.
3. Repeat on the other side of the tank.



4. Drill a 5 mm diameter hole on both sides of the suction cap, maintaining the distances indicated (with the middle of the hole **50.5 mm** from the middle of the closing hinges and **25.5 mm** from the bottom edge of the cap).
5. Widen the outer edge of the hole until it is 12 mm in diameter (as shown in the figure).
6. Repeat on the other side of the tank.

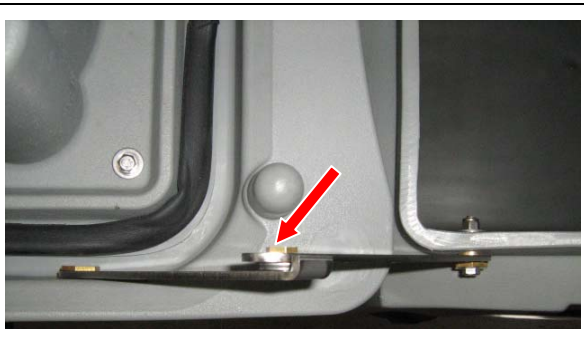
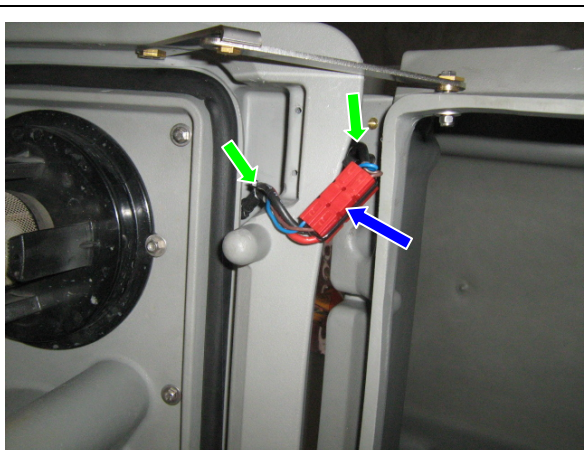


7. Insert the cap rotation blades in the inside of the tank (remember one on the right and one on the left) using the M5 TPSEI screw with the bush, locking it to the outer wall with the M5 serpress nut.
8. Close the hole with the **black snap-on cap**.



9. Remove the connectors from the suction head and from the tank, cutting the connecting cables.



10. Strip the 4 cables coming from the suction head and the 4 cables coming from the machine's system, clamp the connector contacts and plug them into the relative 30 A connectors. 11. Take care that when the connectors are plugged in the cable colours match those of the connector coming from the system and that of the suction cap.	
12. Tighten the suction cap fulcrum pin (425900) on the fulcrum blade (putting a drop of yellow Loctite on it if necessary to prevent it from coming loose) remembering to put the two 8x17 washers between the two blades to ensure smooth sliding.	
13. Now connect the two connectors and fix them with the biggest plastic strap (so they cannot disconnect when the suction head is opened). 14. Use the two smallest plastic straps to join the 4 cables together coming from the system and the cap's 4. ATTENTION: if the cables are not long enough make them a little longer by opening the suction cap and removing the seat on the other side.	
15. Check that the suction head opens and closes correctly.	

TRIPLA 65

MACHINE: TRIPLA 65

Description	Starting from serial no.	Date of validity
TRIPLA 65 FLOOR SCRUBBER-DRYER	109001732	12/02/2009

Subject of the change 175 : **REPLACING THE CHOPPER BOARD**

DESCRIPTION:

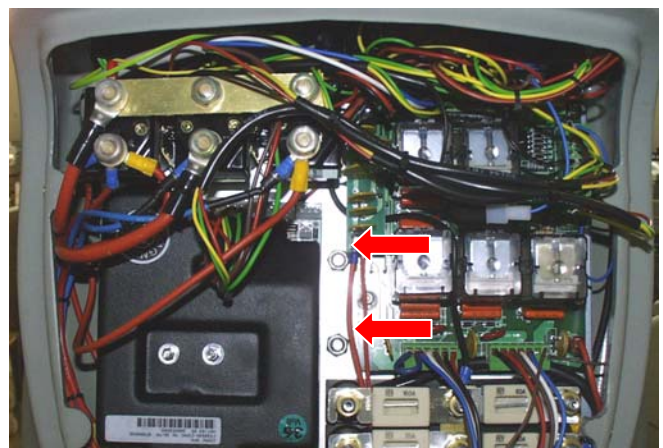
The chopper board MX has been replaced with the current 4Q, with four quadrants. It is possible to install the new chopper on previous machine models with the adaptation kit, code **427845**.

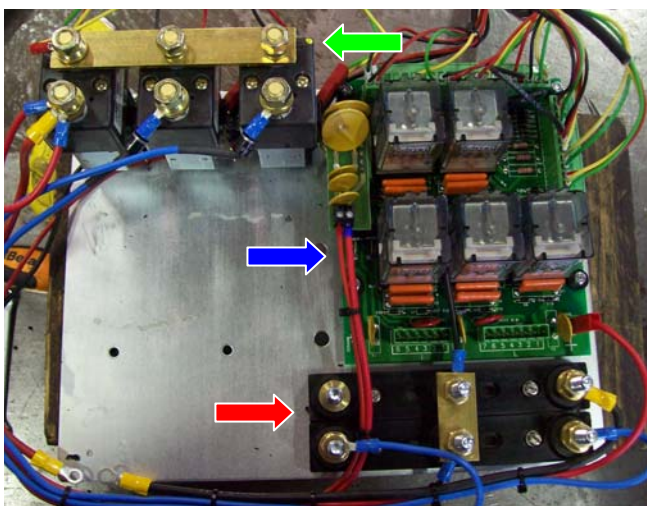
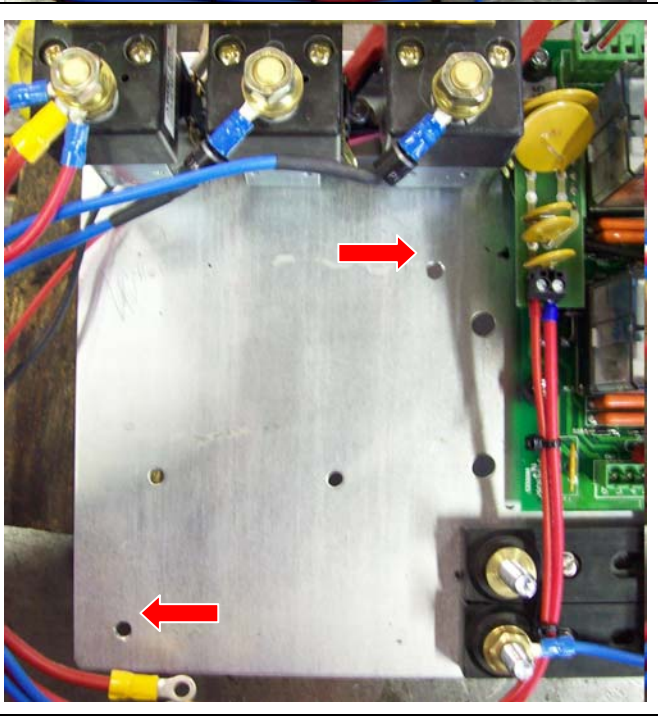
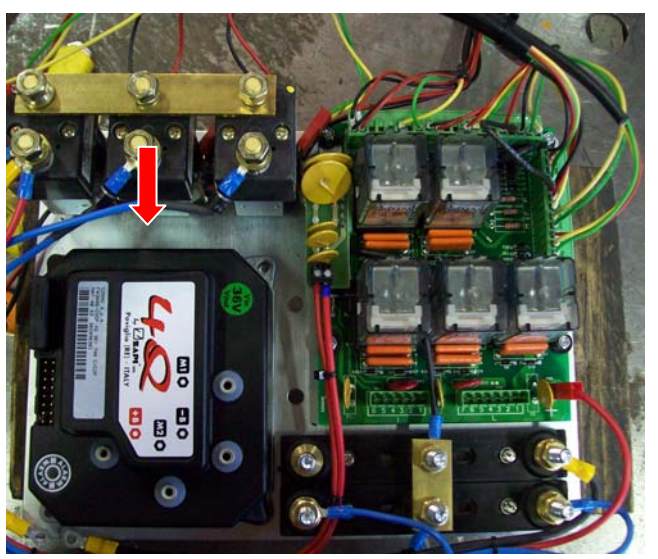
Code	Description	Quantity
REMOVE		
406364	CHOPPER BOARD MX	1
409036	M5x5 NUT	6
409150	5x11x1 WASHER	2
408852	M5x30 SCREW	2
209461	SEAL	3
ADD		
427806	CHOPPER BOARD 4Q	1
407647	M5x20 SCREW	2
427824	ADAPTER CABLE	1
427850	COMB	1

ASSEMBLY INSTRUCTIONS:

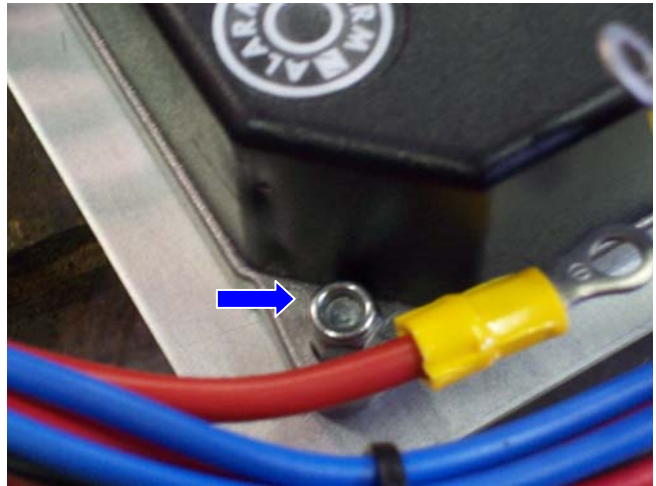
Before starting, make sure the machine is turned off and the battery connector disconnected.

1. Unscrew the 4 securing screws on the front cover and remove the panel.
2. Remove the **M10 nuts** that fix the electrical panel to the steering column so the electrical panel can be moved outwards.

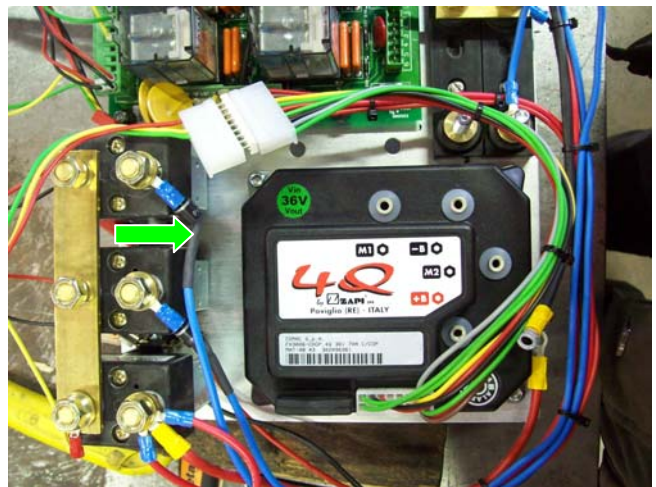


3. Remove the MX chopper and leave the bank of contactors, fuse carriers and the control and command board on the electrical panel. 4. Remove the nuts that are locking the chopper securing screws on the electrical panel using two size 8 fixed jaw spanners. 5. Remove the MX chopper securing screws.	
6. Using a 5.5 mm bit, widen the two holes on the panel.	
7. Position the chopper 4Q as shown in the figure.	

8. Fix the chopper with the two **M5x20 screws** supplied with the kit and the washers and the 9 M5 self-locking nuts that were removed before.



9. Connect the **cable supplied with the kit** to the chopper board and, using the comb, fix the other end of the cable to the one coming from the machine's system, taking care to match the colours of the cable's wires.



Now connect the machine wires relevant to the traction wheel as follows:

- **red** cable number 10 to connector **M1** on the board
- **black** cable number 9 to connector **M2** on the board
- **red** cable number 12 to terminal **+B** on the board
- **black** cable number 11 to terminal **-B** on the board
- **blue** cable number 26 to terminal **3G** on the control and command board.

ATTENTION: before beginning the following operations, lift at least one of the traction wheels.

Now programme the board with the following parameters:

PARAMETER	VALUE
1. Acc. Delay	9
<i>2. Acc with Brush</i>	<i>5</i>
3. Dec Delay	5
4. Release Braking	5
5. Inv Braking	5
6. CutBack speed 1	5
7. CutBack speed 2	9
8. Max Speed Forward	9
9. Max Speed Back	5
10. Traction I_{max}	9
11. Creep Speed	1
<i>12. Aux Time</i>	<i>5</i>
<i>13. Hydro Time</i>	<i>5</i>

PROGRAMMING ACCELERATOR PEDAL VOLTS (VACC):	
1. Scroll with the ROLL UP key from "PROGRAM" to "PROGRAM VACC".	* SELECT MENU * 6 PROGRAM VACC
2. The item selected appears "PROGRAM VACC".	
3. Press ENTER to access the "PROGRAM VACC" function.	
4. The current maximum values for the pedal appear.	FORWARD 0 5
5. Press ENTER to reset the stored values.	
6. The chopper is now ready to register the minimum and maximum values of the potentiometer signal.	FORWARD 0.0 0.0
7. Position the operation lever forwards and press the pedal, taking care to move slowly at the beginning and to reach the end of travel (THE ONLY CASE WHERE THE MACHINE DOES NOT MOVE WITH THE GEAR ENGAGED).	
8. Repeat this with the reverse gear in exactly the same way.	
9. The new MIN and MAX potentiometer values appear on the display.	FORWARD 0.5 4,9
10. Press ENTER.	
11. The request to confirm acquisition of the new values appears, press ENTER to confirm.	ARE YOU SURE?

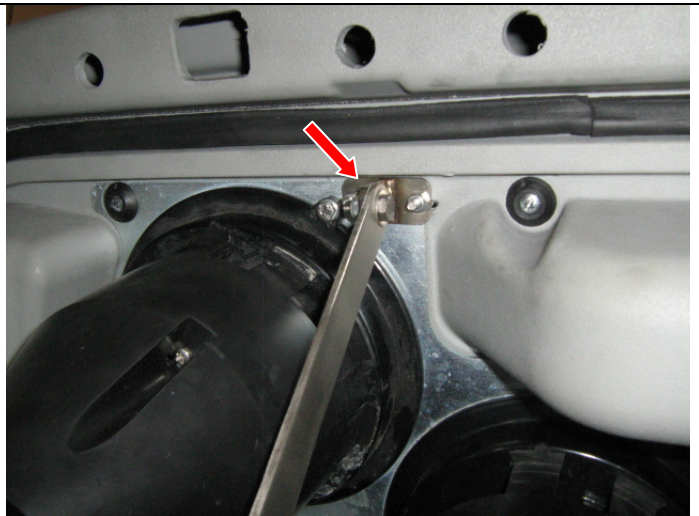
ULTRA 85-100

SUCTION HEAD OPENING KIT 215914

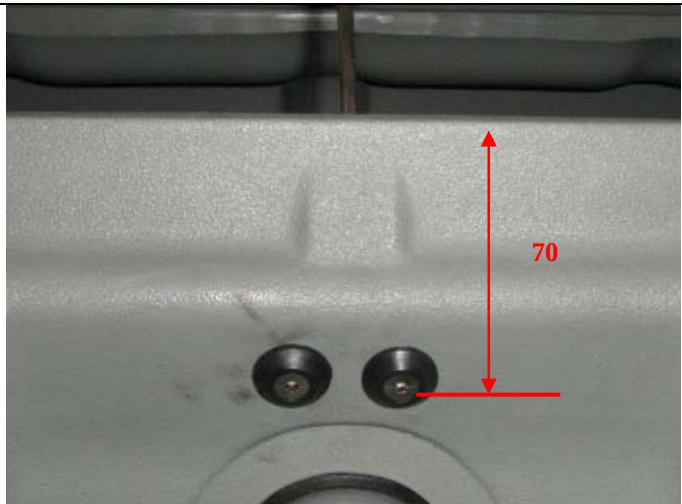
List of components:

Code	Qty	Description
409179	2	9x24x2.5 washer
408959	2	M5x22 TPSEI screw
409081	3	M5 stainless steel self-locking nut
415901	3	M6 self-locking nut
427524	3	Cap rotation blade guide pin
428296	1	Upper prop
428295	1	Lower prop
216960	1	Suction prop bracket
428360	1	Spring clip fastening square
428362	1	Spring clip
425260	1	Plate
214923	1	Chain
217530	1	Sheath
217531	2	Sheath

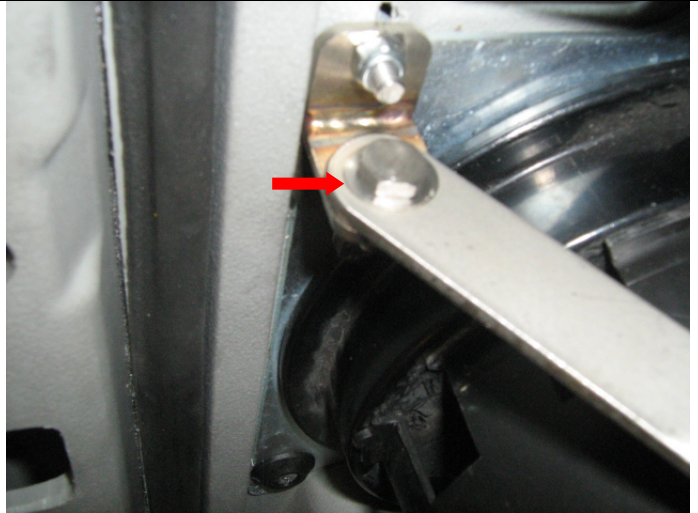
Replace the plate of the suction head with the suction prop bracket.



Drill two M5 holes according to the measurements indicated. Position the plate in the centre and 70 mm away from the centre of the holes on the edge of the tank.



Remember to put the **washer** on the head side of the screw.



Put a little **grease** in the area of the joint.



Fit the new chain support in the kit, and fix the spring clip to the ring 11.



CS70-CS71-CS72

MACHINE: CS70-CS71-CS72		
Description	Starting from serial no.	Date of validity
SWEEPER	208013279	05/12/2008
Subject of the change 174 : REAR WHEEL MATERIAL CHANGED		
<u>DESCRIPTION:</u> The material of the rear wheels has been changed, from foam to the current solid non-marking polyurethane.		
Code	Description	Quantity
REMOVE		
414320	BLACK FOAM WHEEL	1
ADD		
427808	NON-MARKING POLYURETHANE WHEEL	1



Non-marking polyurethane wheel

CM 70HS plus

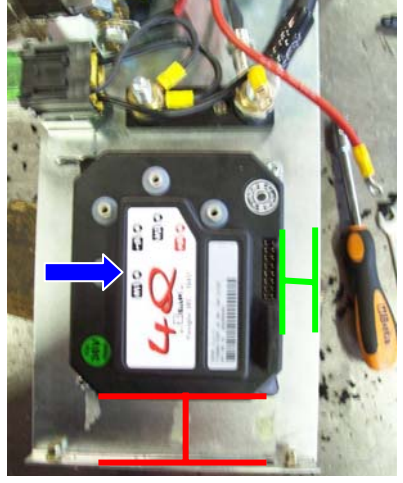
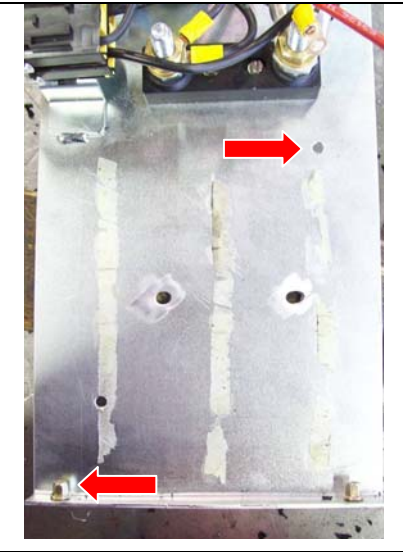
MACHINE: CM70HS plus		
Description	Starting from serial no.	Date of validity
SINGLE BRUSH CM70HS plus	109002341	03/03/2009
Subject of the change 175 : REPLACING THE CHOPPER BOARD <u>DESCRIPTION:</u> The chopper board MX has been replaced with the current 4Q, with four quadrants. It is possible to install the new chopper on previous machine models with the adaptation kit, code 427845 .		
Code	Description	Quantity
REMOVE		
406364	CHOPPER BOARD MX	1
409036	M5x5 NUT	6
409150	5x11x1 WASHER	2
408852	M5x30 SCREW	2
209461	SEAL	3
ADD		
427806	CHOPPER BOARD 4Q	1
407647	M5x20 SCREW	2
427824	ADAPTER CABLE	1
427850	COMB	1

ASSEMBLY INSTRUCTIONS:

Before starting, make sure the machine is turned off and the battery connector disconnected.

1. Lift the body of the machine and remove the casing covering the electrical unit on the left.
2. Without removing the panel, loosen the securing screws of the MX chopper and remove it.



3. Position the chopper 4Q on the plate in the same position as the MX chopper. 4. Check that the distance between the bottom of the panel and the chopper's aluminium base is about 40 mm (from inside the fold) and that the distance between the side of the panel and the chopper's aluminium base is about 25 mm. 5. Use the chopper as the template for drilling the electrical unit panel.	
6. Drill two holes, 5.5 mm in diameter, for fixing the board.	
7. Use two M5x20 galvanised screws, two M5x8 washers and two M5 self-locking nuts to fix the board to the electrical unit panel.	
8. Connect the cable supplied with the kit to the chopper board so the panel is pre-assembled ready for installing on the machine.	

Now connect the machine wires relevant to the traction wheel as follows:

- **red** cable number 10 to connector **M1** on the board
- **black** cable number 9 to connector **M2** on the board
- **red** cable number 12 to terminal **+B** on the board
- **black** cable number 11 to terminal **-B** on the board

ATTENTION: before beginning the following operations, lift at least one of the traction wheels.

Now programme the board with the following parameters:

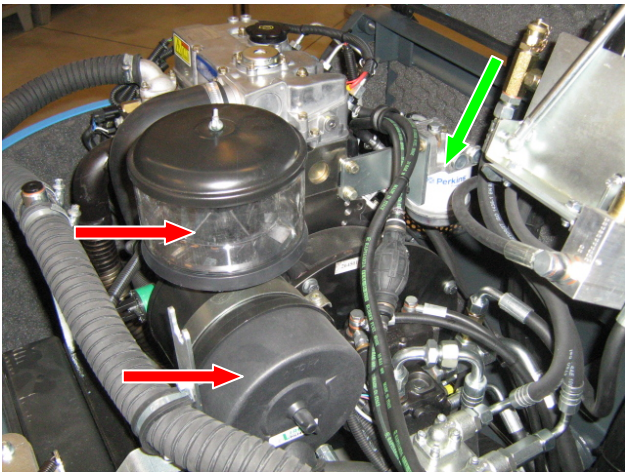
PARAMETER	VALUE
1. Acc. Delay	7
<i>2. Acc with Brush</i>	<i>5</i>
3. Dec Delay	5
4. Release Braking	6
5. Inv Braking	6
6. CutBack speed 1	0
7. CutBack speed 2	3
8. Max Speed Forward	7
9. Max Speed Back	5
10. Traction I_{max}	9
11. Creep Speed	1
<i>12. Aux Time</i>	<i>5</i>
<i>13. Hydro Time</i>	<i>5</i>

PROGRAMMING ACCELERATOR PEDAL VOLTS (VACC):	
2. Scroll with the ROLL UP key from "PROGRAM" to "PROGRAM VACC".	* SELECT MENU * 6 PROGRAM VACC
12. The item selected appears "PROGRAM VACC". 13. Press ENTER to access the "PROGRAM VACC" function.	
14. The current maximum values for the pedal appear.	FORWARD 0 5
15. Press ENTER to reset the stored values.	
16. The chopper is now ready to register the minimum and maximum values of the potentiometer signal:	FORWARD 0.0 0.0
17. Position the operation lever forwards and press the pedal, taking care to move slowly at the beginning and to reach the end of travel (THE ONLY CASE WHERE THE MACHINE DOES NOT MOVE WITH THE GEAR ENGAGED).	
18. Repeat this with the reverse gear in exactly the same way.	
19. The new MIN and MAX potentiometer values appear on the display.	FORWARD 0.5 4,9
20. Press ENTER.	
21. The request to confirm acquisition of the new values appears, press ENTER to confirm.	ARE YOU SURE?

CS100-120

Below are the codes of the spare parts for the DIESEL version (Perkins 403D-11 motor):

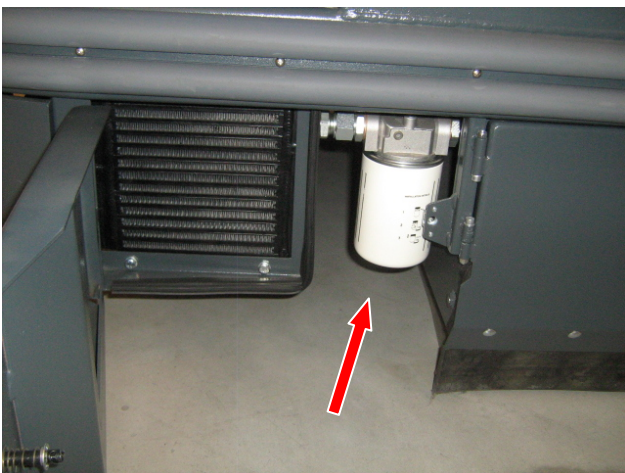
- 405441 SECONDARY AIR FILTER CARTRIDGE
- 405440 PRIMARY AIR FILTER CARTRIDGE
- 426166 HYDRAULIC OIL FILTER CARTRIDGE (10 μ)
- 425636 MOTOR DIESEL FUEL FILTER
- 425959 DIESEL FUEL PREFILTER
- 217441 MOTOR OIL FILTER (Perkins 403D-11 motor)



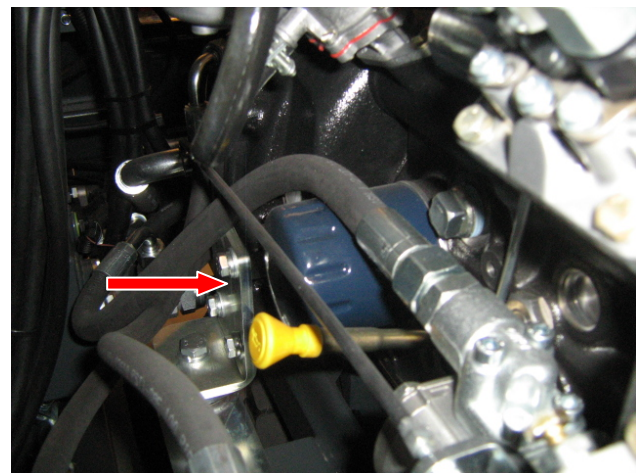
Primary and secondary air filter cartridge
Diesel fuel filter



Diesel fuel prefilter



Hydraulic oil filter cartridge



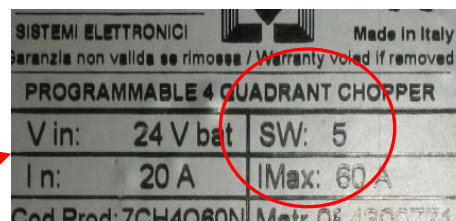
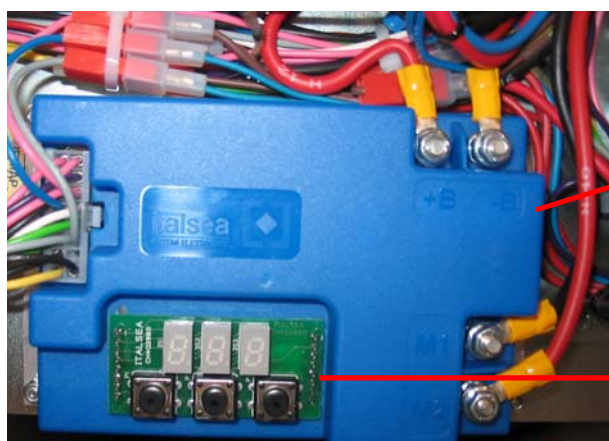
Motor oil filter

ANNEX

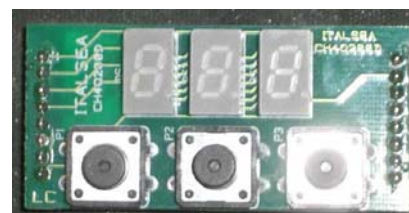
MACHINE: TRIPLA 24-26 – C8. MEDIA 26 ELECTRONIC – CS60 – CS60 II		
Description	Starting from serial no.	Date of validity
TRIPLA 24-26 FLOOR SCRUBBER-DRYER	-----	December 2008
C8 FLOOR SCRUBBER DRYER	-----	December 2008
MEDIA 26 ELECTRONIC FLOOR SCRUBBER-DRYER	-----	February 2009
CS60 SWEEPER	-----	December 2008
CS60 II SWEEPER	-----	December 2008

Subject of the change 177 : NEW ITALSEA MULTIMACHINE CHOPPERS (SW5)		
<u>DESCRIPTION:</u> The new multimachine chopper (model SW5 indicated on the label, as can be seen in the photo below), contains all the programmes of the machines on which this type of chopper is installed and, with the aid of the console, it can be programmed for the machine on which it is installed.		

Code	Description	Quantity
REMOVE		
411730	CHOPPER BOARD 50A	1
ADD		
420461	MULTIMACHINE CHOPPER SW5 BOARD	1



Label



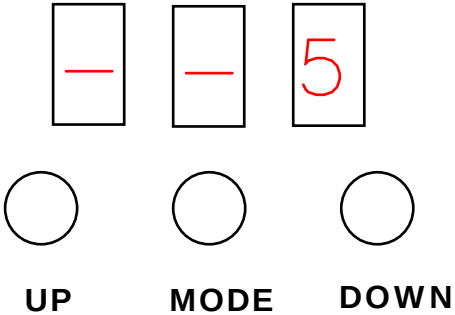
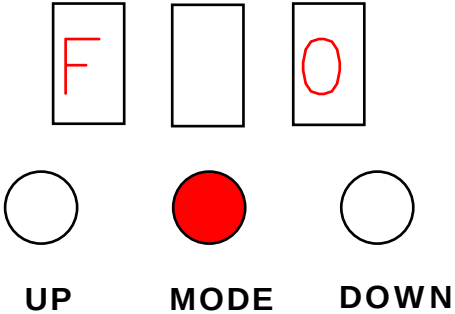
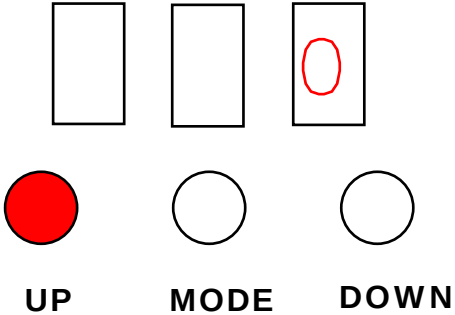
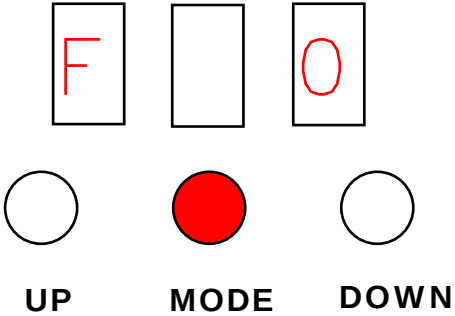
Console code: 411818

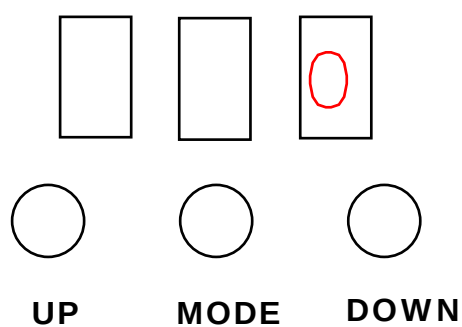
ATTENTION: to do this operation, lift the traction wheel.

When the Italsea chopper is replaced:

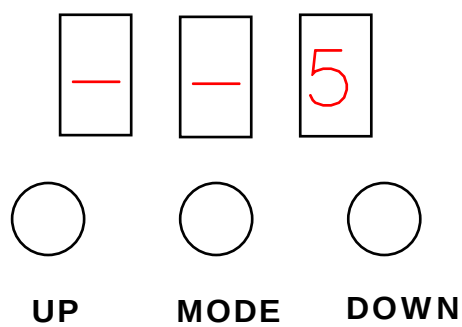
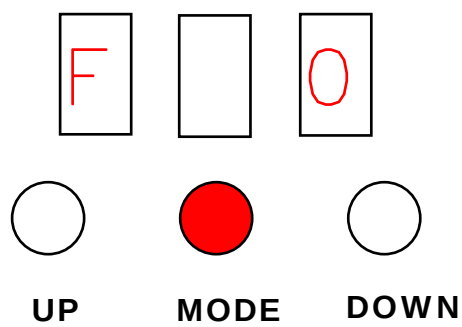
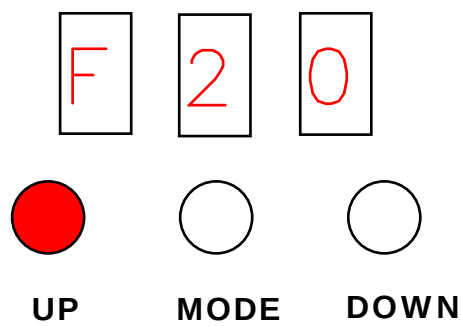
- 1 – set the default parameters for that particular type of machine;
- 2 – calibrate the pedal potentiometer.

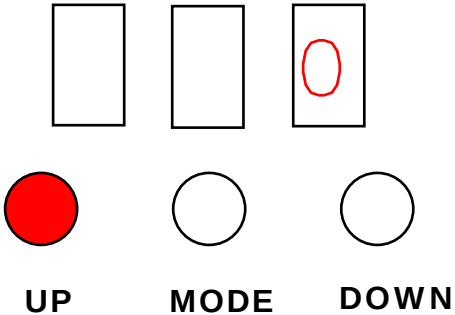
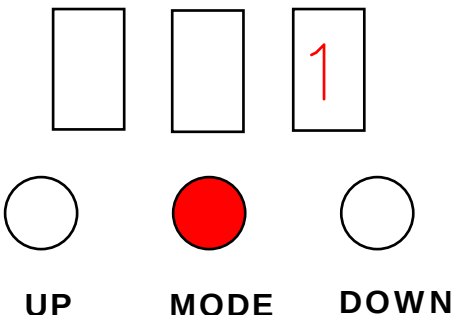
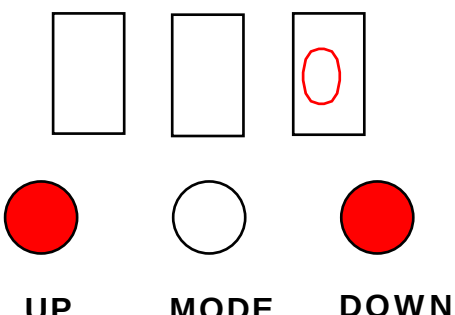
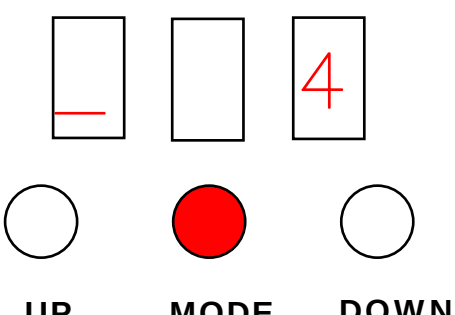
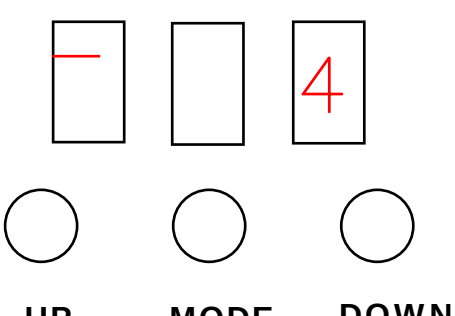
1 - SETTING THE DEFAULT PARAMETERS

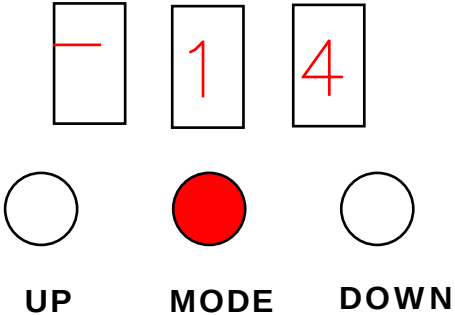
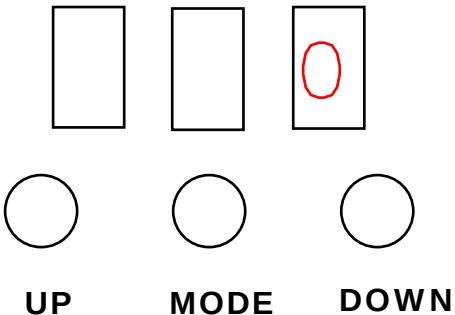
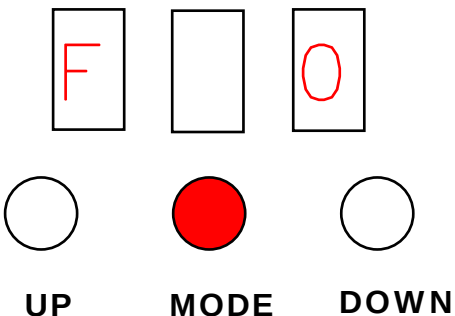
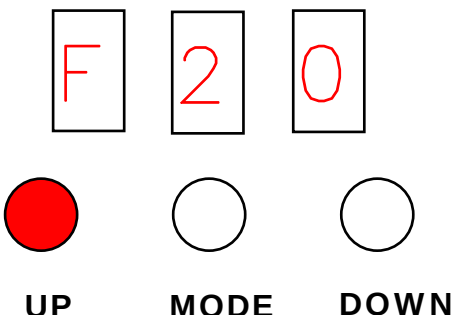
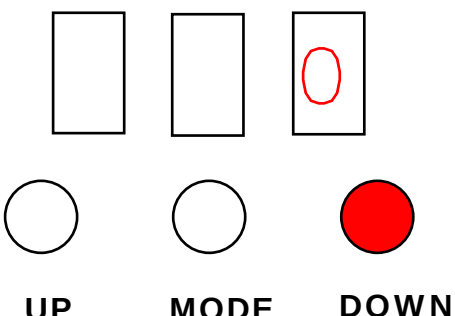
1. TURN THE MACHINE OFF. 2. Turn the console on (411818).	
3. The value shown in the figure appears for a second on the display followed by value 0.	
4. Press the MODE key shown in the figure. 5. Parameter F0 shown appears on the display. 6. Press the MODE key again.	
7. Value 0 appears on the display. 8. <u>Press the UP key until the correct default value for that particular machine appears.</u>	
9. In particular: • Value 2 for floor scrubber-dryer Tripla 24-26 and C8 • Value 3 for sweeper CS6011 • Value 4 for floor scrubber-dryer Media 26 electronic • Value 5 for sweeper CS60	
10. Once the right default value has been selected press the MODE key. 11. The F0 parameter shown reappears.	

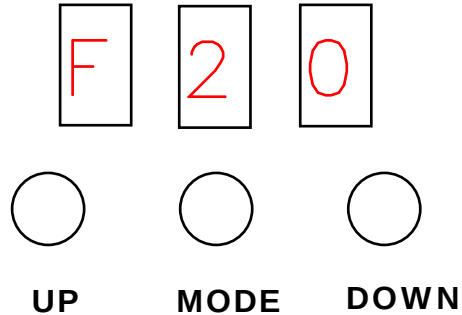
12. Wait a few seconds for the value 0 to appear on the display.	
13. TURN THE MACHINE OFF AND THEN ON AGAIN.	

2 – CALIBRATING THE POTENTIOMETER

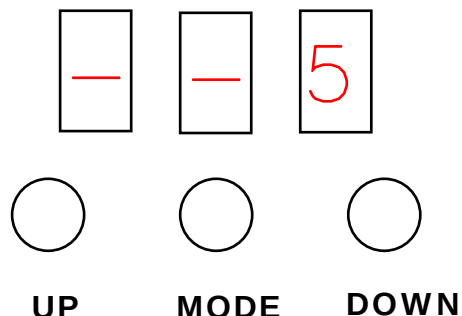
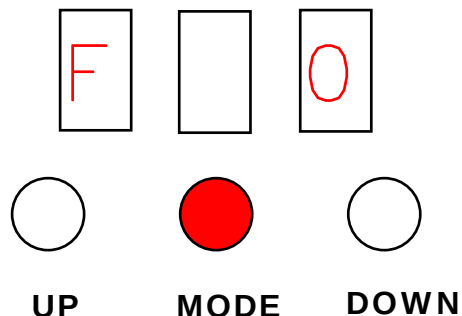
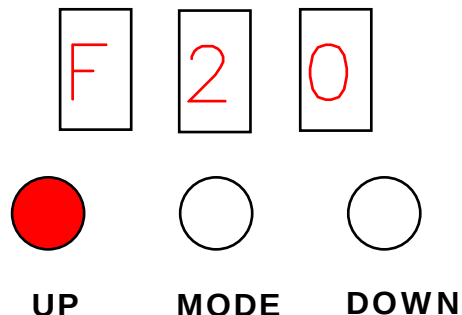
FOR C8, TRIPLA 24-26 AND CS60 I I	
1. Make sure the machine is OFF. 2. Connect the console to the chopper and turn the machine on.	
3. The value shown in the figure appears for a second on the display followed by value 0.	
4. Press the MODE key shown in the figure. 5. Parameter F0 shown appears on the display.	
6. Press the UP key to scroll the list of parameters until parameter F20 shown appears. 7. Press the MODE key.	

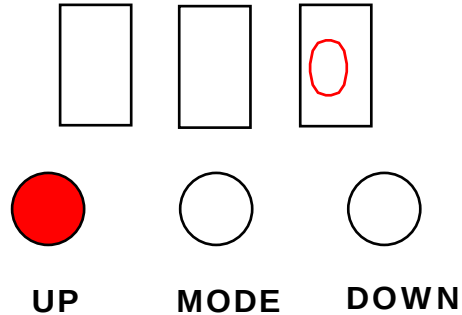
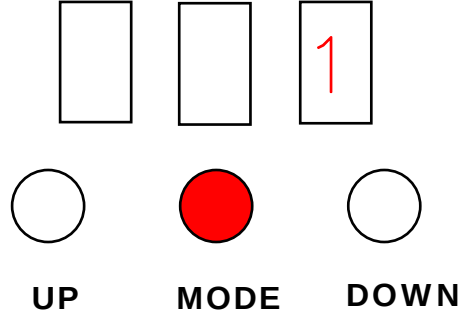
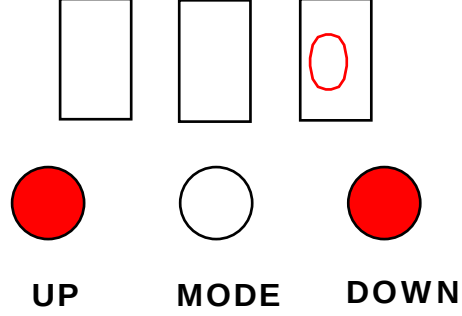
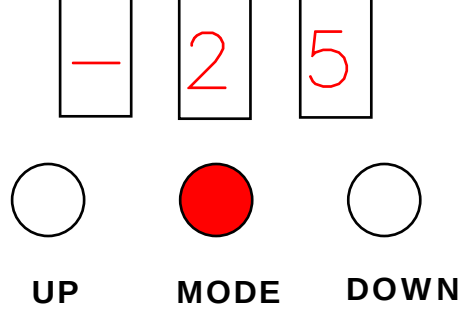
8. Value 0 appears on the display. 9. Press the UP key to take the value to 1.	
10. Value 1 appears on the display. 11. Confirm by pressing the MODE key shown.	
12. Parameter F20 appears again on the display. 13. Wait a few seconds until value 0 appears. 14. Now press the UP and DOWN keys simultaneously and keep them pressed for a few seconds.	
15. The low segment appears blinking on the display as well as the potentiometer's voltage. 16. With the pedal in the idle position, press the MODE key to set the value on the chopper.	
17. The high segment appears blinking as well as the potentiometer's voltage.	

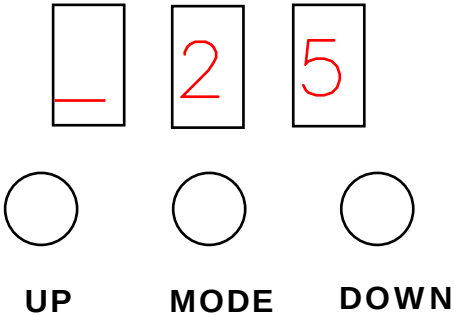
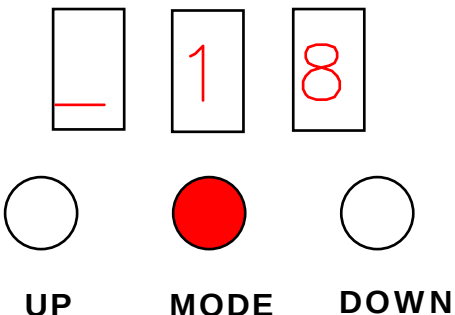
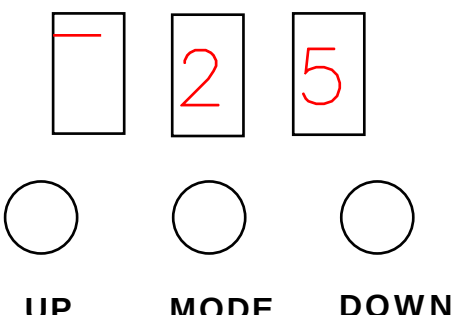
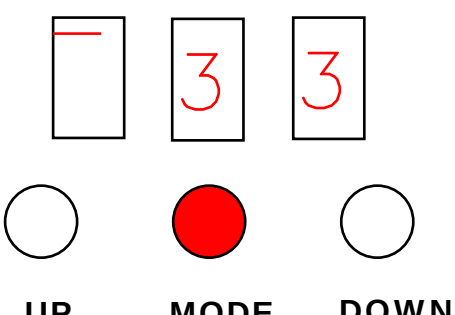
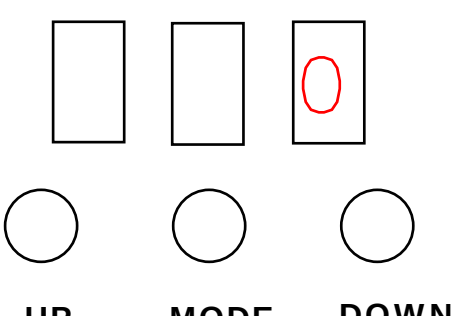
18. Press the pedal to the end of its travel and, keeping it pressed, press the MODE key to save the value in the chopper's memory. Note: release the pedal ONLY after having pressed the MODE key.	 UP MODE DOWN
19. Parameter F20 appears again on the display. 20. Wait a few seconds until value 0 appears, as shown.	 UP MODE DOWN
21. Press the MODE key to return to the list of parameters. 22. The F0 parameter shown appears.	 UP MODE DOWN
23. Press the UP key until you reach parameter F20. 24. Press the MODE key.	 UP MODE DOWN
25. Value 1 appears on the display. 26. Press the DOWN key to take the value to 0. 27. Confirm by pressing the MODE key.	 UP MODE DOWN

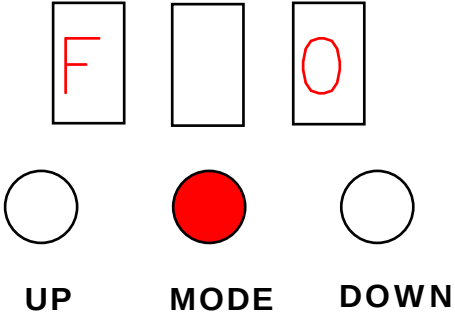
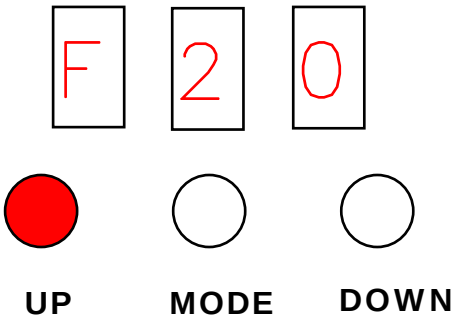
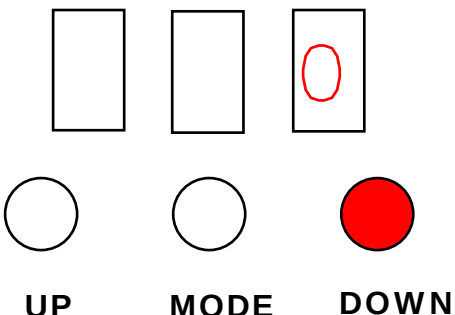
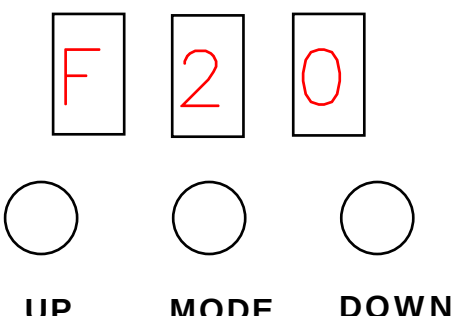
28. Parameter F20 appears on the display. 29. Wait a few seconds until value 0 appears.	
30. TURN THE MACHINE OFF. 31. DISCONNECT THE CONSOLE. 32. Turn the machine on again and check correct calibration of the potentiometer by running a test.	

FOR MEDIA26electronic AND CS60

1. Make sure the machine is OFF. 2. Connect the console to the chopper and turn the machine on.	
3. The value shown in the figure appears for a second on the display followed by value 0.	
4. Press the MODE key shown in the figure. 5. Parameter F0 shown appears on the display.	
6. Press the UP key to scroll the list of parameters until parameter F20 appears. 7. Press the MODE key.	

8. Value 0 appears on the display. 9. Press the UP key to take the value to 1.	 The diagram shows three rectangular display segments. The rightmost segment contains a red '0'. Below the segments are three circular buttons labeled 'UP', 'MODE', and 'DOWN'. The 'UP' button is highlighted in red.
10. Value 1 appears on the display. 11. Confirm by pressing the MODE key.	 The diagram shows three rectangular display segments. The rightmost segment contains a red '1'. Below the segments are three circular buttons labeled 'UP', 'MODE', and 'DOWN'. The 'MODE' button is highlighted in red.
12. Parameter F20 appears again on the display. 13. Wait a few seconds until value 0 appears. 14. Now press the UP and DOWN keys simultaneously, keeping them pressed for a few seconds.	 The diagram shows three rectangular display segments. The rightmost segment contains a red '0'. Below the segments are three circular buttons labeled 'UP', 'MODE', and 'DOWN'. Both the 'UP' and 'DOWN' buttons are highlighted in red.
15. The middle segment appears blinking on the display as well as the potentiometer's voltage. 16. Turn the potentiometer until the idle position wanted is reached (value 25 should appear on the display). 17. Press the MODE key to set the value on the chopper.	 The diagram shows three rectangular display segments. The leftmost segment contains a red '-', the middle segment contains a red '2', and the rightmost segment contains a red '5'. Below the segments are three circular buttons labeled 'UP', 'MODE', and 'DOWN'. The 'MODE' button is highlighted in red.

18. The low segment appears blinking as well as the potentiometer's voltage.	 UP MODE DOWN
19. Turn the potentiometer to the maximum REVERSE running position (acting on the handle-bar) and check it is less than 25. 20. Keeping the handle-bar pressed, confirm by pressing the MODE key.	 UP MODE DOWN
21. The high segment appears blinking as well as the potentiometer's voltage.	 UP MODE DOWN
22. Turn the potentiometer to the maximum FORWARD position (acting on the handle-bar) and check it is more than 25. 23. Keeping the handle-bar pressed, confirm by pressing the MODE key.	 UP MODE DOWN
33. Parameter F20 appears again on the display. 34. Wait a few seconds until value 0 appears.	 UP MODE DOWN

35. Press the MODE key to return to the list of parameters. 36. Parameter F0 appears.	
37. Press the UP key until you reach parameter F20. 38. Press the MODE key.	
39. Value 1 appears on the display. 40. Press the DOWN key to take the value to 0. 41. Confirm by pressing the MODE key.	
42. Parameter F20 appears on the display. 43. Wait a few seconds until value 0 appears.	
44. TURN THE MACHINE OFF. 45. DISCONNECT THE CONSOLE. 46. Turn the machine on again and check correct calibration of the potentiometer by running a functional test.	