



The official factory source for all Verteq products and services.

FIELD RETROFIT RECORD

Doc Number: 9330386.1

Retrofit Instructions		Retrofit Instruction №:9330386.1	
Subject: Field Retrofit of 1800.6 Automotion Motor Controller		Date Issued:05/9/2014	Revision: B
Written: Chuck Edwards	Product Engineer: Chuck Edwards	Checked:	Approved: N/A
Reviewed: H.C. Chou	Mfg. Engineer:	Checked: H.C. Chou	Approved: On File

1. PURPOSE

The Automotion, Inc. motor controller Marteq Part number 4119839 and manufacturer's part number ALC-0801-010-1000 is now obsolete and no longer available. Marteq will continue to work with manufacturer on repair of existing units if possible.

Marteq has engineered a replacement controller kit for the 1800.6 units. See Figure 1. This procedure provides instructions to assist Field Technicians in performing the change out of the motor controller. The kit consists of new motor controller and mounting bracket, new overspeed board, interconnect cables, and new EPROM for system controller.

2. INSTRUCTIONS

1. This retrofit document provides instruction for updating the mechanical hardware, electrical wiring and completing the software upgrade.
2. Observe all engineering notes and instructions as indicated in this retrofit document.

3.0 SOFTWARE

1. You will replace existing EPROM in SRD controller box with new EPROM 1020197.003, CK Sum B1 07 050614 that is unique to the new Anaheim Automation motor controller.
2. Existing 1800.6 SRD controllers are not interchangeable with tools that have new motor controller without swapping the EPROM that comes with the kit. Controllers with the new EPROM will not work on a tool that has the original Automotion (4119839) controller without replacing the 1020197.003 EPROM with the original EPROM.
3. Remove cover of blue SRD controller. Find EPROM located at U14 on CPU card 1075180. Using extractor provided in kit remove EPROM. Insure that the extractor tool is installed and firmly against the socket. Squeeze the extractor until the EPROM pops out. Do not yank out EPROM. Install new EPROM "1800.6 AA MOT CON, 1020197.003 r01" paying attention to line up pin 1, dot on the EPROM with pin 1 on socket. Push firmly into place.
4. Install 64100
5. label 1075227.796 on rear of controller indicating new software version installed.
6. Reinstall cover on controller and connect all cables to controller if removed.
7. Software installation complete.



The official factory source for all
Verteq products and services.

FIELD RETROFIT RECORD

Doc Number: 9330386.1

4.0 DISASSEMBLY OF AUTOMOTION CONTROLLER SET-UP

NOTE

If any changes are made to existing drawings, please redline appropriately to maintain up-to-date documentation at the factory.

1. Ensure tool is off and electrical disconnected before starting retrofit.
2. Remove SRD cover to gain access to motor controller.
3. Remove cover on overspeed board.
4. Disconnect all cables going to the overspeed board. Remove the overspeed board. It will not be used again after conversion. Leave mounting bracket on motor.
5. Unplug cables/connectors from Automotion Controller (4119839). Figure 2.
6. Cable 1074508.1 which goes from Overspeed board to Automotion controller. Unplug from Automotion controller. This cable will no longer be needed.
7. Cable 1074480.1 from overspeed board connected to rear panel. Remove from rear panel and set aside. It not be used again as it may be not be long enough for new setup. New cable 1108260.1 is provided.
8. Remove P1 which goes to overspeed board and set aside. It will no longer be used.
9. Unplug P4 and discard wiring assembly. It will no longer be used.
10. Remove Automotion controller and its mounting bracket and set aside. They will not be used again.

5.0 MECHANICAL INSTALLATION OF NEW MOTOR CONTROLLER SET-UP

1. Wipe down mounting area for new motor bracket installation.
2. Using the two ¼-20X5/8L Flat head screws mount the new bracket 1108176.1 to the base plate of the SRD using existing holes from Automotion bracket.
3. Place the new controller 4130794 (Figure 3) which will have the new wiring already on the new bracket.
4. Using the four 6-32x5/16L Pan head philips screws install new controller on to the new bracket just installed.
5. Install new overspeed board 1108155.1 on existing bracket oriented with DB15 connector towards the motor controller as before. NOTE: 1108155.1 is unique to the new motor controller and is not interchangeable with the 1085566.1 overspeed board. Board speed dipswitches come set for 8" rotor (1200RPM). Dipswitch settings are the same as the 1085566.1.



The official factory source for all
Verteq products and services.

FIELD RETROFIT RECORD

Doc Number: 9330386.1

6.0 ELECTRICAL INSTALLATION

NOTE

If any changes are made to existing drawings, please redline appropriately to maintain up-to-date documentation at the factory.

1. On new motor controller remove bag securing cable ends for shipment. Cable ends are now ready to be connected to appropriate points.
2. Find cable 1108158.1 (P4) and plug into existing J4 from SRD harness.
3. Find cable 1108230.1 (P1) and plug into existing J1 from SRD harness.
 - a. On opposite end of 1108230.1 plug into J2 on overspeed board.
4. Find cable 1108159.1. At overspeed board plug new connector into J4 on the board.
5. Find cable 1071222.3 from motor speed sensor and plug into J5 on OSB.
6. Find cable end J3 removed from Automotion controller and plug into J7 on the OSB.
7. Find cable 1108260.1 (new) and install from rear panel to DB15 on OSB J6.
8. Reinstall OSB cover.

7.0 RETROFIT COMPLETION

1. Ensure wires are properly connected. Use tywraps to dress cables as needed.
2. Restore power to unit.
3. Power on and confirm rotor indexes properly.
4. Run a recipe to confirm full operation.
5. Install SRD cover and return unit to service.

8.0 FIELD RETROFIT RECORD

1. Complete the Field Retrofit Record form and return the form to Verteq.
2. Make a backup copy of the finalized completely operational software and PLC code, and send a copy to TAG for archives.

NOTE

Return any redlined schematics or drawings to Project Engineer.

FIELD RETROFIT RECORD

Doc Number: 9330386.1

9.0 DOCUMENTS

N/A

9.1 REQUIRED DRAWINGS for INSTALLATION

N/A

9.2 REQUIRED ELECTRICAL DRAWINGS for INSTALLATION

(To be included in Kit at Factory)

1. N/A

9.3 REQUIRED MECHANICAL DRAWINGS for INSTALLATION

(To be included in Kit at Factory along with MIS parts lists)

1. N/A

9.4 Pictures

New controller Kit as shipped.

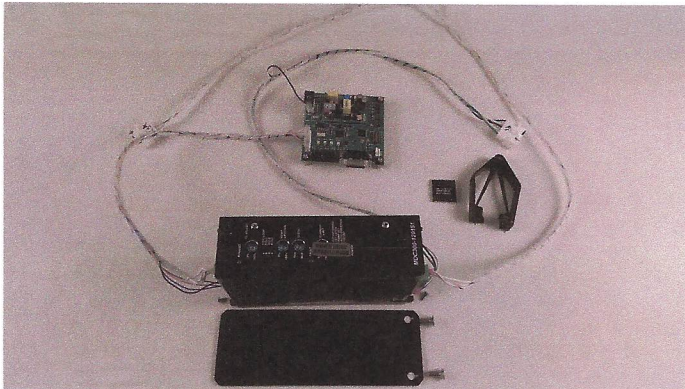


Figure 1

FIELD RETROFIT RECORD

Doc Number: 9330386.1

Automotion controller (now obsolete)

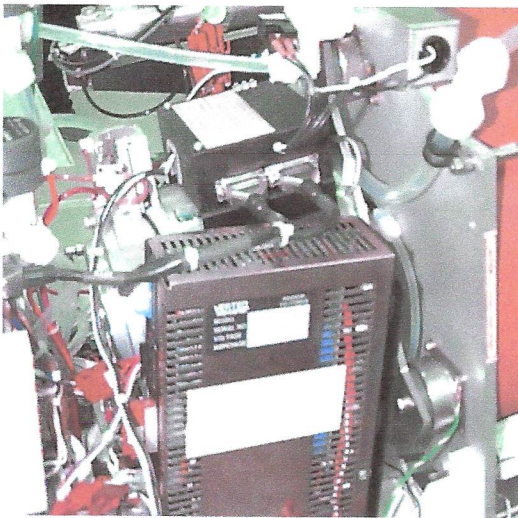


Figure 2

New Controller Setup

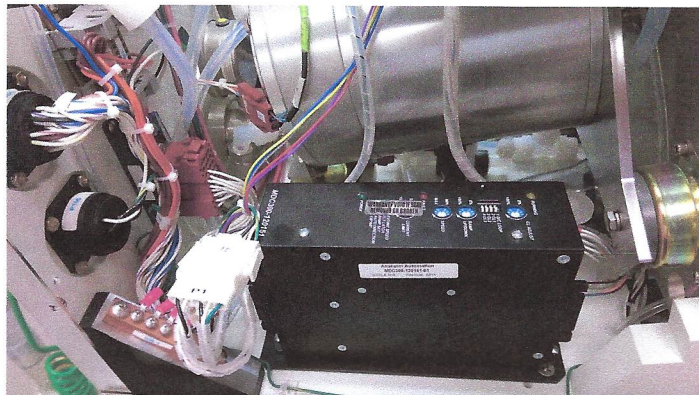


Figure 3



The official factory source for all Verteq products and services.

FIELD RETROFIT RECORD

Doc Number: 9330386.1

10.0 SKILL LEVEL REQUIRED

1. Technician with working knowledge of VERTEQ 1800.6.
2. Knowledge of VERTEQ Field Service Standards or equivalent.
3. Requires system control / operation experience.

11.0 TOOLS REQUIRED

1. Standard Field Service Kit

12.0 PARTS REQUIRED FOR INSTALLATION

12.1 ELECTRICAL ADDED PARTS (as listed in Bill of Materials)

	COMPONENT	Marteq Part No.	Remarks
1	New motor controller for 1800.6. Replaces Automotion controller (4119839) now obsolete.	4130794	Comes with the cables attached.
2	New Overspeed Board	1108155.1	Replaces 1085566.1 Board
3	New control EPROM	1020197.003	Software for 4130794 controller only.
3	Cable, Motor to Speed controller	1108158.1	Attached to controller
4	Cable, Mot/Speed PCB to Speed Controller	1108159.1	Attached to controller
5	Harness, Cable, Power to Motor Controller	1108230.1	Adapts new controller to SRD base plate.
6	Bracket, Motor Controller	1108176.1	Adapts new controller to SRD base plate.
7	Screw, SS, 1/4-20X5/8 FHPHIL	3403259 (2)	Bracket to SRD base.
8	Screw, SS, 6-32X5/16L, PHPHIL	4130797 (4)	Controller to Bracket.
9	Labels, 1075227.796 I.D.	1075619.1	New software version
10	Tool, PLCC extraction	4130389	To remove existing EPROM
11	Harness Assy, OSB to Rear Panel	1108260.1	Longer Length



The official factory source for all Verteq products and services.

FIELD RETROFIT RECORD

Doc Number: 9330386.1

12.2 MECHANICAL ADDED PARTS (as listed in Bill of Materials)

N/A

12.3 SOFTWARE ADDED PARTS

See section 3.0

Customer: _____

Retrofit S/O No. _____

Top Assembly P/N: _____

System No.: _____

Retrofit/Modification Description:

FIELD RETROFIT RECORD (FRR) ACCEPTANCE SIGNATURES:

- **Field Retrofit / Modification Completed**

Including all installation and acceptance testing instructions, as specified on the referenced Field Retrofit / Modification document package.

Field Service Representative (signature)

Date

- **Field Retrofit / Modifications**

As specified on the referenced Field Retrofit / Modification document package reviewed and accepted.

Customer Representative (signature)

Date