



03 E-003

August 14, 2009

Mr. Darryl Zerbet  
A Plus Medical Inc.  
1225 Walton Way  
Augusta, GA 30901

**Dealer Letter # 1 – This letter was sent to all Certified Dealers that have not sold DS-2000 systems.**

Dear Mr. Zerbet:

Electronic Mobility Controls, LLC, is conducting a recall for all DS-2000 Digital Steering Systems. This notice is being sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Included with this correspondence is a copy of the Safety Directive **SAD: 03-009f** issued by Electronic Mobility Controls. This Safety Directive outlines the reasons for this recall as well as all update requirements.

This important recall information has been sent to all adaptive equipment dealers having sold a DS-2000 system as well as to all current EMC Certified Dealers. Our records indicate that your company never sold a DS-2000 Digital Steering System but you are currently an EMC Certified Dealer. This correspondence is provided for your information only. However, if a DS-2000 consumer contacts you regarding this recall, we ask that you assist them in the completion of all recall requirements in accordance with your EMC Certified Dealer Agreement. Additionally, if ever you are asked to service a DS-2000 for any reason, you must ensure that the system has been updated according to this recall. If you wish to inquire about the status of a particular DS-2000, please contact our Service Department with a Serial Number.

For the dealer, there are three important components to this recall:

- **First**, in accordance with the Safety Directive, all units must be returned to EMC for software and hardware updates. These updates should take no longer than 6-7 working days. EMC will credit your account in the amount of \$100 for each unit returned for update by your company. This is intended to cover your labor costs and the cost to ship the components to EMC. EMC will cover all return shipping expenses. There will be no cost to the consumer.
- **Second**, in addition to the return to EMC, we also require that you conduct a routine inspection of the system as it is installed. The details of this inspection are included in the Safety Directive. This inspection should take no longer than 1 hour. Again, there will be no cost to the consumer.

- **Third, within the next two weeks, EMC will send each consumer a copy of an instructional video designed to assist the consumer in the operation of the DS-2000 as well as an updated Owner's Manual. A copy of the video and Owner's Manual that will be sent to each consumer is included with this correspondence for your records. The video provides a summary of the system operation, outlines important safety warnings, and demonstrates all "boot-up", "boot-down", "engage", and "disengage" procedures. The Owner's Manual contains expanded operating instructions, more detailed safety warnings, more specific routine maintenance requirements, and simpler "boot-up", "boot-down", "engage", and "disengage" procedures. If you assist a consumer in updating his or her DS-2000, please make sure that they have a copy of the video and the updated Owner's Manual.**

If you are asked to service a DS-2000 according to this recall, Electronic Mobility Controls, LLC does recommend that you conduct all necessary Routine Maintenance on each DS-2000 system that you service. Routine Maintenance is extremely important so that the DS-2000 system will provide trouble-free operation. EMC has outlined both factory and dealer Routine Maintenance requirements. You can contact our Service Department to verify whether or not any factory maintenance is required at this time. If dealer or factory routine maintenance is required, you should provide your customer with the costs of maintenance up front.

Also included with this correspondence is a copy of the two letters provided to DS-2000 consumers. The first letter was sent to those consumers that have already returned their DS-2000 system for update. The second letter was sent to those consumers that have not yet returned their DS-2000 system for update. Please review these letters so that you are familiar with the information provided to each consumer.

Please take the time to familiarize yourself with the details of this recall. In particular, please read this letter and the attached Safety Directive carefully. If you have any questions, we are available to assist you. Our Service Department can be reached at (225) 927-5558 or you can email your questions to [jon@emc-digi.com](mailto:jon@emc-digi.com).

We look forward to assisting you and your customers in the completion of all recall requirements. Thank you in advance for your cooperation.

Respectfully,

Rio Reulet, Jr. P.E.  
VP of Operations



## **SAFETY DIRECTIVE**

**PRODUCT: DS-2000**

**SAD: 03-0001**

**DATE: August 12, 2003**

**SUBJECT: DS-2000 Digital Steering System Hardware and Software Updates**

1. **EFFECTIVITY**

*DS-2000 (All Units)*

2. **PURPOSE**

Electronic Mobility Controls, LLC (EMC), has created a number of safety critical hardware and software updates for the DS-2000 Digital Steering System. These updates are designed to further enhance the reliability of the DS-2000 system.

3. **BACKGROUND**

Recently, the National Highway Traffic and Safety Administration (NHTSA) conducted lengthy and extensive testing on the DS-2000 Digital Steering System: manufactured by EMC. Although the testing identified no defects within the DS-2000 system, EMC has developed several hardware and software updates that can improve the reliability of the system. These updates are based on modern design criteria for safety critical systems, similar to those used in the development of the current EMC primary driving control, AEVIT. In addition to the system updates, NHTSA also made a number of recommendations for improving consumer understanding and use of the DS-2000. These recommendations are the basis for changes made to the DS-2000 Owner's Manual and for the creation of an instructional video. Both the new Owner's Manual and video will be distributed to all clients.

4. **COMPLIANCE**

**Mandatory.** To ensure the safety of our clients, we are requiring that all DS-2000 systems be returned to EMC for update. Unless routine maintenance is required for the entire system, only the CPU and Steering Module portions of the system must be returned.

A. Inspection – once the CPU and Steering Module components have been updated according to this Safety Directive, a qualified EMC Dealer must complete a brief inspection of the installation.

5. **MATERIAL AVAILABILITY** – All update requirements will be handled by EMC. EMC does recommend that each dealer/consumer review the routine maintenance requirements outlined in the DS-2000 Owner's Manual to ensure that each system is current. If no auxiliary battery is installed, it can be purchased from EMC at this time.

<u>Part Number</u>	<u>Description</u>	<u>Availability</u>
AUXBAT01-12	Auxiliary Battery System	In Stock

6. **ACCOMPLISHMENT INSTRUCTIONS**

- A. Review the Routine Maintenance requirements for each DS-2000 system found in the Owner's Manual provided. If all factory routine maintenance is current, only the CPU and Steering Module must be removed from the vehicle. If factory routine maintenance is necessary, you may need to remove the Steering Servomotor portion of the system as well.
- B. Contact the EMC Service Department for a Return Authorization. Ship the unit to the service location specified by the EMC Service Department. You and your customer will determine how the system ships to EMC. Upon completion of the update, unless otherwise requested, all units will be returned to you via UPS 3-day select.
- C. Once all components have been updated and received by your company, re-install the components according to the instructions in the DS-2000 Installation Manual.
- D. Conduct all dealer maintenance outlined in the "Service Requirements" section of the DS-2000 Installation Manual. For the convenience of all dealers, a current excerpt is provided with this Safety Directive. If you are unable to locate the instructions, contact the EMC Service Department for assistance.
- E. Inspect the **AUXBAT01-12** auxiliary battery connections according to the updated instructions in the AUXBAT Installation Manual. Because they were recently updated, be sure to carefully read and follow the revised instructions. An excerpt is provided with this Safety Directive. If you are unable to locate the instructions, contact the EMC Service Department for assistance.
- F. Ensure that the consumer has received and reviewed both the new DS-2000 Owner's Manual and the DS-2000 instructional video.
- G. Complete the attached Compliance Form and fax a copy to EMC.

# COMPLIANCE FORM

REFERENCE:

**SAD: 03-0001**

PRODUCT: **DS-2000**

Date: August 12, 2003

SUBJECT: **DS-2000 Hardware and Software Updates**

EMC DEALER:

**DS-2000 Serial Number:** \_\_\_\_\_

PLEASE COMPLETE THE FOLLOWING CUSTOMER INFORMATION:

Customer Name: \_\_\_\_\_

Customer Address: \_\_\_\_\_  
\_\_\_\_\_

Customer Phone#: (\_\_\_\_) \_\_\_\_\_

Date Contacted: \_\_\_\_\_ Time Contacted: \_\_\_\_\_

Estimated Mileage On Vehicle: \_\_\_\_\_

As the registered dealer having sold the aforementioned DS-2000, I certify that I have completed all requirements of the EMC Safety Directive SAD: 03-0001.

\_\_\_\_\_  
NAME (Please Print)

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE



August 14, 2003

Mr. Ben Nugent  
Access Able, Inc.  
6185 Hurley Road, Suite G  
Columbus, OH 43229

**Dealer Letter #2 - This letter was sent to all dealers (Certified and Non-Certified) who have sold DS-2000 systems.**

Dear Mr. Nugent:

Electronic Mobility Controls, LLC, is conducting a recall for all DS-2000 Digital Steering Systems. This notice is being sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Included with this correspondence is a copy of the Safety Directive SAD: 03-0001 issued by Electronic Mobility Controls. This Safety Directive outlines the reasons for this recall as well as all update requirements.

This important recall information has been sent to all adaptive equipment dealers having sold a DS-2000 system as well as to all current EMC Certified Dealers. We have attached a spreadsheet that lists all customers on record as having purchased a DS-2000 from your company.

EMC has updated a number of units already. If an asterisk appears next to the DS-2000 S/N in the list provided, it indicates that the unit has already been updated by EMC. However, this is only one of the three components to this recall. Below you will find a summary of the three components. Please be sure that all components are completed according to the attached Safety Directive.

For the dealer, there are three important components to this recall:

- First, in accordance with the Safety Directive, all units must be returned to EMC for software and hardware updates. These updates should take no longer than 5-7 working days. EMC will credit your account in the amount of \$100 for each unit returned for update by your company. There will be no cost to the consumer.
- Second, in addition to the return to EMC, we also require that you conduct a routine inspection of the system as it is installed. The details of this inspection are included in

the Safety Directive. This inspection should take no longer than 1 hour. Again, there will be no cost to the consumer.

- Third, within the next two weeks, EMC will send each consumer a copy of an instructional video designed to assist the consumer in the operation of the DS-2000 as well as an updated Owner's Manual. A copy of the video and Owner's Manual that will be sent to each consumer is included with this correspondence for your records. The video provides a summary of the system operation, outlines important safety warnings, and demonstrates all "boot-up", "boot-down", "engage", and "disengage" procedures. The Owner's Manual contains expanded operating instructions, more detailed safety warnings, more specific routine maintenance requirements, and simpler "boot-up", "boot-down", "engage", and "disengage" procedures. If you assist a consumer in updating his or her DS-2000, please make sure that they have a copy of the video and the updated Owner's Manual.

Electronic Mobility Controls, LLC does recommend that you conduct all necessary Routine Maintenance on each DS-2000 system that you service. Routine Maintenance is extremely important so that the DS-2000 system will provide trouble-free operation. EMC has outlined both factory and dealer Routine Maintenance requirements. You can contact our Service Department to verify whether or not any factory maintenance is required at this time. If routine maintenance is required, you should provide your customer with the costs of maintenance up front.

Also included with this correspondence is a copy of the two letters provided to DS-2000 consumers. The first letter was sent to those consumers that have already returned their DS-2000 system for update. The second letter was sent to those consumers that have not yet returned their DS-2000 system for update. Please review these letters so that you are familiar with the information provided to each consumer.

Keep in mind that, because you are/were part of the EMC Certified Dealer Network, you may be asked to service a DS-2000 system not included on the list of units sold by your company. If ever you are asked to service a DS-2000 for any reason, you must ensure that the system has been updated according to this recall. If you wish to inquire about the status of a particular DS-2000, please contact our Service Department with a Serial Number.

Please take the time to familiarize yourself with the details of this recall. In particular, please read this letter and the attached Safety Directive carefully. If you have any questions, we are available to assist you. Our Service Department can be reached at (225) 827-5558 or you can email your questions to [lon@emc-dcl.com](mailto:lon@emc-dcl.com).

We look forward to assisting you and your customer in the completion of all recall requirements. Thank you in advance for your cooperation.

Respectfully,

Ric Reulet, Jr. P.E.  
VP of Operations



## **SAFETY DIRECTIVE**

**PRODUCT: DS-2000**

**SAD: 03-0001**

**DATE: August 12, 2003**

**SUBJECT: DS-2000 Digital Steering System Hardware and Software Updates**

1. **EFFECTIVITY**

***DS-2000 (All Units)***

2. **PURPOSE**

Electronic Mobility Controls, LLC (EMC), has created a number of safety critical hardware and software updates for the DS-2000 Digital Steering System. These updates are designed to further enhance the reliability of the DS-2000 system.

3. **BACKGROUND**

Recently, the National Highway Traffic and Safety Administration (NHTSA) conducted lengthy and extensive testing on the DS-2000 Digital Steering System manufactured by EMC. Although the testing identified no defects within the DS-2000 system, EMC has developed several hardware and software updates that can improve the reliability of the system. These updates are based on modern design criteria for safety critical systems, similar to those used in the development of the current EMC primary driving control, AEVIT. In addition to the system updates, NHTSA also made a number of recommendations for improving consumer understanding and use of the DS-2000. These recommendations are the basis for changes made to the DS-2000 Owner's Manual and for the creation of an instructional video. Both the new Owner's Manual and video will be distributed to all clients.

4. **COMPLIANCE**

**Mandatory.** To ensure the safety of our clients, we are requiring that all DS-2000 systems be returned to EMC for update. Unless routine maintenance is required for the entire system, only the CPU and Steering Module portions of the system must be returned.

A. Inspection – once the CPU and Steering Module components have been updated according to this Safety Directive, a qualified EMC Dealer must complete a brief inspection of the installation.

5. **MATERIAL AVAILABILITY** – All update requirements will be handled by EMC. EMC does recommend that each dealer/consumer review the routine maintenance requirements outlined in the DS-2000 Owner's Manual to ensure that each system is current. If no auxiliary battery is installed, it can be purchased from EMC at this time.

<u>Part Number</u>	<u>Description</u>	<u>Availability</u>
AUXBAT01-12	Auxiliary Battery System	In Stock

6. **ACCOMPLISHMENT INSTRUCTIONS**

- A. Review the Routine Maintenance requirements for each DS-2000 system found in the Owner's Manual provided. If all factory routine maintenance is current, only the CPU and Steering Module must be removed from the vehicle. If factory routine maintenance is necessary, you may need to remove the Steering Servomotor portion of the system as well.
- B. Contact the EMC Service Department for a Return Authorization. Ship the unit to the service location specified by the EMC Service Department. You and your customer will determine how the system ships to EMC. Upon completion of the update, unless otherwise requested, all units will be returned to you via UPS 3-day select.
- C. Once all components have been updated and received by your company, re-install the components according to the instructions in the DS-2000 Installation Manual.
- D. Conduct all dealer maintenance outlined in the "Service Requirements" section of the DS-2000 Installation Manual. For the convenience of all dealers, a current excerpt is provided with this Safety Directive. If you are unable to locate the instructions, contact the EMC Service Department for assistance.
- E. Inspect the AUXBAT01-12 auxiliary battery connections according to the updated instructions in the AUXBAT Installation Manual. Because they were recently updated, be sure to carefully read and follow the revised instructions. An excerpt is provided with this Safety Directive. If you are unable to locate the instructions, contact the EMC Service Department for assistance.
- F. Ensure that the consumer has received and reviewed both the new DS-2000 Owner's Manual and the DS-2000 instructional video.
- G. Complete the attached Compliance Form and fax a copy to EMC.

# COMPLIANCE FORM

REFERENCE:

**SAD: 03-0001**

PRODUCT: DS-2000

Date: August 12, 2003

SUBJECT: DS-2000 Hardware and Software Updates

EMC DEALER:

DS-2000 Serial Number: \_\_\_\_\_

PLEASE COMPLETE THE FOLLOWING CUSTOMER INFORMATION:

Customer Name:	_____		
Customer Address:	_____ _____		
Customer Phone#:	( ) _____		
Date Contacted:	_____	Time Contacted:	_____
Estimated Mileage On Vehicle:	_____		

As the registered dealer having sold the aforementioned DS-2000, I certify that I have completed all requirements of the EMC Safety Directive SAD: 03-0001.

\_\_\_\_\_  
NAME (Please Print)

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE



August 14, 2003

Ms. Nicki Ard  
P O Box 113  
Pamplico, SC 29563

**Consumer Letter #1 – This letter was sent to all DS-2000 end-users that have had the update completed.**

Dear Ms. Ard:

Electronic Mobility Controls, LLC, is conducting a Safety Recall for all DS-2000 Digital Steering Systems. This notice is being sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Our records indicate that you purchased DS-2000 S/N 1087 from Handicapped Driver Services. Included with this correspondence is a copy of the Safety Directive SAD: 03-0001 issued by Electronic Mobility Controls. This Safety Directive outlines the reasons for this recall as well as all update requirements.

There are three important components to this recall:

- **First**, in accordance with the Safety Directive, all units must be returned to EMC for software and hardware updates. *However, our records indicate that your unit has already been returned to EMC for these mandated updates. You will not be required to return your DS-2000 equipment to EMC.*
- **Second**, in addition to the return to EMC, we also require that your EMC Dealer conduct a routine inspection of the system as it is installed. Even though your unit has been updated by EMC, this step is still required. This inspection should take no longer than 1 hour but your vehicle must be brought to either your original installing dealer or to another Certified EMC Dealer. There will be no cost to you.
- **Third**, within the next two weeks, EMC will forward a copy of an instructional video designed to assist you in the operation of your DS-2000 as well as an updated Owner's Manual. The video provides a summary of the system operation, outlines important safety warnings, and demonstrates all "boot-up", "boot-down", "engage", and "disengage" procedures. The Owner's Manual contains expanded operating instructions, more detailed safety warnings, more specific routine maintenance requirements, and simpler "boot-up", "boot-down", "engage", and "disengage" procedures.

Electronic Mobility Controls, LLC does recommend that you conduct all necessary routine maintenance on your DS-2000 system when it is returned for this recall. Routine Maintenance is extremely important so that your DS-2000 system will provide trouble-free operation. EMC has outlined both factory and dealer Routine Maintenance requirements. Your dealer can contact our Service Department to verify whether or not any factory maintenance is required at this time. If it is time for either dealer or factory routine maintenance, you can discuss the maintenance costs with your dealer.

Please read this letter and the attached Safety Directive carefully. If you have any questions, we are available to assist you. Our customer service representative can be reached at (225) 927-5558 ext. 200 or you can email your questions to [sunny@emc-dcl.com](mailto:sunny@emc-dcl.com). As promised, you will receive your free video and Owner's Manual within the next two weeks. If you do not receive this information, please contact us immediately.

If at any time you believe that either EMC or your Certified Dealer has failed to assist you in updating your DS-2000 system according to this Safety Recall notice, or if you are charged specifically for the update referenced in the attached Safety Directive, you may submit a complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, DC 20590 or call the toll free Auto Safety Hotline at (888) 327-4236.

Thank you in advance for your patience and cooperation.

Respectfully,

Ric Reulet, Jr. P.E.  
VP of Operations



## **SAFETY DIRECTIVE**

**PRODUCT: DS-2000**

**SAD: 03-0001**

**DATE: August 12, 2003**

**SUBJECT: DS-2000 Digital Steering System Hardware and Software Updates**

1. **EFFECTIVITY**

***DS-2000 (All Units)***

2. **PURPOSE**

Electronic Mobility Controls, LLC (EMC), has created a number of safety critical hardware and software updates for the DS-2000 Digital Steering System. These updates are designed to further enhance the reliability of the DS-2000 system.

3. **BACKGROUND**

Recently, the National Highway Traffic and Safety Administration (NHTSA) conducted lengthy and extensive testing on the DS-2000 Digital Steering System manufactured by EMC. Although the testing identified no defects within the DS-2000 system, EMC has developed several hardware and software updates that can improve the reliability of the system. These updates are based on modern design criteria for safety critical systems, similar to those used in the development of the current EMC primary driving control, AEVIT. In addition to the system updates, NHTSA also made a number of recommendations for improving consumer understanding and use of the DS-2000. These recommendations are the basis for changes made to the DS-2000 Owner's Manual and for the creation of an instructional video. Both the new Owner's Manual and video will be distributed to all clients.

4. **COMPLIANCE**

**Mandatory.** To ensure the safety of our clients, we are requiring that all DS-2000 systems be returned to EMC for update. Unless routine maintenance is required for the entire system, only the CPU and Steering Module portions of the system must be returned.

A. Inspection – once the CPU and Steering Module components have been updated according to this Safety Directive, a qualified EMC Dealer must complete a brief inspection of the installation.

5. **MATERIAL AVAILABILITY** – All update requirements will be handled by EMC. EMC does recommend that each dealer/consumer review the routine maintenance requirements outlined in the DS-2000 Owner's Manual to ensure that each system is current. If no auxiliary battery is installed, it can be purchased from EMC at this time.

<u>Part Number</u>	<u>Description</u>	<u>Availability</u>
ALXBAT01-12	Auxiliary Battery System	In Stock

6. **ACCOMPLISHMENT INSTRUCTIONS**

- A. Review the Routine Maintenance requirements for each DS-2000 system found in the Owner's Manual provided. If all factory routine maintenance is current, only the CPU and Steering Module must be removed from the vehicle. If factory routine maintenance is necessary, you may need to remove the Steering Servomotor portion of the system as well.
- B. Contact the EMC Service Department for a Return Authorization. Ship the unit to the service location specified by the EMC Service Department. You and your customer will determine how the system ships to EMC. Upon completion of the update, unless otherwise requested, all units will be returned to you via UPS 3-day select.
- C. Once all components have been updated and received by your company, re-install the components according to the instructions in the DS-2000 Installation Manual.
- D. Conduct all dealer maintenance outlined in the "Service Requirements" section of the DS-2000 Installation Manual. For the convenience of all dealers, a current excerpt is provided with this Safety Directive. If you are unable to locate the instructions, contact the EMC Service Department for assistance.
- E. Inspect the ALXBAT01-12 auxiliary battery connections according to the updated instructions in the ALXBAT Installation Manual. Because they were recently updated, be sure to carefully read and follow the revised instructions. An excerpt is provided with this Safety Directive. If you are unable to locate the instructions, contact the EMC Service Department for assistance.
- F. Ensure that the consumer has received and reviewed both the new DS-2000 Owner's Manual and the DS-2000 instructional video.
- G. Complete the attached Compliance Form and fax a copy to EMC.



August 14, 2003

Mr. Scott Abbott  
2039 Irene Street  
Roseville, MN 55113-6648

**Consumer Letter #2 - This letter was sent to all DS-2000 end-users that have not had the update completed.**

Dear Mr. Abbott:

Electronic Mobility Controls, LLC, is conducting a Safety Recall for all DS-2000 Digital Steering Systems. This notice is being sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Our records indicate that you purchased DS-2000 S/N 1472 from Complete Mobility Systems. Included with this correspondence is a copy of the Safety Directive **SAD: 03-0001** issued by Electronic Mobility Controls. This Safety Directive outlines the reasons for this recall as well as all update requirements.

There are three important components to this recall:

- First, in accordance with the Safety Directive, all units must be returned to EMC for software and hardware updates. Your vehicle must be brought to either your original installing dealer or to another Certified EMC Dealer. These updates should take no longer than 6-7 working days. There will be no cost to you.
- Second, in addition to the return to EMC, we also require that your EMC Dealer conduct a routine inspection of the installed system. This inspection should take no longer than 1 hour and can be conducted after the DS-2000 components are updated. Again, there will be no cost to you.
- Third, within the next two weeks, EMC will forward a copy of an instructional video designed to assist you in the operation of your DS-2000 as well as an updated Owner's Manual. The video provides a summary of systems operation, outlines important safety warnings, and demonstrates all "boot-up", "boot-down", "engage", and "disengage" procedures. The Owner's Manual contains expanded operating instructions, more detailed safety warnings, more specific routine maintenance requirements, and simpler "boot-up", "boot-down", "engage", and "disengage" procedures.

Electronic Mobility Controls, LLC does recommend that you conduct all necessary routine maintenance on your DS-2000 system when it is returned for this recall. Routine Maintenance is extremely important so that your DS-2000 system will provide trouble-free operation. EMC has

outlined both factory and dealer Routine Maintenance requirements. Your dealer can contact our Service Department to verify whether or not any factory maintenance is required at this time. If it is time for either dealer or factory routine maintenance, you can discuss the maintenance costs with your dealer.

Please read this letter and the attached Safety Directive carefully. If you have any questions, we are available to assist you. Our customer service representative can be reached at (225) 927-5558 ext. 200 or you can email your questions to [sunny@emc-dig.com](mailto:sunny@emc-dig.com). As promised, you will receive your free video and Owner's Manual within the next two weeks. If you do not receive this information, please contact us immediately.

If at any time you believe that either EMC or your Certified Dealer has failed to assist you in updating your DS-2000 system according to this Safety Recall notice, or if you are charged specifically for the update referenced in the attached Safety Directive, you may submit a complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, DC 20590 or call the toll free Auto Safety Hotline at (888) 327-4236.

Thank you in advance for your patience and cooperation.

Respectfully,

Ric Raulst, Jr. P.E.  
VP of Operations



## **SAFETY DIRECTIVE**

**PRODUCT: DS-2000**

**SAD: 03-0001**

**DATE: August 12, 2003**

**SUBJECT: DS-2000 Digital Steering System Hardware and Software Updates**

1. **EFFECTIVITY**

*DS-2000 (All Units)*

2. **PURPOSE**

Electronic Mobility Controls, LLC (EMC), has created a number of safety critical hardware and software updates for the DS-2000 Digital Steering System. These updates are designed to further enhance the reliability of the DS-2000 system.

3. **BACKGROUND**

Recently, the National Highway Traffic and Safety Administration (NHTSA) conducted lengthy and extensive testing on the DS-2000 Digital Steering System manufactured by EMC. Although the testing identified no defects within the DS-2000 system, EMC has developed several hardware and software updates that can improve the reliability of the system. These updates are based on modern design criteria for safety critical systems, similar to those used in the development of the current EMC primary driving control, AEVIT. In addition to the system updates, NHTSA also made a number of recommendations for improving consumer understanding and use of the DS-2000. These recommendations are the basis for changes made to the DS-2000 Owner's Manual and for the creation of an instructional video. Both the new Owner's Manual and video will be distributed to all clients.

4. **COMPLIANCE**

**Mandatory.** To ensure the safety of our clients, we are requiring that all DS-2000 systems be returned to EMC for updates. Unless routine maintenance is required for the entire system, only the CPU and Steering Module portions of the system must be returned.

A. Inspection -- once the CPU and Steering Module components have been updated according to this Safety Directive, a qualified EMC Dealer must complete a brief inspection of the installation.

5. **MATERIAL AVAILABILITY** -- All update requirements will be handled by EMC. EMC does recommend that each dealer/consumer review the routine maintenance requirements outlined in the DS-2000 Owner's Manual to ensure that each system is current. If no auxiliary battery is installed, it can be purchased from EMC at this time.

<u>Part Number</u>	<u>Description</u>	<u>Availability</u>
AUXBAT01-12	Auxiliary Battery System	In Stock

6. **ACCOMPLISHMENT INSTRUCTIONS**

- A. Review the Routine Maintenance requirements for each DS-2000 system found in the Owner's Manual provided. If all factory routine maintenance is current, only the CPU and Steering Module must be removed from the vehicle. If factory routine maintenance is necessary, you may need to remove the Steering Servomotor portion of the system as well.
- B. Contact the EMC Service Department for a Return Authorization. Ship the unit to the service location specified by the EMC Service Department. You and your customer will determine how the system ships to EMC. Upon completion of the update, unless otherwise requested, all units will be returned to you via UPS 3-day select.
- C. Once all components have been updated and received by your company, re-install the components according to the instructions in the DS-2000 Installation Manual.
- D. Conduct all dealer maintenance outlined in the "Service Requirements" section of the DS-2000 Installation Manual. For the convenience of all dealers, a current excerpt is provided with this Safety Directive. If you are unable to locate the instructions, contact the EMC Service Department for assistance.
- E. Inspect the AUXBAT01-12 auxiliary battery connections according to the updated instructions in the AUXBAT Installation Manual. Because they were recently updated, be sure to carefully read and follow the revised instructions. An excerpt is provided with this Safety Directive. If you are unable to locate the instructions, contact the EMC Service Department for assistance.
- F. Ensure that the consumer has received and reviewed both the new DS-2000 Owner's Manual and the DS-2000 instructional video.
- G. Complete the attached Compliance Form and fax a copy to EMC.