

I. Purpose: The purpose of this document is to supply replacement information for the charger/power supply in a MCP series. Charger/power supply provided in the MCP before 1-18-00 is typically the Lambda LFS-43-28. This power supply is no longer available from the factory. The customer can attempt to get this charger directly from a Lambda dealer <http://www.lambda.com/>, or replace the Lambda, with a new improved compatible smart charger from Federal Signal. The replacement charger is Federal Signal part number 120816* and can be ordered by calling 800-524-3021. The below procedure is an instruction for replacing the old charger with the newer replacement charger.

II. Qualifications: Properly trained Technician/Electrician. Qualified to do installations.

III. Precautions: *Electricity precautions must be followed. Installer responsible for following all local code, laws and requirements.*

IV. Applicable Documents:

1. Manuals and schematics for the units, which are/will be installed.

V. Parts required:


1. Typical electrical tool set
2. New charger 120816*
3. Wire nut capable of housing 3 wires of 14ga.
4. Electrical tape

Note: parts following are only required if the unit is a two-way communications system with sensors.

5. Terminal, round - capable of being put on a 1/4" stud and for a 14ga wire.
6. Terminal, round - capable of being put on a 1/4" stud and for a 20ga wire.
7. Terminal, crimpers for the parts above

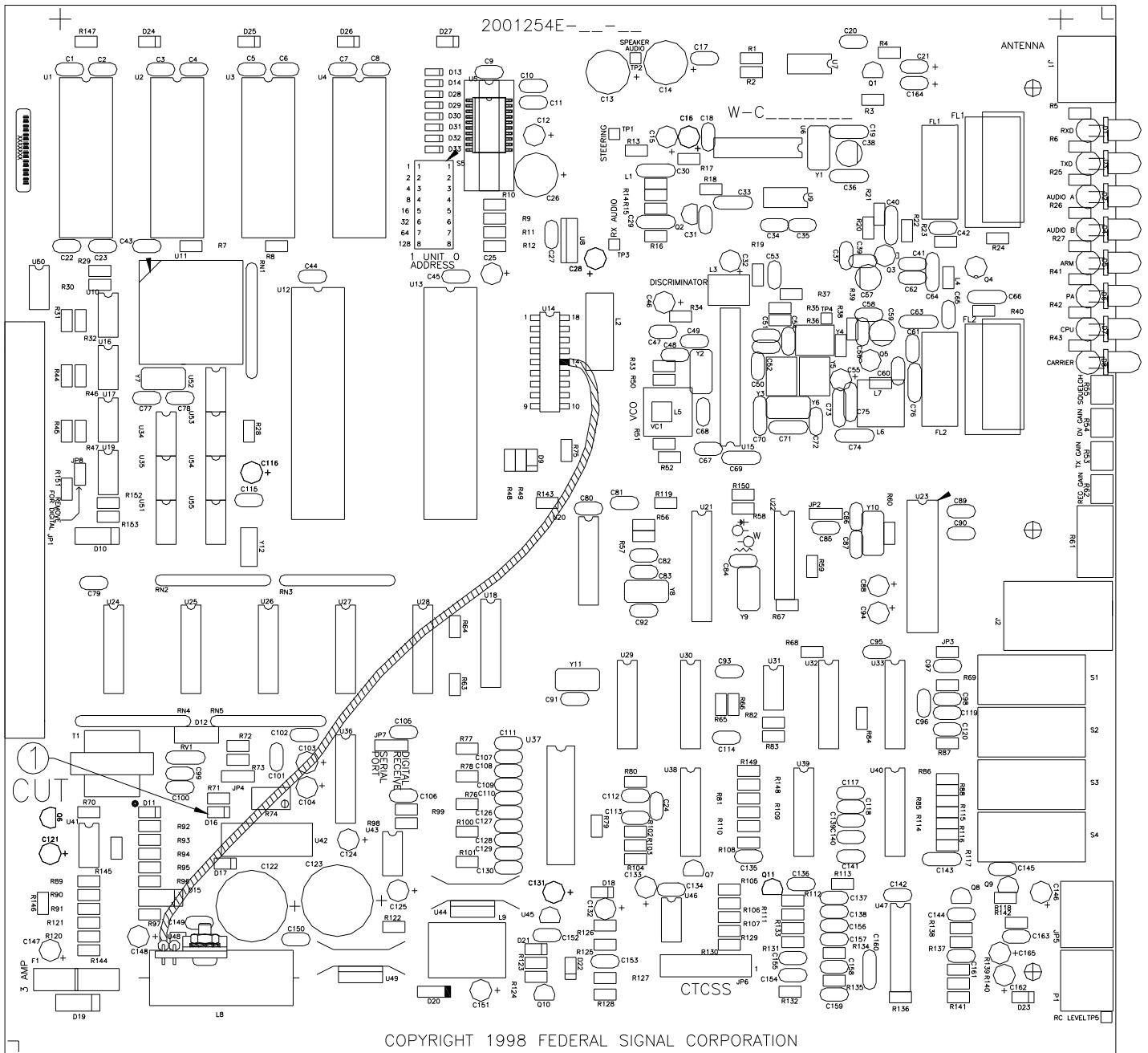
VI. Charger install:


- 1) Disconnect AC power from siren controller.
- 2) Disconnect battery power from siren controller.
- 3) Set the new 120816* charger on the center of the upper cabinet.
- 4) Remove the plug from the outlet box for the Lambda power supply.
- 5) Cut the AC plug off of the Lambda power supply so that no one uses it again.
- 6) Prepare to cut the 12VDC plug off of the new 120816* charger.
 - A) Ensure you read the following notes before cutting this wire.
 - B) The charger 12VDC output is not to be used in this configuration.
 - C) This wire will be used in a later step, so ensure that the length is maximum.
 - D) Ensure to cut only the 12VDC red wire. Do not cut the ground wire.
 - E) After the cut use electrical tape to prevent shorting.
- 7) Cut 24VDC wire off of the old Lambda power supply.
 - A) This wire is connected to the diode at the Lambda power supply.
 - B) This wire also goes through the seal tight to the 200amp fuse in the battery cabinet.
- 8) Connect 24VDC wire from the new charger to the wire cut in step 7).
 - A) Stripping the ends and twisting the wires together is an assumed step.
- 9) Connect 24VDC sensor wire from the new charger sensor + terminal lug to the wire cut in step 6).
 - A) Note: this is only required if the unit is a two-way communications system with sensors.
 - B) Use the wire that was cut off during step 6). Reason is to offer fuse protection.
 - C) Strip the wire and put a terminal, round on the end of it.
 - i) Connect this end to the new charger sensor (+) terminal lug
 - D) Connect the other end to the wire 24VDC from step 7).
- 10) Put a wire nut on the end of the 3 twisted wires to prevent from shorting
 - A) Use electrical tape around the wire nut to prevent shorting.
- 11) Connect new 120816* charger ground wire to the MCP ground terminal lug
- 12) Cut charger sense wire off of the old Lambda power supply
 - A) Note: this is only required if the unit is a two-way communications system with sensors.
- 13) Connect the charger sense wire to the new charger sensor (-) terminal
 - A) This wire was removed in step 12
 - B) Strip the wire and put a round terminal, on the end of it.
 - i) Connect this end will be connected to the new charger sensor + terminal lug
- 14) Re-connect battery power from siren controller.
- 15) Re-connect AC power from siren controller.
- 16) Plug in the new 120816* charger.

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NAME:	Upgrade The Charger In A MCP Series					DRAWING NUMBER:		P000061	

VII. Controller modification:

- 1) Remove D16 from siren controller.
- A) Must pull the controller card to see the below board.
- B) Powering down the system is not required.



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