

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
10.03	520208	3	Analogue Input 0 - pin 25-24: Voltage Above Normal, or Shorted To High Source	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting	The measured value of analogue input 0 is above the maximum allowed range. The input is most likely shorted to battery plus (high source).	<ul style="list-style-type: none"> - Check the wiring between the ECON.A and the device connected to this analog input. - Check installation and operation of the device connected. - Refer to the other reported errors to identify the affected analogue input function.
10.04	520208	4	Analogue Input 0 - pin 25-24: Voltage Below Normal, or Shorted To Low Source	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting	The measured value of analogue input 0 is below the minimum allowed range. The input is most likely shorted to ground (low source).	<ul style="list-style-type: none"> - Check the wiring between the ECON.A and the device connected to this analog input. - Check installation and operation of the device connected. - Refer to the other reported errors to identify the affected analogue input function.
10.0D	520208	13	Analogue Input 0 - pin 25-24: Out of Calibration	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Perform a calibration of the connected device.	An analogue input function that needs to be calibrated is activated on analogue input 0 and it has not been calibrated yet.	<ul style="list-style-type: none"> - Perform a calibration of the connected device. - Refer to the other reported errors to identify the affected analogue input function.
10.10	520208	16	Analogue Input 0 - pin 25-24: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Perform a calibration of the connected device.	The measured value of analogue input 0 has exceeded the maximum calibrated value. Either the device is faulty or there is a problem with the installation of it.	<ul style="list-style-type: none"> - Check for installation problems of the connected device. - Perform a calibration of the connected device. - Refer to the other reported errors to identify the affected analogue input function.
10.12	520208	18	Analogue Input 0 - pin 25-24: Data Valid but Below Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Perform a calibration of the connected device.	The measured value of analogue input 0 has dropped below the minimum calibrated value. Either the device is faulty or there is a problem with the installation of it.	<ul style="list-style-type: none"> - Check for installation problems of the connected device. - Perform a calibration of the connected device. - Refer to the other reported errors to identify the affected analogue input function.
11.03	520209	3	Analogue Input 1 - pin 27-26: Voltage Above Normal, or Shorted To High Source	ECON.A will continue normal operation, or, in some cases, the ECON.A will revert to transmission shutdown mode. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input functions.	Contact maintenance for troubleshooting	The measured value of analogue input 1 is above the maximum allowed range. The input is most likely shorted to battery plus (high source).	<ul style="list-style-type: none"> - Check the wiring between the ECON.A and the device connected to this analog input. - Check installation and operation of the device connected. - Refer to the other reported errors to identify the affected analogue input function.
11.04	520209	4	Analogue Input 1 - pin 27-26: Voltage Below Normal, or Shorted To Low Source	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting	The measured value of analogue input 1 is below the minimum allowed range. The input is most likely shorted to ground (low source).	<ul style="list-style-type: none"> - Check the wiring between the ECON.A and the device connected to this analog input. - Check installation and operation of the device connected. - Refer to the other reported errors to identify the affected analogue input function.
11.0D	520209	13	Analogue Input 1 - pin 27-26: Out of Calibration	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Perform a calibration of the connected device.	An analogue input function that needs to be calibrated is activated on analogue input 1 and it has not been calibrated yet.	<ul style="list-style-type: none"> - Perform a calibration of the connected device. - Refer to the other reported errors to identify the affected analogue input function.
11.10	520209	16	Analogue Input 1 - pin 27-26: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Perform a calibration of the connected device.	The measured value of analogue input 1 has exceeded the maximum calibrated value. Either the device is faulty or there is a problem with the installation of it.	<ul style="list-style-type: none"> - Check for installation problems of the connected device. - Perform a calibration of the connected device. - Refer to the other reported errors to identify the affected analogue input function.
11.12	520209	18	Analogue Input 1 - pin 27-26: Data Valid but Below Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Perform a calibration of the connected device.	The measured value of analogue input 1 has dropped below the minimum calibrated value. Either the device is faulty or there is a problem with the installation of it.	<ul style="list-style-type: none"> - Check for installation problems of the connected device. - Perform a calibration of the connected device. - Refer to the other reported errors to identify the affected analogue input function.
12.03	520210	3	Analogue Input 2 - pin 29-28: Voltage Above Normal, or Shorted To High Source	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting	The measured value of analogue input 2 is above the maximum allowed range. The input is most likely shorted to battery plus (high source).	<ul style="list-style-type: none"> - Check the wiring between the ECON.A and the device connected to this analog input. - Check installation and operation of the device connected. - Refer to the other reported errors to identify the affected analogue input function.
12.04	520210	4	Analogue Input 2 - pin 29-28: Voltage Below Normal, or Shorted To Low Source	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting	The measured value of analogue input 2 is below the minimum allowed range. The input is most likely shorted to ground (low source).	<ul style="list-style-type: none"> - Check the wiring between the ECON.A and the device connected to this analog input. - Check installation and operation of the device connected. - Refer to the other reported errors to identify the affected analogue input function.

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12.0D	520210	13	Analogue Input 2 - pin 29-28: Out of Calibration	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Perform a calibration of the connected device.	An analogue input function that needs to be calibrated is activated on analogue input 2 and it has not been calibrated yet.	<ul style="list-style-type: none"> - Perform a calibration of the connected device. - Refer to the other reported errors to identify the affected analogue input function.
12.10	520210	16	Analogue Input 2 - pin 29-28: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Perform a calibration of the connected device.	The measured value of analogue input 2 has exceeded the maximum calibrated value. Either the device is faulty or there is a problem with the installation of it.	<ul style="list-style-type: none"> - Check for installation problems of the connected device. - Perform a calibration of the connected device. - Refer to the other reported errors to identify the affected analogue input function.
12.12	520210	18	Analogue Input 2 - pin 29-28: Data Valid but Below Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Perform a calibration of the connected device.	The measured value of analogue input 2 has dropped below the minimum calibrated value. Either the device is faulty or there is a problem with the installation of it.	<ul style="list-style-type: none"> - Check for installation problems of the connected device. - Perform a calibration of the connected device. - Refer to the other reported errors to identify the affected analogue input function.
13.03	520211	3	Analogue Input 3 - pin 14-13: Voltage Above Normal, or Shorted To High Source	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting	The measured value of analogue input 3 is above the maximum allowed range. The input is most likely shorted to battery plus (high source).	<ul style="list-style-type: none"> - Check the wiring between the ECON.A and the device connected to this analog input. - Check installation and operation of the device connected. - Refer to the other reported errors to identify the affected analogue input function.
13.04	520211	4	Analogue Input 3 - pin 14-13: Voltage Below Normal, or Shorted To Low Source	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting	The measured value of analogue input 3 is below the minimum allowed range. The input is most likely shorted to ground (low source).	<ul style="list-style-type: none"> - Check the wiring between the ECON.A and the device connected to this analog input. - Check installation and operation of the device connected. - Refer to the other reported errors to identify the affected analogue input function.
13.0D	520211	13	Analogue Input 3 - pin 14-13: Out of Calibration	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Perform a calibration of the connected device.	An analogue input function that needs to be calibrated is activated on analogue input 3 and it has not been calibrated yet.	<ul style="list-style-type: none"> - Perform a calibration of the connected device. - Refer to the other reported errors to identify the affected analogue input function.
13.10	520211	16	Analogue Input 3 - pin 14-13: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Perform a calibration of the connected device.	The measured value of analogue input 3 has exceeded the maximum calibrated value. Either the device is faulty or there is a problem with the installation of it.	<ul style="list-style-type: none"> - Check for installation problems of the connected device. - Perform a calibration of the connected device. - Refer to the other reported errors to identify the affected analogue input function.
13.12	520211	18	Analogue Input 3 - pin 14-13: Data Valid but Below Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Perform a calibration of the connected device.	The measured value of analogue input 3 has dropped below the minimum calibrated value. Either the device is faulty or there is a problem with the installation of it.	<ul style="list-style-type: none"> - Check for installation problems of the connected device. - Perform a calibration of the connected device. - Refer to the other reported errors to identify the affected analogue input function.
1A.05	520218	5	Speed Input 0 - pin 10-09: Current Below Normal, or Open Circuit, or Shorted to Battery+	ECON.A may revert to transmission shutdown mode if the assigned speed signal has a critical function. When the vehiclespeed is low enough, this may alter to transmission limphome mode : the vehicle will be stuck in neutral ; ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible.	The measured current in the speed sensor circuit is below normal. The input most likely has a loose connection or it is shorted to battery plus (high source).	<ul style="list-style-type: none"> - Check the wiring between the ECON.A and the sensor connected to this speed input. - Check installation and operation of the connected sensor. - Refer to the other reported errors to identify the affected speed function.
1A.06	520218	6	Speed Input 0 - pin 10-09: Current Above Normal, or Grounded Circuit	ECON.A may revert to transmission shutdown mode if the assigned speed signal has a critical function. When the vehiclespeed is low enough, this may alter to transmission limphome mode : the vehicle will be stuck in neutral ; ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible.	The measured current in the speed sensor circuit is above normal. The input is most likely shorted to ground (low source).	<ul style="list-style-type: none"> - Check the wiring between the ECON.A and the sensor connected to this speed input. - Check installation and operation of the connected sensor. - Refer to the other reported errors to identify the affected speed function.

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1A.0A	520218	10	Speed Input 0 - pin 10-09: Abnormal Rate of Change	ECON.A may revert to transmission shutdown mode if the assigned speed signal has a critical function. When the vehiclespeed is low enough, this may alter to transmission limphome mode : the vehicle will be stuck in neutral ; ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible.	No fault detected in the electrical connection of the speed sensor circuit, but an abnormal speed signal behaviour was detected. With inductive speed sensors this can still be a wiring fault, with all types of sensors this can be a mechanical installation problem.	- Check the wiring between the ECON.A and the sensor connected to this speed input. - Check installation and operation of the connected sensor. - Refer to the other reported errors to identify the affected speed function.
1B.05	520219	5	Speed Input 1 - pin 12-11: Current Below Normal, or Open Circuit, or Shorted to Battery+	ECON.A may revert to transmission shutdown mode if the assigned speed signal has a critical function. When the vehiclespeed is low enough, this may alter to transmission limphome mode : the vehicle will be stuck in neutral ; ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible.	The measured current in the speed sensor circuit is below normal. The input most likely has a loose connection or it is shorted to battery plus (high source).	- Check the wiring between the ECON.A and the sensor connected to this speed input. - Check installation and operation of the connected sensor. - Refer to the other reported errors to identify the affected speed function.
1B.06	520219	6	Speed Input 1 - pin 12-11: Current Above Normal, or Grounded Circuit	ECON.A may revert to transmission shutdown mode if the assigned speed signal has a critical function. When the vehiclespeed is low enough, this may alter to transmission limphome mode : the vehicle will be stuck in neutral ; ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible.	The measured current in the speed sensor circuit is above normal. The input is most likely shorted to ground (low source).	- Check the wiring between the ECON.A and the sensor connected to this speed input. - Check installation and operation of the connected sensor. - Refer to the other reported errors to identify the affected speed function.
1B.0A	520219	10	Speed Input 1 - pin 12-11: Abnormal Rate of Change	ECON.A may revert to transmission shutdown mode if the assigned speed signal has a critical function. When the vehiclespeed is low enough, this may alter to transmission limphome mode : the vehicle will be stuck in neutral ; ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible.	No fault detected in the electrical connection of the speed sensor circuit, but an abnormal speed signal behaviour was detected. With inductive speed sensors this can still be a wiring fault, with all types of sensors this can be a mechanical installation problem.	- Check the wiring between the ECON.A and the sensor connected to this speed input. - Check installation and operation of the connected sensor. - Refer to the other reported errors to identify the affected speed function.
20.03	520224	3	Power Output 0 - pin 33-34: Voltage Above Normal, or Shorted To High Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 0 detected the output is most likely shorted to battery plus (high source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
20.04	520224	4	Power Output 0 - pin 33-34: Voltage Below Normal, or Shorted To Low Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 0 detected the output is most likely shorted to ground (low source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
20.05	520224	5	Power Output 0 - pin 33-34: Current Below Normal, or Open Circuit, or Shorted to Battery+	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 0 detected the output is most likely in open circuit (loose connection).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.

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21.03	520225	3	Power Output 1 - pin 31-32: Voltage Above Normal, or Shorted To High Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 1 detected the output is most likely shorted to battery plus (high source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
21.04	520225	4	Power Output 1 - pin 31-32: Voltage Below Normal, or Shorted To Low Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 1 detected the output is most likely shorted to ground (low source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
21.05	520225	5	Power Output 1 - pin 31-32: Current Below Normal, or Open Circuit, or Shorted to Battery+	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 1 detected the output is most likely in open circuit (loose connection).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
22.03	520226	3	Power Output 2 - pin 48-49: Voltage Above Normal, or Shorted To High Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 2 detected the output is most likely shorted to battery plus (high source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
22.04	520226	4	Power Output 2 - pin 48-49: Voltage Below Normal, or Shorted To Low Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 2 detected the output is most likely shorted to ground (low source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
22.05	520226	5	Power Output 2 - pin 48-49: Current Below Normal, or Open Circuit, or Shorted to Battery+	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 2 detected the output is most likely in open circuit (loose connection).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
23.03	520227	3	Power Output 3 - pin 18-19: Voltage Above Normal, or Shorted To High Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 3 detected the output is most likely shorted to battery plus (high source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.

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23.04	520227	4	Power Output 3 - pin 18-19: Voltage Below Normal, or Shorted To Low Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 3 detected the output is most likely shorted to ground (low source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
23.05	520227	5	Power Output 3 - pin 18-19: Current Below Normal, or Open Circuit, or Shorted to Battery+	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 3 detected the output is most likely in open circuit (loose connection).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
24.03	520228	3	Power Output 4 - pin 46-47: Voltage Above Normal, or Shorted To High Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 3 detected the output is most likely shorted to battery plus (high source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
24.04	520228	4	Power Output 4 - pin 46-47: Voltage Below Normal, or Shorted To Low Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 4 detected the output is most likely shorted to ground (low source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
24.05	520228	5	Power Output 4 - pin 46-47: Current Below Normal, or Open Circuit, or Shorted to Battery+	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 4 detected the output is most likely in open circuit (loose connection).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
25.03	520229	3	Power Output 5 - pin 17-16: Voltage Above Normal, or Shorted To High Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 5 detected the output is most likely shorted to battery plus (high source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
25.04	520229	4	Power Output 5 - pin 17-16: Voltage Below Normal, or Shorted To Low Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 5 detected the output is most likely shorted to ground (low source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
25.05	520229	5	Power Output 5 - pin 17-16: Current Below Normal, or Open Circuit, or Shorted to Battery+	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 5 detected the output is most likely in open circuit (loose connection).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
26.03	520230	3	Power Output 6 - pin 35-50: Voltage Above Normal, or Shorted To High Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 6 detected the output is most likely shorted to battery plus (high source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
26.04	520230	4	Power Output 6 - pin 35-50: Voltage Below Normal, or Shorted To Low Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 6 detected the output is most likely shorted to ground (low source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
26.05	520230	5	Power Output 6 - pin 35-50: Current Below Normal, or Open Circuit, or Shorted to Battery+	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 6 detected the output is most likely in open circuit (loose connection).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
27.03	520231	3	Power Output 7 - pin 01-02: Voltage Above Normal, or Shorted To High Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 7 detected the output is most likely shorted to battery plus (high source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
27.04	520231	4	Power Output 7 - pin 01-02: Voltage Below Normal, or Shorted To Low Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 7 detected the output is most likely shorted to ground (low source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
27.05	520231	5	Power Output 7 - pin 01-02: Current Below Normal, or Open Circuit, or Shorted to Battery+	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limp mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 7 detected the output is most likely in open circuit (loose connection).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
27.06	520231	6	Power Output 7 - pin 01-02: Current Above Normal, or Grounded Circuit	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 7 detected the output is most likely in open circuit (loose connection).	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
28.03	520232	3	Power Output 8 - pin 03-04: Voltage Above Normal, or Shorted To High Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 8 detected the output is most likely shorted to battery plus (high source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
28.04	520232	4	Power Output 8 - pin 03-04: Voltage Below Normal, or Shorted To Low Source	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 8 detected the output is most likely shorted to ground (low source).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
28.05	520232	5	Power Output 8 - pin 03-04: Current Below Normal, or Open Circuit, or Shorted to Battery+	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 8 detected the output is most likely in open circuit (loose connection).	- Check the wiring between the ECON.A and the device connected to this power output. - Check installation and operation of the connected actuator.
28.06	520232	6	Power Output 8 - pin 03-04: Current Above Normal, or Grounded Circuit	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode .	Dynamic checking by the ECON.A of power output 8 detected the output is most likely in open circuit (loose connection).	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
30.09	520240	9	Digital Input Function: Declutch: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function declutch not received within the expected timeframe.	- Check if CAN message containing the digital input function declutch value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
30.13	520240	19	Digital Input Function: Declutch: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function declutch received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function declutch for requesting a valid value.
31.09	520241	9	Digital Input Function: Automatic/Manual Shift: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Automatic/Manual Shift not received within the expected timeframe.	- Check if CAN message containing the digital input function Automatic/Manual Shift value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
31.13	520241	19	Digital Input Function: Automatic/Manual Shift: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Automatic/Manual Shift received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Automatic/Manual Shift for requesting a valid value.

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
32.09	520242	9	Digital Input Function: Kickdown: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Kickdown not received within the expected timeframe.	- Check if CAN message containing the digital input function Kickdown value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
32.13	520242	19	Digital Input Function: Kickdown: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Kickdown received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Kickdown for requesting a valid value.
33.09	520243	9	Digital Input Function: Neutral Lock Reset: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Neutral Lock Reset not received within the expected timeframe.	- Check if CAN message containing the digital input function Neutral Lock value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
33.13	520243	19	Digital Input Function: Neutral Lock Reset: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Neutral Lock Reset received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Neutral Lock for requesting a valid value.
34.02	520244	2	Digital Input Function: Throttle Pedal Idle Position: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	With a digital throttle idle and throttle full signal wired to the ECON.A, both signals are recognised as active on the same time.	Check the wiring between the ECON.A and the connected digital throttle pedal signals. Check installation and operation of the connected digital input signals.
34.09	520244	9	Digital Input Function: Throttle Pedal Idle Position: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Throttle Idle not received within the expected timeframe.	- Check if CAN message containing the digital input function Throttle Idle value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
34.13	520244	19	Digital Input Function: Throttle Pedal Idle Position: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Throttle Idle received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Throttle Idle for requesting a valid value.
35.02	520245	2	Digital Input Function: Throttle Pedal Full Position: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	With a digital throttle idle and throttle full signal wired to the ECON.A, both signals are recognised as active on the same time.	Check the wiring between the ECON.A and the connected digital throttle pedal signals. Check installation and operation of the connected digital input signals.
35.09	520245	9	Digital Input Function: Throttle Pedal Full Position: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Throttle Full not received within the expected timeframe.	- Check if CAN message containing the digital input function Throttle Full value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
35.13	520245	19	Digital Input Function: Throttle Pedal Full Position: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Throttle Full received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Throttle Full for requesting a valid value.
39.09	520249	9	Digital Input Function: Parking Brake: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Parking Brake not received within the expected timeframe.	- Check if CAN message containing the digital input function Parking Brake value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
39.13	520249	19	Digital Input Function: Parking Brake: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Parking Brake received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Parking Brake for requesting a valid value.
3A.09	520250	9	Digital Input Function: Loaded/Not loaded: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Loaded/Not Loaded not received within the expected timeframe.	- Check if CAN message containing the digital input function Start in 1st/2nd value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
3A.13	520250	19	Digital Input Function: Loaded/Not loaded: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Loaded/Not Loaded received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Start in 1st/2nd for requesting a valid value.

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
3B.09	520251	9	Digital Input Function: Disconnect (4WD/2WD): Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Disconnect (4WD/2WD) not received within the expected timeframe.	- Check if CAN message containing the digital input function Disconnect value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
3B.13	520251	19	Digital Input Function: Disconnect (4WD/2WD): Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Disconnect (4WD/2WD) received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Disconnect for requesting a valid value.
3C.09	520252	9	Digital Input Function: High/Low Range: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function High/Low Range not received within the expected timeframe.	- Check if CAN message containing the digital input function Low/High Speed Reduction value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
3C.13	520252	19	Digital Input Function: High/Low Range: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function High/Low Range received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Low/High Speed Reduction for requesting a valid value.
3D.09	520253	9	Digital Input Function: Redundant Neutral: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Redundant Neutral not received within the expected timeframe.	- Check if CAN message containing the digital input function Redundant Neutral value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
3D.13	520253	19	Digital Input Function: Redundant Neutral: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Redundant Neutral received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Redundant Neutral for requesting a valid value.
3E.01	520254	1	Digital Input Function: System Pressure: Data Valid but Below Normal Operational Range - Most Severe	ECON.A will continue normal operation. Low system pressure can result in reduced vehicle performance (slipping clutches) and continuing normal vehicle operation can permanently damage the transmission.	Contact maintenance for troubleshooting	The digital input function System Pressure indicated there is no system pressure present (or low value) while the application expects to have normal pressure value.	Check oil level. Check functioning of system pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem
3E.09	520254	9	Digital Input Function: System Pressure: Abnormal Update Rate	ECON.A will continue normal operation. Low system pressure can result in reduced vehicle performance (slipping clutches) and continuing normal vehicle operation can permanently damage the transmission.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function System Pressure not received within the expected timeframe.	- Check if CAN message containing the digital input function System Pressure value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
3E.13	520254	19	Digital Input Function: System Pressure: Received Network Data in Error	ECON.A will continue normal operation. Low system pressure can result in reduced vehicle performance (slipping clutches) and continuing normal vehicle operation can permanently damage the transmission.	Contact maintenance for troubleshooting	The expected value for the digital input function System Pressure received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function System Pressure for requesting a valid value.
3F.09	520255	9	Digital Input Function: Brake Pedal Pressed: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Brake Pedal Pressed not received within the expected timeframe.	- Check if CAN message containing the digital input function Brake Pedal Pressed value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
3F.13	520255	19	Digital Input Function: Brake Pedal Pressed: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Brake Pedal Pressed received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Brake Pedal Pressed for requesting a valid value.
40.09	520256	9	Digital Input Function: Operator Presence: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Operator Presence not received within the expected timeframe.	- Check if CAN message containing the digital input function Operator Present value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
40.13	520256	19	Digital Input Function: Operator Presence: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Operator Presence received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Operator Present for requesting a valid value.

ERROR CODE			TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939							
	SPN	FMI						
41.09	520257	9		Digital Input Function: Seat Orientation: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Seat Orientation not received within the expected timeframe.	- Check if CAN message containing the digital input function Seat Orientation value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
41.13	520257	19		Digital Input Function: Seat Orientation: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Seat Orientation received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Seat Orientation for requesting a valid value.
42.09	520258	9		Digital Input Function: Inhibit Shifting: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Inhibit shift not received within the expected timeframe.	Check if CAN message containing the digital input function Inhibit shift value is sent correctly on the CAN bus. Check if the repetition rate of the CAN message is fast enough.
42.13	520258	19		Digital Input Function: Inhibit Shifting: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Inhibit shift received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function Inhibit shift for requesting a valid value.
44.00	520260	0		Digital Input Function: Oil Temperature: Data Valid but Above Normal Operational Range - Most Severe	ECON.A will continue normal operation. High oil temperature may result in reduced vehicle performance and continuing normal vehicle operation can permanently damage the transmission (oil and/or clutch burning).	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Oil Temperature not received within the expected timeframe.	Check if CAN message containing the digital input function oil temperature value is sent correctly on the CAN bus. Check if the repetition rate of the CAN message is fast enough.
44.09	520260	9		Digital Input Function: Oil Temperature: Abnormal Update Rate	ECON.A will continue normal operation. High oil temperature may result in reduced vehicle performance and continuing normal vehicle operation can permanently damage the transmission (oil and/or clutch burning).	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Oil Temperature not received within the expected timeframe.	Check the source signal from the CAN message containing the digital input function oil temperature for requesting a valid value.
44.13	520260	19		Digital Input Function: Oil Temperature: Received Network Data in Error	ECON.A will continue normal operation. High oil temperature may result in reduced vehicle performance and continuing normal vehicle operation can permanently damage the transmission (oil and/or clutch burning).	Contact maintenance for troubleshooting	The expected value for the digital input function Oil Temperature received by the corresponding CAN message contains an invalid or unavailable value.	refer to the other reported errors to get more information about the nature of the configuration problem solve the configuration problem by activating a working configuration or manually correcting the faulty one
45.09	520261	9		Digital Input Function: Lock Up Enable: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Lockup Enable not received within the expected timeframe.	Check if CAN message containing the digital input function lockup enable value is sent correctly on the CAN bus. Check if the repetition rate of the CAN message is fast enough.
45.13	520261	19		Digital Input Function: Lock Up Enable: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Lockup Enable received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function lockup enable for requesting a valid value.
46.09	520262	9		Digital Input Function: Exhaust Brake: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Exhaust Brake not received within the expected timeframe.	Check if CAN message containing the digital input function exhaust brake value is sent correctly on the CAN bus. Check if the repetition rate of the CAN message is fast enough.
46.13	520262	19		Digital Input Function: Exhaust Brake: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Exhaust Brake received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function exhaust brake for requesting a valid value.
47.09	520263	9		Digital Input Function: Retarder Brake: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Retarder Brake not received within the expected timeframe.	Check if CAN message containing the digital input function retarder brake value is sent correctly on the CAN bus. Check if the repetition rate of the CAN message is fast enough.
47.13	520263	19		Digital Input Function: Retarder Brake: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Retarder Brake received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function retarder brake for requesting a valid value.
48.09	520264	9		Digital Input Function: High Idle: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function High Idle not received within the expected timeframe.	Check if CAN message containing the digital input function high idle value is sent correctly on the CAN bus. Check if the repetition rate of the CAN message is fast enough.

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
48.13	520264	19	Digital Input Function: High Idle: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function High Idle received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function high idle for requesting a valid value.
54.02	520276	2	Limit Gear Position: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	During initialization of the ECON.A a configuration problem is detected related to the digital input function Limit Gearpos.	Check the wiring between the ECON.A and the connected digital limit gearpos signals. Check installation and operation of the connected digital input signals.
54.09	520276	9	Limit Gear Position: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function Limit gearpos not received within the expected timeframe.	Check the source signal from the CAN message containing the digital input function limit gearpos for requesting a valid value.
54.13	520276	19	Limit Gear Position: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function Limit Gearpos received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function limit gearpos for requesting a valid value.
55.02	520277	2	Digital Input Function: Custom Function 1: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	With the digital input function connected to the ECON.A, an incorrect behaviour of this function is noticed.	Check the wiring between the ECON.A and the connected digital input function signals. Check installation and operation of the connected digital input signals.
55.09	520277	9	Digital Input Function: Custom Function 1: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function, assigned to the Custom Function 1, received within the expected timeframe.	Check the source signal from the CAN message containing the digital input function assigned to custom function 1 for requesting a valid value.
55.13	520277	19	Digital Input Function: Custom Function 1: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function, assigned to the Custom Function 1, received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function assigned to custom function 1 for requesting a valid value.
56.02	520278	2	Digital Input Function: Custom Function 2: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	With the digital input function connected to the ECON.A, an incorrect behaviour of this function is noticed.	Check the wiring between the ECON.A and the connected digital input function signals. Check installation and operation of the connected digital input signals.
56.09	520278	9	Digital Input Function: Custom Function 2: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function, assigned to the Custom Function 2, received within the expected timeframe.	Check the source signal from the CAN message containing the digital input function assigned to custom function 2 for requesting a valid value.
56.13	520278	19	Digital Input Function: Custom Function 2: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function, assigned to the Custom Function 2, received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function assigned to custom function 2 for requesting a valid value.
57.02	520279	2	Digital Input Function: Custom Function 3: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	With the digital input function connected to the ECON.A, an incorrect behaviour of this function is noticed.	Check the wiring between the ECON.A and the connected digital input function signals. Check installation and operation of the connected digital input signals.
57.09	520279	9	Digital Input Function: Custom Function 3: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function, assigned to the Custom Function 3, received within the expected timeframe.	Check the source signal from the CAN message containing the digital input function assigned to custom function 3 for requesting a valid value.
57.13	520279	19	Digital Input Function: Custom Function 3: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function, assigned to the Custom Function 3, received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function assigned to custom function 3 for requesting a valid value.
58.02	520280	2	Digital Input Function: Custom Function 4: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	With the digital input function connected to the ECON.A, an incorrect behaviour of this function is noticed.	Check the wiring between the ECON.A and the connected digital input function signals. Check installation and operation of the connected digital input signals.
58.09	520280	9	Digital Input Function: Custom Function 4: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function, assigned to the Custom Function 4, received within the expected timeframe.	Check the source signal from the CAN message containing the digital input function assigned to custom function 4 for requesting a valid value.

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
5D.13	520285	19	Digital Input Function: Custom Function 9: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function, assigned to the Custom Function 9, received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function assigned to custom function 9 for requesting a valid value.
5E.02	520286	2	Digital Input Function: Custom Function 10: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	With the digital input function connected to the ECON.A, an incorrect behaviour of this function is noticed.	Check the wiring between the ECON.A and the connected digital input function signals. Check installation and operation of the connected digital input signals.
5E.09	520286	9	Digital Input Function: Custom Function 10: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	CAN message containing value for the digital input function, assigned to the Custom Function 10, received within the expected timeframe.	Check the source signal from the CAN message containing the digital input function assigned to custom function 10 for requesting a valid value.
5E.13	520286	19	Digital Input Function: Custom Function 10: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting	The expected value for the digital input function, assigned to the Custom Function 10, received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the digital input function assigned to custom function 10 for requesting a valid value.
5F.02	520287	2	Shiftablever: Data Erratic, Intermittent, or Incorrect	ECON.A will revert to transmission shutdown mode, when the vehiclespeed is low enough, this will alter to transmission limp mode. As a consequence the vehicle will be stuck in neutral while the fault persists. When the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted.	Contact maintenance for troubleshooting. Driver can still operate the vehicle in transmission limp mode (reduced vehicle operation). Driver cannot operate the vehicle in transmission shutdown mode.	With a shiftablever wired to the ECON.A, an undefined input pattern is detected on the relevant inputs.	Check the wiring between the ECON.A and the connected shiftablever signals. Check installation and operation of the connected digital input signals.
5F.09	520287	9	Shiftablever: Abnormal Update Rate	ECON.A will revert to transmission shutdown mode, when the vehiclespeed is low enough, this will alter to transmission limp mode. As a consequence the vehicle will be stuck in neutral while the fault persists. When the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted.	Contact maintenance for troubleshooting. Driver can still operate the vehicle in transmission limp mode (reduced vehicle operation). Driver cannot operate the vehicle in transmission shutdown mode.	CAN message containing value for the shiftablever function not received within the expected timeframe.	- Check if CAN message containing the shiftablever function value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
5F.13	520287	19	Shiftablever: Received Network Data in Error	ECON.A will revert to transmission shutdown mode, when the vehiclespeed is low enough, this will alter to transmission limp mode. As a consequence the vehicle will be stuck in neutral while the fault persists. When the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted.	Contact maintenance for troubleshooting. Driver can still operate the vehicle in transmission limp mode (reduced vehicle operation). Driver cannot operate the vehicle in transmission shutdown mode.	The expected value for the shiftablever function received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the shiftablever function for requesting a valid value.
60.02	520288	2	Analogue Input Function: Throttle Pedal: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting	With the Throttle Pedal signal wired to the ECON.A, an electrical problem is detected. The ECON.A can not determine the Throttle Pedal signal value.	- refer to the other reported errors to get more information about the electrical problem - Check the wiring between the ECON.A and the throttle pedal sensor on the relevant analog input. - Check installation and operation of the sensor connected.
60.09	520288	9	Analogue Input Function: Throttle Pedal: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting	CAN message containing value for the Throttle Pedal function not received within the expected timeframe.	- Check if CAN message containing the Throttle Pedal function value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
60.13	520288	19	Analogue Input Function: Throttle Pedal: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting	The expected value for the Throttle Pedal function received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the Throttle Pedal function for requesting a valid value.
61.02	520289	2	Analogue Input Function: Brake Pedal: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting	With the Brake Pedal signal wired to the ECON.A, an electrical problem is detected. Therefore the ECON.A can not determine the Brake Pedal signal value.	- refer to the other reported errors to get more information about the electrical problem - Check the wiring between the ECON.A and the Brake Pedal sensor on the relevant analog input. - Check installation and operation of the sensor connected.
61.09	520289	9	Analogue Input Function: Brake Pedal: Abnormal Update Rate	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting	CAN message containing value for the Brake Pedal function not received within the expected timeframe.	- Check if CAN message containing the Brake Pedal function value is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
61.13	520289	19	Analogue Input Function: Brake Pedal: Received Network Data in Error	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting	The expected value for the Brake Pedal function received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the Brake Pedal function for requesting a valid value.
62.00	520290	0	Analogue Input Function: Transmission Sump Temperature: Data Valid but Above Normal Operational Range - Most Severe	ECON.A will revert to neutral direction. As a consequence the vehicle will be stuck in neutral while the fault persists. When the fault disappears, neutral has to be selected first, in order to select a new direction.	Immediately decrease intensity of use of vehicle until fault disappears to avoid permanent damage to the transmission. If the fault does not disappear, contact maintenance for troubleshooting.	Transmission Sump Temperature exceeded the alarm limit for some time, probably due to extremely intensive usage of the vehicle or to a problem with the hydraulic cooling unit, possibly in combination with high temperature climate	- probably no servicing action needed, just temporary reduction of vehicle usage intensity to allow transmission to cool down. - if problem persists, Check functioning of transmission cooler.
62.02	520290	2	Analogue Input Function: Transmission Sump Temperature: Data Erratic, Intermittent, or Incorrect	ECON.A will revert to neutral direction. As a consequence the vehicle will be stuck in neutral while the fault persists. When the fault disappears, neutral has to be selected first, in order to select a new direction.	Contact maintenance for troubleshooting	With the Transmission Sump Temperature signal wired to the ECON.A, an electrical problem is detected. Therefore the ECON.A can not determine the Transmission Sump Temperature signal value.	- refer to the other reported errors to get more information about the electrical problem - Check the wiring between the ECON.A and the Transmission Sump Temperature sensor on the relevant analog input. - Check installation and operation of the sensor connected.
62.10	520290	16	Analogue Input Function: Transmission Sump Temperature: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. This is just a warning indication.	Decrease intensity of use of vehicle until warning disappears. If the warning does not disappear, contact maintenance for troubleshooting.	Transmission Sump Temperature exceeded the warning limit for some time, probably due to extremely intensive usage of the vehicle or to a problem with the hydraulic cooling unit, possibly in combination with high temperature climate	- probably no servicing action needed, just temporary reduction of vehicle usage intensity to allow transmission to cool down. - if problem persists, Check functioning of transmission cooler.
63.00	520291	0	Analogue Input Function: Transmission Cooler In Temperature: Data Valid but Above Normal Operational Range - Most Severe	ECON.A will revert to neutral direction. As a consequence the vehicle will be stuck in neutral while the fault persists. When the fault disappears, neutral has to be selected first, in order to select a new direction.	Immediately decrease intensity of use of vehicle until fault disappears to avoid permanent damage to the transmission. If the fault does not disappear, contact maintenance for troubleshooting.	Transmission Cooler In Temperature exceeded the alarm limit, probably due to extremely intensive usage of the vehicle or to a problem with the hydraulic cooling unit, possibly in combination with high temperature climate	- probably no servicing action needed, just temporary reduction of vehicle usage intensity to allow transmission to cool down. - if problem persists, Check functioning of transmission cooler.
63.02	520291	2	Analogue Input Function: Transmission Cooler In Temperature: Data Erratic, Intermittent, or Incorrect	ECON.A will revert to neutral direction. As a consequence the vehicle will be stuck in neutral while the fault persists. When the fault disappears, neutral has to be selected first, in order to select a new direction.	Contact maintenance for troubleshooting	With the Transmission Cooler In Temperature signal wired to the ECON.A, an electrical problem is detected. Therefore the ECON.A can not determine the Transmission Cooler In Temperature signal value.	- refer to the other reported errors to get more information about the electrical problem - Check the wiring between the ECON.A and the Transmission Cooler In Temperature sensor on the relevant analog input. - Check installation and operation of the sensor connected.
63.10	520291	16	Analogue Input Function: Transmission Cooler In Temperature: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. This is a warning indication. High oil temperature may result in reduced vehicle performance and continuing normal vehicle operation can permanently damage the transmission (oil and/or clutch burning).	Decrease intensity of use of vehicle until warning disappears. If the warning does not disappear, contact maintenance for troubleshooting.	Transmission Cooler In Temperature exceeded the warning limit, probably due to extremely intensive usage of the vehicle or to a problem with the hydraulic cooling unit, possibly in combination with high temperature climate	- probably no servicing action needed, just temporary reduction of vehicle usage intensity to allow transmission to cool down. - if problem persists, check functioning of transmission cooler.
65.01	520293	1	Analogue Input Function: System Pressure: Data Valid but Below Normal Operational Range - Most Severe	ECON.A will continue normal operation. Low system pressure can result in reduced vehicle performance (slipping clutches) and continuing normal vehicle operation can permanently damage the transmission.	Immediately decrease use of vehicle until fault disappears to avoid permanent damage to the transmission. If the fault does not disappear, contact maintenance for troubleshooting as soon as possible	System Pressure dropped below the alarm limit while the application expects to have normal pressure value.	Check oil level. Check functioning of system pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem
65.02	520293	2	Analogue Input Function: System Pressure: Data Erratic, Intermittent, or Incorrect	ECON.A will revert to transmission shutdown. After the fault has disappeared, the ECON.A has to be restarted in order to select a new direction.	Contact maintenance for troubleshooting. Driver cannot operate the vehicle in transmission shutdown mode.	Therefore the ECON.A can not determine the System Pressure signal value.	Refer to the other reported errors to get more information about the problem Check the wiring between the ECON.A and the system pressure sensor on the relevant analog input. Check installation and operation of the sensor connected.
66.00	520294	0	Analogue Input Function: Forward Clutch Pressure: Data Valid but Above Normal Operational Range - Most Severe	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	Forward clutch pressure is above the alarm limit while the application expects to have normal pressure value.	Check oil level. Check functioning of forward clutch pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem
66.02	520294	2	Analogue Input Function: Forward Clutch Pressure: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	Therefore the ECON.A can not determine the Forward clutch Pressure signal value.	Refer to the other reported errors to get more information about the problem Check the wiring between the ECON.A and the forward clutch pressure sensor on the relevant analog input. Check installation and operation of the sensor connected.
66.10	520294	16	Analogue Input Function: Forward Clutch Pressure: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. This is a warning indication. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	Forward clutch pressure is above the warning limit while the application expects to have normal pressure value.	Check oil level. Check functioning of forward clutch pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem
67.00	520295	0	Analogue Input Function: Reverse Clutch Pressure: Data Valid but Above Normal Operational Range - Most Severe	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	Reverse clutch pressure is above the alarm limit while the application expects to have normal pressure value.	Check oil level. Check functioning of Reverse clutch pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
67.02	520295	2	Analogue Input Function: Reverse Clutch Pressure: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	Therefore the ECON.A can not determine the Reverse clutch Pressure signal value.	Refer to the other reported errors to get more information about the problem Check the wiring between the ECON.A and the Reverse clutch pressure sensor on the relevant analog input. Check installation and operation of the sensor connected.
67.10	520295	16	Analogue Input Function: Reverse Clutch Pressure: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. This is a warning indication. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	Reverse clutch pressure is above the warning limit while the application expects to have normal pressure value.	Check oil level. Check functioning of Reverse clutch pressure switch. If problem persists, check Reverse clutch pressure for mechanical/hydraulic problem
68.00	520296	0	Analogue Input Function: Forward High Clutch Pressure: Data Valid but Above Normal Operational Range - Most Severe	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	Forward highclutch pressure is above the alarm limit while the application expects to have normal pressure value.	Check oil level. Check functioning of forward high clutch pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem
68.02	520296	2	Analogue Input Function: Forward High Clutch Pressure: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	Therefore the ECON.A can not determine the Forward highclutch Pressure signal value.	Refer to the other reported errors to get more information about the problem Check the wiring between the ECON.A and the forward highclutch pressure sensor on the relevant analog input. Check installation and operation of the sensor connected.
68.10	520296	16	Analogue Input Function: Forward High Clutch Pressure: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. This is a warning indication. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	Forward high clutch pressure is above the warning limit while the application expects to have normal pressure value.	Check oil level. Check functioning of forward high clutch pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem
69.00	520297	0	Analogue Input Function: 1st Clutch Pressure: Data Valid but Above Normal Operational Range - Most Severe	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	1st Clutch pressure is above the alarm limit while the application expects to have normal pressure value.	Check oil level. Check functioning of 1st Clutch pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem
69.02	520297	2	Analogue Input Function: 1st Clutch Pressure: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	Therefore the ECON.A can not determine the 1st Clutch Pressure signal value.	Refer to the other reported errors to get more information about the problem Check the wiring between the ECON.A and the 1st Clutch pressure sensor on the relevant analog input. Check installation and operation of the sensor connected.
69.10	520297	16	Analogue Input Function: 1st Clutch Pressure: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. This is a warning indication. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	1st Clutch pressure is above the warning limit while the application expects to have normal pressure value.	Check oil level. Check functioning of 1st Clutch pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem
6A.00	520298	0	Analogue Input Function: 2nd Clutch Pressure: Data Valid but Above Normal Operational Range - Most Severe	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	2nd Clutch pressure is above the alarm limit while the application expects to have normal pressure value.	Check oil level. Check functioning of 2nd Clutch pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem
6A.02	520298	2	Analogue Input Function: 2nd Clutch Pressure: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	Therefore the ECON.A can not determine the 2nd Clutch Pressure signal value.	Refer to the other reported errors to get more information about the problem Check the wiring between the ECON.A and the 2nd Clutch pressure sensor on the relevant analog input. Check installation and operation of the sensor connected.
6A.10	520298	16	Analogue Input Function: 2nd Clutch Pressure: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. This is a warning indication. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	2nd Clutch pressure is above the warning limit while the application expects to have normal pressure value.	Check oil level. Check functioning of 2nd Clutch pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem
6B.00	520299	0	Analogue Input Function: 3rd Clutch Pressure: Data Valid but Above Normal Operational Range - Most Severe	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	3rd Clutch pressure is above the alarm limit while the application expects to have normal pressure value.	Check oil level. Check functioning of 3rd Clutch pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem
6B.02	520299	2	Analogue Input Function: 3rd Clutch Pressure: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	Therefore the ECON.A can not determine the 3rd Clutch Pressure signal value.	Refer to the other reported errors to get more information about the problem Check the wiring between the ECON.A and the 3rd Clutch pressure sensor on the relevant analog input. Check installation and operation of the sensor connected.
6B.10	520299	16	Analogue Input Function: 3rd Clutch Pressure: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. This is a warning indication. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	3rd Clutch pressure is above the warning limit while the application expects to have normal pressure value.	Check oil level. Check functioning of 3rd Clutch pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem
6C.00	520300	0	Analogue Input Function: 4th Clutch Pressure: Data Valid but Above Normal Operational Range - Most Severe	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	4th Clutch pressure is above the alarm limit while the application expects to have normal pressure value.	Check oil level. Check functioning of 4th Clutch pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
6C.02	520300	2	Analogue Input Function: 4th Clutch Pressure: Data Erratic, Intermittent, or Incorrect	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	Therefore the ECON.A can not determine the 4th Clutch Pressure signal value.	Refer to the other reported errors to get more information about the problem Check the wiring between the ECON.A and the 4th Clutch pressure sensor on the relevant analog input. Check installation and operation of the sensor connected.
6C.10	520300	16	Analogue Input Function: 4th Clutch Pressure: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. This is a warning indication. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting	4th Clutch pressure is above the warning limit while the application expects to have normal pressure value.	Check oil level. Check functioning of 4th Clutch pressure switch. If problem persists, check transmission system pressure for mechanical/hydraulic problem
7A.02	520314	2	Speed Sensor Input Function: Engine speed: Data Erratic, Intermittent, or Incorrect	ECON.A may revert to transmission shutdown mode if the assigned speed signal has a critical function. When the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral ; ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible.	With the engine speed signal wired to the ECON.A, an electrical problem is detected. Therefore the ECON.A can not determine the engine speed signal value.	- refer to the other reported errors to get more information about the electrical problem - Check the wiring between the ECON.A and the engine speed sensor on the relevant speed input. - Check installation and operation of the sensor connected.
7A.09	520314	9	Speed Sensor Input Function: Engine speed: Abnormal Update Rate	ECON.A may revert to transmission shutdown mode if the assigned speed signal has a critical function. When the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral ; ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible.	CAN message containing value for the engine speed signal not received within the expected timeframe.	- Check if CAN message containing the engine speed signal is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
7A.13	520314	19	Speed Sensor Input Function: Engine speed: Received Network Data in Error	ECON.A may revert to transmission shutdown mode if the assigned speed signal has a critical function. When the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral ; ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible.	The expected value for the engine speed signal received by the corresponding CAN message contains an invalid or unavailable value.	Check the source signal from the CAN message containing the engine speed signal for sending a valid value.
7B.02	520315	2	Speed Sensor Input Function: Turbine speed: Data Erratic, Intermittent, or Incorrect	ECON.A may revert to transmission shutdown mode if the assigned speed signal has a critical function. The vehicle will be stuck in neutral ; When the fault has disappeared, the ECON.A must be restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	Contact maintenance for troubleshooting	With the turbine speed signal wired to the ECON.A, an electrical problem is detected. Therefore the ECON.A can not determine the turbine speed signal value.	- refer to the other reported errors to get more information about the electrical problem - Check the wiring between the ECON.A and the turbine speed sensor on the relevant speed input. - Check installation and operation of the sensor connected.
7C.02	520316	2	Speed Sensor Input Function: Drum speed: Data Erratic, Intermittent, or Incorrect	ECON.A may revert to transmission shutdown mode if the assigned speed signal has a critical function : the vehicle will be stuck in neutral ; when the vehiclespeed is low enough, ECON.A may only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible.	With the drum speed signal wired to the ECON.A, an electrical problem is detected. Therefore the ECON.A can not determine the drum speed signal value.	- refer to the other reported errors to get more information about the electrical problem - Check the wiring between the ECON.A and the drum speed sensor on the relevant speed input. - Check installation and operation of the sensor connected.
7D.02	520317	2	Speed Sensor Input Function: Output speed: Data Erratic, Intermittent, or Incorrect	ECON.A may revert to transmission shutdown mode if the assigned speed signal has a critical function : the vehicle will be stuck in neutral ; the vehicle must come to a standstill, and the ECON.A will need to be restarted. After restart, the vehicle will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible.	With the drum speed signal wired to the ECON.A, an electrical problem is detected. Therefore the ECON.A can not determine the drum speed signal value.	- refer to the other reported errors to get more information about the electrical problem - Check the wiring between the ECON.A and the drum speed sensor on the relevant speed input. - Check installation and operation of the sensor connected.
90.00	520336	0	APC Permanent Power Supply Line - pin 45: Data Valid but Above Normal Operational Range - Most Severe	ECON.A will revert to transmission shutdown mode. After the fault has disappeared, the ECON.A has to be restarted in order to select a new direction.	Contact maintenance for troubleshooting. Driver cannot operate the vehicle in transmission shutdown mode.	APC Permanent Power Supply exceeded the alarm limit. Correct operation of ECON.A is not guaranteed anymore, so transmission shutdown mode is activated.	Check permanent power supply for abnormal values

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
90.01	520336	1	APC Permanent Power Supply Line - pin 45: Data Valid but Below Normal Operational Range - Most Severe	ECON.A will revert to transmission shutdown mode. After the fault has disappeared, the ECON.A has to be restarted in order to select a new direction.	Contact maintenance for troubleshooting. Driver cannot operate the vehicle in transmission shutdown mode.	APC Permanent Power Supply has dropped below the alarm limit. Correct operation of ECON.A is not guaranteed anymore, so transmission shutdown mode is activated.	Check permanent power supply for abnormal values
90.10	520336	16	APC Permanent Power Supply Line - pin 45: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. This is just a warning indication.	Contact maintenance for troubleshooting	APC Permanent Power Supply exceeded the warning limit.	Check permanent power supply for abnormal values
90.12	520336	18	APC Permanent Power Supply Line - pin 45: Data Valid but Below Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. This is just a warning indication.	Contact maintenance for troubleshooting	APC Permanent Power Supply has dropped below the warning limit.	Check permanent power supply for abnormal values
91.00	520337	0	APC Switched Power Supply Line - pin 20-60: Data Valid but Above Normal Operational Range - Most Severe	ECON.A will revert to transmission shutdown mode. After the fault has disappeared, the ECON.A has to be restarted in order to select a new direction.	Contact maintenance for troubleshooting. Driver cannot operate the vehicle in transmission shutdown mode.	APC Switched Power Supply exceeded the alarm limit. Correct operation of ECON.A is not guaranteed anymore, so transmission shutdown mode is activated.	Check switched power supply for abnormal values
91.01	520337	1	APC Switched Power Supply Line - pin 20-60: Data Valid but Below Normal Operational Range - Most Severe	ECON.A will revert to transmission shutdown mode. After the fault has disappeared, the ECON.A has to be restarted in order to select a new direction.	Contact maintenance for troubleshooting. Driver cannot operate the vehicle in transmission shutdown mode.	APC Switched Power Supply has dropped below the alarm limit. Correct operation of ECON.A is not guaranteed anymore so ECON.A shutdown mode is activated.	Check switched power supply for abnormal values
91.10	520337	16	APC Switched Power Supply Line - pin 20-60: Data Valid but Above Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. This is just a warning indication.	Contact maintenance for troubleshooting	APC Switched Power Supply exceeded the warning limit.	Check switched supply for abnormal values
91.12	520337	18	APC Switched Power Supply Line - pin 20-60: Data Valid but Below Normal Operational Range - Moderately Severe	ECON.A will continue normal operation. This is just a warning indication.	Contact maintenance for troubleshooting	APC Switched Power Supply has dropped below the warning limit.	Check switched power supply for abnormal values
9A.0C	520346	12	APC Critical Data Flash corrupt: Bad Intelligent Device or Component	ECON.A will revert to ECON.A shutdownmode. No operation of the vehicle is possible.	Perform controlled power down and restart the vehicle. If the problem persists, contact maintenance for troubleshooting.	During initialization the ECON.A detected that the flashsector 4 and/or 9 definitions-check or datacontents-check does not correspond with what is expected. This might be due to a firmware upgrade, or due to a flash chip defect.	A controlled power down of the ECON.A should be performed. If the error still persists, activate a working APT with the APT SOH (sector 4) and/or GDE MAINT (sector 9). If the error still persists, the ECON.A is probably damaged : replace the ECON.A
C1.09	520385	9	Can Message CVC_to_TC_1: Abnormal Update Rate	ECON.A will continue normal operation, but all the input functions contained in this CAN message will not be available. Refer to the other reported errors to see which functions are missing. These will determine the appropriate action taken by the ECON.A.	Contact maintenance for troubleshooting	The CAN message is not received within the expected timeframe.	- Check if the CAN message is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
C2.09	520386	9	Can Message CVC_to_TC_2: Abnormal Update Rate	ECON.A will continue normal operation, but all the input functions contained in this CAN message will not be available. Refer to the other reported errors to see which functions are missing. These will determine the appropriate action taken by the ECON.A.	Contact maintenance for troubleshooting	The CAN message is not received within the expected timeframe.	- Check if the CAN message is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
C3.09	520387	9	Can Message CVC_to_TC_3: Abnormal Update Rate	ECON.A will continue normal operation, but all the input functions contained in this CAN message will not be available. Refer to the other reported errors to see which functions are missing. These will determine the appropriate action taken by the ECON.A.	Contact maintenance for troubleshooting	The CAN message is not received within the expected timeframe.	- Check if the CAN message is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
C5.09	520389	9	Can Message EEC1: Abnormal Update Rate	ECON.A will continue normal operation, but all the input functions contained in this CAN message will not be available. Refer to the other reported errors to see which functions are missing. These will determine the appropriate action taken by the ECON.A.	Contact maintenance for troubleshooting	The CAN message is not received within the expected timeframe.	- Check if the CAN message is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.

ERROR CODE			TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939							
	SPN	FMI						
C6.09	520390	9		Can Message EEC2: Abnormal Update Rate	ECON.A will continue normal operation, but all the input functions contained in this CAN message will not be available. Refer to the other reported errors to see which functions are missing. These will determine the appropriate action taken by the ECON.A.	Contact maintenance for troubleshooting	The CAN message is not received within the expected timeframe.	- Check if the CAN message is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
C7.09	520391	9		Can Message EC: Abnormal Update Rate	ECON.A will continue normal operation, but all the input functions contained in this CAN message will not be available. Refer to the other reported errors to see which functions are missing. These will determine the appropriate action taken by the ECON.A.	Contact maintenance for troubleshooting	The CAN message is not received within the expected timeframe.	- Check if the CAN message is sent correctly on the CAN bus. - Check if the repetition rate of the CAN message is fast enough.
F0.XX	520432	XX		DANA Configuration error - non-standard failure mode indicator: DANA reserved code	Action will depend on the type of configuration error, but in most cases ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Stop the vehicle, perform a controlled powerdown and restart the vehicle. If the problem persists, contact maintenance for troubleshooting	An unexpected event occurred that was detected by the ECON.A firmware.	Take note of the reported error code and contact a DANA representative.
F1.XX	520433	XX		DANA Configuration error - non-standard failure mode indicator: DANA reserved code	Action will depend on the type of configuration error, but in most cases ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Stop the vehicle, perform a controlled powerdown and restart the vehicle. If the problem persists, contact maintenance for troubleshooting	An unexpected event occurred that was detected by the ECON.A firmware.	Take note of the reported error code and contact a DANA representative.
F2.XX	520434	XX		DANA Configuration error - non-standard failure mode indicator: DANA reserved code	Action will depend on the type of configuration error, but in most cases ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Stop the vehicle, perform a controlled powerdown and restart the vehicle. If the problem persists, contact maintenance for troubleshooting	An unexpected event occurred that was detected by the ECON.A firmware.	Take note of the reported error code and contact a DANA representative.
F3.XX	520435	XX		DANA Configuration error - non-standard failure mode indicator: DANA reserved code	Action will depend on the type of configuration error, but in most cases ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Stop the vehicle, perform a controlled powerdown and restart the vehicle. If the problem persists, contact maintenance for troubleshooting	An unexpected event occurred that was detected by the ECON.A firmware.	Take note of the reported error code and contact a DANA representative.
F4.XX	520436	XX		DANA Configuration error - non-standard failure mode indicator: DANA reserved code	Action will depend on the type of configuration error, but in most cases ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Stop the vehicle, perform a controlled powerdown and restart the vehicle. If the problem persists, contact maintenance for troubleshooting	An unexpected event occurred that was detected by the ECON.A firmware.	Take note of the reported error code and contact a DANA representative.
F5.XX	520437	XX		DANA Configuration error - non-standard failure mode indicator: DANA reserved code	Action will depend on the type of configuration error, but in most cases ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Stop the vehicle, perform a controlled powerdown and restart the vehicle. If the problem persists, contact maintenance for troubleshooting	An unexpected event occurred that was detected by the ECON.A firmware.	Take note of the reported error code and contact a DANA representative.
F6.XX	520438	XX		DANA Configuration error - non-standard failure mode indicator: DANA reserved code	Action will depend on the type of configuration error, but in most cases ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Stop the vehicle, perform a controlled powerdown and restart the vehicle. If the problem persists, contact maintenance for troubleshooting	An unexpected event occurred that was detected by the ECON.A firmware.	Take note of the reported error code and contact a DANA representative.
F7.XX	520439	XX		DANA Configuration error - non-standard failure mode indicator: DANA reserved code	Action will depend on the type of configuration error, but in most cases ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Stop the vehicle, perform a controlled powerdown and restart the vehicle. If the problem persists, contact maintenance for troubleshooting	An unexpected event occurred that was detected by the ECON.A firmware.	Take note of the reported error code and contact a DANA representative.
F8.XX	520440	XX		DANA Configuration error - non-standard failure mode indicator: DANA reserved code	Action will depend on the type of configuration error, but in most cases ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Stop the vehicle, perform a controlled powerdown and restart the vehicle. If the problem persists, contact maintenance for troubleshooting	An unexpected event occurred that was detected by the ECON.A firmware.	Take note of the reported error code and contact a DANA representative.
F9.XX	520441	XX		DANA Configuration error - non-standard failure mode indicator: DANA reserved code	Action will depend on the type of configuration error, but in most cases ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Stop the vehicle, perform a controlled powerdown and restart the vehicle. If the problem persists, contact maintenance for troubleshooting	An unexpected event occurred that was detected by the ECON.A firmware.	Take note of the reported error code and contact a DANA representative.

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
FA.XX	520442	XX	DANA Configuration error - non-standard failure mode indicator: DANA reserved code	Action will depend on the type of configuration error, but in most cases ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Stop the vehicle, perform a controlled powerdown and restart the vehicle. If the problem persists, contact maintenance for troubleshooting	An unexpected event occurred that was detected by the ECON.A firmware.	Take note of the reported error code and contact a DANA representative.
FB.XX	520443	XX	DANA Configuration error - non-standard failure mode indicator: DANA reserved code	Action will depend on the type of configuration error, but in most cases ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Stop the vehicle, perform a controlled powerdown and restart the vehicle. If the problem persists, contact maintenance for troubleshooting	An unexpected event occurred that was detected by the ECON.A firmware.	Take note of the reported error code and contact a DANA representative.
FC.XX	520444	XX	DANA Configuration error - non-standard failure mode indicator: DANA reserved code	Action will depend on the type of configuration error, but in most cases ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Stop the vehicle, perform a controlled powerdown and restart the vehicle. If the problem persists, contact maintenance for troubleshooting	An unexpected event occurred that was detected by the ECON.A firmware.	Take note of the reported error code and contact a DANA representative.
00.1F	520192	31	Digital Input 0 - pin 59: Failure Condition Exists	ECON.A will continue normal operation, or, in some cases, the ECON.A will revert to transmission shutdown mode. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting, or activate a correct configuration in the ECON.A. Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation).	During intialization of the ECON.A, a configuration problem is detected related to digital input 0.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
01.1F	520193	31	Digital Input 1 - pin 58: Failure Condition Exists	ECON.A will continue normal operation, or, in some cases, the ECON.A will revert to transmission shutdown mode. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting, or activate a correct configuration in the ECON.A. Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation).	During intialization of the ECON.A, a configuration problem is detected related to digital input 1.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
02.1F	520194	31	Digital Input 2 - pin 57: Failure Condition Exists	ECON.A will continue normal operation, or, in some cases, the ECON.A will revert to transmission shutdown mode. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting, or activate a correct configuration in the ECON.A. Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation).	During intialization of the ECON.A, a configuration problem is detected related to digital input 2.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
03.1F	520195	31	Digital Input 3 - pin 56: Failure Condition Exists	ECON.A will continue normal operation, or, in some cases, the ECON.A will revert to transmission shutdown mode. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting, or activate a correct configuration in the ECON.A. Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation).	During intialization of the ECON.A, a configuration problem is detected related to digital input 3.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
04.1F	520196	31	Digital Input 4 - pin 55: Failure Condition Exists	ECON.A will continue normal operation, or, in some cases, the ECON.A will revert to transmission shutdown mode. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting, or activate a correct configuration in the ECON.A. Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation).	During intialization of the ECON.A, a configuration problem is detected related to digital input 4.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
05.1F	520197	31	Digital Input 5 - pin 54: Failure Condition Exists	ECON.A will continue normal operation, or, in some cases, the ECON.A will revert to transmission shutdown mode. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting, or activate a correct configuration in the ECON.A. Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation).	During intialization of the ECON.A, a configuration problem is detected related to digital input 5.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
06.1F	520198	31	Digital Input 6 - pin 53: Failure Condition Exists	ECON.A will continue normal operation, or, in some cases, the ECON.A will revert to transmission shutdown mode. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting, or activate a correct configuration in the ECON.A. Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation).	During intialization of the ECON.A, a configuration problem is detected related to digital input 6.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
07.1F	520199	31	Digital Input 7 - pin 52: Failure Condition Exists	ECON.A will continue normal operation, or, in some cases, the ECON.A will revert to transmission shutdown mode. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting, or activate a correct configuration in the ECON.A. Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation).	During intialization of the ECON.A, a configuration problem is detected related to digital input 7.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
10.1F	520208	31	Analogue Input 0 - pin 25-24: Failure Condition Exists	ECON.A will continue normal operation, or, in some cases, the ECON.A will revert to transmission shutdown mode. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input functions.	Contact maintenance for troubleshooting, or activate a correct configuration in het ECON.A. Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation)	During intialization of the ECON.A, a configuration problem is detected related to analogue input 0.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
11.1F	520209	31	Analogue Input 1 - pin 27-26: Failure Condition Exists	ECON.A will continue normal operation, or, in some cases, the ECON.A will revert to transmission shutdown mode. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input functions.	Contact maintenance for troubleshooting, or activate a correct configuration in het ECON.A. Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation)	During intialization of the ECON.A, a configuration problem is detected related to analogue input 1.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
12.1F	520210	31	Analogue Input 2 - pin 29-28: Failure Condition Exists	ECON.A will continue normal operation, or, in some cases, the ECON.A will revert to transmission shutdown mode. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input functions.	Contact maintenance for troubleshooting, or activate a correct configuration in het ECON.A. Driver can still operate the vehicle in limphome mode (reduced vehicle operation)	During intialization of the ECON.A, a configuration problem is detected related to analogue input 2.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
13.1F	520211	31	Analogue Input 3 - pin 14-13: Failure Condition Exists	ECON.A will continue normal operation, or, in some cases, the ECON.A will revert to transmission shutdown mode. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input functions.	Contact maintenance for troubleshooting, or activate a correct configuration in het ECON.A. Driver can still operate the vehicle in limphome mode (reduced vehicle operation)	During intialization of the ECON.A, a configuration problem is detected related to analogue input 3.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
1A.1F	520218	31	Speed Input 0 - pin 10-09: Failure Condition Exists	ECON.A may revert to transmission limphome mode if the assigned speed signal has a critical function : the vehicle will be stuck in neutral ; when the vehiclespeed is low enough, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During intialization of the ECON.A a configuration problem is detected related to speed input 0.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
1B.1F	520219	31	Speed Input 1 - pin 12-11: Failure Condition Exists	ECON.A may revert to transmission limphome mode if the assigned speed signal has a critical function : the vehicle will be stuck in neutral ; when the vehiclespeed is low enough, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	Contact maintenance for troubleshooting or Activate a working configuration in the ECON.A	During intialization of the ECON.A a configuration problem is detected related to speed input 1.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
20.1F	520224	31	Power Output 0 - pin 33-34: Failure Condition Exists	ECON.A may revert to transmission shutdownhome mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode . Activate a correct configuration in the ECON.A	During intialization of the ECON.A a configuration problem is detected related to power output 0.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
21.1F	520225	31	Power Output 1 - pin 31-32: Failure Condition Exists	ECON.A may revert to transmission shutdownhome mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode . Activate a correct configuration in the ECON.A	During intialization of the ECON.A a configuration problem is detected related to power output 1.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
22.1F	520226	31	Power Output 2 - pin 48-49: Failure Condition Exists	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode . Activate a correct configuration in the ECON.A	During intialization of the ECON.A a configuration problem is detected related to power output 2.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
23.1F	520227	31	Power Output 3 - pin 18-19: Failure Condition Exists	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode . Activate a correct configuration in the ECON.A	During intialization of the ECON.A a configuration problem is detected related to power output 3.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
24.1F	520228	31	Power Output 4 - pin 46-47: Failure Condition Exists	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode . Activate a working configuration in the ECON.A	During intialization of the ECON.A a configuration problem is detected related to power output 4.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
25.1F	520229	31	Power Output 5 - pin 17-16: Failure Condition Exists	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode . Activate a working configuration in the ECON.A	During intialization of the ECON.A a configuration problem is detected related to power output 5.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
26.1F	520230	31	Power Output 6 - pin 35-50: Failure Condition Exists	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode . Activate a correct configuration in the ECON.A	During intialization of the ECON.A a configuration problem is detected related to power output 6.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
27.1F	520231	31	Power Output 7 - pin 01-02: Failure Condition Exists	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehiclespeed is low enough, this will alter to transmission limphome mode : the vehicle will be stuck in neutral while the fault persists ; when the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limphome mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode . Activate a correct configuration in the ECON.A	During intialization of the ECON.A a configuration problem is detected related to power output 7.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
28.1F	520232	31	Power Output 8 - pin 03-04: Failure Condition Exists	ECON.A may revert to transmission shutdown mode if the assigned power output has a critical function. For this latter, when the vehicle speed is low enough, this will alter to transmission limp mode: the vehicle will be stuck in neutral while the fault persists; when the fault disappears, ECON.A will only operate in transmission limp mode after selecting neutral, until the ECON.A is restarted. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the assigned power output function.	In transmission limp mode, the driver can still operate the vehicle (reduced vehicle operation). Return to a service center for troubleshooting as soon as possible. Driver cannot operate the vehicle in transmission shutdown mode. Activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to power output 8.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
30.1F	520240	31	Digital Input Function: Declutch: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function declutch.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
31.1F	520241	31	Digital Input Function: Automatic/Manual Shift: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Automatic/Manual Shift.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
32.1F	520242	31	Digital Input Function: Kickdown: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Kickdown.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
33.1F	520243	31	Digital Input Function: Neutral Lock Reset: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Neutral Lock Reset.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
34.1F	520244	31	Digital Input Function: Throttle Pedal Idle Position: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Throttle Idle.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
35.1F	520245	31	Digital Input Function: Throttle Pedal Full Position: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Throttle Full.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
39.1F	520249	31	Digital Input Function: Parking Brake: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Parking Brake.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
3A.1F	520250	31	Digital Input Function: Loaded/Not loaded: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Loaded/Not Loaded.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
3B.1F	520251	31	Digital Input Function: Disconnect (4WD/2WD): Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Disconnect (4WD/2WD).	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
3C.1F	520252	31	Digital Input Function: High/Low Range: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function High/Low Range.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
3D.1F	520253	31	Digital Input Function: Redundant Neutral: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Redundant Neutral.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
3E.1F	520254	31	Digital Input Function: System Pressure: Failure Condition Exists	ECON.A will continue normal operation. Low system pressure can result in reduced vehicle performance (slipping clutches) and continuing normal vehicle operation can permanently damage the transmission.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function System Pressure.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
3F.1F	520255	31	Digital Input Function: Brake Pedal Pressed: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Brake Pedal Pressed.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
40.1F	520256	31	Digital Input Function: Operator Presence: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Operator Presence.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
41.1F	520257	31	Digital Input Function: Seat Orientation: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Seat Orientation.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
42.1F	520258	31	Digital Input Function: Inhibit Shifting: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Inhibit shift.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
44.1F	520260	31	Digital Input Function: Oil Temperature: Failure Condition Exists	ECON.A will continue normal operation. High oil temperature may result in reduced vehicle performance and continuing normal vehicle operation can permanently damage the transmission (oil and/or clutch burning).	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function oil temperature.	refer to the other reported errors to get more information about the nature of the configuration problem solve the configuration problem by activating a working configuration or manually correcting the faulty one
45.1F	520261	31	Digital Input Function: Lock Up Enable: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Lockup Enable.	refer to the other reported errors to get more information about the nature of the configuration problem solve the configuration problem by activating a working configuration or manually correcting the faulty one
46.1F	520262	31	Digital Input Function: Exhaust Brake: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Exhaust Brake.	refer to the other reported errors to get more information about the nature of the configuration problem solve the configuration problem by activating a working configuration or manually correcting the faulty one
47.1F	520263	31	Digital Input Function: Retarder Brake: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Retarder Brake.	refer to the other reported errors to get more information about the nature of the configuration problem solve the configuration problem by activating a working configuration or manually correcting the faulty one
48.1F	520264	31	Digital Input Function: High Idle: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function High Idle.	refer to the other reported errors to get more information about the nature of the configuration problem solve the configuration problem by activating a working configuration or manually correcting the faulty one
54.1F	520276	31	Limit Gear Position: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function Limit Gearpos.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
55.1F	520277	31	Digital Input Function: Custom Function 1: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function assigned to the Custom Function 1	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one

ERROR CODE			TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939							
	SPN	FMI						
56.1F	520278	31		Digital Input Function: Custom Function 2: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function assigned to the Custom Function 2	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
57.1F	520279	31		Digital Input Function: Custom Function 3: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function assigned to the Custom Function 3	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
58.1F	520280	31		Digital Input Function: Custom Function 4: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function assigned to the Custom Function 4	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
59.1F	520281	31		Digital Input Function: Custom Function 5: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function assigned to the Custom Function 5	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
5A.1F	520282	31		Digital Input Function: Custom Function 6: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function assigned to the Custom Function 6	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
5B.1F	520283	31		Digital Input Function: Custom Function 7: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function assigned to the Custom Function 7	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
5C.1F	520284	31		Digital Input Function: Custom Function 8: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function assigned to the Custom Function 8	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
5D.1F	520285	31		Digital Input Function: Custom Function 9: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function assigned to the Custom Function 9	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
5E.1F	520286	31		Digital Input Function: Custom Function 10: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned digital input function.	Contact maintenance for troubleshooting or activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital input function assigned to the Custom Function 10	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
5F.1F	520287	31		Shiflever: Failure Condition Exists	ECON.A will revert to transmission shutdown mode, when the vehiclespeed is low enough, this will alter to transmission limphome mode. As a consequence the vehicle will be stuck in neutral while the fault persists. When the fault disappears, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted.	Contact maintenance for troubleshooting, or activate a correct configuration in the ECON.A. Driver can still operate the vehicle in transmission limphome mode (reduced vehicle operation). Driver cannot operate the vehicle in transmission shutdown mode.	During initialization of the ECON.A a configuration problem is detected related to the shiflever function.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
60.1F	520288	31		Analogue Input Function: Throttle Pedal: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Activate a correct configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to the Throttle Pedal analogue input function.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
61.1F	520289	31		Analogue Input Function: Brake Pedal: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the Brake Pedal analogue input function.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
62.1F	520290	31	Analogue Input Function: Transmission Sump Temperature: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the Transmission Sump Temperature input function.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
63.1F	520291	31	Analogue Input Function: Transmission Cooler In Temperature: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the Transmission Cooler In Temperature input function.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
65.1F	520293	31	Analogue Input Function: System Pressure: Failure Condition Exists	ECON.A will continue normal operation. In any case, there may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the System Pressure Function function.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
66.1F	520294	31	Analogue Input Function: Forward Clutch Pressure: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the Forward clutch Pressure Function function.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
67.1F	520295	31	Analogue Input Function: Reverse Clutch Pressure: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the Reverse clutch Pressure Function function.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
68.1F	520296	31	Analogue Input Function: Forward High Clutch Pressure: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the Forward highclutch Pressure Function function.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
69.1F	520297	31	Analogue Input Function: 1st Clutch Pressure: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the 1st Clutch Pressure Function function.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
6A.1F	520298	31	Analogue Input Function: 2nd Clutch Pressure: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the 2nd Clutch Pressure Function function.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
6B.1F	520299	31	Analogue Input Function: 3rd Clutch Pressure: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the 3rd Clutch Pressure Function function.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
6C.1F	520300	31	Analogue Input Function: 4th Clutch Pressure: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the assigned analog input function	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the 4th Clutch Pressure Function function.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
7A.1F	520314	31	Speed Sensor Input Function: Engine speed: Failure Condition Exists	ECON.A may revert to transmission limphome mode if the assigned speed signal has a critical function : the vehicle will be stuck in neutral ; when the vehiclespeed is low enough, ECON.A will only operate in transmission limphome mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	Contact maintenance for troubleshooting or Activate a working configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to engine speed input function. The cause might be : dual speed function assignment, speed function assignment to speed channel type 'off', or speed function assignment to speed channel type 'can' for other than engine speed sensor. ECON.A is stuck in shutdown mode until this is solved	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one

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DANA	SAE J1939						
	SPN	FMI					
7B.1F	520315	31	Speed Sensor Input Function: Turbine speed: Failure Condition Exists	ECON.A will continue normal operation. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	Contact maintenance for troubleshooting or Activate a working configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to turbine speed input function. The cause might be : dual speed function assignment, speed function assignment to speed channel type 'off', or speed function assignment to speed channel type 'can' for other than engine speed sensor. ECON.A is stuck in shutdown mode until this is solved	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
7C.1F	520316	31	Speed Sensor Input Function: Drum speed: Failure Condition Exists	ECON.A will continue normal operation. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	Contact maintenance for troubleshooting or Activate a working configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to drum speed input function. The cause might be : dual speed function assignment, speed function assignment to speed channel type 'off', or speed function assignment to speed channel type 'can' for other than engine speed sensor. ECON.A is stuck in shutdown mode until this is solved	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
7D.1F	520317	31	Speed Sensor Input Function: Output speed: Failure Condition Exists	ECON.A may revert to transmission shutdown mode if the assigned speed signal has a critical function : the vehicle will be stuck in neutral ; the vehicle must come to a standstill, and the ECON.A will need to be restarted. After restart, the vehicle will only operate in transmission limp home mode after selecting neutral, until the ECON.A is restarted and the fault has disappeared. In any case reduced operation of the vehicle will be the result. This reduced operation will depend on the speed function assigned to the input.	Contact maintenance for troubleshooting or Activate a working configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected related to output speed input function. The cause might be : dual speed function assignment, speed function assignment to speed channel type 'off', or speed function assignment to speed channel type 'can' for other than engine speed sensor. ECON.A is stuck in shutdown mode until this is solved	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
9A.1F	520346	31	APC Critical Data Flash corrupt: Failure Condition Exists	ECON.A will revert to ECON.A shutdown mode. No operation of the vehicle is possible.	Perform controlled power down and restart the vehicle. If the problem persists, contact maintenance for troubleshooting.	During initialization the ECON.A detected that the flash sector 4 and/or 9 definitions-check do not correspond with what is expected. This might be due to a firmware upgrade.	This error should only occur right after performing a firmware upgrade. To make this error disappear, a controlled power down of the ECON.A should be performed. There might be a mix of recovered flash data and ROM defaults (due to upgrade). Consequently, there might be reduced vehicle operation. This will depend on the affected parameters.
9B.1F	520347	31	APC Application Data Flash corrupt: Failure Condition Exists	Refer to the other reported errors to get more information about the ECON.A action.	Perform controlled power down and restart the vehicle. If the problem persists, contact maintenance for troubleshooting.	During initialization the ECON.A detected that the flash sector 0 and/or 1 data contents-check does not correspond with what is expected. This might be due to a flash chip defect.	A controlled power down of the ECON.A should be performed. If the error still persists, activate a working APT with the appropriate Dana tool. If the error still persists, the ECON.A is probably damaged : replace the ECON.A.
9C.1F	520348	31	APC Logging Data Flash corrupt: Failure Condition Exists	ECON.A will continue normal operation.	Perform controlled power down and restart the vehicle. If the problem persists, contact maintenance for troubleshooting.	During initialization the ECON.A detected that the flash sector 10 and/or 11 data contents-check or data contents-check does not correspond with what is expected. This might be due to a firmware upgrade, or due to a flash chip defect.	A controlled power down of the ECON.A should be performed. There might be a mix of recovered flash data and ROM defaults. Consequently, there might be reduced vehicle operation. If the error still persists, the ECON.A is probably damaged: replace the ECON.A.
A1.1F	520353	31	Configuration Error: Incompatible Data File: Failure Condition Exists	Refer to the other reported errors to get more information about the ECON.A action.	Perform controlled power down and restart the vehicle. If the problem persists, contact maintenance for troubleshooting.	During initialization the ECON.A detected that the flash sector 0 and/or 1 definitions-check does not correspond with what is expected. This might be due to a firmware upgrade.	A controlled power down of the ECON.A should be performed. If the error still persists, activate a working APT with the appropriate Dana tool, and perform a controlled power down again. If the error still persists, the ECON.A is probably damaged : replace the ECON.A. Refer to the other reported errors to get more information about the nature of the problem.
A2.1F	520354	31	Configuration Error: I/O Double Function Assignment: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected functions	Contact maintenance for troubleshooting or Activate a working configuration in the ECON.A	During initialization of the ECON.A, a configuration problem is detected because 2 or more different functions are assigned to the same in- or output.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
A3.1F	520355	31	Configuration Error: Unavailable I/O Function Assignment: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Contact maintenance for troubleshooting or Activate a working configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected because a function is assigned to an in- or output that is not available on this ECON.A.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
A4.1F	520356	31	Configuration Error: Impossible Function Combination Assignment: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected functions.	Contact maintenance for troubleshooting or Activate a working configuration in the ECON.A	During initialization of the ECON.A a configuration problem is detected due to an impossible combination of different function assignments.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one

ERROR CODE		TYPE	ERROR DESCRIPTION	ECON.A ACTION	DRIVER ACTION	FAILURE CAUSE	TROUBLESHOOTING
DANA	SAE J1939						
	SPN	FMI					
B0.1F	520368	31	Digital Output Function: Parking Brake: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital output function Parking Brake.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
B3.1F	520371	31	Digital Output Function: Disconnect 4WD/2WD: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital output function Disconnect.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
B4.1F	520372	31	Digital Output Function: High Low Range Selector: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital output function Range Selector.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
B5.1F	520373	31	Digital Output Function: Engine Throttle Reduction: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital output function Throttle Reduction.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
B6.1F	520374	31	Digital Output Function: Neutral Engine Start: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital output function Neutral Engine Start.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
B7.1F	520375	31	Digital Output Function: Warning Lamp: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital output function Warning lamp.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
B8.1F	520376	31	Digital Output Function: Lock Up: Failure Condition Exists	ECON.A will revert to transmission limp home mode. In any case reduced operation of the vehicle will be the result.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A. Driver can still operate the vehicle in transmission limp home mode (reduced vehicle operation).	During initialization of the ECON.A a configuration problem is detected related to the digital output function Lockup.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
B9.1F	520377	31	Digital Output Function: Gear Dependant: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital output function Gear dependant.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
BB.1F	520379	31	Digital Output Function: Custom Function 1: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital output function Gear dependant.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
BC.1F	520380	31	Digital Output Function: Custom Function 2: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital output function Gear dependant.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
BD.1F	520381	31	Digital Output Function: Custom Function 3: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital output function Gear dependant.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one
BE.1F	520382	31	Digital Output Function: Custom Function 4: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital output function Gear dependant.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one

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DANA	SAE J1939							
	SPN	FMI						
BF.1F	520383	31		Digital Output Function: Custom Function 5: Failure Condition Exists	ECON.A will continue normal operation. There may be reduced operation of the vehicle. This reduced operation will depend on the affected function.	Contact maintenance for troubleshooting or Activate a working configuration in het ECON.A	During initialization of the ECON.A a configuration problem is detected related to the digital output function Gear dependant.	- refer to the other reported errors to get more information about the nature of the configuration problem - solve the configuration problem by activating a working configuration or manually correcting the faulty one