



## FOREWORD

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# 2011.50 Ranger

## Wiring Diagrams



### Table of Contents

PAGE 1 OF 2

#### GROUP 1 General Information

##### Service Information

General Information 100-00

#### GROUP 2 Chassis

##### Driveline

Rear Drive Axle/Differential 205-02

##### Brake System

Parking Brake and Actuation 206-05  
Hydraulic Brake Actuation 206-06  
Anti-Lock Control 206-09A  
Anti-Lock Control - Stability Assist 206-09B  
Anti-Lock Brake System (ABS) and Stability Control 206-09C

##### Steering System

Steering Column Switches 211-05

#### GROUP 3 Powertrain

##### Engine

Engine Cooling 303-03  
Fuel Charging and Controls - 2.5L Duratec-HE (122kW/165PS) - MI4 303-04A  
Fuel Charging and Controls - 2.2L Duratorq-TDCi (88kW/120PS) - Puma/2.2L Duratorq-TDCi (96kW/130PS) - Puma/2.2L Duratorq-TDCi (110kW/150PS) - Puma 303-04B  
Fuel Charging and Controls - 3.2L Duratorq-TDCi (148kW/200PS) - Puma 303-04C

Fuel Charging and Controls - Turbocharger 303-04D  
Starting System - 2.5L Duratec-HE (122kW/165PS) - MI4 303-06A  
Starting System - 2.2L Duratorq-TDCi (88kW/120PS) - Puma/2.2L Duratorq-TDCi (96kW/130PS) - Puma/2.2L Duratorq-TDCi (110kW/150PS) - Puma/3.2L Duratorq-TDCi (148kW/200PS) - Puma 303-06B  
Engine Ignition - 2.5L Duratec-HE (122kW/165PS) - MI4 303-07A  
Glow Plug System - 2.2L Duratorq-TDCi (88kW/120PS) - Puma/2.2L Duratorq-TDCi (96kW/130PS) - Puma/2.2L Duratorq-TDCi (110kW/150PS) - Puma 303-07B  
Glow Plug System - 3.2L Duratorq-TDCi (148kW/200PS) - Puma 303-07C  
Engine Emission Control - 2.2L Duratorq-TDCi (88kW/120PS) - Puma/2.2L Duratorq-TDCi (96kW/130PS) - Puma/2.2L Duratorq-TDCi (110kW/150PS) - Puma/3.2L Duratorq-TDCi (148kW/200PS) - Puma 303-08  
Evaporative Emissions 303-13  
Electronic Engine Controls - 2.5L Duratec-HE (122kW/165PS) - MI4 303-14A  
Electronic Engine Controls - 2.2L Duratorq-TDCi (88kW/120PS) - Puma/2.2L Duratorq-TDCi (96kW/130PS) - Puma/2.2L Duratorq-TDCi (110kW/150PS) - Puma/3.2L Duratorq-TDCi (148kW/200PS) - Puma 303-14B

**Automatic Transmission/Transaxle**

Automatic Transmission/Transaxle - Vehicles With: 6-Speed Automatic Transaxle - 6R80	307-01
Automatic Transmission/Transaxle External Controls	307-05

**Manual Transmission/Transaxle, Clutch and Transfer Case**

Four-Wheel Drive Systems	308-07
--------------------------	--------

**Exhaust System**

Exhaust System - 2.2L Duratorq-TDCi (88kW/120PS) - Puma/2.2L Duratorq-TDCi (96kW/130PS) - Puma/2.2L Duratorq-TDCi (110kW/150PS) - Puma/3.2L Duratorq-TDCi (148kW/200PS) - Puma	309-00
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------

**Fuel System - General Information**

Fuel System - General Information - 2.5L Duratec-HE (122kW/165PS) - MI4	310-00A
Fuel System - General Information - 2.2L Duratorq-TDCi (88kW/120PS) - Puma/2.2L Duratorq-TDCi (96kW/130PS) - Puma/2.2L Duratorq-TDCi (110kW/150PS) - Puma/3.2L Duratorq-TDCi (148kW/200PS) - Puma	310-00B
Fuel Tank and Lines	310-01A
Fuel Tank and Lines - 2.2L Duratorq-TDCi (88kW/120PS) - Puma/2.2L Duratorq-TDCi (96kW/130PS) - Puma/2.2L Duratorq-TDCi (110kW/150PS) - Puma/3.2L Duratorq-TDCi (148kW/200PS) - Puma	310-01B
Speed Control	310-03

**GROUP 4 Electrical**

**Climate Control System**

Climate Control	412-01
-----------------	--------

**Instrumentation and Warning Systems**

Instrument Cluster	413-01
Horn	413-06
Information and Message Center	413-08
Warning Devices	413-09
Parking Aid	413-13

Tachograph	413-17
------------	--------

**Battery and Charging System**

Battery, Mounting and Cables	414-01
Generator and Regulator	414-02

**Information and Entertainment Systems**

Information and Entertainment System	415-01
-----------------------------------------	--------

**Lighting**

Exterior Lighting	417-01
Interior Lighting	417-02
Daytime Running Lamps (DRL)	417-04

**Electrical Distribution**

Module Communications Network	418-00
----------------------------------	--------

**Electronic Feature Group**

Anti-Theft - Active	419-01A
Anti-Theft - Passive	419-01B
Cruise Control	419-03
Multifunction Electronic Modules	419-10

**GROUP 5 Body and Paint**

**Body and Paint**

Rear View Mirrors	501-09
Seating	501-10
Glass, Frames and Mechanisms	501-11
Instrument Panel and Console	501-12
Handles, Locks, Latches and Entry Systems	501-14
Wipers and Washers	501-16
Safety Belt System	501-20A
Supplemental Restraint System	501-20B

**GROUP 7 General Wiring Information**

**Wiring Information**

General Information	700-00
Fuse and Relay Information	700-01
Power Distribution	700-02
Grounding Strategy	700-03
Electrical Connectors	700-04

**Index**



GROUP

1

# General Information

---

SECTION TITLE	PAGE
<b>Service Information</b>	
General Information.....	100-00

---



## SECTION 100-00 General Information

**VEHICLE APPLICATION: 2012.0Ranger**

CONTENTS	PAGE
<b>DESCRIPTION AND OPERATION</b>	
About This Manual.....	100-00-2
How to Use This Manual.....	100-00-2
Circuit Code.....	100-00-2
Wire Insulation Specification (Temperature).....	100-00-6
Connector Code - Component, GND and Splice.....	100-00-6
Connector Code - Harness Connectors.....	100-00-7
Wire Color Code.....	100-00-7
Symbols Glossary.....	100-00-8

DESCRIPTION AND OPERATION

About This Manual

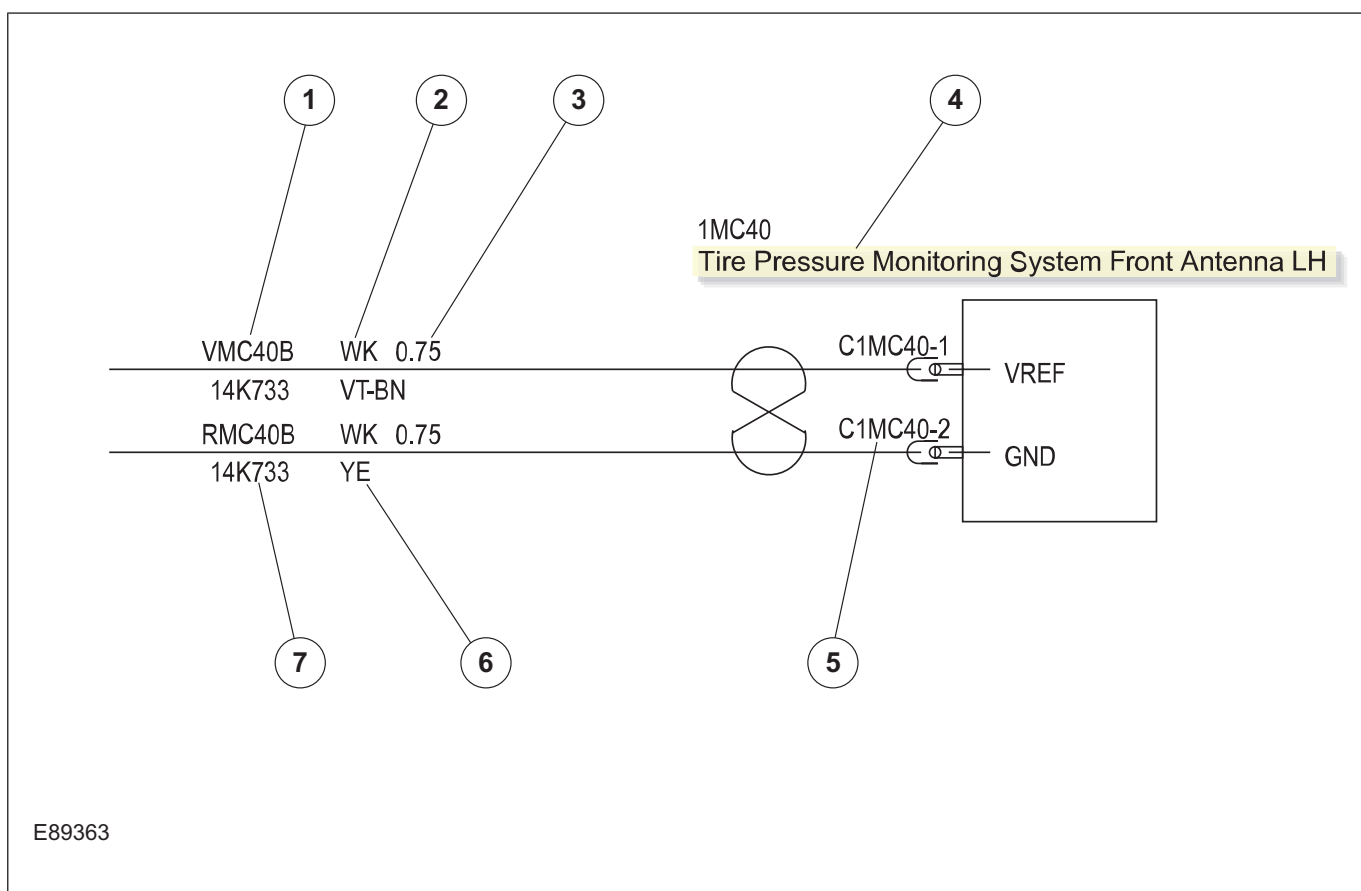
How to Use This Manual

This manual is structured into Systems, Groups and Sections. A System covers a specific portion of the vehicle. The manual is divided into six Systems: General Information, Chassis, Powertrain, Electrical, Body and Paint and General Wiring Information. Each System contains a number of Groups that contain a number of

Sections relating to specific vehicle systems. Each Section contains a wiring diagram containing all of the information relating to the specific vehicle system. Some Sections contain a number of wiring diagrams that cover a number of different vehicle variants. Connector location information and connector face views are provided through links within the wiring diagram for each vehicle system.

**Example:** Chassis > Brake System > Anti-Lock Control (System > Group > Section)

Wiring Diagram Format



Item	Description
1	Circuit code
2	Wire insulation specification (temperature)
3	Wire diameter (mm <sup>2</sup> )

Item	Description
4	Component name
5	Connector code
6	Wire color code
7	Wiring harness code

Circuit Code

**DESCRIPTION AND OPERATION**

Position	Description
1	Electrical potential
2	System
3	Sub-system
4 and 5	Function

Some circuit codes also have a suffix. Suffixes are used when parts of a circuit are separated with a connector.

**Position 1: Potential**

Code	Description
G	GND (ground)
S	Standard voltage
H	Higher than standard voltage
C	Changing or switched
V	Variable signal
L	Lower than standard voltage
R	Return or reference
D	Drain wire
Z	Any of the above with a temporary function

**Position 2: System**

Code	Description
A	Special vehicle
B	Circuit protection
C	Chassis
D	Electrical distribution
E	Engine and transmission
H	Heating
L	Lighting
M	Multimedia (Information and entertainment)
P	Power convenience
R	Supplemental restraints
Y	Hybrid electric powertrain

**DESCRIPTION AND OPERATION****Position 3: Sub-system**

System Code	Sub-system Code	Description
A	1	Temporary functions for any sub-system
A	2	Temporary functions for any sub-system
A	3	Temporary functions for any sub-system
A	A	Ambulance
A	C	Customer access
A	P	Police
A	T	Trailer tow
A	X	Taxi
B	1	AJB (auxiliary junction box)
B	B	BJB (battery junction box), EJB (engine junction box)
B	F	Pre-fuse box
B	K	Power pack circuit protection
B	P	CJB (central junction box)
B	R	RJB (rear junction box)
B	X	Special power circuits
C	A	Anti-lock control, traction control, stability assist
C	B	Brake system
C	D	Adaptive damping
C	F	Four-wheel drive
C	L	Suspension
C	S	Power steering
D	1	GND points
D	9	Special GND and return circuits
D	B	Diagnostic bus
D	C	Charging, starting, cigar lighter, power outlet socket
D	F	Fuse link wires, mega fuse
E	1	PCM (powertrain control module)
E	2	PCM
E	3	PCM
E	4	PCM
E	5	Powertrain controller, diode, driver, monitor, pump
E	6	Powertrain relay, resistor, runner



## DESCRIPTION AND OPERATION

System Code	Sub-system Code	Description
E	7	Powertrain sensor
E	8	Powertrain sensor
E	9	Powertrain switch, transducer, valve
E	C	Engine cooling
E	S	Speed control
E	T	Transmission/transaxle, differential, axle
H	1	Climate control module
H	2	Climate control module
H	3	Climate controls
H	4	Climate control relay, resistor, sensor, switch, transducer
H	A	Auxiliary climate control
H	C	Engine block heater
H	F	Fuel fired booster heater
H	P	Electric booster heater
H	S	Heated seats
L	F	Front lamps
L	N	Interior lamps, courtesy lamps, instrument panel illumination
L	S	Rear lamps, turn signal lamps
M	C	Instrument cluster, information and message center, tachograph
M	E	Information and entertainment
M	F	Forward collision avoidance
M	M	Communication, cellular phone, voice control
M	N	Navigation
M	P	Parking aid
M	R	Rear passenger entertainment
M	T	Telematics
P	K	Keyless vehicle
P	L	Locks
P	M	Rear view mirrors
P	P	Adjustable pedals, steering column
P	R	Power roof, doors, side steps
P	S	Power seats

## DESCRIPTION AND OPERATION

System Code	Sub-system Code	Description
P	W	Power windows
R	1	RCM (restraints control module), air bag module, side air curtain module
R	2	Impact sensor, PAD (passenger air bag deactivation) switch
R	B	Blind spot monitoring
R	D	Heated windshield, rear window, mirrors, washer jets
R	H	Horn
R	P	Pedestrian protection
R	T	Anti-theft
R	W	Windshield wipers and washers, rear window wiper and washer, headlamp washers
Y	A	DC (direct current)/AC (alternating current) inverter
Y	B	Traction battery
Y	D	DC/AC converter
Y	T	Hybrid power split transmission/transaxle

## Wire Insulation Specification (Temperature)

Code	Temperature
WA	100°C
WK	125°C
WE	150°C

## Connector Code - Component, GND and Splice

Code Position	Description
1	C = connector, G = GND and S = splice
2	Connector location
3	System
4	Sub-system
5	Function
6	Function
7	Suffix (only used if multiple connectors exist)

Connector locations are shown graphically and displayed by selecting the appropriate link on the wiring diagram.

**DESCRIPTION AND OPERATION****Connector Code - Harness Connectors**

Code Position	Description
1	C = connector
2	Connector location
3	Location of the connected system
4	Suffix (only used if multiple connectors exist)

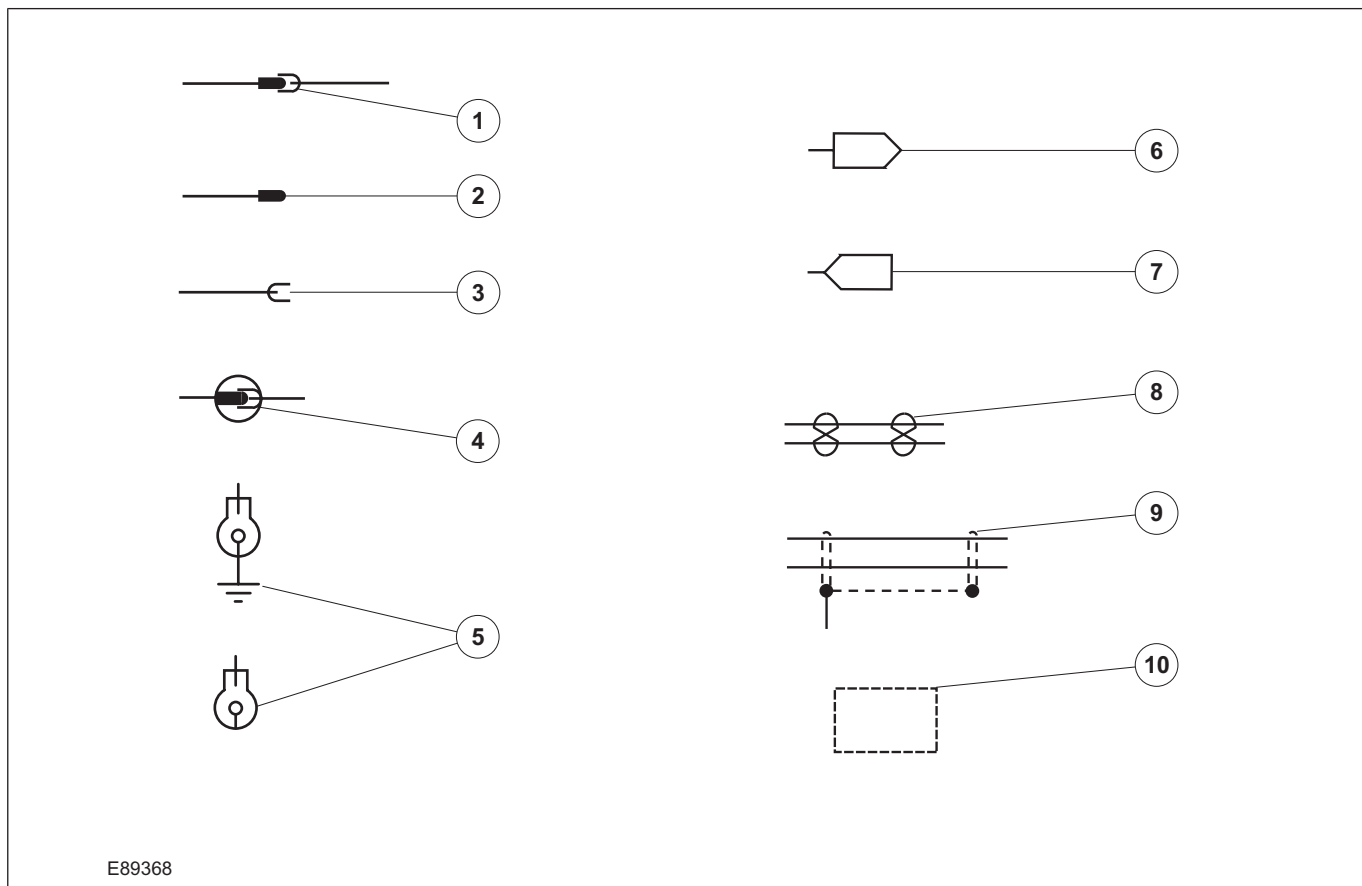
Connector locations are shown graphically and displayed by selecting the appropriate link on the wiring diagram.

**Wire Color Code**

Code	Color
BK	Black
BN	Brown
BU	Blue
GN	Green
GY	Gray
LG	Light green
NA	Natural
OG	Orange
PK	Pink
RD	Red
SR	Silver
VT	Purple
WH	White
YE	Yellow

DESCRIPTION AND OPERATION

Symbols Glossary



Item	Description
1	In-line connector
2	Male connector
3	Female connector
4	Pins with special coating (e.g. gold)
5	Ground
6	Off-page reference (to)
7	Off-page reference (from)
8	Twisted pair
9	Screened cables
10	Part of a component

**GROUP**

**Chassis**      **2**

---

SECTION TITLE	PAGE
<b>Driveline</b>	
Rear Drive Axle/Differential.....	205-02
<b>Brake System</b>	
Parking Brake and Actuation.....	206-05
Hydraulic Brake Actuation.....	206-06
Anti-Lock Control.....	206-09A
Anti-Lock Control - Stability Assist.....	206-09B
Anti-Lock Brake System (ABS) and Stability Control.....	206-09C
<b>Steering System</b>	
Steering Column Switches.....	211-05

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# SECTION 205-02 Rear Drive Axle/Differential

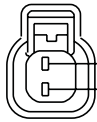
VEHICLE APPLICATION: 2012.0 Ranger

CONTENTS	PAGE
<b>ELECTRICAL CONNECTORS</b>	
Electronic Locking Differential (ELD) Solenoid.....	205-02-2



205-02-2

## Electronic Locking Differential (ELD) Solenoid (G1438393)



1	CBB23B	BN-YE	2TCD	0.75	+	CBB23D	BN-YE	2TCD	0.75
2	GD476L	BK-WH	2TCD	0.75					

XR3T-14A464-AA

C4CF31

TO DIFF LOCK SOLENOID

HARNESS 14A333



# SECTION 206-05 Parking Brake and Actuation

VEHICLE APPLICATION: 2012.0 Ranger

CONTENTS PAGE

## ELECTRICAL CONNECTORS

Parking Brake Warning Indicator Switch..... 206-05-2






206-05-2

---

## Parking Brake Warning Indicator Switch (G1403890)

 1 CMC25 WH-VT 2TAD 0.5

81AG-14488-ACA

C3MC25

TO PARK BRAKE SWITCH

HARNESS 14A005



# SECTION 206-06 Hydraulic Brake Actuation

VEHICLE APPLICATION: 2012.0 Ranger

## CONTENTS

PAGE

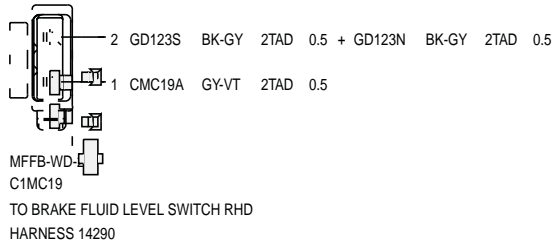
### ELECTRICAL CONNECTORS

Low Brake Fluid Warning Indicator Switch.....	206-06-2
Low Brake Fluid Warning Indicator Switch — A.....	206-06-2

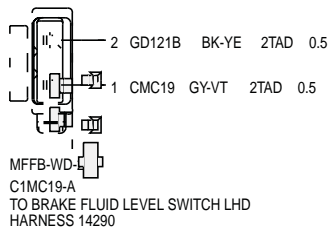


206-06-2

### Low Brake Fluid Warning Indicator Switch (G1403892)



### Low Brake Fluid Warning Indicator Switch—A (G1403894)





# SECTION 206-09A Anti-Lock Control

VEHICLE APPLICATION: 2012.0 Ranger

CONTENTS	PAGE
<b>ELECTRICAL SCHEMATICS</b>	
Anti-Lock Control.....	206-09A-2
<b>ELECTRICAL CONNECTORS</b>	
Anti-Lock Brake System (ABS) Module.....	206-09A-4
Front Wheel Speed Sensor LH.....	206-09A-4
Front Wheel Speed Sensor RH.....	206-09A-5
Rear Wheel Speed Sensor LH.....	206-09A-5
Rear Wheel Speed Sensor RH.....	206-09A-5

