Entering Function Menu

Engine System

Read Trouble Codes Clear Trouble Codes Read Data Stream Component Ativation Version No.

Transmission System

Read Fault Memory Clear Fault Memory Version No.

Antilock Brake System

Read Fault Memory Clear Fault Memory Read Data Stream Version No.

Air Bag

Read Fault Memory Clear Fault Memory Version No.

Air Conditioning/Heater

Read Fault Memory Clear Fault Memory Read Data Stream Vervion No.

Instrument Panel

Read Fault Memory Clear Fault Memory Service Reset Version No. Manual Service Reset

Elec. Immobilise System

Read Fault Memory Clear Fault Mmeory Read Data Stream Version No.

Central Body Electronic

Read Fault Memory Clear Fault Memory Read Data Stream Component Activation Version No.

Navigation Control

Read Fault Memory Clear Fault Memory Read Data Stream Component Activation Version No.

Park Distance Control

Read Fault Memory Clear Fault Memory Read Data Stream Version No.



Entering Function Menu home

After connection, press **[POWER]** key to start X-431. After starting the main unit, press **[HOTKEY]** (or click **[Start]** button on **the main menu**, and select **[GAG] [GD Scan]** on the pop-up menu), the screen will display the home page of vehicle diagnosis as shown in figure to left.

Button descriptions:

[START]: to perform next operation [QUIT]: to exit the diagnostic program [BOX INFO.]: to display SMARTBOX version No. [HELP]: to display help information

SELECT VEH	HICLE MAKE
O	
PAGE UP	PAGE DOWN
BACK	HELP
tart) 📭	 ò⊱ ፼= 09:

Click **[START]** button, the screen will display **the vehicle make menu** as shown in figure to left.

Button descriptions:

[BACK]: to return to the upper interface.

[PAGE UP]: to display the previous page, it is inactive if the current page is the first page.[PAGE DOWN]: to display the next page, it is inactive if the current page is the last page.[HELP]: to display the help information.



Click the icon of BMW on the vehicle make menu, the screen will display as shown in figure to left.

SELECT	DIAG. :	SOFTWARE	VER.
BMW V13.07 A	ll Syste	203	
			2
-			
The software control sys.	can dia of BMW	ignose ti up to 2	he elec. 003,include
INGINE/CHASS	IS/BODY n is the	and oth	er parts. s the
priginal sca	n tool.		
PAGE UP	PAGE	DOWN	OK
Junite of	BACK		HELP
Start) D		-0-	BANG 00+57

Click [BMW V13.07 All Systems], the screen will display as shown in figure to left.

The software can diagnose the electronic control systems of BMW up to 2003, including ENGINE/CHASIS/BODY and other parts.



Click **[OK]** button, X-431 begins reset and check the SMARTBOX, and download the diagnostic program from the CF cartridge. After download, the screen will display as shown in figure to left.

Button descriptions:

[OK]: to go on test.

	CAR CI	HASSIS	
3'/Z1_E30			
3'/Z3_E36			2
3'_E46			8
5'_E28			
5'_E34			
5'_E39			
6'_E24			
7'_E23			
PAGE	C UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 📭		*	1 09:58

Click **[OK]** button, the screen will display the menu of chassis type. See figure to left.

Button descriptions:

[BACK]: to return to the upper interface.

[**PAGE UP**]: to display the previous page, it is inactive if the current page is the first page.

[**PAGE DOWN**]: to display the next page, it is inactive if the current page is the last page.

[HOME]: to return to the home page of vehicle diagnosis.

[HELP]: to display the help information.

X-431	BMWDiagnosis
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	CAR CI	HASSIS	
7'_E32			ŝ
7'_E38			ŝ
7'_E65			
8'_E31			
X5_E53			
Z8_E52			
MINI_R50			
Diagnosti	c Socket L	ocation	
PAG	E UP	PAGE	: DOWN
HOME	BACK	PRIMI	HELP
(Start) 📭	•	×	 ₩ 10:00

Click **[PAGE DOWN]** button, the screen will display as shown in figure to left.

	CAR CI	ASSIS	
3'/Z1_E30			
3'/Z3_E36			
3'_E46			
5'_E28			5
5'_E34			
5'_E39			
6'_E24			
7'_E23			
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIMI	HELP
Start)	•	\$	₩ 09:58

Click [**PAGE UP**] button, the screen will display as shown in figure to left.

	SELECT DL	AG. SYSTEM	1
DME (Engi	ne)		
EGS (Tran	smission)		
ABS (Anti	lock brake)	
SRS (Air)	bag)		
IHKA/IHKR	(AC/heate	r)	
IKE/IKI/K	OMBI		
EWS (Elec	. immobili	ze system;)
ZKE (Cent	ral body e	lectronic;)
PAG	E UP	PAGE	C DOWN
HOME	BACK	PRIMI	HELP
Start) 🗖	• •	<u>ې</u>	

Click [3 /Z3_E36] button, the screen will display as shown in figure to left.

	SELECT DL	AG. SYSTEM	1
GR (Navig	ation cont	rol)	8
PDC (Park	Distance	Control)	8
3			
-			
PAG	5 UP	PAGE	, DUWN
HOME	BACK	PRINT	HELP
Start) 다	•	<u>ي</u>	E 15:33

Click **[PAGE DOWN]** button, the screen will display as shown in figure to left.

	SELECT DIA	AG. SYSTEM	1
DME (Engir	ne)		
EGS (Trans	mission)		
ABS (Antil	lock brake)	
SRS (Air b	bag)		8
IHKA/IHKR	(AC/heate	r)	
IKE/IKI/KO	MBI		
EWS (Elec.	immobili:	ze system)	(
ZKE (Centr	al body e	lectronic)	i
PAGE	C UP	PAGE	: DOWN
HOME	BACK	PRINI	HELP
Start) 📭		×	E 15:33

Click [**PAGE UP**] button, the screen will display as shown in figure to left.

ECU IDE	ECU IDENTIFY		
DME M3.3 M60 BOCSH H/U No. BOCSH S/U No. BMU H/U No. BMU S/U No. PRODUCT No.	0261200413 1267358715 1725745 123 456		
OK	PRIMI		
Start) 🕞	☆ ☎ 10:55		

Engine System

<u>home</u>

Click [**DME (Engine)**] button. The screen will display the information on ECU version of engine system, as shown in figure to left.

5	SELECT DIA	G. FUNCTIO	0N
Read faul	t memory		
Clear fau	lt memory		
Data stre	am		
Component	activatio	n	
Identific	ation		8
PAG	E UP	PAGE	: Down
HOME	BACK	PRIM	HELP
Start) 📭	•	<u>ې</u>	E 10:55

Click **[OK]** button, the screen will display as shown in figure to left.

		TROUBL	E CODE	
6	Signa	l, burgl	ar-alarm s	ystem DWA
59	Knock	sensor	2	
ć				
	PAGE	UP	PAGE	DOWN
HOM	E	BACK	PRIM	HELP
Start	102	2		H 10:55

Read Trouble Codes

home

Click [Read fault memory] button, the screen will display as shown in figure to left.

:	SELECT DIA	G. FUNCTIO	0N
Read faul	t memory		
Clear fau	lt memory		
Data stre	am		
Component	activatio	n	
Identific	ation		
			2
8			
			900.0-1-1-1
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 🗖	 }	×.	I ₩ 10:55

Click **[BACK]** button, the screen will display as shown in figure to left.

SELECT DIAG. FUNCTION		
Are you sure to cl	lear fault memory?	
YES NO		
Start) 📭	资 🗃 16:40	

Clear Trouble Codes

home

Click [Clear fault memory] button, the screen will display as shown in figure to left.

SELECT DIAG.	FUNCTION
T	
lrouble code has	been erased.
OK	
Start) 📭	资 🗃 16:43

Click **[YES]** button, the screen will display as shown in figure to left.

	ELECT DIA	G. FUNCTIO	N
Read fault	tmemory		
Clear fau	lt memory		
Data strea	am		
Component	activatio	n	2
Identifica	ation		
		1	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRINI	HELP
Start) 📭	•	×	E 10:55

Click **[OK]** button, the screen will display as shown in figure to left.

2	SELECT D	ATA ITEM	
Engine Spe	ed		÷.
Ignition t	iming		1
Coolant te	wp.		
Intake air	temp.		
Injection	signal cy	linder l	
lst 02 sen	sor		
2nd 02 sen	sor		
02 integra	tor l		
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		×.	₩ 10:55

Read Data Stream

<u>home</u>

Click [**Data stream**] button, the screen will display as shown in figure to left.

2.	SELECT D	ATA ITEI	u –
02 integra	tor 2		2
Idle air a	daptation		÷
Multiplica cylinder b	tive mixt ank l	ure adap	otation
Multiplics cylinder b	tive mixt ank 2	ure Adap	otation
Additive m	ixture ad	aptation) cyl.bank l
Additive m	ixture ad	aptation) cyl.bank 2
Idle CO ad	ljustment		
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		Ý	E = 10:55

Click **[PAGE DOWN]** button, the screen will display as shown in figure to left.

	SELECT D	ATA ITEN	1
Air mass ser	nsor		
Air mass ser	osor		×.
Load signal			
Overrun cuto	off		
Power supply	2		
Knock contro	ol		
Start			
Tank ventila	ation		
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭	-	ġ.	E 10:55

Click **[PAGE DOWN]** button, the screen will display as shown in figure to left.

0)	SELECT I	ATA ITEM	
Load stati	13		÷.
Driving li	ights		8
DWA signal	L		2
Switch AS(2		
Electric (hrottle		
EML Switch	2		
MSR Switch	2		
Can bus E(GS receipt	ing	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start 📭		×	₩ 10:55

Click **[PAGE DOWN]** button, the screen will display as shown in figure to left.

	SELECT D	ATA ITE	M
TPS switch			ŝ
TPS sensor			÷.
Ignition tim	ning Int	erventio	an
Driving posi	tion		
AC compresso	or		
AC switch			
AC compresso	or cutof	f	a a
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRIN	HELP
Start) 🕞		ò	E 20:55

Click **[PAGE DOWN]** button, the screen will display as shown in figure to left.

Click [**PAGE UP**] button, the screen will display as shown in figure to left.

	SELECT D	ATA ITEI	9
Air mass se	nsor		
Air mass se	nsor		1
Load signal			
Overrun cut	off		
Power supply	У		-
Knock contr	ol		
Start			
Tank ventil:	ation		
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRIM	HELP
Start) 📭		ġ.	E 10:55

Click [**PAGE UP**] button, the screen will display as shown in figure to left.

£.	SELECT D	ATA ITE	M
02 integra	ator 2		ŝ.
Idle air a	adaptation	ş	8
Multiplics cylinder h	ative mixt Dank l	ure adap	otation
Multiplics cylinder h	ative mixt bank 2	ure Adap	otation
Additive 1	nixture ad	aptatior) cyl.bank l
Additive 1	oixture ad	aptation	o cyl.bank 2
Idle CO ao	ljustment		
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRIN	HELP
Start) 📭		Q.	E E 10:55

Click [**PAGE UP**] button, the screen will display as shown in figure to left.

2	SELECT I	ATA ITEM	
Engine Spe	ed		
Ignition t	iming		8
Coolant te	mp.		
Intake air	temp.		8
Injection	signal cy	linder l	
lst 02 sen	sor		
2nd 02 sen	sor		
02 integra	tor l		
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		×.	E 10:55

Click [**PAGE UP**] button, the screen will display as shown in figure to left.

	SELECT D	ATA ITEM	
Engine Spe	ed		
Ignition t	iming		
Coolant te	ചാp.		3
Intake air	: temp.		1
Injection	signal cy	linder l	
lst 02 ser	nsor		
2nd 02 ser	nsor		
02 integra	ator l		
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		<u>ک</u>	 ₩ 10:47

Click the items you want to see, e.g. **Engine speed**], **[Ignition timing**], **[Intake air temp.]** and **[Injection signal cylinder 1**]. The screen will display as shown in figure to left.

		DATA	STREAM		
Engine Sp	eed		ŝ	0 ŋ	000
Ignition	timi	ng	6	108	0
Intake ai:	r te	mp.	8	193.	.0 C
1			9.		
PAGE UI)	PAGE	DOWN	G	RAPHIC-1
HOME	E	BACK	PRIN	п	HELP
Start) 📭		- X	3	÷	₩ 10:48

Click **[OK]**. The screen will display the real-time values of the selected items, as shown in figure to left.

Button descriptions:

[GRAPHIC-1]: to display the waveform of an active data.

[PRINT]: to print out the test result.

	DATA :	STREAM		
Engine Spe	eed	81	rpm	
0				
PAGE UF	PAGE	DOWN	GR	APHIC-2
HOME	BACK	PRIN	т	HELP
Start 📭	•	ģ	× I	# 10:4 9

Click **GRAPHIC-1**]. The screen will display the waveform for one data stream item. See figure to left.

Button descriptions:

[GRAPHIC-2]: to display tow data steam waveforms.

	DATA	STREAM		
Engine Spee	ed	81	rpm	
Ignition ti	iming	3	•	
PAGE UP	PAGE	DOWN	I	GITAL
HOME	BACK	PRIN	т	HELP
Start 📭	ž	ć	÷	# 10:4 9

Click **[GRAPHIC-2**] to display waveforms of two data stream items. It is convenient to make comparison between two correlative data stream items. See figure to left.

	DATA	STREAM	
Engine Spe	eed	1	0 rpm
Ignition (timing	6	108°
Intake aim	r temp.	8	193.0 C
Injection 1	signal cy	ylinder	131.1 ms
PAGE UF	PAG	e down	GRAPHIC-1
HOME	BACK	PRIN	n HELP
Start) 📭		*	× ₩ 10:40

Click **[DIGITAL]** in the interface, the screen will display the real-time value of the data stream again, as shown in figure to left.

	SELECT I	ATA ITEM	l i
Engine Spe	ed		1
Ignition t	iming		
Coolant te	աթ.		
Intake air	temp.		
Injection	signal cy	linder l	
lst 02 ser	sor		
2nd 02 ser	sor		
02 integra	ator l		
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRIM	HELP
Start) 📭		×.	E 10:55

Click **[BACK]** button, the screen will display as shown in figure to left.

	ELECT DIA	G. FUNCTIO	N
Read fault	t memory		
Clear fau	lt memory		100 A
Data strea	зш		
Component	activatio	n	
Identifica	ation		1
			(a)
			8
PAGI	C UP	PAGE	: DOWN
HOME	BACK	PRINT	HELP
Start) 📭	•	<u>ي</u>	E 10:55

Click **[BACK**] button, the screen will display as shown in figure to left.

	ACTIVAT	ION TEST	
Injector	, cyl.l		
Injector	, cy1.2		2
Injector	, cyl.3		
Injector	, cyl.4		
Injector	, cyl.5		
Injector	, cyl.6		×
Injector	, cyl.7		
Injector	, cyl.8		
PAG	E UP	PAGE	e down
HOME	BACK	PRIMI	HELP
Start) 다	•	ġ.	E 10:55

Component Ativation

<u>home</u>

Click **[Component activation]** button, the screen will display as shown in figure to left.

	ACTIVAT	ION TEST	
Idle actua	ator		
Tank vent:	ing valve		
025 heater	r relay		
÷			2
ŝ			
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start)	•	ò.	E 10:56

Click **[PAGE DOWN]** button, the screen will display as shown in figure to left.

2	ACTIVAT	ION TEST	
Injector	, cyl.l		
Injector	, cyl.2		
Injector	, cyl.3		
Injector	, cyl.4		
Injector	, cyl.5		
Injector	, cyl.6		
Injector	, cyl.7		
Injector	, cyl.8		
PAG	E UP	PAGE	C DOWN
HOME	BACK	PRINT	HELP
Start) 📭	•	<u>ې</u>	E 10:55

Click [**PAGE UP**] button, the screen will display as shown in figure to left.



Click one item in the list to perform the test.

Now we take [Injector, cy1.1] as example to explain the test steps:

Click [Injector, cy1.1]. X-431 starts testing Injector, cy1.1.

When the test is successful, the screen will display the message as shown in figure to left.

Button description:

[OK]: to return to the upper level interface.

2	ACTIVAT:	ION TEST	
Injector ,	, cyl.l		
Injector ,	, cyl.2		8
Injector ,	, cyl.3		
Injector ,	, cyl.4		
Injector ,	, cyl.5		
Injector ,	, cyl.6		
Injector ,	, cyl.7		
Injector ,	, cyl.8		
PAGE	C UP	PAGE	C DOWN
HOME	BACK	PRIMI	HELP
Start) 📭		\$	E 10:55

Click **[OK]** button, the screen will display as shown in figure to left.

	ELECT DIA	G. FUNCTIO	0N
Read fault	t memory		
Clear fau	lt memory		
Data strea	300		
Component	activatio	n	
Identifica	ation		
			8
3			8
DACT	7 110	DACE	DOTIN
PAG	. OP	PAGE	, DOWN
HOME	BACK	PRINT	HELP
Start 📭		`	E 10:55

Click **[BACK]** button, the screen will display as shown in figure to left.

ECU IDE	MIIFY
DME M3.3 M60 BOCSH H/W No. BOCSH S/W No. BMW H/W No. BMW S/W No. PRODUCT No.	0251200413 1267358715 1725745 123 456
OR	PRIM
tart) D3	× === 10.5

Version No.

home

Click **[dentification**] in the function menu. The screen will display the information on ECU version of engine system, as shown in figure to left.

2	ELECT DIA	G. FUNCTIO	N
Read fault	t memory		
Clear fau	lt memory		
Data strea	зш		
Component	activatio	n	
Identifica	ation		
		1	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 📭	•	×	E 10:55

Click **[OK]** button, the screen will display as shown in figure to left.

2	SELECT DL	AG. SYSTEM	1
DME (Engir	ne)		
EGS (Trans	mission)		
ABS (Antil	lock brake)	
SRS (Air b	oag)		
IHKA/IHKR	(AC/heate	r)	
IKE/IKI/KO	MBI		
EWS (Elec.	immobili	ze system)	i i
ZKE (Centr	al body e	lectronic)	ĺ
PAGE	C UP	PAGE	: DOWN
HOME	BACK	PRIMI	HELP
(Start) 📭		×	₩ 15:33

Click **[BACK]** button, the screen will display as shown in figure to left.

ECU (IDENTIFY
Jecs 5-spee A5S 300J(J; Jatco NO. ROM NO. Version NO. BMW H/W NO.	d trans. atco RLA) 000000000 00000000 000000000
OK	PRIMI
Start) 🕞	 ☆ 15:01

Transmission System home

Click **[EGS (Transmission)]** button. The screen will display the information on ECU version of transmisstion system, as shown in figure to left.

2	ELECT DIA	G. FUNCTIO	N
Read faul	t memory		
Clear fau	lt memory		
Identifica	ation		
1			
1			
-			
		1	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 🗔	•	×	# 14: 59

Click **[OK]** button, the screen will display as shown in figure to left.

SELEC	T DIAG.	FUNCTIO	10
N	o Fault	Code	
OK		PF	21NI
Start) 📭		¢.	₩ 15:01

Read Fault Memory

<u>home</u>

Click [**Read fault memory**] button, the screen will display as shown in figure to left.

5	ELECT DIA	G. FUNCTIO	n
Read fault	tmemory		
Clear fau	lt memory		
Identifica	ation		
·			
5			
e cessos	0.0508	10.000	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRINI	HELP
Start) 💽	•	×	I ₩ 14:59

Click **[OK]** button, the screen will display as shown in figure to left.

SELECT DIAG. FUNCTION		
Are you sure to o	clear fault memory?	
YES	NO	
Start) 🗣	☆ ஊ 15:01	

Clear Fault Memory home

Click [Clear fault memory] button, the screen will display as shown in figure to left.

SELECT DIAG.	FUNCTION
Traple code bes	hean arosad
	been erased.
OK	
Start) 📭	🔆 📾 15:01

Click **[YES]** button, the screen will display as shown in figure to left.

	ELECT DIAG	G. FUNCTIO	N
Read fault	t memory		
Clear fau	lt memory		
Identifica	ation		
			5
·			
-			
	1044-02	12-12-10	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 📭	•	×.	₩ 14:59

Click **[OK]** button, the screen will display as shown in figure to left.

ECU IDENIIFY		
Jecs 5-spee A5S 300J(J: Jatco NO. ROM NO. Version NO. BMW H/W NO.	d trans. atco RLA) 000000000 000000000 000000000	
OR	PRIM	
Start) 📭	 ☆ 闘 15:01	

Version No.

home

Click **[dentification**] in the function menu. The screen will display the information on ECU version of transmisstion system, as shown in figure to left.

02	ELECT DIA	G. FUNCTIO	0N
Readifault	tmemory		
Clear faul	lt memory		×.
Identifica	ation		÷
6			8
÷			8
÷			8
-			
ana an	1988.sk	104200	energinete Konstante
PAGE	E UP	PAGE	: DOWN
HOME	BACK	PRIMI	HELP
Start) 📭	,	`	₩ 14:59

Click **[OK]** button, the screen will display as shown in figure to left.

	SELECT DL	AG. SYSTEM	1
DME (Engir	e)		
EGS (Trans	mission)		
ABS (Antil	ock brake.)	
SRS (Air b	ag)		
IHKA/IHKR	(AC/heate	r)	
IKE/IKI/KO	MBI		
EWS (Elec.	immobili	ze system)	l .
ZKE (Centr	al body e:	lectronic)	
PAGE	UP:	PAGE	: DOWN
HOME	BACK	PRIMI	HELP
(Start) 📭		×.	

Click **[BACK]** button, the screen will display as shown in figure to left.

ECU IDI	ECU IDENIIFY				
DSC 1 Hardware No. Software No.	2822000620				
OR	PRIM				
Start) 🕞	资 🖼 14:59				

Antilock Brake System

<u>home</u>

Click **[ABS (Antilock brake)**] button. The screen will display the information on ECU version of antilock brake system, as shown in figure to left.

:	ELECT DIA	G. FUNCTIO	0N
Read faul	tmemory		
Clear fau	lt memory		
Data stre	зw		8
Identific	ation		5
6			8
			ŝ
73.07	קוז ק	DACE	DOUBL
PAG	L OF	PAGE	, DOWN
HOME	BACK	PRINT	HELP
Start) 🗖	•	×	E 14:59

Click **[OK]** button, the screen will display as shown in figure to left.

SELEC	I DIAG.	FUNCTIO	
N	o Fault	Code	
-			
OK		PF	NI
Start) 📭	2	ġ.	₩ 3 15:01

Read Fault Memory

home

Click [**Read fault memory**] button, the screen will display as shown in figure to left.

:	SELECT DIA	G. FUNCTIO	nn
Read faul	t memory		
Clear fau	lt memory		
Data stre	am		
Identific	ation		
š			
PAG	E UP	PAGE	: DOWN
HOME	BACK	PRIM	HELP
Start)	}	<u>```</u>	E 14:59

Click **[OK]** button, the screen will display as shown in figure to left.

SELECT DIAG. FUNCTION			
Are you sure to o	clear fault memory?		
YES	NO		
Start) 📭	🔆 🖂 15:01		

Clear Fault Memory

home

Click [Clear fault memory] button, the screen will display as shown in figure to left.



Click **[YES]** button, the screen will display as shown in figure to left.

	ELECT DIAG	. FUNCTIO	0N
Read fault	t memory		
Clear fau	lt memory		
Data strea	300		8
Identifica	ation		2
1	0.040740		-
			÷.
5			
3			
PAGI	C UP	PAGE	: DOWN
HOME	BACK	PRIM	HELP
Start) 다		×.	E 14:59

Click $\left[\mathbf{OK}\right]$ button, the screen will display as shown in figure to left.

2.	SELECT D	ATA ITEM	
ASC/DSC m	ltifuncti	on displa	эу
Brake-ligh	nt switch		2
Terminal 6	51:		8
Engine spe	ed		
Steering-T	beel angl	e	
Wheel spea	d, front-	left	
Wheel spee	ed, front-	right	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		۲	E 14:59

Read Data Stream

<u>home</u>

Click [**Data stream**] button, the screen will display as shown in figure to left.

	SELECT D	ATA ITEM	
ASC/DSC m	ultifuncti	on display	?
Brake-ligh	nt switch		2
Terminal (51:		
Engine spe	eed		
Steering-	wheel angl	e	
Wheel spea	ed, front-	left	
Wheel spea	ed, front-	right	
)			
PAGE UF	PAGE	DOWN	OK
HOME	BACK	PRIM	HELP
Start) 🗗	•	*	I ₩ 14:59

Click the items you want to see, e.g. **Engine speed**], **[Steering-wheel angle**], **[Wheel speed**, **front-left**] and **[Wheel speed**, **front-right**]. The screen will display as shown in figure to left.

		DATA	STREAM		
Engine spe	eed			-;	255 rpm
Steering-t	ahee.	l angl	.e	0	0
Wheel spea	ed, t	front-	left	0	km/h
Wheel spea	ed, t	front-	right	0	km/h
PAGE UF	ŝ	PAGE	C DOWN	T	GRAPHIC-1
HOME	В	ACK	PRI	NT	HELP
Start)	-	,		ò.	H 14:59

Click **[OK]**. The screen will display the real-time values of the selected items, as shown in figure to left.

Button descriptions:

[GRAPHIC-1]: to display the waveform of an active data.

[**PRINT**]: to print out the test result.

<u>0</u>	DATA	STREAM		
Engine spe -254	eed	2	rpm	
-255				
-256 PAGE UI	PAGE	DOWN	GRA	APHIC-2
HOME	BACK	PRIN	т	HELP
Start) 📭	•	X	× I	📇 14 : 59

Click **GRAPHIC-1**]. The screen will display the waveform for one data stream item. See figure to left.

Button descriptions:

[GRAPHIC-2]: to display tow data steam waveforms.

	DATA	STREAM	
Engine spe -254	ed	1	фш
-255			
-256			
Steering-G	nheel angl	e `	,]
0			
-1			-
PAGE UP	PAGE	DOWN	DIGITAL
HOME	BACK	PRIN	I HELP
Start) 📭		<u>ن</u>	E E 14:59

Click **[GRAPHIC-2**] to display waveforms of two data stream items. It is convenient to make comparison between two correlative data stream items. See figure to left.

		DATA :	STREAM		
Engine <i>s</i> peed				-255 rpm	
Steering-wheel angle					•
Wheel spe	ed, f	iront-	left	0	km/h
Wheel spe	ed, f	iront-	right	0	km/h
PAGE UI	2	PAGE	DOWN	T	GRAPHIC-1
PAGE UI HOME	B	PAGE	DOWN	MI	GRAPHIC-1 HELP

Click **[DIGITAL]** in the interface, the screen will display the real-time value of the data stream again, as shown in figure to left.

2.	SELECT I	ATA ITEM	
ASC/DSC m	ltifuncti	on displa	эу
Brake-ligh	nt switch		
Terminal (51:		
Engine spe	ed		
Steering-t	wheel angl	e	
Wheel spea	ed, front-	left	
Wheel spea	ed, front-	right	
PAGE UF	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
(Start) 🗗		X	 ₩ 14:59

Click **[BACK]** button, the screen will display as shown in figure to left.
5	ELECT DIA	G. FUNCTIO	0N
Read faul	tmemory		
Clear fau	lt memory		
Data stre	300		
Identifica	ation		
1			8
ŝ			
÷			
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIMI	HELP
Start) 다	,	×	E 14:59

ECU IDI	EMIIFY
DSC 1 Hardware No. Software No.	2822000620
OK	PRIMI
itart) 📭	à 🖼 14:59

Version No.

home

Click **[dentification**] in the function menu. The screen will display the information on ECU version of antilock brake system, as shown in figure to left.

2	ELECT DIA	G. FUNCTIO	nn
Read fault	t memory		
Clear fau	lt memory		
Data strea	300		
Identifica	ation		
1			
			8
-			÷
PAG	E UP	PAGE	DOWN
HOME	BACK	PRINI	HELP
Start) 다	•	×.	E 14:59

	SELECT DL	AG. SYSTEM	1
DME (Engir	e)		
EGS (Trans	mission)		
ABS (Antil	.ock brake)	
SRS (Air b)ag)		
IHKA/IHKR	(AC/heate	r)	
IKE/IKI/KO	MBI		
EWS (Elec.	immobili	ze system)	l .
ZKE (Centr	al body e:	lectronic)	
PAGE	UP	PAGE	DOWN
HOME	BACK	PRIMI	HELP
Start) 📭		<u>ې</u>	

ECU IDENI	IFY
Airbag [MRS] sys Part Number Hardware Number Software Number Diagnosis index Coding index Bus index Data	tem 8352763 01 46 04 01 00 50/92
OK	PRIMI
Start) 🕞	🔆 🖂 15:33

Air Bag

home

Click **SRS (Air bag)**] button. The screen will display the information on ECU version of air bag system, as shown in figure to left.

PAGE	UP	PAGE	DOWN
-			
Identifica	tion		
Clear faul	t memory		
Read fault	memory		
			1.26

SELEC	I DIAG.	FUNCTIO	
N	o Fault	Code	
OK		PF	
Start) 🕞		×	# 15:01

Read Fault Memory

home

Click [**Read fault memory**] button, the screen will display as shown in figure to left.

:	SELECT DIA	G. FUNCTIO	00
Read faul	t memory		
Clear fau	lt memory		
Identific	ation		5
			2
ò			
			2
-			ê
ana an	100508	1000	anartary.
PAG	E UP	PAGE	DOWN
HOME	BACK	PRINT	HELP
Start)	•	ġ.	E 15:33

SELECT DIAG. FUNCTION			
Are you sure to c	lear fault memory?		
2			
YES NO			
Start) 🕞	☆ ₩ 15:01		

Clear Fault Memory

<u>home</u>

Click [Clear fault memory] button, the screen will display as shown in figure to left.



	ELECT DIA	G. FUNCTIO	0N
Read fault	t memory		
Clear fau	lt memory		
Identifica	ation		
7			
			X
			2
-			
PAG	E UP	PAGE	DOWN
HOME	BACK	PRINI	HELP
Start) 📭	•	×.	E 15:33

Click $\left[\mathbf{OK}\right]$ button, the screen will display as shown in figure to left.

ECU IDEN	IIFY
Airbag [MRS] sys Part Number Hardware Number Software Number Diagnosis index Coding index Bus index Data	tem 8352763 01 46 04 01 00 50/92
OK	PRIMI
art) D	·č 📾 15:3

Version No.

home

Click **[dentification**] in the function menu. The screen will display the information on ECU version of air bag system, as shown in figure to left.

2	ELECT DIA	G. FUNCTIO	010
Read fault	t memory		
Clear fau	lt memory		
Identifica	ation		
<i>.</i>			8
			ŝ.
-			
2			÷
		1	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRINT	HELP
Start) 📭	,	<u>ي</u>	E 15:33

	SELECT DL	AG. SYSTEM	1
DME (Engi	ne)		
EGS (Tran:	mission)		
ABS (Anti:	lock brake)	
SRS (Air H	oag)		
IHKA/IHKR	(AC/heate	r)	
IKE/IKI/K	OMBI		
EWS (Elec.	. immobili	ze system)	l .
ZKE (Centi	ral body e	lectronic)	Ì
PAGI	E UP	PAGE	DOWN
HOME	BACK	PRIMI	HELP
(Start) 🗗	•	<u>ې</u>	₩ 15:33

ECU IDENI.	IFY
IHKA E38 Part Number Hardware Number Software Number Diagnosis index Coding index Bus index Data	3353432 31 36 01 01 37 30/31
OK	PRIM
štart) 📭	<u>ن</u> الم

Air Conditioning/Heater home

Click [**IHKA/IHKR (AC/Heater)**] button. The screen will display the information on ECU version of air conditioning/heater system, as shown in figure to left.

5	ELECT DIA	G. FUNCTION	a
Read fault	t memory		
Clear fau	lt memory		
)ata stre	зw		
Identifica	ation		
64			
÷			
0.000	oresta:	1000	200-0204
PAG	E UP	PAGE	DOWN
HOME	BACK	PRINT	HELP
Start)	•	-0-	E 09:5

	TROUBL	E CODE	
5 Str	atificatio	n flap mot	or, left
ID 5 2 0	59 undefin	ed.	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRINI	HELP
Start) D	3	×.	H 10:35

Read Fault Memory

home

Click [Read fault memory] button, the screen will display as shown in figure to left.

\$	ELECT DIA	G. FUNCTIO	010
Read fault	tmemory		
Clear fau	lt memory		
Data strea	am		
Identifica	ation		
ð			
ŝ			8
š			
3			
-		1	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 📑	•	×.	BE 09:57

SELECT DIAG. FUNCTION			
Are you sure to c	lear fault memory?		
2			
YES	NO		
Start) 🕞	☆ ₩ 15:01		

Clear Fault Memory

home

Click [Clear fault memory] button, the screen will display as shown in figure to left.

Trouble code has been erased. OK	SELECT DIAG. FUNCTION			
	Trouble code bas	heen erased		
OR		in trade.		
OK				
	OK			

	ELECT DIA	G. FUNCTIO	N
Read fault	memory		
Clear fau	lt memory		1
Data strea	300		8
Identifica	ation		
1			9
÷			8
3			
PAGI	C UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 📭		×.	E 09:57

Click $\left[\mathbf{OK}\right]$ button, the screen will display as shown in figure to left.

Q	SELECT D	ATA ITEM	
Outside te	wperature	sensor (via k-bus)
Engine tem	perature	(via k-bu	າສ)
Inner temp	. sensor		
Evaporate	sensor		
Ventilatio	n tempera	ture sens	or Left
Ventilatio	n tempera	ture sens	sor Right
Heat excha	nger sens	or Left	
Heat excha	nger sens	or Right	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		×.	E 10:14

Read Data Stream

<u>home</u>

Click [**Data stream**] button, the screen will display as shown in figure to left.

0	SELECT D	ATA ITE	a
Stratifica	tion pote	ntiomete	er Front
Stratifica	tion pote	ntiomete	er Rear
Clamp 30			
Phototrans	istor		
Blower con	trol volt		
Sensor blo	wer		
AUC sensor			
Rear compa	rtment sw	itch	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRIM	HELP
Start 📭		ġ.	E 10:14

2	SELECT I	ATA ITEM	10
outside te	mperature	e.	
Inner temp	. sensor		
Temperatur	e control	Left	
Temperatur	e control	Right	5.
Corrected	set valve	Left	
Corrected	set valve	Right	
Guided con	trol Left		
Guided con	trol Righ	t	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		×	E 10:15

	SELECT I	ATA ITEN	1
Engine <i>s</i> pee	:d		
Heat exchar	iger sens	or Left	2
Heat exchar	iger sens	or Right	
Heat exchar	iger rate	d temp.	Left
Heat exchar	iger rate	d temp.	Right
Heat exchar	iger set	value Le	ft
Heat exchar	iger set	value Ri	ght
water valve	e Left		
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start 📭		<u>نې</u>	E 10:15

	SELECT D	ATA ITEM	1
water valve	Right		
Clamp 58g (Via K-bu	s)	1
Phototransi	stor		
Temperature	set Lef	t	8
Temperature	set Rig	ht	
Blower volu	me posit	ion Left	
Blower volu	me posit	ion Righ	t
AC switch			
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		X	E 10:15

0)	SELECT I	DATA ITEI	1	
AUC			i.	
Air circu	lation		2	
Rear windo	ow defogge	r		
Rest heat:	ing			
Defrost				
Above				
Center , :	left			
Below , le	eft			
PAGE UF	PAGE	: DOWN	OK	
HOME	BACK	PRINI	HELP	
Start) 📭	•		E 10:15	

	SELECT D	ATA ITEM	
Auto , left	8		8
Center , ri	ght		÷.
Below , rig	ht		
Auto , righ	t		
Fresh air f	lap		÷
Defrost fla	р		
Air circula	tion fla	p	
Rear Compar	tment fl	ap	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		×.	E 10:16

2	SELECT D	ATA ITEM	
Stratifica	tion flap	Left	
Stratifica	tion flap	Right	
Ventilatio	n flap Le	ft	
Ventilatio	n flap Ri	ght	
Footwell f	lap Left		
Footwell f	lap Right		
Defogger r	elay		
Rear defog	ger relay	į.	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start 📭		<u>ې</u>	

2	SELECT D	ATA ITEM	1
DME - AC s	ignal		
DME - KO s	ignal		
AC compres	sor		
Auxiliary	fan pos.l		
Water valv	e , Left		
Water valv	e , right		
Auxiliary	water pum	р	
Park heati	ng Wake u	p line	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		×	E 10:16

2	SELECT D	ATA ITEI	1
Park heati	ing Lockin	g valve	
Safety Car	:		
Engine spe	ed		
Vehicle sp	eed (Via	K-bus)	1. A.
<i></i>			
			2
6			8
-			
1000-0000	v vessere		4355
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭	ġ.	Ś.	· 🖂 10:16

\$	ELECT DIA	G. FUNCTIO	ON
Read fault	tmemory		
Clear fau	lt memory		
Data stre	300		5
Identific	ation		8
			8
			8
-			
PAG	E UP	PAGE	C DOWN
HOME	BACK	PRIMI	HELP
Start) 📭	•	×.	Beg 09:57

2	SELECT D	ATA ITEM	
Outside te	mperature	sensor	(via k-bus)
Engine tem	perature	(via k-b	us)
Inner temp	. sensor		
Evaporate	sensor		
Ventilatio	n tempera	ture sen	sor Left
Ventilatio	n tempera	ture sen	sor Right
Heat excha	nger sens	or Left	
Heat excha	nger sens	or Right	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		X	 ₩ 10:14

Click [**Data stream**] button, the screen will display as shown in figure to left.

2	SELECT D	ATA ITEM			
Outside te	mperature	sensor (via k-bus)		
Engine ten	perature	(via k-bu	3)		
Inner temp	. sensor				
Evaporate	sensor				
Ventilatio	n tempera	ture sens	or Left		
Ventilatio	n tempera	ture sens	or Right		
Heat excha	nger sens	or Left			
Heat excha	nger sens	or Right			
PAGE UP PAGE DOWN OR					
HOME	BACK	PRINI HELP			
(Start) 📭		×	E 10:35		

Click the items you want to see, e.g. **Dutside** temperature sensor (via K-bus)], [Engine temperature (via K-bus)], [Inner temp. sensor] and [Evaporate sensor]. The screen will display as shown in figure to left.

	DATA	STREAM		
Outside te sensor (Vi	mperature .a K-bus)	E 2	-45	c
Engine ten -bus)	perature	(Via K	0 C	
Inner temp	. sensor		10.0	c
Evaporate	sensor	8	10.0	C
PAGE UP	PAGE	: DOWN	GR	APHIC-1
HOME	BACK	PRIN	т	HELP
Start) 📭		X	×	E 10: 35

Click [**OK**]. The screen will display the real-time values of the selected items, as shown in figure to left.

Button descriptions:

[GRAPHIC-1]: to display the waveform of an active data.

[**PRINT**]: to print out the test result.

	DATA	STREAM	
Outside te sensor (Vi -44	mperature a K-bus)		c
-45			
-46 PAGE UP	PAGE	DOWN	GRAPHIC-2
HOME	BACK	PRIN	T HELP
S 60		20	

Click **GRAPHIC-1**]. The screen will display the waveform for one data stream item. See figure to left.

Button descriptions:

[GRAPHIC-2]: to display tow data steam waveforms.

0	DATA	STREAM		8
Outside te sensor (V) -44	mperature la K-bus)	3	С	
-45				
Engine ter -bus) 0 	operature	(Via K 1	C	
PAGE UI	PAGE	DOWN	DI	GTTAL
HOME	BACK	PRIN	r	HELP
Start 📭		ò	6 🖬	∰ 10:35

Click **[GRAPHIC-2**] to display waveforms of two data stream items. It is convenient to make comparison between two correlative data stream items. See figure to left.

	DATA	STREAM		
Outside te sensor (Vi	mperatura la K-bus)	2	-45 1	С
Engine ten -bus)	perature	(Via K	0 C	2
Inner temp). sensor	8	10.0	c
Evaporate	sensor	8	10.0	c
PAGE UP	PAGE	e down	GRA	APHIC-1
HOME	BACK	PRIN	n	HELP
(mar.) -7				

Click [**DIGITAL**] in the interface, the screen will display the real-time value of the data stream again, as shown in figure to left.

	ELECT DIA	G. FUNCTIO	N
Read fault	tmemory		
Clear fau	lt memory		2
Data strea	300		8
Identifica	ation		
1			÷
			2
			2
PAGI	C UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 📭	•	*	E 09:57

ECU IDEMI	IFY
IHKA E38 Part Number Hardware Number Software Number Diagnosis index Coding index Bus index Data	3353432 31 36 01 01 37 30/31
OK	PRIM
art) 📭	·승· 📖 10:1

Vervion No.

home

Click **[dentification**] in the function menu. The screen will display the information on ECU version of air conditioning/heater system, as shown in figure to left.

	ELECT DIA	G. FUNCTIO	N
Read fault	t memory		
Clear fau	lt memory		
Data strea	300		
Identifica	ation		
÷			
š			
PAG	C UP	PAGE	DOWN
HOME	BACK	PRINI	HELP
Start) 🕞	•	×.	E 69:57

	SELECT DL	AG. SYSTEM	1
DME (Engin	e)		
EGS (Trans	mission)		
ABS (Antil	ock brake.)	
SRS (Air b	ag)		
IHKA/IHKR	(AC/heate	r)	
IKE/IKI/KO	MBI		
EWS (Elec.	immobili	ze system)	į –
ZKE (Centr	al body e	lectronic)	
PAGE	: UP	PAGE	: DOWN
HOME	BACK	PRINT	HELP
Start) 📭		<u>ي</u>	E 15:33

:	SELECT	DIAG.	FUNCTIO	0101
uto Diag	nosis			
anual Se	rvice			
PAG	E UP	~	PAGE	C DOWN
HOME	BAC	ĸ	PRIMI	HELP
itart) 다	•		ò.	E 11:33

Instrument Panel

home

Click [IKE/IKI/KOMBI] button, the screen will display as shown in figure to left.

ECU IDE	MIIFY
IKE E38 Part Number Hardware NO. Software NO. Diagnosis ind Coding index Bus index Data CAN index Modification	3353432 31 36 ex 00 00 37 30/31 37 30
OR	PRINI
tart) D3	

Click **Auto Diagnosis**] button. The screen will display the information on ECU version of instrument panel system, as shown in figure to left.

	ELECT DIA	G. FUNCTIO	0N
Read fault	t memory		
Clear fau	lt memory		
Service Re	eset		
Identifica	ation		
1			1
			ŝ
			8
PAGI	E UP	PAGE	DOWN
HOME	BACK	PRINI	HELP
Start) 다	•	×	E 11:31

		TROUBL	E CODE	
0	Coolant	tempe	rature ser	nsor
2			D & CT	- DOTRI
1	AGE OF		PAGE	, DOWN
			1	12100000000
HOME	E	ACK	PRIM	HELP

Read Fault Memory

home

Click [**Read fault memory**] button, the screen will display as shown in figure to left.

\$	ELECT DIA	G. FUNCTIO	0N
Read fault	tmemory		
Clear fau	lt memory		2
Service Re	eset		
Identifica	ation		
1			8
ì			
-			
PAGI	C UP	PAGE	C DOWN
HOME	BACK	PRIMI	HELP
Start) 📭	,	×	E 11:31

SELECT DIAG. FUNCTION		
Are you sure to c.	lear fault memory?	
YES	NO	
Start) 📭	× 🖼 15:01	

Clear Fault Memory

home

Click [Clear fault memory] button, the screen will display as shown in figure to left.

SELECT DIAG.	FUNCTION
Trouble code has	been erased.
OK	
Start) 📭	🔆 📾 15:01

:	ELECT DIA	G. FUNCTIO	0N
Read faul	tmemory		
Clear fau	lt memory		
Service R	eset		
Identific	ation		
			8
÷			
5			ŝ
		1	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 🗖	•	`	E 11:31

<u> 2</u>	ACTIVAT	ION TEST	
Oil servi	ce ^l		
Time inspe	ection		
Distance :	inspection		
		~	5
·			
-			
		1	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 다	,	×	E 11:31

Service Reset

home

Click [Service Reset] button, the screen will display as shown in figure to left.

ACTIVATION TEST				
End of the panel.	resetting of	the	instrument	
	OK			
Start) 📭		ò	E 11:31	

The operation procedures for the above three items are the same. Now we take **[Oil service]** as an example to describe the procedure.

Click [**Oil service**]. X-431 starts to reset the oil service indicator. When the resetting is completed, the screen will display the message as shown in figure to left.

	ACTIVAT	ION TEST	
Oil servi	ce		
Time inspe	ection		2
Distance :	inspection		
		-	
-			e
			8
			\$
-			
	1000.00		
PAG	E UP	PAGE	C DOWN
HOME	BACK	PRIMI	HELP
Start) 다	,	×	E 11:31

2	ELECT DIA	G. FUNCTIO	010
Read fault	t memory		
Clear fau	lt memory		
Service R	eset		
Identifica	ation		
\$ 			8
i.			ý.
6			
3			
		1	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 🖸	•	×	E 11:31

ECU IDH	ENTIFY
IKE E38 Part Number Hardware NO. Software NO. Diagnosis ind Coding index Bus index Data CAN index Modification	3353432 31 36 00 00 37 30/31 37 30
OK	PRIMI
Start) 📭	à 🖼 11:31

Version No.

home

Click **[dentification**] in the function menu. The screen will display the information on ECU version of instrument panel system, as shown in figure to left.

:	SELECT DIA	G. FUNCTIO	010
Read faul	t memory		
Clear fau	lt memory		
Service R	eset		
Identific	ation		5
·			
			8
5			÷
-			
-		1	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIMI	HELP
Start) 🗖	}	<u>نې</u>	E 11:31

6) 	SELECT DL	AG. SYSTEM	
DME (Engir	ne)		
EGS (Tran:	mission)		1
ABS (Anti:	lock brake)	
SRS (Air B	oag)		8
IHKA/IHKR	(AC/heate	r)	
IKE/IKI/K	OMBI		
EWS (Elec.	. immobili	ze system)	
ZKE (Centi	ral body e	lectronic)	
PAGI	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start 다	,	×	E 15:33

2	ELECT DIA	G. FUNCTIO	N
uto Diag	nosis		
anual Se	rvice		
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 🗖	•	×	E 11:31

Click [IKE/IKI/KOMBI] button, the screen will display as shown in figure to left.

	SELECT DIA	G. FUNCTIO	010
il Reset			
ervice F	eset		
		1	
PAG	E UP	PAGE	o down
HOME	BACK	PRIMI	HELP
Start) 🛛	3	×.	 ₩ 11:44

Manual Se rvice Reset

home

Click [Manual Service] button, the screen will display as shown in figure to left.

SERVICE FUNCTION					
End of the panel.	resetting	of	the	instrumen	ıt
<u>0</u>	OK	6			
Start) 📭			0	Here 11:	31

The operation procedures for the above two items are the same. Now we take **[Oil Reset]** as an example to describe the procedure.

Click [**Oil Reset**]. X-431 starts to reset the oil service indicator. When the resetting is completed, the screen will display the message as shown in figure to left.

	SELECT DL	AG. SYSTEM	1
DME (Engir	ne)		
EGS (Trans	mission)		2
ABS (Antil	lock brake)	8
SRS (Air b	oag)		
IHKA/IHKR	(AC/heate	r)	
IKE/IKI/KO	MBI		
EWS (Elec.	. immobili	ze system)	i i
ZKE (Centi	cal body e	lectronic)	i j
PAGE	C UP	PAGE	DOWN
HOME	BACK	PRIMI	HELP
Start) 📭		<u>ي</u>	E 15:33

ECU IDENIIFY		
Electronic car immobilisation system (EWS 3) Part number 8382452 Hardware number 02 Software number 05 Diagnosis index 81 Coding index 81 Bus index 07 Production date 11/98 Chassis Number: WBAGJ81060DL08708		
OK	PRINI	
itart) 📭		

Elec. Immobilize System home

Click **[EWS (Elec. immobilize system)**] button. The screen will display the information on ECU version of Elec. immobilize system, as shown in figure to left.

	ELECT DIA	G. FUNCTIO	0N
Read fault	tmemory		
Clear fau	lt memory		
Data strea	300		
Identifica	ation		
1			8
			8
5			<u></u>
a			
PAGI	C UP	PAGE	: DOWN
HOME	BACK	PRIMI	HELP
Start) 다	,	×	E 15:32

	TROUBL	E CODE	
0 Ke	y no.4,faul	ty identif	fication
31 Ke	y no.4,inco	rrect pas:	word
PAC	Æ UP	PAGE	DOWN
PAG	E UP BACK	PAGE	DOWN

Read Fault Memory

home

Click [**Read fault memory**] button, the screen will display as shown in figure to left.

\$	ELECT DIA	G. FUNCTIO	0N
Read fault	tmemory		
Clear fau	lt memory		2
Data strea	300		
Identifica	ation		
1			8
÷			2
;			
-			
-			
PAGI	C UP	PAGE	e down
HOME	BACK	PRIMI	HELP
Start) 다	,	×	E 15:32

SELECI DLA	AG. FUNCTION
Are you sure to o	clear fault memory?
YES	NO
Start) 📭	 ☆ 15:01

Clear Fault Mmeory

home

Click [Clear fault memory] button, the screen will display as shown in figure to left.

SELECT DIAG	. FUNCTION
Trouble code ha	s been erased.
ло 	
(Start) 📭	🏹 🖼 15:01

:	ELECT DIA	G. FUNCTIO	N
Read faul	t memory		
Clear fau	lt memory		1
Data stre	Em		
Identific	ation		
			ý.
		T	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 📭	•	×	E 15:32

	SELECT D	ATA ITEN	1
Gearbox ty	ype		e. E
Run-on tij	we		ŝ
Version E	ຟສ		
Starter			
DME wire			
Terminal I	R (wire)		
Terminal I	R (K bus)		
'C. locki general mo	ng double odule (via	locked' K bus)	signal from
PAGE UI	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start)	•	¢.	· 🖽 15:33

Read Data Stream

home

Click [Data stream] button, the screen will display as shown in figure to left.

	SELECT D	ATA TIEM	
BC code sig	mal (via	K bus)	
Ingine spee	ed		
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		-0-	

2	SELECT D	ATA ITEN	1
Gearbox t	ype		
Run-on tii	De la		
Version E	ມຮ		-
Starter			8
DME wire			8
Terminal I	R (wire)		
Terminal I	R (K bus)		8
'C. locki general m	ng double odule (via	locked' K bus)	signal from
PAGE UI	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 🗗	•	ġ.	E 15:33

	SELECT D	ATA ITEM	
Gearbox ty	pe		
Run-on tii	oe		
Version El	າຮ		
Starter			
DME wire			
Terminal H	R (wire)		
Terminal H	R (K bus)		
'C. lockir general mo	ng double odule (via	locked' s K bus)	signal from
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		×	E 15:32

Click the items you want to see, e.g. **Gearbox type**], **[Run-on time**], **[Version EWS]** and **[Starter**]. The screen will display as shown in figure to left.
	DATA	STREAM	
Gearbox ty	zpe	AU	TOMATIC
Run-on tii	oe	53	រ ន
Version El	າຮ	3.	3
Starter		RE	LEASED
PAGE UP	PAGE	DOWN	GRAPHIC-1
PAGE UP	PAGE	DOWN PRINT	GRAPHIC-1 HELP

Click [**OK**]. The screen will display the real-time values of the selected items, as shown in figure to left.

Button descriptions:

[GRAPHIC-1]: to display the waveform of an active data.

[PRINT]: to print out the test result.

	DATA	STREAM		
Run-on tim	e		S	
55				
54	PAGE	: DOWN	GR	APHIC-2
HOME	BACK	PRIN	т	HELP
		L	-	

Click **GRAPHIC-1**]. The screen will display the waveform for one data stream item. See figure to left.

Button descriptions:

[GRAPHIC-2]: to display tow data steam waveforms.

	DATA	STREAM	
Run-on time	lê.	ន	
55			
54			
Version EWS	5		
3.3			
3.2			
PAGE UP	PAGE	DOWN	DIGITAL
HOME	BACK	PRINT	HELP
Start) 📭		×	E 15:32

Click **[GRAPHIC-2**] to display waveforms of two data stream items. It is convenient to make comparison between two correlative data stream items. See figure to left.

	DATA	STREAM		
Gearbox ty	pe	8	AUTO	MATIC
Run-on tii	0e	2	55 3	5
Version EU	JS	2	3.3	
Starter			RELE	LASED
PAGE UP	PAC	E DOWN	GI	RAPHIC-1
HOME	BACK	PRIN	т	HELP
Start) 📭			×	# 15: 32

Click [**DIGITAL**] in the interface, the screen will display the real-time value of the data stream again, as shown in figure to left.

	SELECT D	ATA ITEM	1
Gearbox ty	ype		
Run-on tii	De la		
Version E	ມຮ		2
Starter			2
DME wire			2
Terminal H	R (wire)		2
Terminal H	R (K bus)		2
'C. lockir general mo	ng double odule (via	locked' K bus)	signal from
PAGE UF	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 🗗	•	\$	E 15:33

2	ELECT DIA	G. FUNCTIO	010
Read faul	tmemory		
Clear fau	lt memory		
Data strea	зш		
Identific	ation		
Ŷ			
÷			
2			
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIMI	HELP
Start) 🗗	•	<u>ې</u>	E 15:32

ECU ID	ECU IDENIIFY		
Electronic car immobilisation sy Part number Hardware number Software number Diagnosis index Coding index Bus index Production date Chassis Number: W	estem (EWS 8382452 02 05 81 81 07 11/98 EAGJ81060	3) DL08708	
OK	PF	INI	
Start) 📭	×	E 15:32	

Version No.

home

Click **[dentification**] in the function menu. The screen will display the information on ECU version of Elec. immobilize system, as shown in figure to left.

\$	ELECT DIA	G. FUNCTIO	N
Read faul	t memory		
Clear fau	lt memory		
Data stre	300		
Identific	ation		
÷			
-			
		1	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIMI	HELP
Start) 🖸	•	×	I ₩ 15:32

	SELECT DL	AG. SYSTEM	1
DME (Engir	ne)		
EGS (Trans	mission)		
ABS (Antil	lock brake)	
SRS (Air b	oag)		
IHKA/IHKR	(AC/heate	r)	
IKE/IKI/KO	MBI		
EWS (Elec.	. immobili	ze system)	
ZKE (Centi	cal body e	lectronic)	
PAGE	C UP	PAGE	DOWN
HOME	BACK	PRINI	HELP
Start) 📭		×	E 15:33

ECU IDEMIIFY		
ZKE general mo Part Number Hardware NO. Software NO. Diagnosis inde Coding index Bus index Data CAN index Modification	odule III 8376692 16 16 x 21 04 07 21/97 6C 01	
OK	PRIMI	
tart) 📭	·ở· 🛲 16:00	

Central Body Electronic home

Click [**ZKE (Central body electronic)**] button. The screen will display the information on ECU version of Central body electronic system, as shown in figure to left.

02	ELECT DIA	G. FUNCTIO	N
Readifault	tmemory		
Clear faul	lt memory		÷.
Data strea	300		
Component	activatio	n	2
Identifica	ation		
1			
PAGI	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 📭	•	×	₩ 16:00

SELEC	T DIAG.	FUNCTION	
N	o Fault	Code	
OK		PRI	л
Start) 📭		ŏ	 15:01

Read Fault Memory

home

Click [**Read fault memory**] button, the screen will display as shown in figure to left.

02	ELECT DIA	G. FUNCTIO	N
Readifault	tmemory		
Clear faul	lt memory		÷.
Data strea	300		
Component	activatio	n	2
Identifica	ation		
ĺ			
PAGI	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 📭	•	×	₩ 16:00

SELECT DIAG. FUNCTION		
Are you sure to a	clear fault memory?	
	1	
YES	NO	
Start) 📭	× 🖼 15:01	

Clear Fault Memory

home

Click [Clear fault memory] button, the screen will display as shown in figure to left.

SELECT DIAG	. FUNCTION
Trouble code ha	s been erased.
ло 	
(Start) 📭	🏹 🖼 15:01

:	ELECT DIA	G. FUNCTIO	N
Read faul	tmemory		
Clear fau	lt memory		100 A
Data stre	BDD		
Component	activatio	n	
Identific	ation		
3			8
3			
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 🗖	•	×	E 16:00

Start 다	·	X	₩ 16:00	
HOME BACK PRINT HELP				
PAG	E UP	PAGE	DOWN	
Mirror fu	nctions			
Burglar a	lam syste	m (DWA)		
Electric (window			
Automatic lid	soft-clos	ing system	for boot	
Central-lo	ocking sys	ten		
Interior .	lights and	load cuto	ff	
Windscree	n wash/wip	e system		
SI	CLECT DATA:	STREAM GRO	0P	

Read Data Stream

home

Click [Data stream] button, the screen will display as shown in figure to left.

SE	CLECT DATAS	STREAM GROU	UP
ervotron	ic		
PAG	E UP	PAGE	DOWN
HOME	BACK	PRINT	HELP
Start) 🖸	•		E 16:00

Start) 📭	·	<u>ک</u>	E 16:00
HOME	BACK	PRINT	HELP
PAG	E UP	PAGE	: DOWN
Mirror fu	nctions		
Burglar a	lam syste	m (DWA)	
Electric 1	window		
Automatic lid	soft-clos	ing system	for boot
Central-lo	ocking sys	ten	
Interior .	lights and	load cuto	off
Windscree	n wash/wip	e system	
SE	ELECT DATA:	STREAM GRO	UP .

	SELECT I	DATA TIEM	
Terminal H	2		2
Wiper swit	tch Stalk	position	
Wires from Module com pin 5	n wiper su mector A	uitch to G - Input W	eneral Mind.Wipel
Wires from Module com pin 4	n wiper su mector A	itch to G - Input W	eneral Mind.Wipe2
Wiper swi	tch - Wind	iscreen wa	shing
PAGE UF	PAGE	DOWN	OK
HOME	BACK	PRIM	HELP
Start) 📭	•	<u>ک</u>	 ₩3 16:01

Click **[Windscreen wash/wipe system**] button, the screen will display as shown in figure to left.

SE	CLECT DATA:	STREAM GRO	UUP
Windscreer	n wash/wip	e system	
Interior 3	lights and	load cuto	off
Central-lo	ocking sys	ten	
Automatic lid	soft-clos	ing syster	n for boot
Electric (vindow		
Burglar a	lam syste	m (DWA)	
Mirror fu	nctions		
PAGI	C UP	PAGE	: DOWN
HOME	BACK	PRIMI	HELP
Start) 📭	,	<u>ي</u>	E 16:00

	SELECT I	ATA ITEM	
Terminal H	2		
Terminal (15		
Sidelight:	3		
Pushbuttor	n for inte	rior ligh	nts
Driver's :	side rear	door	2
Passenger	's side re	ar door	
PAGE UF	PAGE	DOWN	OK
an a			
HOME	BACK	PRINI	HELP
Start) 📭		ò	16:01

Click [Interior lights and load cutoff] button, the screen will display as shown in figure to left.

SE	CLECT DATA:	STREAM GRO	UUP
Windscreer	n wash/wip	e system	
Interior 3	lights and	load cuto	off
Central-lo	ocking sys	ten	
Automatic lid	soft-clos	ing syster	n for boot
Electric (vindow		
Burglar a	lam syste	m (DWA)	
Mirror fu	nctions		
PAGI	C UP	PAGE	: DOWN
HOME	BACK	PRIMI	HELP
Start 📭	,	<u>ي</u>	E 16:00

8.	SELECT I	ATA ITEM	
Lock conta	act - driv	er's door	S.
Lock conta	act - rear	lid	
Lock conta	act - pass	enger's d	loor
Central-lo	ocking but	ton	
Status of	the centr	al-lockin	g system
Terminal H	2		
Locking-pa	wl switch	Driver's	door
Locking-pa	wl switch	Passenge	r's door
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		×	E 16:02

Click [Central-locking system] button, the screen will display as shown in figure to left.

(Start) 📭		ġ.	E 16:00
HOME	BACK	PRIMI	HELP
PAG	E UP	PAGE	DOWN
Mirror fu	nctions		
Burglar a	lam syste	m (DWA)	
Electric 1	window		
Automatic lid	soft-clos	ing syster	for boot
Central-lo	ocking sys	ten	
Interior .	lights and	load cuto	off
Windscree	n wash/wip	e system	
SE	ELECT DATA:	STREAM GRO	UP

	SELECT D	ATA ITEM	1
Opening bu inside	tton for	rear lid	- Button
Opening bu cylinder, 1	tton for boot lid	rear lid	- Lock
Boot-lid c	ontact -)	Boot lid	
Lock strik	er in pos	ition	
Status of Car	the centr	al-locki	ng system -
Road speed			
PAGE UP	PAGE	DOUN	OK
HOME	BACK	PRINI	HELP
(Start) 📭		ġ.	 ₩ 16:02

Click **Automatic soft-closing system for boot lid**] button, the screen will display as shown in figure to left.

SE	CLECT DATA:	STREAM GRO	UUP
Windscreer	n wash/wip	e system	
Interior 3	lights and	load cuto	off
Central-lo	ocking sys	ten	
Automatic lid	soft-clos	ing syster	n for boot
Electric (vindow		
Burglar a	lam syste	m (DWA)	
Mirror fu	nctions		
PAGI	C UP	PAGE	: DOWN
HOME	BACK	PRIMI	HELP
Start 📭	,	<u>ي</u>	E 16:00

2	SELECT D	ATA ITEM	2
Terminal H	2:		
Terminal 1	.5:		10
Terminal 3	30h:		
Window, dı	iver's do	or	
Window, pa	assenger's	door	
Window, re	ar driver	's side	
Window, re	ear passen	ger's sid	e
Safety swi	ltch		
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		×.	E 16:03

Click **Electric window**] button, the screen will display as shown in figure to left.

<u>1</u> 2	SELECT D	ATA ITE	9
Window, pa:	ssenger's	door	1
Window, rea	ar on dri	ver's si	.de
Window, rea	ar on pas	senger's	3 side
			-
-			
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRIM	HELP
5 - cu v			

SE	CLECT DATA:	STREAM GRO	UP
Windscreer	n wash/wip	e system	
Interior 3	lights and	load cuto	off
Central-lo	ocking sys	ten	
Automatic lid	soft-clos	ing syster	n for boot
Electric (vindow		
Burglar a	lam syste	m (DWA)	
Mirror fu	nctions		
PAGI	E UP	PAGE	DOWN
HOME	BACK	PRINT	HELP
Start) 🗗	•	×	 ₩ 16:00

	SELECT I	ATA ITEM	1
Terminal R:			*
Terminal 19	5:		i.
Terminal 30	lh:		
Driver's s	ide rear	door:	8
Passenger's	s side re	ar door:	
Bonnet			
Boot lid			
Central-loo	cking sys	tem:	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		۲	 ₩ 16:04

Click **[Burglar alarm system (DWA)**] button, the screen will display as shown in figure to left.

SE	CLECT DATA:	STREAM GRO	UP
Windscreer	n wash/wip	e system	
Interior 3	lights and	load cuto	off
Central-lo	ocking sys	ten	
Automatic lid	soft-clos	ing syster	1 for boot
Electric (vindow		
Burglar a	lam syste	m (DWA)	
Mirror fu	nctions		
PAGI	E UP	PAGE	DOWN
HOME	BACK	PRIMI	HELP
Start) 🗗	•	×.	E 16:00

<u>()</u>	SELECT D	ATA ITEN	1
Mirror adj	justment		-
Horizontal	ļ.		8
Vertical			
Memory swi	itch		
Switch ing door conne	out on doo ector B (1	r module 8-pin,xl	of driver's 128) - Pin 2
Switch ing door conne	out on doo ector B (1	r module 8-pin,xl	of driver's 128) - Pin 5
Switch ing door conne 13	out on doo ector B (1	r module 8-pin,xl	of driver's 128) - Pin
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		¢.	16:05

Click **[Mirror functions**] button, the screen will display as shown in figure to left.

	SELECT D	ATA ITEN	1
Switch ing door conne 13	out on doo ector B (1	r module 8-pin,xl	of driver's 128) - Pin
Mirror - o horizontal	Briver's s	ide - Vo	ltage,
Mirror - o vertical:	lriver's s	ide - Vo	ltage,
Mirror - p horizontal	assenger' .:	s side -	Voltage,
Mirror - p vertical:	assenger'	s side -	Voltage,
Outside te	mperature	:	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		<u>نې</u>	E 16:05

	SELECT D	ATA ITEM	
witch pos	ition Fol	ding in:	8
6			
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		×	E 16:05

SE	LECT DATA:	STREAM GRO	UP
Windscreer	n wash/wip	e system	
Interior 1	lights and	load cuto	off
Central-lo	ocking sys	ten	
Automatic lid	soft-clos	ing syster	n for boot
Electric (vindow		
Burglar al	lam syste	m (DWA)	
Mirror fur	nctions		
PAG	C UP	PAGE	DOWN
HOME	BACK	PRIMI	HELP
Start) 📭		<u>ې</u>	₩ 16:00

	SHECT DATA.	ondani or-o	OF
rvotran	ic		
PAG	e up	PAGE	DOWN
PAG	e up Back	PAGE	DOWN

	SE	LECT D	DATA ITE	IM	_
Speedo ou	tput	signa	l at ge	neral modul	e
Road spee	d vi	a K bu	3		
Current i	n se	rvo va	lve		
6					-
					_
07_70	8	129/22		1000	-
PAGE UI	ði Villa	PAGE	DUWN	UK	
HOME	F	BACK	PRIN	T HELP	
		-			

	S	ELECT D	ATA ITEN	1
ipeedo ou	tput	: signa	l at gen	eral module
load spee	d vi	a K bu	3	
Current i	n se	ervo va	lve	
-				
san ven				1020
PAGE UI	2	PAGE	DOWN	OK
HOME	3	BACK	PRINI	HELP
Start) 🗖			۲	E 16:52

Click the items you want to see, e.g. **Speedo** output signal at general module], [Road speed via K bus] and [Current in servo valve]. The screen will display as shown in figure to left.

		DATA	STREAM		
Speedo ou general m	tput odul	: signa le	al at	180	kmu∕h
Road spee	d vi	ia K bu	IS	l k	m/h
Current i	n se	ervo va	lve	24	mA
PAGE UI	P	PAGE	DOWN	G	RAPHIC-1
HOME	3	BACK	PRI	Л	HELP

Click **[OK]**. The screen will display the real-time values of the selected items, as shown in figure to left.

Button descriptions:

[GRAPHIC-1]: to display the waveform of an active data.

[PRINT]: to print out the test result

	DATA	STREAM		
Speedo out; general moo 181	out signa Bule	lat]	œu∕h	
180				
179	100000000000000000000000000000000000000			
PAGE UP	PAGE	DOWN	GRA	APHIC-2
HOME	BACK	PRIN	т	HELP
Start 📭	,	Ż	÷ 6	₩ 09:48

Click **GRAPHIC-1**]. The screen will display the waveform for one data stream item. See figure to left.

Button descriptions:

[GRAPHIC-2]: to display tow data steam waveforms.

<u> 2</u>	DATA	STREAM		
Speedo out general mo 181	put signa odule	lat }	m/h	
180				
179	l via K bu	s }	m.∕h	
ol				
PAGE UI	PAGE	DOWN	D	IGITAL
HOME	BACK	PRIN	r	HELP
Start) 📭		ò	6	E 09: 48

Click **[GRAPHIC-2**] to display waveforms of two data stream items. It is convenient to make comparison between two correlative data stream items. See figure to left.

	1	DATA :	STREAM		÷.
Speedo ou: general mo	tput odule	signa	l at	180	km/h
Road spee	d via	K bu	3	l kn	ı/h
Current i	n ser	vo va	lve	24 n	ЪĄ
0.					
PAGE UF	2	PAGE	DOWN	G	RAPHIC-1
HOME	B	ACK	PRI	NT	HELP
		-			

Click [**DIGITAL**] in the interface, the screen will display the real-time value of the data stream again, as shown in figure to left.

2	SE	CLECT D	ATA ITE	9
Speedo ou	tput	: signa	l at ger	eral module
Road spee	d vi	a K bu	3	
Current i	n se	rvo va	lve	
e.				
ŝ				
				;
3				
PAGE UI	2	PAGE	DOWN	OK
	<u> </u>			
HOME	I	BACK	PRIM	HELP

SI	ELECT DATA:	STREAM GRO	UP
Windscree	n wash/wip	e system	
Interior .	lights and	load cuto	off
Central-lo	ocking sys	ten	
Automatic lid	soft-clos	ing system	for boot
Electric (window		
Burglar a	lam syste	m (DWA)	
Mirror fu	nctions		
PAG	E UP	PAGE	: DOWN
HOME	BACK	PRIM	HELP
Start 📭	•	*	E 16:00

	ELECT DIA	G. FUNCTIO	ON
Read fault	t memory		
Clear fau	lt memory		
Data strea	300		
Component	activatio	n	
Identifica	ation		2
PAG	C UP	PAGE	: Down
HOME	BACK	PRINI	HELP
Start) 📭		ò.	₩ 16:00

AGE DOWN
AGE DOWN
tem for boot
utoff
D
[

Component Activation

home

Click **Component activation**]. The screen will display a list of items for activation test, as shown in figure to left.

Start) 📭		<u>ې</u>	₩ 09:51
HOME	BACK	PRINT	HELP
PAGE	UP	PAGE	: DOWN
lindscreen	washer p	ատը	
diper moto	: at Spee	d 2	2
liper moto	r at Spee	d 1	
	ACIIVAI.	ION IESI	

Click [Windscreen wash/wipe system] button, the screen will display as shown in figure to left.

Start 📭		ġ.	₩ 09:50
HOME	BACK	PRINT	HELP
PAG	E UP	PAGE	: DOWN
Power win	dows		
Mirror fu	nctions		
Burglar a	lam syste	m (DWA)	
Automatic lid	soft-clos	ing syster	n for boot
Central-lo	ocking sys	ten	
Interior .	lights and	load cuto	off
Windscree	n wash/wip	e system	
	ACTIVAT:	ION TEST	

	ACTIVAT	ION TEST	
lum on i (Lights :	nterior li are dimmed	ghts for 3 when turr	30 seconds 1 on)
sctivate .	load cutof	£	
		1	
PAG	E UP	PAGE	: DOWN
HOME	BACK	PRINT	HELP
	1		1

Click [Interior lights and load cutoff] button, the screen will display as shown in figure to left.

Start) 📭		ò	E 09:50
HOME	BACK	PRINT	HELP
PAG	C UP	PAGE	: DOWN
Power win	lows		
Mirror fu	nctions		
Burglar a	lam syste	m (DWA)	
Automatic lid	soft-clos	ing syster	n for boot
Central-lo	ocking sys	ten	
Interior .	lights and	load cuto	off
Windscree	n wash/wip	e system	
	ACTIVAT:	ION TEST	

PAGE	C UP		PAGE	: DOWN
3				
Central-lo	ocking (drive,	rear o	loors
Central-lo	ocking (drive,	passer	nger's door
Central-lo	ocking	drive,	driver	's door

Click [Central-locking system] button, the screen will display as shown in figure to left.

	ACTIVAT	ION TEST	
ocking/De	uble-lock:	ing	
nlocking			
PAG	E UP	PAGE	DOWN
HOME	BACK	PRINI	HELP
start) 📭	•	×	₩ 09:52

X-431 BMWDiagnosis

Click **Central-locking drive**, **driver s door**] button, the screen will display as shown in figure to left.

	ACTIV	ATION	TEST	
Central-lo	ocking	drive,	drive	's door
Central-l	ocking (drive,	passer	nger's door
Central-l	ocking (drive,	rear (loors
¢.				-
-				
PAG	E UP		PAGE	: DOWN
HOME	BACK	: 3	PRINT	HELP
		-	201	

	ACTIVAT:	ION TEST	
ocking/De	ouble-lock	ing	
nlocking			
		1	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
start) 📭	•	×.	₩ 09:52

Click [Central-locking drive, passenger s door] button, the screen will display as shown in figure to left.

	ACIIV	ATION	TEST	
Central-l	ocking	drive,	driver	's door
Central-l	ocking (drive,	passen	ger's door
Central-l	ocking (drive,	rear d	loors
·				
1				
				ŝ
-				
PAG	E UP		PAGE	DOWN
HOME	BACK		PRINT	HELP
			202	

	ACTIVAT:	ION TEST	
Locking			
Double-lo	cking		8
Unlocking			
			5
<i>6</i>			
÷			8
			ŝ
2			
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIMI	HELP
Start) 📭	•	<u>ې</u>	E 09:53

Click [Central-locking drive, rear doors] button, the screen will display as shown in figure to left.

	ACTI	IVATION	TEST	
Central-lo	ocking	drive,	driver	's door
Central-lo	ocking	drive,	passer	nger's door
Central-lo	ocking	drive,	rear o	loors
1				
PAG	E UP		PAGE	DOWN
HOME	BAC	ĸ	PRINT	HELP
Start) 🗗	•	- iii	ò.	I ₩ 09:52

	ACTIVAT:	ION TEST	
Windscreer	n wash/wip	e system	
Interior :	lights and	load cuto	off
Central-lo	ocking sys	ten	
Automatic lid	soft-clos	ing syster	n for boot
Burglar a	lam syste	m (DWA)	
Mirror fu	nctions		
Power wind	lows		
PAGI	E UP	PAGE	DOWN
HOME	BACK	PRIMI	HELP
Start) 다	,	×	B 09:50

	ACTIVAT:	ION TEST	
chanism	for unloc	king boot .	lid
PAG	E UP	PAGE	DOWN
HOME	BACK	PRINI	HELP
tart) D3	•		6 09:

Click **Automatic soft-closing system for boot lid**] button, the screen will display as shown in figure to left.

Start) 📭		ò	E 09:50
HOME	BACK	PRINT	HELP
PAG	C UP	PAGE	: DOWN
Power win	lows		
Mirror fu	nctions		
Burglar a	lam syste	m (DWA)	
Automatic lid	soft-clos	ing syster	n for boot
Central-lo	ocking sys	ten	
Interior .	lights and	load cuto	off
Windscree	n wash/wip	e system	
	ACTIVAT:	ION TEST	

	ACTIVAT:	ION TEST	
tatus LEI	D (30 s)		
mergency	siren (l :	s)	
			;
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIMI	HELP
Start) 📑	•	×.	₩ 09:54

Click **[Burglar alarm system (DWA)]** button, the screen will display as shown in figure to left.

Start 📭		ġ.	₩ 09:50
HOME	BACK	PRINT	HELP
PAG	E UP	PAGE	: DOWN
Power win	dows		
Mirror fu	nctions		
Burglar a	lam syste	m (DWA)	
Automatic lid	soft-clos	ing syster	n for boot
Central-lo	ocking sys	ten	
Interior .	lights and	load cuto	off
Windscree	n wash/wip	e system	
	ACTIVAT:	ION TEST	

	ACTIVAT	ION TEST	
Mirror adj	justment d	river's si	.de
Mirror adj	justment p	assenger's	; side
Mirror he	ating		
Mirror, fo	olding in/	out	5
PAG	S UP	PAGE	DOWN
HOME	BACK	PRINT	HELP
Start) 📭	•	×	₩ 09:55

Click **[Mirror functions**] button, the screen will display as shown in figure to left.

	ACTIVAT	ION TEST	
Horizonta.	l right		
Horizonta.	l left		
Vertical v	որ		
Vertical (down		
3			
-			
-			
		1	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) D3	•		BEE 09:55

Click [Mirror adjustment driver s side] button, the screen will display as shown in figure to left.

2	ACTIVAT	ION TEST	
Mirror adj	justment d	river's si	ide
Mirror adj	justment p	assenger's	s side
Mirror he	ating		2
Mirror, fo	olding in/	out	2
PAG	E UP	PAGE	: DOWN
HOME	BACK	PRINT	HELP
Start) 📭	,	<u>ې</u>	E 09:55

	ACTIVAT	ION TEST	
Horizontal	l right		
Horizonta.	l left		
Vertical u	որ		
Vertical (down		
]			
PAGI	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start)	•		BES 09:55

Click [Mirror adjustment passenger s side] button, the screen will display as shown in figure to left.

2	ACTIVAT	ION TEST	2
Mirror ad	justment d	river's si	ide
Mirror adj	justment p	assenger's	s side
Mirror hea	ating		÷.
Mirror, fo	olding in/	out	
PAG	E UP	PAGE	: DOWN
HOME	BACK	PRINT	HELP
Start) 📭		<u>ې</u>	₩ 09:55

	ACTIVAT	ION TEST	
Driver's	side		
Passenger	's side		
			8
-			
		1	
PAG	E UP	PAGE	C DOWN
HOME	BACK	PRIMI	HELP
Start) 다	,	×	E 09:58

Click [Mirror heating] button, the screen will display as shown in figure to left.

24	ACTIVAT	ION TEST	
Mirror adj	justment d	river's si	ide
Mirror adj	justment p	assenger's	s side
Mirror he	ating		
Mirror, fo	olding in/	out	8
PAG	C UP	PAGE	: DOWN
HOME	BACK	PRIM	HELP
Start)	•	`	 ₩ 09:55

	ACTIVATI	ON TEST	
Mirror, dı	river's sid	le, foldi	ing in
Mirror, dı	civer's sid	le, foldi	ing out
Mirror, pa	assenger's	side, fo	olding in
Mirror, pa	assenger's	side, fo	olding out
PAG	C UP	PAG	E DOWN
HOME	BACK	PRIMI	HELP
Start) 🕞		¢.	

Click **Mirror**, **folding in/out**] button, the screen will display as shown in figure to left.

2	ACTIVAT	ION TEST	10	
Mirror ad	justment d	river's si	ide	
Mirror adj	justment p	assenger's	s side	
Mirror hea	ating			
Mirror, fo	olding in/	out	5. ³	
PAGE	C UP	PAGE	: Down	
HOME	BACK	PRINI	HELP	
Start) 📭		<u>ي</u>	₩ 09:55	
	ACTIVAT:	ION TEST		
----------------------	------------	------------	------------	--
Windscreer	n wash/wip	e system		
Interior :	lights and	load cuto	off	
Central-lo	ocking sys	ten		
Automatic lid	soft-clos	ing syster	n for boot	
Burglar a	lam syste	m (DWA)		
Mirror fu	nctions			
Power wind	lows			
PAGI	E UP	PAGE	DOWN	
HOME BACK PRINT HELP				
Start) 다	,	×	B 09:50	

2	ACTIVAT	ION TEST			
Window, dı	dindow, driver's door open				
Window, dı	civer's do	or, closed	3		
window, pa	assenger,	open			
window, pa	assenger, (closed			
window, dı	civer-side	, rear, op	en		
window, dı	civer-side	, rear, cl	losed		
window, pa	assenger-s	ide, rear	open		
window, pa	assenger-s	ide, rear	closed		
PAGE	E UP	PAGE	DOWN		
HOME	HOME BACK PRINI HELP				
Start] 🔂 🔆 📇 10:01					

Click **Power windows**] button, the screen will display as shown in figure to left.



Click one item in the list to perform the test.

Now we take [Window, driver s door open] as example to explain the test steps:

Click [Window, driver s door open]. X-431 starts testing idle actuator.

When the test is successful, the screen will display the message as shown in figure to left.

Button description:

[OK]: to return to the upper level interface.

	ACTIVAT	ION TEST	
Window, dı	Window, driver's door open		
Window, dı	civer's do	or, closed	3
window, pa	assenger,	open	
window, pa	assenger,	closed	
window, dı	civer-side	, rear, op)en
window, dı	civer-side	, rear, cl	losed
window, pa	assenger-s	ide, rear	open
window, pa	assenger-s	ide, rear	closed
PAGE	E UP	PAGE	: DOWN
HOME BACK PRINT HELP			
Start] 🔂 🔆 🚟 10:01			

Start 📭		ġ.	₩ 09:50
HOME	BACK	PRINT	HELP
PAG	E UP	PAGE	: DOWN
Power win	dows		
Mirror fu	nctions		
Burglar a	lam syste	m (DWA)	
Automatic lid	soft-clos	ing syster	n for boot
Central-lo	ocking sys	ten	
Interior .	lights and	load cuto	off
Windscree	n wash/wip	e system	
	ACTIVAT:	ION TEST	

:	SELECT DIA	G. FUNCTIO	0N
Read faul	t memory		
Clear fau	lt memory		2
Data stre	am		
Component	activatio	n	
Identific	ation		ŝ.
PAG	E UP	PAGE	: DOWN
HOME	BACK	PRINT	HELP
Start) 🗗	}	×.	₩ 16:00

ECU IDENTIFY		
ZKE general mon Part Number Hardware NO. Software NO. Diagnosis index Coding index Bus index Data CAN index Modification	dule III 83766 16 21 04 07 21/97 6C 01	592 7
OR	PF	
Start] 💽	¢.	E 16: 00

Version No.

home

Click **[Identification**] button. The screen will display the information on ECU version of Central body electronic system, as shown in figure to left.

:	ELECT DIA	G. FUNCTIO	N
Readifault	t memory		
Clear fau	lt memory		ŝ
Data stre	Em		
Component	activatio	n	
Identific	ation		
PAG	E UP	PAGE	: DOWN
HOME	BACK	PRIMI	HELP
Start) 📑	•	×	I ₩ 16:00

6) 	SELECT DL	AG. SYSTEM	8
DME (Engir	ne)		
EGS (Tran:	mission)		
ABS (Anti:	lock brake)	
SRS (Air H	oag)		
IHKA/IHKR	(AC/heate	r)	
IKE/IKI/K	MBI		
EWS (Elec.	. immobili	ze system)	
ZKE (Centi	cal body e	lectronic)	
PAGI	C UP	PAGE	DOWN
HOME	BACK	PRINI	HELP
Start) 다		×	E 15:33

	SELECT DI	AG. SYSTEM	
JR (Navig	ation cont	rol)	8
PDC (Park	Distance (Control)	
		1	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 🗖) }		H 15:33

home

ECU IDEMIIFY		
FGR Cruise contr Part Number Hardware NO. Software NO. Diagnosis index Coding index Bus index Data	:01 8375497 07 04 03 05 00 44/97	
OK	PRIM	
Start] 💽	× 🖽 16:49	

Navigation Control

Click [**GR** (Navigation control)] button. The screen will display the information on ECU version of navigation control system, as shown in figure to left.

:	ELECT DIA	G. FUNCTIO	N
Read faul	t memory		
Clear fau	lt memory		
Data stre	Em		
Component	activatio	n	
Identific	ation		é
PAG	C UP	PAGE	DOWN
HOME	BACK	PRINI	HELP
Start) 🗖	•	×	1

Click **[OK]** button. The screen displays the function menu of the navigation control system, as shown in figure to left.

SELEC	I DIAG.	FUNCTIO	
Ne	o Fault	Code	
OK		PF	
Start) 🕞			₩ 15:01

Read Fault Memory

home

Click [Read fault memory] button, the screen will display as shown in figure to left.

:	ELECT DIA	G. FUNCTIO	N
Read faul	t memory		
Clear fau	lt memory		
Data stre	BID		
Component	activatio	n	8
Identific	ation		÷.
PAG	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start)	•	×	1

SELECT DIAG. FUNCTION			
Are you sure to c.	lear fault memory?		
YES	NO		
Start) 📭	🔆 🖂 15:01		

Clear Fault Memory

<u>home</u>

Click [Clear fault memory] button, the screen will display as shown in figure to left.



0	ELECT DIA	G. FUNCTIO	N
Read fault	tmemory		
Clear fau	lt memory		8
Data strea	300		
Component	activatio	n	
Identifica	ation		*
			8
8			
3			*
e esere	COSTA	1000	
PAG	E UP	PAGE	DOWN
HOME	BACK	PRINT	HELP
Start) 📭	,	<u>ي</u>	E 16:50

0	SELECT D	ATA TIEM	
Resume vel	nicle spee	d again a	octuator
Setting/ad	celeratio	n '+'	
Setting/ad	celeratio	י-י מ	
ON/OFF 'I/	/O' operat	ed	
Selector-1 position	lever posi	tion, dri	ving
Clutch swi	itch		
Electric ł	orake-ligh	t <i>s</i> witch	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		×.	 ₩ 16:51

Read Data Stream

home

	SELECT D	ATA ITEM	
Clutch out	put, serv	omotor	÷
GR motor n	egative		1
-			
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		ġ.	E 16:51

Č.	SELECT D	ATA ITEM	
Resume vel	nicle spee	d again a	ctuator
Setting/ad	celeratio	י+י מ	
Setting/a	celeratio	י-י מ	
ON/OFF 'I,	/O' operat	ed	
Selector-1 position	lever posi	tion, driv	ving
Clutch swi	itch		
Electric b	orake-ligh	t switch	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 📭		×	1 E 16:51

	SELECT D	ATA ITEN	1
Resume vel	nicle spee	d again	actuator
Setting/a	cceleratio	n '+'	
Setting/a	celeratio	n '−'	
ON/OFF 'I,	/O' operat	ed	
Selector position	lever posi	tion, dr	iving
Clutch sw:	itch		
Electric H	orake-ligh	t switch	
PAGE UF	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
(Start) 📭	,	<u>ک</u>	E 17:03

Click the items you want to see, e.g. [Resume vehicle speed again actuator], [Setting/acceleration '+'], [Setting/acceleration '+'], [ON/OFF '1/0' operated] and [Selector-lever position, driving position]. The screen will display as shown in figure to left.

	DATA	STREAM		
Resume ver again actu	nicle spea Nator	ed	Oper	ated
Setting/ad	celeratio	י+' ממ	Not	operated
Setting/ad	celeratio	י-י ממ	Oper	ated
ON/OFF 'I,	0' operat	ted	Not	operated
Selector-J driving po	lever posi Disition	ition,	R,D,	14
PAGE UP	PAGE	e doun	GR	APHIC-1
HOME	BACK	PRI	NT I	HELP
Start) 📭			¢:	23 17:03

Click **[OK]**. The screen will display the real-time values of the selected items, as shown in figure to left.

Button descriptions:

[PRINT]: to print out the test result.

2.	SELECT D	ATA ITE	ŋ
Resume veh	icle spee	d again	actuator
Setting/ac	celeratio	n '+'	
Setting/ac	celeratio	n'-'	
ON/OFF 'I/	O' operat	ed	
Selector-l position	ever posi	tion, dr	iving
Clutch swi	tch		
Electric b	rake-ligh	t switch	i.
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRIM	HELP
Start) 📭		Ý	E 16:51

:	ELECT DIA	G. FUNCTIO	NN .
Read faul	tmemory		
Clear fau	lt memory		
Data stre	300		
Component	activatio	n	
Identifica	ation		
		1	
PAG	E UP	PAGE	: DOWN
HOME	BACK	PRINT	HELP
Start) 📭	,	\$	 ₩ 16:50

<u>0</u>	ACTIVATI	ION TEST	
Activate (plus	output, en	gine outpu	it stage
Activate o minus	output, en	gine outpu	it stage
Switch out passive	put, engi	ne output	stage
Switch out	put, clut	ch active	£
Switch out	put, clut	ch passive	2
PAGE	C UP	PAGE	: DOWN
HOME	BACK	PRINT	HELP
Start) 📭		`	# 17:05

Component Activation

home

Click **Component activation**]. The screen will display a list of items for activation test, as shown in figure to left.



Click one item in the list to perform the test.

Now we take [Activate output, engine output stage plus] as example to explain the test steps:

Click [Activate output, engine output stage plus]. X-431 starts testing idle actuator.

When the test is successful, the screen will display the message as shown in figure to left.

Button description:

[OK]: to return to the upper level interface.

	ACTIVATI	ION TEST	
Activate o plus	output, en	gine outpu	it stage
Activate o minus	output, en	gine outpu	it stage
Switch out passive	put, engi	ne output	stage
Switch out	put, clut	ch active	ž.
Switch out	put, cluto	ch passive	2
PAGE	: UP	PAGE	: DOWN
HOME	BACK	PRINT	HELP
Start) 📭		<u>ي</u>	E 17:05

:	ELECT DIA	G. FUNCTIO	0N
Read faul	tmemory		
Clear fau	lt memory		ŝ
Data stre	300		
Component	activatio	n	
Identifica	ation		
			8
PAG	E UP	PAGE	C DOWN
HOME	BACK	PRINT	HELP
Start) 🗗	•	×.	 ₩ 16:50

ECU IDENTIFY		
FGR Cruise cont Part Number Hardware NO. Software NO. Diagnosis index Coding index Bus index Data	rol 8375497 07 04 03 05 00 44/97	
OK	PRIMI	
Start) 🕞	🄆 🖂 16:49	

Version No.

home

Click **[dentification**] in the function menu. The screen will display the information on ECU version of navigation control system, as shown in figure to left.

5	ELECT DIA	G. FUNCTIO	0N
Read faul	t memory		
Clear fau	lt memory		8
Data stre	BID		
Component	activatio	n	2
Identifica	ation		
			ŝ
8			
		1	
PAG	E UP	PAGE	: DOWN
HOME	BACK	PRIMI	HELP
Start) 🖸	•	<u>نې</u>	E 16:50

6) 	SELECT DL	AG. SYSTEM	
DME (Engir	ne)		
EGS (Tran:	mission)		1
ABS (Anti:	lock brake)	
SRS (Air B	oag)		8
IHKA/IHKR	(AC/heate	r)	
IKE/IKI/K	OMBI		
EWS (Elec.	. immobili	ze system)	
ZKE (Centi	ral body e	lectronic)	
PAGI	E UP	PAGE	DOWN
HOME	BACK	PRIM	HELP
Start) 다	,	×	E 15:33

	SELECT DI	AG. SYSTEM	1
GR (Navig	ation cont	rol)	
PDC (Park	Distance	Control)	
_		1	
PAG	E UP	PAGE	: DOWN
HOME	BACK	PRIM	HELP
Start) П	۱ ۶	- - O-	H 15:33

ECU IDENIIFY			
Park Distance Part number Hardware numb Coding index Diagnosis ind Bus index Date of manuf Date of manuf Software numb	er er ex .,CW .,year er	ol (: 835) 10 00 00 19 97 19	PDC) 2279
OK		PF	
art) 📭		ò.	F 17:2

Park Distance Control home

Click [**PDC** (**Park distance control**)] button. The screen will display the information on ECU version of park distance control system, as shown in figure to left.

5	ELECT DIA	G. FUNCTIO	IN
Read fault	t memory		
Clear fau	lt memory		8
Data strea	am		8
Identific	ation		
\$ 			e.
ŝ			
-			
PAG	E UP	PAGE	: DOWN
HOME	BACK	PRIMI	HELP
Start) 💽	•	<u>نې</u>	E 17:28

Click **[OK]** button. The screen displays the function menu of the transmission system, as shown in figure to left.

		TROUBL	E CODE	
3	Acoust	ic gene	rator, fro	nt on
	PAGE U	IP	PAGE	DOWN
HOM	Æ	BACK	PRIM	HELP
Start	90	-	`	₩ 17:28

Read Fault Memory

home

Click [**Read fault memory**] button, the screen will display as shown in figure to left.

\$	ELECT DIA	G. FUNCTIO	0N
Read fault	t memory		
Clear fau	lt memory		
Data strea	am		
Identifica	ation		
^b			8
ŝ			
÷			
PAG	E UP	PAGE	: DOWN
HOME	BACK	PRIMI	HELP
Start) 📭	•	<u>.</u>	E 17:28

SELECT DIAG. FUNCTION		
Are you sure to cl	lear fault memory?	
1		
YES NO		
Start) 📭	资 📾 15:01	

Clear Fault Memory

home

Click [Clear fault memory] button, the screen will display as shown in figure to left.

SELECT DIAG.	FUNCTION
Trouble code has	been erased.
OK	
Start) 📭	资 📾 15:01

	ELECT DIA	G. FUNCTIO	0N
Read fault	tmemory		
Clear fau	lt memory		
Data strea	зш		8
Identifica	ation		8
š			
-			
PAGI	C UP	PAGE	C DOWN
HOME	BACK	PRIMI	HELP
Start) 다	,	×	E 17:28

	SELECT D	ATA ITEM	1
Terminal 15	ž.		2
Reverse gea	r		i.
Trailer mod	e		
Status, par	king aid		
Clearance,	rear lef	t	
Clearance,	rear cen	ter left	
Clearance,	rear cen	ter righ	t
Clearance,	rear rig	ht	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRIM	HELP
(Start) 📭		×.	E 17:28

Read Data Stream

home

	SELECT D	ATA ITE	М
Terminal 19	5		
Reverse gea	er		
Trailer mod	3e		
Status, par	king aid		
Clearance,	rear lef	t	
Clearance,	rear cen	ter left	t i
Clearance,	rear cen	ter rigl	ot
Clearance,	rear rig	ht	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRIN	I HELP
(Start) 📭		ý	(🖂 17:29

Click the items you want to see, e.g. [Terminal 15], [Reverse gear], [Trailer mode], [Status, parking aid], [Clearance, rear left], [Clearance, rear center left], [Clearance, rear center right] and [Clearance, rear right]. The screen will display as shown in figure to left.

	DATA :	STREAM		
Terminal 15			Not	actuated
Reverse gea	n	8	Sel	ect
Trailer mod	le	3	YES	
Status, par	king aid	1	Act	uated
Clearance, rear left			0	
Clearance, rear center left			0	
Clearance, right	rear cen	ter	0	
PAGE UP	PAGE	DOWN	G	RAPHIC-1
HOME	BACK	PRIN	π	HELP
Start) 📭			þ:	E 17:29

Click **[OK]**. The screen will display the real-time values of the selected items, as shown in figure to left.

Button descriptions:

[GRAPHIC-1]: to display the waveform of an active data.

[PRINT]: to print out the test result.

	DATA	STREAM		
learance,	, rear lef	t		
o				
PAGE UP	PAGE	: Down	GRA	PHIC-2
HOME	BACK	PRIN	т	HELP
Start) 📭		Ż	× E	∰ 17 : 29

Click **GRAPHIC-1**]. The screen will display the waveform for one data stream item. See figure to left.

Button descriptions:

[GRAPHIC-2]: to display tow data steam waveforms.

	DATA	STREAM	
Clearance,	rear lef	it	
0			
	rear cer	nter	
left 1			
0			
-1			
PAGE UP	PAGE	E DOWN	DIGITAL
HOME	BACK	PRIN	T HELP
Start 📭		ò	× 🖽 17:29

Click **[GRAPHIC-2**] to display waveforms of two data stream items. It is convenient to make comparison between two correlative data stream items. See figure to left.

	DATA :	STREAM		
Terminal 15			Not actuated	
Reverse gea	n		Sel	ect
Trailer mod	le	ŝ	YES	
Status, par	king aid		Act	wated
Clearance,	rear lef	t	0	
Clearance, rear center left			0	
Clearance, right	rear cen	ter	0	
PAGE UP	PAGE	DOWN	C	RAPHIC-1
HOME	BACK	PRI	VT	HELP
Start) 📭		-	¢.	E 17:29

Click [**DIGITAL**] in the interface, the screen will display the real-time value of the data stream again, as shown in figure to left.

	SELECT D	ATA ITEM	1
Terminal 15	č.		8
Reverse gea	r		2
Trailer mod	e		
Status, par	king aid		8
Clearance,	rear lef	t	
Clearance,	rear cen	ter left	
Clearance,	rear cen	ter righ	t
Clearance,	rear rig	ht	
PAGE UP	PAGE	DOWN	OK
HOME	BACK	PRINI	HELP
Start) 🕞	, i i i i i i i i i i i i i i i i i i i	¢.	E 17:28

:	SELECT DIA	G. FUNCTIO	ON
Read faul	t memory		
Clear fau	lt memory		1
Data stre	am		8
Identifica	ation		
5			e
1.5			
3			
3			
PAG	E UP	PAGE	e down
HOME	BACK	PRINI	HELP
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ECU IDENIIFY			
Park Distance Part number Hardware numbe Coding index Diagnosis inde Bus index Date of manuf. Date of manuf. Software numbe	Control (PDC) 8352279 er 10 00 ex 00 00 .,CW 19 .,Year 97 er 19		
OK	PRIMI		
t) rə	-X- 📼 17:		

Version No.

home

Click **[dentification**] in the function menu. The screen will display the information on ECU version of park distance control system, as shown in figure to left.

:	ELECT DIA	G. FUNCTIO	0N
Read faul	tmemory		
Clear fau	lt memory		2
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Click $\left[\mathbf{OK}\right]$ button, the screen will display as shown in figure to left.

	SELECT DL	AG. SYSTEM	1
DME (Engir	e)		
EGS (Trans	mission)		
ABS (Antil	ock brake.)	
SRS (Air b	ag)		8
IHKA/IHKR	(AC/heate	r)	
IKE/IKI/KO	MBI		
EWS (Elec.	immobili	ze system)	l I
ZKE (Centr	al body e:	lectronic)	ĺ
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	CAR CI	ASSIS	
3'/Z1_E30			
3'/Z3_E36			
3'_E46			
5'_E28			
5'_E34			
5'_E39			
6'_E24			
7'_E23			
PAGE	C UP	PAGE	e down
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Start) 📭		×.	₩ 09:58