

KNOW WHAT YOUR CAR IS THINKING.™

User Manual

(Version 1.5 June 12, 2001)

Table of Contents

Table of Contents	2
Introduction & Logging In	3
The Networkcar Service	3
The CAReader™	4
Logging onto the Networkcar Website	5
Navigation Tips	6
Finding a Customer	7
Viewing your Customer List	7
Quick Search by Customer, Vehicle or License Plate	
Adding a Customer/Vehicle	9
Registering a New Customer	
CAReader [™] Installation Instructions	15
Add Car/CAReader [™] to an Existing Customer Profile	17
Checking Vehicle Status	19
Vehicle Alert Status	19
System Diagnostic Measurements	20
Historical System Diagnostics	21
Alert History	23
Service Records	24
Viewing an Individual's Service Records	24
Dealer Wide Service Records	25
Recalls	26
Customer Associated Recalls	26
Dealer Wide Recalls	27
Emails You Receive	28
Alert Summary Email	28
Book Appointment Email	29
Marketing (CRM Campaigns)	30
What Your Customers See	30
How to Create a New Campaign	31
Broadcast a Message (CAReader Update Email)	31
Support	32
Frequently Asked Questions	32
Contact Information	
Glossary of Terms/Icons	33

Introduction & Logging In

The Networkcar Service

The Networkcar service allows car owners and their automotive service providers to get real-time information about the performance of a car over the Internet.

How is that possible?

Networkcar's service is possible because of the "CAReader[™]", a device that plugs quickly into your car's computer. The CAReader[™] retrieves information from the computer and transmits it over a wireless network (just like a pager or cell phone) to Networkcar's database. Networkcar then uses the information to predict and diagnose the car's performance. Each car owner has a personalized website that displays these results along with other useful information, such as maintenance records, recent recalls, emissions and mileage performance.

I am a car owner. Why would I want this service?

If something is wrong with your car, Networkcar sends you an email alert warning you about a potential problem so you can take care of it quickly. The diagnostic information collected by the CAReader[™] is also available online. This means faster service, since your dealer or automotive service provider can "pre-examine" your car remotely long before you bring in your car. There are lots of other benefits. For instance:

- Receive e-mail alerts of potential car problems as they occur
- Decrease the risk of car failure through proactive monitoring in conjunction with your service provider
- Obtain faster service through special remote diagnostics conducted by your service provider
- Detect small problems before they develop into larger more expensive problems
- Receive e-mail alerts of regular service reminders and recalls
- Receive special service and sales discounts not available to the general public
- Monitor your family vehicles through your own vehicle maintenance website
- Review your vehicle's maintenance history online

I am an automotive dealer. Why would I want this service for my customers?

The answer is simple: Good customer service leads to strong customer retention. With the CAReader[™], you can provide new, highly personalized services that

will keep your customers coming back to your dealership. The Networkcar service allows you to:

- Establish a direct electronic link with your customers
- Encourage customer loyalty
- Increase profit by increasing service visits
- Know what their car is thinking through remote diagnostics
- Improve your diagnosis of intermittent problems
- Facilitate the monitoring of leased vehicles
- Deliver electronic service and sales promotions.

What are the future applications of this technology?

- Remote smog checks
- Remote door unlock
- Real-time appointment booking
- Subscription-based nationwide database diagnostic data

The CAReader™

Networkcar's CAReader[™] sends information on a car's vital signs over the Internet through a wireless network to car owners and automotive service providers. About the size of a cellular telephone, the CAReader[™] is compatible with about 80 million vehicles on the road today; all cars manufactured since 1996. The device collects diagnostic information on a car's electrical, mechanical, fuel, and emissions systems, is quickly installed, and operates maintenance-free for the life of the vehicle. The CAReader plugs directly into the car's OBD-II connector, an industry standard communications port, and is hidden from view once installed.



Logging onto the Networkcar Website

- Enter http://www.networkcar.com into the address bar of your web browser and hit the enter key. This will bring you to the Networkcar home page (Figure 1).
- Enter your username and password.
- *Click on the LOGIN button.* You are now logged-in to the Networkcar system. You should now see the Dealer Homepage (Figure 2).

	KNOW WHAT YOUR CAR IS
	THINKING.™
	Networkcar's service allows car owners and their automotive service providers to get real-time information about the performance of a car over the Internet. Networkcar lets you know what your car is thinking and this means fewer unexpected problems, better car maintenance, and more efficient car service!
	Know what your car is thinking!
I NEED MY 15,000 MILE SERVICE.	MEMBER LOGIN Username
WILLE SERVICE.	Password

Figure 1: Networkcar Website

Figure 2: Dealer Home Page

KNOW WHAT YOUR CAR IS THINKING. "	Log Out Help
💼 Dealer Home	
Welcome Dealership User.	
From this main screen, you will be able to access informa For your convenience, some quick links to portions of the	
 Finding a Customer Use the search function on the left or click below for a full list. View a list of all your customers 	Service Records Click below to view the service records for your Networkcar customers. View a list of service records
Recall Summary Click below to access a list of recalls for your dealership direct from the NHTSA. View a list of recalls	New Customer Registration Click below to add a new Networkcar customer to your dealership. Sign up new customers
	 Welcome Dealership User. From this main screen, you will be able to access informa For your convenience, some quick links to portions of the Finding a Customer Use the search function on the left or click below for a full list. View a list of all your customers Recall Summary Click below to access a list of recalls for your dealership direct from the NHTSA.

Navigation Tips

Below are some quick hints on how the navigation and menus on the site will help to guide you to your proposed destination.

<u>Dealership Menu Bar</u> – Located on the left side of your screen this navigation menu let's you access information for your dealership – All Customers, All Recalls, etc.

<u>Customer Menu Bar</u> – This navigation menu spans the middle portion of your screen once you have selected the customer or vehicle. The buttons access information particular to the customer/vehicle shown in the header.

	WWW.NETWORKCAR.COM	
networkcar	KNOW WHAT YOUR CAR IS THINKING. TH	Log Out Help
Your Dealership	👖 User Name	
Name Here	3 YEAR MAKE MODEL	🖀 Last CAReader Update: Dec 07 12:37:00 PST
Your Dealership	Vin# 4S3BK6355S6328723	🛿 Vehicle Mileage: 194 miles
🗐 Logo Here	Customer Profile Vehicle Check Service	Recalls
	Vehicle Check	Vehicle-Related Information
SEARCH BY II	DEALERSHIP MENU BAR These buttons access lists of information specifically for your dealership - customers, service records, recalls, and new customer registration.	CUSTOMER MENU BAR These buttons access information for the customer and vehicle shown in the beader. To change customers use the customer list or search function on the dealer menu. Sec. 24.1.255.245. READ or support/@polymetrose.com

Finding a Customer

Viewing your Customer List

- From the Dealer Home Page click on the *CUSTOMERS button, located on the menu on the left side of your screen.* You should now see an alphabetical list of all your Networkcar customers (Figure 8). You may click on the bold customer, car, year, model, alerts, recalls, or service record headings as a way to refine your sort by alphabetical order, type of car or whether or not the customer has alerts or recalls.
- Click on the NEXT and PREV buttons or the skip box to scroll through the list or use the show per page dropdown in the bottom right to alter the number of records displayed on each page. (These functions are true for all lists within the Networkcar site.)

etworkcar	KNOW WHAT Y	DUR CAR IS THINKING.™		a dine. Anore		Log Ou	ut He
Bay Bloor Autos BAY BLOOR	Customer List						
Autos	Search for "All Cu	istomers" and found 51 rec	ord(s).				
CH BY II	Next 🕨				Skip to pa	age 1	of 11 🕻
Name 🔽 60	Customer	Car (Year , Model)	Odometer	Alerts	Recalls 🔺	Service Records	Last Active Read
ustomers	Thompson,Mike	1997 TOYOTA COROLLA	36263	1	2	1	01/31/20
ervice Records	Jones,James	1998 TOYOTA CAMRY	29063	1	2	3	01/31/20
alls	Doe,John	2001 TOYOTA CAMRY	16381	0	1	1	03/20/20
Customer	Kirkman,Mark	2001 TOYOTA CAMRY	16381	0	1	1	03/20/20
	Rominger,Kathy	2001 TOYOTA CAMRY	16381	0	1	2	03/20/20
	Next 🕨				Show 5	💌 per	page. 🚺

Figure 8: Customer List Page

Quick Search by Customer, Vehicle or License Plate

The quick search function allows you to search your customer list by Customer Name, VIN, or License Plate (Figure 9). The Quick Search box is located on the left side of every page in the site.

• Select the criteria that you wish to search by pulling down the drop down menu. In this case we searched for all customers with a last name starting with "jon". Type the first few letters of the customer's last name or car information that you want to search for in the box and click the GO button. You should now see a table of your search results.

Figure 9: Customer List Search Results

networkcar	KNOW WHAT Y	'OUR CAR IS THINKING. ™		- de-		Log Ou	it Help
Bay Bloor Autos	🖬 Customer Lis	t					
BAY BLOOR Autos	Search for custo	mers with "jon" in their Cu	stomer Last N	arne and	found 1 re	cord(s).	
SEARCH BY					Skip to	page 1	of 1 GO
Jon GO	Customer 🔺	Car (Year , Model)	Odometer	Alerts	Recalls	Service Records	Last Active Read
Customers	Jones,James	1998 TOYOTA CAMRY	29063	1	2	3	01/31/2001
All Service Records All Recalls Register Customer					Show 1	0 💌 per	page. GO

Adding a Customer/Vehicle

Registering a New Customer

Ask the customer to complete a Networkcar registration form (Appendix B). The customer should complete the customer information section and you should fill in the VIN and license number on side two of the form. Remember to remind the customer to login to the website to change their password once they get home.

Also have the customer sign Networkcar's legal disclaimer form and return the signed legal disclaimers to Networkcar.

After the registration form has been completed, you will give the form to the Assistant Service Manager (ASM) who coordinates installation, assigns the CAReaderTM serial number and obtains the odometer reading. The service representative then enters the information from the paper form into the Networkcar system using the following screens (Figure 3 and 4).

The Networkcar customer registration section allows you to register new customers for the Networkcar service.

• From the Dealer Home page click on the REGISTER CUSTOMER button, located on the menu on the left side of your screen. You should now see a blank customer registration form (Figure 3).

Figure 3: Customer Registration Form: Customer Information

networkcar	KNOW WHAT YOUR CAR IS TH	IINKING.™ Log Out Help
Bay Bloor Autos	Customer Registration: C	ustomer Information
SEARCH BY IN	Complete all required fields and p mandatory. Name	press the Submit button at the bottom of the page. Fields marked with an * are
Last Name	First Name*	
GO	Last Name*	
Home	Username and Password	
Customers All Service Records	Networkcar Username*	
All Recalls	Password*	
Register Customer	Confirm Password*	
	E-mail Address	
	E-mail Address*	
	Confirm E-mail Address*	
	Phone Numbers	
	Daytime*	Please enter without formatting. Numbers only.
	Evening*	
	Cell	
	Pager	
	Fax	
	Address	
	Address*	
	City*	
	State*	CA 💌
	Zip*	
	Primary Contact Method	
	Select a button to indicate the primary contact method.	\odot Daytime Phone \odot Evening Phone \odot Cell Phone \odot E-mail
	SUBMIT	
	Problems, Questions, Technic	al Issues? Contact <u>support@networkcar.com</u> . Copyright©2001, Networkcar Inc.

Enter the customer information that the form requests. All fields with a * must be filled in.

Click the SUBMIT button when the customer registration form is complete. If any of the mandatory fields are left blank, you will be prompted to fill in the missing information. You should now see a blank car and CAReaderTM registration form (Figure 4).

Figure 4: Customer Registration Form: Car and CAReaderTM Information

networkcar	KNOW WHAT YOUR CAR IS THINKING.™ Log Out Hel	p
Bay Bloor Autos	Customer Registration: Car and CAReader Info	
BAY BLOOR Autos	Complete all required fields and press the Next Step button at the bottom of the page. Fields marked with an * are mandatory.	
SEARCH BY	Car Information	
Last Name 🔽 😡	VIN#: Warning! The VIN is very important. Please ensure it is accurate.	-
Home	License Plate:	
Customers All Service Records	Initial Odometer:	
All Recalls	CAReader Information	
Register Customer	Serial Number*:	_
	Next Step	
	Problems, Questions, Technical Issues? Contact <u>support@networkcar.com</u> . Copyright © 2001, Networkcar Inc.	

- Enter the car information that the form requests. All fields with a * must be filled in. Make sure that the vehicle VIN and CAReader serial number are entered correctly. If you are registering a vehicle, and you do not have the license plate information, leave the license plate and state fields blank. This information can be entered later using the edit customer information form.
- Click the NEXT STEP button when the form is complete. If the VIN decodes with the year, make and model you should now see a confirmation form, containing the information that you just entered (Figure 6). Skip figure 5. If the VIN does not decode you will see an undecoded form (Figure 5). Enter the information requested and click the SUBMIT button when finished. You will now be taken to the confirmation form (Figure 6).
- Review the information that is displayed for accuracy. Use the MAKE CHANGES button to go back and modify any information. (Please refrain from using the BACK button on your browser during this process)

• When you are comfortable that all of the information on the confirmation page is accurate hit the CONFIRM button. You will now see a screen that indicates registration is complete (Figure 7).

Figure 5: Undecoded VIN

networkcar	KNOW WHAT YOUR CAR IS THINKING. TH	Help			
Bay Bloor Autos	Customer Registration: VIN and CAReader Verification				
Autos	Error: VIN: 4T1BF22K6YU942264 could not be decoded, or only partially decoded.				
ACLEAN BY IN					
SEARCH BY	The following information was decoded from VIN#: 4T1BF22K6YU942264 Year: 1900 Make: UNKNOWN Model: UNKNOWN Trim:				
Customers All Service Records All Recalls	Please enter the Year, Make, Model and Trim of the vehicle in the fields below and press SUBMIT. Fields marked with an * are mandatory.				
Register Customer	Year* 1900 Note: Please enter the year as a four digit number.				
	Make* UNKNOWN Note: Please capitalize the first letter of the vehicle make (e.g. Toyota, Ford, etc).				
	Model* UNKNOWN Note: Please capitalize the first letter of the vehicle model (e.g. Camry, Taurus, etc).				
	Trim Note: For a Camry LE, the trim would be "LE".				
	SUBMIT				
	Problems, Questions, Technical Issues? Contact <u>support@networkcar.com</u> . Copyright © 2001, Networkc	ar Inc.			

Figure 6: Customer Registration: VIN and CAReader[™] Verification

			-
networkcar	KNOW WHAT YOUR CAR IS TH	HINKING.™	Log Out Help
Bay Bloor Autos	💼 Customer Registration: C	onfirmation	
Autos	Please verify all information, esp press the "Confirm" button belov	ecially VIN and CAReader Serial Number. If all informat v.	tion appears correct,
EARCH BY II	Customer Information		
.ast Name 💌	Name:	John Smith	
GO	Networkcar Login Name:	JOHNSMITH	
Home	E-mail Address:		
	Daytime Phone:	johnsmith@aol.com (858)555 1010 (pref)	
Customers	Evening Phone:	(858)555-1212 {pref} (858)569-5987	
All Service Records			
All Recalls	Cell:	(619)453-6787	
Register Customer	Pager:		
	Fax: Address:	123 Main St. San Diego, CA 92111	
	Car Information	4T1BF22K6YU942264	
	Year:	2001	
	Make:	Toyota	
	Model:	Camry	
	Trim:		
	License Plate:		
	CAReader Information		
	Serial Number:	15660613	
	Make Changes Confirm)	

Figure 7: Customer Registration: Registration Complete

tworkcar	KNOW WHAT YOUR CAR IS T	INKING. TM	Log Out Hel
	Customer Registration: R		
	Customer Negistration. N	egistration complete	
		essfully registered a new customer for the Network e use the search function on the left. The first read st 24 hours.	
arne 🔽	Customer Information		
60	Name:	John Smith	
	Networkcar Login Name:	JOHNSMITH	
me	E-mail Address:	johnsmith@aol.com	
stomers	Daytime Phone:	(858)555-1212 {pref}	
Service Records	Evening Phone:	(858)569-5987	
Recalls	Cell:	(619)453-6787	
gister Customer	Pager:		
	Fax:		
	Address:	123 Main St. San Diego, CA 92111	
	Car Information		
	VIN#	4T1BF22K6YU942264	
	Year:	2001	
	Make:	Toyota	
	Model:	Camry	
	Trim:		
	License Plate:		
	CAReader Information		
	Serial Number:	15660613	

CAReader[™] Installation Instructions

Carefully follow all instructions to ensure a safe and functional installation. Improper installation may cause:

A Dangerous Hazard for Driver CAReader[™] to not function

1) Locate the OBD-II port in the vehicle.

The port is generally located under the dash in the driver side cockpit area but may be located elsewhere in the cockpit area.

2) Use your best judgment to determine where to secure the CAReaderTM and whether to use a long or short cable.

Keep in mind:

The CAReader[™], cable, and antenna must be installed away from any moving parts such as the steering column, throttle and brake areas.

3) With the ignition off, plug the CAReaderTM connector into the OBD-II port.

4) Check for a green LED to indicate that the unit is receiving power.

5) Start the vehicle and wait for 20-40 seconds for a yellow LED. If you do not see a yellow LED, remove the CAReader[™] and begin again with a new CAReader[™] at Step 3.

6) Record two important numbers; the CAReader[™]

- serial number (located on the back of the device)
- odometer at the time of the install

7) Pass two long tie wraps through the openings in the CAReaderTM. Tie wrap the CAReaderTM to a convenient wire bundle under the dash. *Do not block any moving parts.*

8) Determine a suitable antenna routing that will hide the antenna cable and blade.





RF Exposure Warning:

When installed as directed, this equipment complies with radiation exposure limits for general population/uncontrolled exposure. To ensure user's safety and to satisfy RF exposure requirements, this unit must be installed so that a minimum separation distance of 33 cm (13 inches) is always secured between the transmitting structure and the body of the user or nearby persons.

9) Route the antenna cable underneath the interior moldings along the hinge of the driver door and onto the dash.

- Do not coil the antenna cable.
- Route the cable between the windshield shade band and dashboard until you reach the antenna blade. Place the antenna blade between the windshield shade band and dashboard. A thin tool like a plastic putty knife helps push the cable and blade into the shade band.

10) Return the information you recorded to the appropriate party.

Your installation is now complete.

- **NOTE:** This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of more of the following measures:
 - Reorient or relocate the receiving antenna
 - Increase the separation between the equipment and receiver
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.

Warning: Changes or modifications not expressly approved by Networkcar could void the user's authority to operate the equipment.

Add Car/CAReader[™] to an Existing Customer Profile

DO NOT USE this form to register a new customer. Use this form only to add a vehicle to an existing Networkcar Account.

 To add a vehicle to an existing customer's information, click on a Customer Name link from the main customer page. This will bring you to a Customer Profile page. Click on the ADD CAR button located at the bottom of the Customer Profile page. You should now see an Add New CAR and CAReader[™] Form (Figure 13).

Figure 13: Add New CAR and CAReader[™] Form

networkcar	KNOW WHAT YOUR CAR IS THINKING.™	Log Out Help
Bay Bloor Autos	🟦 John Doe	2001 TOYOTA CAMRY 💌
BAY BLOOR Autos	3 2001 TOYOTA CAMRY	🖀 Last CAReader Update: Mar 15 16:55:28 PST
	VIN# JT2BG22K0W0189863	🗯 Emissions: 🗹 🚦 Vehicle Mileage: 4684 miles
SEARCH BY	Customer Profile Vehicle Check Service Recalls	
Last Name	Back to Customer Profile	
GO	Add New Car and CAReader	
Home	Complete all required fields and press the Next Step button at th	e bottom of the page.
All Service Records All Recalls	Car Information	
Register Customer		
	WARNING! The VIN is very important. Please ensure it is accur	ate.
	License Plate State Initial Odometer	
	CAReader Information	
	Serial Number*	
	WARNING! The CAReader serial number is very important. Plea	ase ensure it is accurate.
	Prev Step Next Step	
	Problems, Questions, Technical Issues? Contact support@net	workear.com. Convright@2001.Networkear.loc

• Enter the vehicle information that the form requests. Please confirm that the VIN and CAReader serial number are correct and that the correct Year/Make/Model is displayed for the vehicle you are registering.

Click the NEXT STEP button when the form is complete. You should now see a confirmation form, containing the information that you just entered. If there are errors in the VIN or CAReader[™] serial number you will be prompted to re-enter this information.

Checking Vehicle Status

Vehicle Alert Status

This section provides you with an overview of the current status of your customer's vehicle along with historical information. Each vehicle has been divided into 4 categories of systems: **Emissions, Engine/Fuel, Transmission/Brakes and Other Systems**. The status of each system will be displayed on this page under its particular heading.

• After choosing a vehicle from your customer list, click the VEHICLE CHECK button located on the Customer (See Below). You should now see the Vehicle Check page (Figure 14).

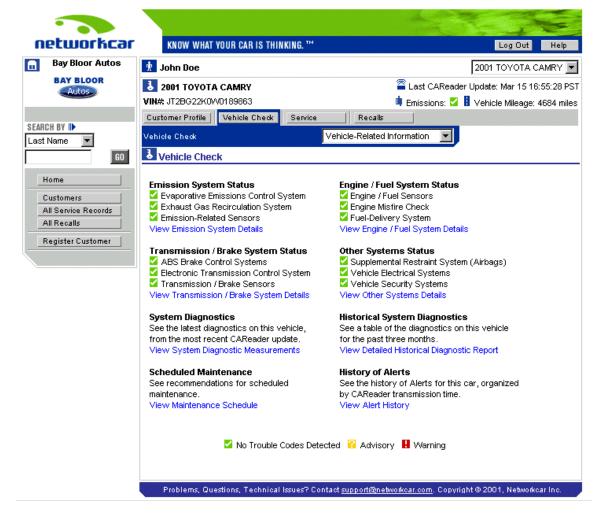


Figure 14: Vehicle Check Page

• Click on the System Details links to review the status of each system.

Emission System

This page displays the status of Emission related systems within a vehicle.

Engine/Fuel System Status

This page displays the status of Engine/Fuel related systems within a vehicle.

Transmission/Brake System Status

This page displays the status of Transmission/Brake related systems within a vehicle.

Other Systems Status

This page displays the status of general systems within a vehicle other than Emissions, Engine/Fuel and Transmission/Brakes. Reminders for scheduled maintenance fall into this category.

System Diagnostic Measurements

(Figure 15) shows selected diagnostic data for the vehicle. This is the same data collected by a scan tool and corresponds to the timestamp in the header; the last time data was sent from the vehicle. This data can help you determine what is wrong with your customers' vehicles before they bring them in.

• From the customer list page, click on a Customer Name link to go to a customer's profile page. From the customer profile page, click on the vehicle check button. From the vehicle check page, click on the detailed system diagnostics link. You should now see the Detailed System Diagnostic Measurements page (Figure 15).

Figure 15: Detailed System Diagnostic Measurements Page

tworkcar	KNOW WHAT YOUR CAR IS THINKING. TM		Log Out
ay Bloor Autos	🟦 John Doe		2001 TOYOTA CA
AY BLOOR	3 2001 TOYOTA CAMRY	🖀 Last CAReader U	lpdate: Mar 15 16:
Autos	VIN# JT2BG22K0W0189863	🖕 Emissions: 🗹 🚦	
	Customer Profile Vehicle Check Service	Recalls	Venicle Mileage. 4
BY II >			
ne 💌	Back to Vehicle Check	Vehicle-Related Information	
GO	System Diagnostics		
e	Diagnostic Measurements		
omers	Pending DTCs - Pending DTCs	none	
	Injection duration - Toyota Specific Data		msec
rvice Records	Ignition Timing Advance - OBDII Data		deg
alls	IAC duty ratio - Toyota Specific Data	46	
r Customer	Calculated Load Value - OBDII Data	30	
Customer	Air Flow Rate MAF Sensor - OBDII Data	34.39	
	Engine RPM - OBDII Data		RPM
	Engine Coolant Temp OBDII Data		degF
	Intake Air Temp OBDII Data		degF
	Abs. Throttle Position Sensor - OBDII Data	21	
	CTP switch - Toyota Specific Data	off	
	Short Term Fuel Trim /B1 - OBDII Data		%
	Long Term Fuel Trim /B1 - OBDII Data		%
	Total fuel trim bank 1 - Toyota Specific Data	102.7	
	Total fuel trim bank 2 - Toyota Specific Data	103.9	
	MIL Light - OBDII Data	off	
	PNP switch - Toyota Specific Data	off	
	Elect, load signal - Toyota Specific Data	on	
	Stop light switch - Toyota Specific Data	off	
	PS oil press. switch - Toyota Specific Data	off	
	B1S2 Voltage - OBDII Data	0.680	
	PS signal - Toyota Specific Data	on	
	Intake control VSV1 - Toyota Specific Data	off	
	Intake control VSV2 - Toyota Specific Data	off	
	A/C mag, clutch - Toyota Specific Data	off	
	Vapor pressure VSV - Toyota Specific Data	0.1 0 N	
	No. ignition - Toyota Specific Data	0	
	wo. ignicoff - Toyota Specific Data		

Historical System Diagnostics

(Figure 16), actually multiple pages, shows a 3-month record of diagnostic activity for a vehicle and may provide information that will be useful for solving intermittent vehicle problems.

• From the customer list page, click on a vehicle link to go to a vehicle check page. From the vehicle check page, click on the detailed historical diagnostic report link. You should now see the Detailed Historical Diagnostic Report Pages. You can scroll through the information by clicking the NEXT link.

Figure 16: Detailed Historical Diagnostic Report Page

								1	-	-
tworkcar	KNOW WHAT YO	UR CA	R IS THINK	(ING. ™				Lo	g Out	Help
	🕆 John Doe							2001 TO	УОТА СА	MRY
Autos	🕹 2001 ТОУОТА (AMR	Y			🖀 La	ist CAReade	er Update: M	ar 15 16:5	5:28
	VIN# JT2BG22K0W0189863 🗰 Emissions: 🗹 🚦 Vehicle Mileag									
	Customer Profile	Vehicle	e Check	Service	Rec					
BY II										
me 💌	Back to Vehicle Check	9		<u>I</u> v	enicle-Rela	ted Informal	tion 🗾			
GO	Detailed Histor	ical C)iagnostic	: Report						
ne stomers Service Records Recalls	Found 5 entries v	vith ir	nformation	n on your u	vehicle's p	erforman		ip to page 1	of 1	G
jister Customer							UNI.	ih to hade I.	011	u
				03/15/2001						
	Parameter Banding BTCs	Units	16:55:28	16:54:37	16:51:23	16:28:10	15:59:36			
	Pending DTCs Injection duratior	mean	none 7.2	none 7.2	none 7.2	none 2.7	none 7.4			
	Ignition Timing	msec	1.2	1.2	1.2	2.1	7.4			
	Advance	deg	11	11	11	7	12			
	IAC duty ratio	%	46	46	46	40	85			
	Calculated Load									
	Value	%	30	30	30	21	50			
	Air Flow Rate									
	MAF Sensor	gm/s		34.39	34.39	2.42	39.85			
	Engine RPM	RPM	1937	1937	1937	680	2543			
	Engine Coolant Temp.	degF	199	199	199	190	186			
	Intake Air Temp.	-	91	91	91	82	69			
	Abs. Throttle	aegi			9 1					
	Position Sensor	%	21	21	21	10	23			
	CTP switch		off	off	off	on	off			
	Short Term Fuel									
	Trim /B1	%	3	3	3	-6	-2			
	Long Term Fuel									
	Trim /B1	%	5	5	5	8	3			
	Total fuel trim		400.7	400.7	400 7		400.7			
	bank 1 Total fuel trim	%	102.7	102.7	102.7	105.1	102.7			
	bank 2	%	103.9	103.9	103.9	50.0	104.3			
	MIL Light		off	off	off	off	off			
	PNP switch		off	off	off	off	off			
	Elect. load signal		on	on	on	off	off			
	Stop light switch		off	off	off	off	off			
	PS oil press.									
	switch		off	off	off	off	off			
	B1S2 Voltage	V	0.680	0.680	0.680	0.875	0.650			
	PS signal		on	on	on	on	on			
	intake control VSV1		off	off	off	off	off			

Alert History

(Figure 17) shows you each alert or service advisory that the vehicle has triggered and then cleared over time.

• From the customer list page, click on the vehicle link to go to the vehicle check page. From the vehicle check page, click on the alert history link. You should now see a list of the History of Alerts and Service Advisories for a vehicle.

Figure 17: Alert History Page

networkcar	KNOW WHAT YOUR CA	R IS THINKING. ™		Log Out Help
Bay Bloor Autos	🔥 John Doe		200	D1 TOYOTA CAMRY 💌
BAY BLOOR Autos	3 2001 TOYOTA CAMR	Y	🖀 Last CAReader Upda	ate: Mar 15 16:55:28 PST
	VIN# JT2BG22K0W018986	3	🗯 Emissions: 🌌 🚦 Vel	hicle Mileage: 4684 miles
ARCH BY II	Customer Profile Vehicle	Check Service	Recalls	
ast Name	Back to Vehicle Check	Vehicle	-Related Information	
60	S Alert History			
Home Customers All Service Records All Recalls	FOUND 2 dates in Alert	history.	Skip to pe	age 1 of 1 60
Register Customer	Alert Name 🔺	Initial Read, Odometer	Last Active Read, Odome	eter Count
	🔁 Other	Mar 15 16:28, 4684	Mar 15 16:28, 4684	1
	 Please schedule you 5K SERVICE : Schedule 	r 5,000 mile service appo d Maintenance	intment	
	Emissions	Mar 15 16:51, 13651	Mar 15 16:51, 13651	1
		onsuming fuel efficiently 1 Circuit Malfunction (Bank 1	or Single Sensor)	
			Show 10	▼ per page. 60
		No Trouble Codes Detect	ed 😰 Advisory 🔋 Warning	
	Problems Que stions J	echnical Issues? Contact sup	port@networkcar.com, Copyright@2	2001 Networkcar Inc

Service Records

Viewing an Individual's Service Records

This section contains a list of all service records for an individual customer. These service records are imported from your DMS system. The vehicle owner is also allowed to enter records for service outside your dealership, but these records are flagged as owner-entered. If the customer has more than one vehicle, use the drop down menu box located in the upper right portion of your screen to select another vehicle.

- *Click on the SERVICE button.* You should now see a list of the service records for this customer's car (Figure 18).
- *Click a work order number.* You should now see a detailed description of the service record.

networkcar	KNOW WHAT YO	UR CAR IS THINKING.	тм			Log Out	Help
Bay Bloor Autos	👖 John Doe					2001 TOYOTA	CAMRY 💌
BAY BLOOR Autos	👗 2001 ТОУОТА С	AMRY			🖀 Last CAReader	Update: Mar 15 1	(6:55:28 PST
	VIN# JT2BG22K0W0	189863			Emissions: 🗹 🚦	Vehicle Mileage	: 4684 miles
	Customer Profile	/ehicle Check Sen	rice	Recalls	·····	_	
SEARCH BY	Service History						
60	Service History	,					
Home Customers All Service Records All Recalls Register Customer		ew Service Record for		o view and e	edit		
					Skip t	opage 1 o	of 1 60
	 Service Date 	Workorder #	Comple	aint/Descrij	ption	Modified O	'n
	12/1/2000	239	Oil Light			4/9/2001	
	10/20/2000	OWNER		tires at Disc n in Wyoming	ount tires while on 3.	4/9/2001	
					Show	10 💌 perpa	ge. GO
	Problems, Questi	ons, Technical Issues	? Contact su	nport@netw	okear.com. Convrido	t⊚ 2001. Netwoor	kear Inc.

Figure 18: Service History

Dealer Wide Service Records

This page contains a list of all service records for the Networkcar customers within your dealership. Service records are automatically transferred to Networkcar from your DMS system.

- Click the ALL SERVICE RECORDS button on the menu on the left side of your screen. You should now see a list of all service records for your dealership (Figure 20).
- *Click on a work order number.* You should now see a detailed description of that service record.

Figure 20: Dealer Wide Service Records

Bay Bloor Autos		UR CAR IS THINKING.	тм	Log Out He
BAY BLOOR Autos		-	Service Date or Workord	der #for details.
CH BY II	Next 🕨			Skip to page 1 of 3
Name 💌	- Service Date	Workorder #	Customer	Car (Year, Model)
GO	3/25/2001	OWNER	Atero,Richard	2001 TOYOTA CAMRY
	3/14/2001	OWNER	Cowley,Tom	2001 TOYOTA CAMRY
lome	3/14/2001	OWNER	Atero,Richard	2001 TOYOTA CAMRY
ustomers	3/14/2001	OWNER	Reynolds,Beth	2001 TOYOTA CAMRY
Il Service Records	3/14/2001	OWNER	Rominger,Kathy	2001 TOYOTA CAMRY
Il Recalls	3/14/2001	OWNER	Frederickson,Cecilia	2001 TOYOTA CAMRY
ii Nedalis	2/2/2001	206	Jones,James	1998 TOYOTA CAMRY
egister Customer	2/1/2001	202	Jones,James	1998 TOYOTA CAMRY
	1/2/2001	199	Thompson,Mike	1997 TOYOTA COROLLA
	9/10/2000	200	Jones,James	1998 TOYOTA CAMRY
	Next 🕨			Show 10 💌 per page.

Recalls

Customer Associated Recalls

This page, (Figure 19), contains a list of recalls for a customer's particular car. If the customer has more than one vehicle, use the drop down menu located in the upper right portion of the screen to select another vehicle.

• *Click on the RECALLS button.* You should now see a list of the current recalls for this vehicle.

Figure 19: Recall List

							-
networkcar	KNOW WHAT YO	UR CAR IS TH	IINKING.™			Log Out	Help
Bay Bloor Autos	👖 John Doe					2001 TOYOTA	CAMRY 💌
BAY BLOOR	2001 ТОУОТА (AMRY			🖀 Last CAReader	r Update: Mar 15 1	6:55:28 PST
	VIN# JT2BG22K0V/0	189863			Emissions: 🗹	🕴 Vehicle Mileage:	4684 miles
	Customer Profile	Vehicle Check	Service	Recalls			
SEARCH BY IN► Last Name	Recall List						
Home	Found 1 recall(s) fo	or this car. Cli	ck the ID# to view	details.			
All Service Records	→ ID #	Туре	Component				
All Recalls	01/012000	NHTSA	FUEL:THROTTLE	LINKAGES A	AND CONTROL		
Register Customer							
	Problems, Quest	ions, Technic	al Issues? Contact;	support@netv	<u>vorkear.com</u> . Copyrig	ht©2001, Network	car Inc.

Click the ID # link to get a more detailed description of the recall. If you would like more information on the recall than is provided on this screen please visit the National Highway Transportation Safety Administration (NTHSA) website at www.nhtsa.dot.gov

Dealer Wide Recalls

This page contains a list of recalls, from the National Highway Transportation Safety Administration (NHTSA), on all vehicles since 1996.

- Click the ALL RECALLS button on the menu on the left side of your screen. You should now see a list of all recalls since 1996 that are applicable to any Networkcar vehicles you have registered at your dealership (Figure 21).
- To narrow the list, click on the pull down button in the top right hand corner of the page. This allows you to search by vehicle make.
- Select a vehicle make and click on the go button. You should now only see recalls for the selected vehicle make.
- *Click a recall ID number.* You should now see a detailed description of that recall.

Figure 21: Dealer Wide Recalls

networkcar	KNOW	WHAT YOUR CAR IS THINKING. 🍽		Log Out Help
Bay Bloor Autos	🖬 Dealer	Recall List		
Autos	Found 621	recall(s). Click on the ID#for d	etails.	View recalls for: ALL MAKES
ARCH BY	Next	•		Skip to page 1 of 63 60
ast Name GO	→ ID #	Car (Year, Model)	Туре	Component
	01/01/2000	2001, TOYOTA CAMRY	NHTSA	FUEL: THROTTLE LINKAGES AND CONTROL
Home	00V218000	2000, FORD FOCUS	NHTSA	STRUCTURE: FRAME: MEMBERS AND BODY
	00\/208000	2001, AMTRAN RE	NHTSA	EQUIPMENT: CERTIFICATION LABEL
Customers	00V208000	2001, AMTRANIC	NHTSA	EQUIPMENT: CERTIFICATION LABEL
All Service Records	007208000	2001, AMTRAN FE	NHTSA	EQUIPMENT: CERTIFICATION LABEL
All Recalls	00\/201000	2000, CHEVROLET CAVALIER	NHTSA	LIGHTING:SWITCH:BUTTON:RING:INSTRUMENT LIGHTS
Register Customer	00\/200000	2000, FORD CROWN VICTORIA	NHTSA	EQUIPMENT: JACKS
	00\/200000	1999, FORD CROWN VICTORIA	NHTSA	EQUIPMENT: JACKS
	00\/200000	1998, FORD CROWN VICTORIA	NHTSA	EQUIPMENT: JACKS
	00∨189000	1991, CHEVROLET LUMINA	NHTSA	STRUCTURE:FRAME:MEMBERS AND BODY:OTHER PARTS
	Next			Show 10 🔽 per page, 60

Emails You Receive

Alert Summary Email

You will receive this email on a daily basis in the inbox for the email address you specify in your dealer profile as the alert email address. This email contains a list of all of your customers that have generated an alert since the last email was sent to you. This data will allow you to get a jumpstart on who is having vehicle problems and whom you might expect to make an appointment with you for service. Below is a sample of the email along with details on how to interpret the alert and pending DTC information.

Sample Alert Summary Email

Dear Bay Bloor Service Department,

The customer(s) and vehicle(s) listed below have generated an alert since the last alert summary email sent April 04, 2001, 06:30 A.M.

NAME: George Bush VEHICLE: 1999 TOYOTA CAMRY VIN#: JT2BG22KX10550217 MILEAGE: 21438 CONTACT INFO: (760) 555-1111 ALERTS P0115 : Engine Coolant Temperature Circuit Malfunction PENDING DTC's P0134 : O2 Sensor Circuit No Activity Detected (Bank 1 Sensor 1)

Please use the information above to help your customer(s) solve the problem they have encountered. The contact information included above for each customer is his or her preferred method of contact.

Additional customer information and specific vehicle diagnostic data can be obtained by logging onto Networkcar at: <u>http://www.networkcar.com</u>

<u>Alerts</u> – The first item displayed under an alert is the DTC (Diagnostic Trouble Code). Following this is a brief technical description of the problem. To qualify as an alert this code has completed the required number of trips to become "hard".

<u>Pending DTC's</u> – The display of data for a pending DTC is the same as an alert. The difference is that this DTC has not completed the number of required trips to become "hard" and is thus pending. By analyzing a pending DTC prior to it becoming "hard" you can prevent potential problems with a vehicle before they occur.

Book Appointment Email

This email is generated when your customer uses the book appointment form on their Networkcar personalized website. When they complete the form, the email is generated and sent to the address you specify during your account setup. The customer receives a copy of this email also as a receipt.

After you receive the appointment request email, log into your Networkcar account and search for the customer's vehicle. Use the information provided on the customer's vehicle to determine the services that will need to be performed on their visit. Contact the customer to confirm their appointment time along with the services that will be necessary.

Sample Book Appointment Email

Dear Bay Bloor Service Department,

The customer listed below has used the Networkcar book appointment form to request a service appointment. Please use the information below to schedule and confirm an appointment with this customer.

Customer Information NAME: George Bush DAYTIME PHONE: (760) 555-1111 EVENING PHONE: (760) 555-2222 CELL PHONE: EMAIL: gbush@thewhitehouse.com Preferred Method of Contact: Day phone

Vehicle Information VIN: JT2BG22KX10550217 YEAR: 2001 MAKE: TOYOTA MODEL: CAMRY

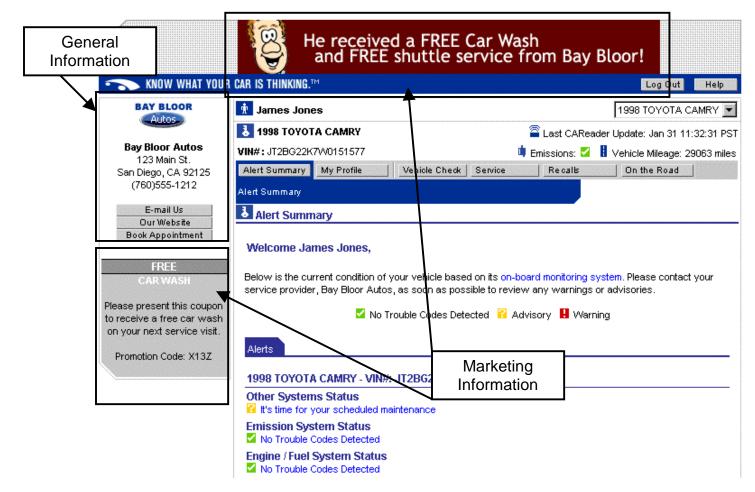
Description of Problem/Service: oil change

Preferred appointment times for the upcoming week: 6am - 9am on Monday 12pm - 1pm on Thursday 1pm - 5pm on Thursday

Additional customer information and specific vehicle diagnostic data can be obtained by logging onto Networkcar at: http://www.networkcar.com

Marketing (CRM Campaigns)

What Your Customers See



Your marketing information can be updated whenever you would like to create a new campaign. A campaign will consist of a banner along with the promotional title and message. In addition there are marketing messages and coupons that are contained in the emails your customer receives. There are four emails that can be sent to the consumer during the life of their vehicle.

<u>Welcome Email</u> – This email is sent when the customer/vehicle are initially registered. This email contains all of their user information along with a coupon created by you.

<u>Service Reminder Email</u> – This email is sent when a customer's vehicle mileage is within 500 miles of a service interval recommended by you or the vehicles manufacturer. You can create a coupon that will display in this email.

<u>Alert Email</u> – This email is sent when Networkcar detects a potential problem within your customer's vehicle. You can create a coupon that will display in this email.

<u>Update Email</u> – This email gives your customer an update on the status of their vehicle. You can dictate when and to which customers this email is sent. In addition, you can create a coupon and a marketing message to display in the email. (See broadcast a message for more detail)

How to Create a New Campaign

Contact your Networkcar representative to coordinate the creation and insertion of a new campaign.

Broadcast a Message (CAReader Update Email)

Contact your Networkcar representative to coordinate the marketing message and coupon you would like to send to your Networkcar customers. You can determine how often your customers will receive this email with a status update on their vehicle along with your marketing message.

Support

Frequently Asked Questions

How does the CAReader[™] work?

The CAReader[™] plugs into your car's computer and sends information about your car's performance through a wireless network to your personal vehicle website and your service provider.

Where is the CAReader[™] installed in my car?

It is plugged into your car's computer port under the dash.

Will the CAReader[™] ever need to be removed?

No, but it may need to be unplugged in the event that your service professional needs to access your car's computer port with a diagnostic scan tool to investigate a mechanical problem.

Will another service provider know what this is?

There is a good chance that many service providers are not familiar with the CAReader[™] device since it is such a new technology. Simply remind them that the device is there and to plug it back in if they have unplugged it to use a diagnostic scan tool.

Is the CAReader[™] a tracking device?

No, the CAReader[™] does not have a Global Positioning System (GPS) and cannot be used to track your car's location. The purpose of the unit is to monitor your vehicle's performance.

Can the CAReader[™] interfere with my car's operation making it unsafe to drive?

No. The CAReader[™] only collects data from your car's computer. It does not interfere in any way with the car's operation.

Does the CAReader[™] need maintenance?

No. There is no need to have contact with the device after it has been installed. It does not need batteries or maintenance.

Who do I call if I feel my CAReader[™] is not working properly?

Call your service provider and they will replace your CAReader[™] with a new unit, if necessary.

What happens if I drive in an area that has poor wireless coverage?

The CAReader[™] continues to collect and store information even if you are driving in an area that does not have wireless coverage. Once you drive into an area with wireless coverage, the CAReader[™] sends the stored information back to your website and service provider.

What doesn't the CAReader[™] do?

While the CAReader [™] is a good overall vehicle monitoring system, it is not a "cure all" for car problems. For instance, it doesn't guarantee that your car won't break down or that you won't have repair bills. It doesn't take the place of a warranty or normal maintenance. It also doesn't detect failures in internally lubricated parts and systems not monitored by the car's computer.

Contact Information

Networkcar

Feel free to contact us via email at support@networkcar.com or via phone at 1-866-CAR-READ. Support hours are from 9am to 5pm PST.

Glossary of Terms/Icons

This section contains a glossary of terms and icons to help clear up any questions you might have.

The available terms in this section are:

- Alerts
- Recalls
- Diagnostics
- DTC Diagnostic Trouble Code
- VIN
- East CAReader Update
- Image: Image:
- Vehicle Mileage
- Image: Second second

Alerts

Inform you of the status of systems within your vehicle and whether the system is ok or if there is a problem. Each alert will have a description as well as a color code to help you determine its severity. Please see the Alert color codes below:

In the second second

Indicates that the CAReader has checked this system and there are currently no trouble codes (DTC's) present.

- Advisory

Indicates that there is a possible problem within a system or that the vehicle is due for scheduled maintenance.

- Warning

The CAReader has detected a problem within this system. Please refer to the alert description for an understanding of its severity along with the trouble code (DTC).

Recalls

Notices that inform car owners of possible defects in their vehicles and their associated risks.

When Is a Recall Necessary?

- When a motor vehicle or item of motor vehicle equipment (including tires) does not comply with a Federal Motor Vehicle Safety Standard.
- When there is a safety-related defect present in the vehicle or equipment.

Federal Motor Vehicle Safety Standards set minimum performance levels for those parts of the vehicle which most effect its safe operation (brakes, tires, lighting) or which protect drivers and passengers from death or serious injury in the event of a crash (air bags, safety belts, child restraints, energy absorbing steering columns, motorcycle helmets) and are applicable to all vehicles and equipment manufactured for sale in the United States certified for use on public roads and highways. For more information regarding the scope and remedy of a recall or for more information on recalls in general please visit the National Highway Traffic Safety Administration (NHTSA) at www.nhtsa.dot.gov

Diagnostics

Refers to data generated by various sensors distributed in the vehicle. Once generated, this data is stored in the vehicle's engine control module (ECM), where it can be accessed through an OBD-II interface.

DTC - Diagnostic Trouble Code

A "Diagnostic Trouble Code" is a 6-digit code that alerts a driver to a fault or problem with a vehicle. The value of the DTC indicates a specific system or component associated with the fault.

VIN

"Vehicle Identification Number", a 17-digit alphanumeric character string that identifies, e.g., the vehicles make, model, country of manufacture, body style, and engine type.

Last CAReader Update

This is the date and time stamp of the last transmission received from your CAReader.

Emissions

This is a symbol of your current emissions status. A green checkmark indicates a pass scenario and a red exclamation point indicates that this vehicle may not pass a smog test.

I - Vehicle Mileage

This is a measurement of your vehicles odometer in miles.

Fuel Level

This is a measurement of the vehicles fuel level at the time of the Last CAReader Update. (Only present for certain vehicles)