

CarNETIMPRESS

CAN Programmer of NETIMPRESS series for Automotives

CarNETIMPRESS provides the best flash programming solutions for evaluation, production and maintenance support of automotive electronic components.

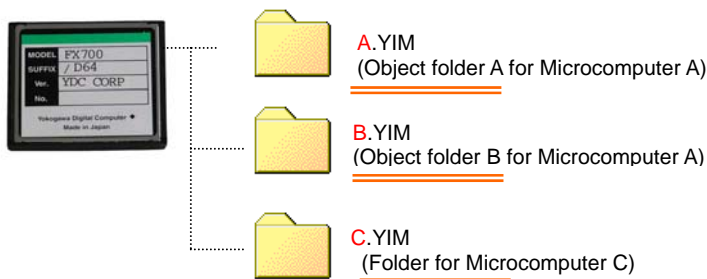


Product Lineup

Product Code	Model	Application		
		Evaluation	Production	Maint'nc
AF620	Full-Key Model	Best	Suitable	Suitable
AF520	One-Touch Key Model	Suitable	Best	Best

Compact Module

Employing Compact Flash card as its media, Compact Module can store large data including the Definition Program, programming conditions and an object in a folder called as Impress Module folder (YIM). By storing multiple programming conditions, Compact Module provides superb versatility and enhanced usability in data management.



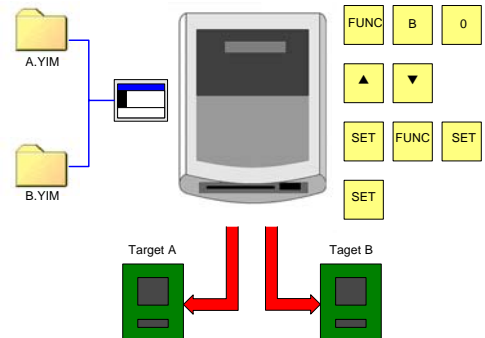
With Compact Module, Definition Programs can be added with additional licenses. You can add up multiple Definition Programs to one Compact Module as required to program other type of MPU.

Features

- Built-in CAN Interface
- High-speed serial transfer of 5Mbps
- 100Base-TX interface for high-speed file transfer
- 4-lines display on LCD (high operability for a stand-alone)
- Impress Module Folder
- Enhanced one-touch key operation functions
- Definition Programs are addable supporting programming a wide variety of MPUs and microcomputers

Stand-Alone

- Stand-alone operation mode gives you the freedom of portable programming.
- 4-lines display on LCD (high operability for a stand-alone)
- Simple keypad operation on the Panel enables you select the Impress Module folder in just a snap.
- Edit program data in buffer RAM, search for edit data and generate differential files
- One-touch key operation
- AF520 of one-touch key operation model is most recommendable for manual programming at a production line, field service, etc. (Start programming by external signal input)



Remote Control Application

CarNETIMPRESS comes with the remote control software of two types.

- AZ490: Remote Controller (AZ290-compatible) as development and test application
 - AZ490 gives you capabilities to control CarNETIMPRESS remotely, change parameter settings and load a parameter file.
 - With AZ490, you can generate an Impress Module folder or download the various files including the Definition Program.
 - For a stand-alone operation, AZ490 can be used as a tool to save programming conditions in an Impress Module folder in the Compact Module.
- AZ491: Remote Package (AZ291-compatible) as production line application
 - AZ491, equipped with COM interface to receive commands from other application software on a PC, can be used as a software package to build a custom-made man-machine interface or an automatic programming system.
 - Use of Compact Module reduces a time to change a product model, and a setup time. (The enhanced feature of AZ491 is available using the command to switch the Impress Module folder)
 - Sequential execution of programming conditions stored in the Impress Module folder. Sequential programming of a target microcomputer on CAN bus

C^{ar}NETIMPRESS CAN Solutions

UCOP - Universal CAN Open Protocol

(UCOP is an open protocol for CAN Flash Programming advocated by YDC.)

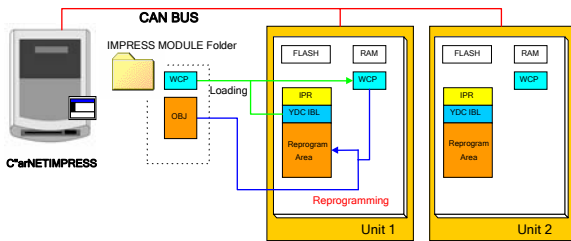
UCOP - Universal CAN Open Protocol

Processor-Independent CAN Flash Programming Environments supporting major microcomputers of each chip manufacturers

High-speed Programming up to 1MB/60s

Use of UCOP enables high-speed flash programming to any microcomputers on the same one CAN bus.

- CAN Flash Programmer for reprogramming that can be easily set up on a target system from an early embedded development stage
- Use of UCOP enables processor-independent programming environments with one dedicated definition program.
- UCOP specs that are built combining Vector's CCP protocol with YDC's own high-speed programming commands are made open for customization to add a user's original features such as enhanced security.
- Initial Program Routine sample (IPR), Initial Boot Loader (IBL) and Write Control Program (WCP) supporting each microcomputer are available free.



- IPR** : Initial setup routine required to program a target system
- YDC-IBL** : Initial Boot Loader provided by YDC and used to determine programming entry and load WCP to RAM.
- WCP** : Write Control Program

IPR is provided as a sample code. YDC-IBL and WCP are provided as ready-to-use software.

Programming is performed in the following steps:

- (1) IPR is executed.
- (2) Mode entry for flash programming is obtained.
- (3) WCP is loaded to a target RAM via CAN by IBL.
- (4) Programming is executed.

WCP receives CAN command (UCOP), and then rewrites the reprogrammable area of a microcomputer.

Various flash programming entries are supported such as an entry at a time of invalid user application area, that is, a user program has invalid SUM in an application area, or an entry from a target program or an entry used when a target program goes out of control.

C^{ar}NETIMPRESS Specifications

1. Communication with a target system (CAN Interface)
 - High Speed CAN: 125kbps to 1Mbps
 - Low Speed CAN: 10kbps to 125kbps
2. Communications with a target system
 - UART: 2400, 4800, 9600, 19200, 31250, 38400, 57600, 62500, 76800bps
 - CSI: 62.5K, 125K, 250K, 500K, 850K, 1.25Mbps, 3.3Mbps, 5Mbps (No clock transmission and parity at the side of C^{ar}NETIMPRESS)
3. Requirements for a target system
 - Power supply voltage: 5V±5%
 - Power supply for programming (VPP): 12V, 200mA (max.)
 - Cable to connect with a target system: AZ410 to AZ413

UCOP + C^{ar}NETIMPRESS

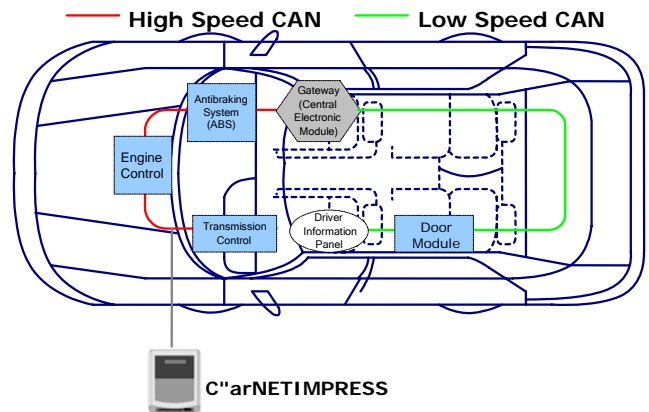
Development, test and production environments accelerated by C^{ar}NETIMPRESS and UCOP

C^{ar}NETIMPRESS provides high-efficiency, high-speed programming environment via CAN Bus interface.

■ Stand-Alone Operation

- A few keystrokes from the keypad enables load an object and programming conditions in the Impress Module folder to program specified CAN microcomputers.
- One-touch key operation
The enhanced feature to switch the Impress Module folder in addition to one-touch key operation enables **sequential programming for multiple different microcontrollers in one-key stroke.**

KEY1	→	→
	ECU Programming	AT Programming
KEY2	→	→
	ECU Programming	CVT Programming



■ For Production Line Application

- Use of Compact Module reduces a time to change a product model, and a setup time. (The enhanced feature of AZ491 is available using the command to switch the Impress Module folder)
- Programming conditions stored in the Impress Module folder can be executed in a sequential order. Sequential programming of target microcomputers on CAN bus all in one time. Multi-level programming can be easily controlled by combining sequence patterns from a host PC.

About Customer Support

1. Support via Internet
The support including the following is available at our Web site <http://www.yokogawa-digital.com/en/NETIMPRESS.html>:
 - Micom Pack
 - Various software tools
 - Product information
2. Fully customized support
Solutions including development environments and production systems proposals that meet a user's exact requirements are provided. Also, services to develop an ISO-based CAN programmer, automatic programming system, etc. are available.

Yokogawa Digital Computer Corporation

Instruments Business Division
6FL, J-Tower, 1-1 Nikkocho, Fuchu-shi, Tokyo, 183-0044 Japan
TEL: 81-42-333-6224 FAX: 81-42-352-6109
URL: <http://www.yokogawa-digital.com/en/>
E-mail: info-impress@yokogawa-digital.com