

## IC693PRG300 Hand-Held Programmer (HHP)

Some models of the Series 90-30 PLC can be programmed with the GE Fanuc Hand-Held Programmer (HHP). The HHP uses the Statement List Language. With the HHP, you can develop, debug, and monitor logic programs, monitor data tables, and configure PLC and I/O parameters.

### Note

The user logic program in Series 90-30 CPU numbers 350 and above cannot be viewed or edited with the Hand-Held Programmer. You must use Logicmaster 90-30, Control, or VersaPro programming software with those CPUs.

The HHP connects to the CPU serial port through a 15-pin D-type connector on the Series 90-30 PLC power supply in the CPU baseplate. The physical connection is through a 6-foot (2-meters) long cable (IC693CBL303). This cable also provides power connections to the HHP, and provides a signal that tells the PLC that an HHP is attached. The HHP can be connected or disconnected while the PLC is powered-up. The HHP does not require communications parameter configuration in order to communicate with a PLC. This makes it useful for troubleshooting a communications problem between a PC and the PLC.

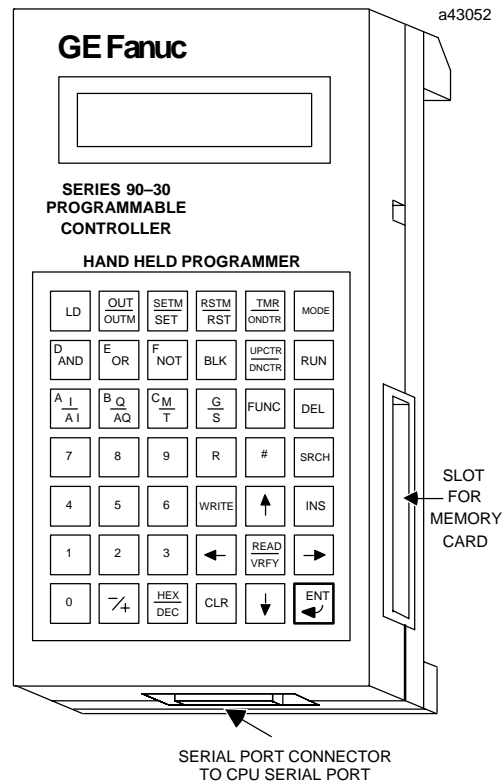


Figure 11-5. Hand-Held Programmer for the Series 90-30 PLC

## HHP Features

The keypad for the HHP is a sealed type with tactile feedback, and has 42 keys, arranged in a matrix of six keys across by seven keys down. It has a two-line by 16 character LCD display screen.

## HHP Memory Card (IC693ACC303)

The HHP has a slot for a removable memory card, which provides a means for non-volatile, off-line program storage and restoration. The memory card can only be used with CPU numbers 311 through 341. CPU numbers 350 and above do not support either the HHP or the memory card. The memory card plugs into a connector accessed through a slot on the lower right side of the HHP (see previous figure).

## HHP Modes of Operation

The HHP functionality is basically divided into four modes of operation which are selected through a key sequence on the keypad. These modes are: *program* mode, *protection* mode, *data* mode, and *configuration* mode.

### ***Program Mode:***

Allows you to create, change, monitor, and debug Statement List logic. This mode also allows read, write, and verify functions with the memory card, EEPROM, or flash memory.

### ***ProtectionMode***

Provides a way to control access to (protection of) certain PLC functions, including program logic, reference data, and configuration information. The use of this function is optional; however, it is convenient in that it allows you to protect parts of the PLC system from accidental or deliberate modification. Protection is provided through four levels of passwords assigned by the user.

### ***DataMode***

Allows you to view, and optionally alter values in various reference tables. Several display formats can be selected in which to view this data: binary, hexadecimal, signed decimal, and timer/counter.

### ***ConfigurationMode***

Allows you to define the types of I/O modules that are installed or will be installed in the PLC system. You can also assign I/O module addresses to these modules. This feature is convenient in that it allows you to write and test logic programs using discrete references assigned to I/O modules that are not yet installed. In this mode, you can also configure CPU data, such as real-time clock, coil check, and HHP characteristics, such as keyclick on or off.

## Documentation

For detailed information about the Hand-Held Programmer, refer to GFK-0402, the *Series 90-30/20/Micro Hand-Held Programmer User's Manual*.