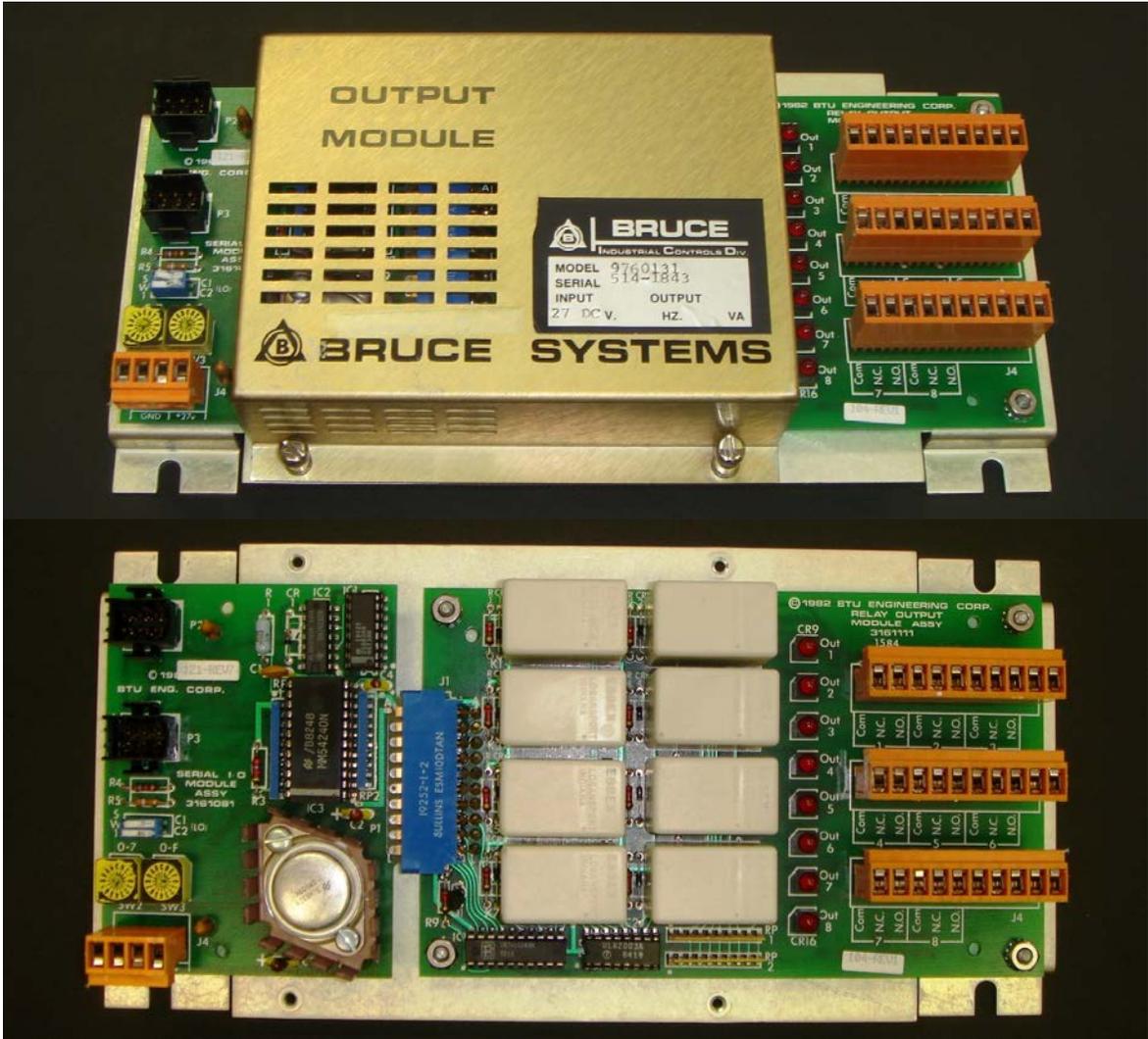# BTI
OUTPUT MODULES

INVAC SYSTEMS has a large inventory of used 8-channel **OUTPUT MODULES** used on BTI Horizontal Furnaces. Each module has been thoroughly tested and certified for functionality. This equipment was OEM on BDF-4, BDF-41, BDF-200, and BDF-2000 Horizontal Furnaces.

These electronics are in great condition and would make an excellent source for spare parts or equipment upgrades. Call now for current inventory and pricing!

Reference Part Numbers:

Kokusai/BTI (Bruce Technologies Inc.)	PN#
8-Channel Input Module	9760131

211 N. Dooley Street
Grapevine, Texas 76051-6247
Phone: 817-527-6084
Email: sales@invacsystems.com
www.invacsystems.com

BTI
OUTPUT MODULES

MODULE FUNCTIONALITY:

Each output module has 8 output functions that are reported to the DDC via the I/O bus.

Each output function has electrically-isolated contacts with connections points for:

        Com – COMMON
        N.C – NORMALLY CLOSED
        N.O. – NORMALLY OPEN

This is accomplished using 8 individual relays with 3 amp rated contacts.

Each external wiring point is easily connected to the board using a 10-position Phoenix connector. These allow a stripped wire to be inserted and clamped down using a screw, for easy user interfacing. There are 3 Phoenix connectors per module. Each connector holds up to 3 channels, or 9 usable wire connections.

The output module uses red LEDs to indicate which of the 8 output channels have been turned on. This reveals to the user which channels are operating, at a glance.

Each output module uses 2 boards; one for the outputs and one for communication. Both boards are powered by the same 24(27) VDC power supply connection.   Power is connected using a 4-position Phoenix connector on the communication board.

The interchangeable communication board can be programmed for an input module or an output module by the positions the two DIP switches (sw1).

> *Note – FALSE ALARMS have been linked to a substitute "Xilinx" chip installed on IC3. These modules have the older MM54240 device that is more reliable and does not cause this alarm!*

Each output module communicates over the I/O bus, which connects via the 6-pin MR connector.   There are two of these connectors so that one can "daisy chain" more modules onto the I/O bus. The address is easily selectable on the PC board using two rotating switches. This way you can configure up to 8 modules with 8 outputs to be usable with the 7355 controller.

> *Note – One of the 8 output modules is dedicated to specific "alarm type outputs", but the other 7 modules are configurable to user's choice. That means you could program up to (7x8) 56 user output functions, if desired.*

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