Machine upgrade identification and pricing guide

November 2005

Upgrade Procedures

DESCRIPTION	PART NO
NovaMill to Pro & VR Milling 5 Upgrade Replace controller top Card with BI00434YY, fit 3 Axis Micro-stepping Drive and replace all axes motors. Fit Internal USB plug and cables, supply VR Milling 5 software. **Return to Works**	**UGR0005**
USB Upgrade & VR Milling 5 Replace controller top Card with BI00434YY, Fit Internal USB plug and cables, supply VR Milling 5 software. **Carried out On Site by engineer or Return to Works**	**UGR0006**
USB Rack Upgrade & VR5 Milling Upgrade Replace Rack controller Card with BI00434Y, Fit Internal USB plug and cables, supply VR Milling 5 software. **Carried out on site by engineer**	**UGR0007**
Smartstep to USB & VR5 Milling Upgrade Replace complete control card with BI00435B, rewire I/O connections, replace power supply, transformer and E-Stop relay. Fit Internal USB plug and cables, supply VR Milling 5 software. **Return to Works**	**UGR0009**
4th Axis Retrofit Addition of 4th Axis Drive Unit and electronic controls & Quick CAM 4D **Return to Works**	**FR1/0900** **NR1/0900** **MRS1/0900** **MR1/0900**

Identification of Controller Types

Smart Step

Identifying features:
RED Seven Segment display
SmartStep screen printing on base plate.
Eight Orange Terminal blocks fitted to baseboard.

DenStep

Identifying features:
RED Seven Segment display
Battery fitted between Display and RS232 connector
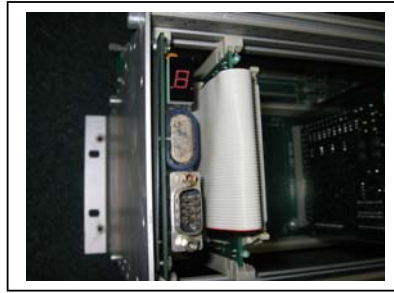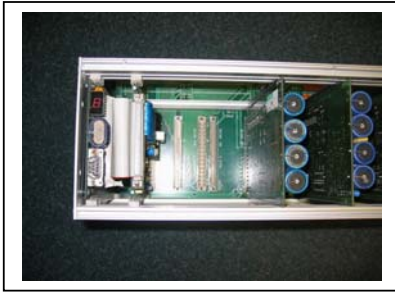Twelve orange connectors on base board

NextStep (Next Move ST RS232)

Identifying features:
GREEN Seven Segment display
CAM BUS Connector fitted between Display and RS232 connector
Twelve orange connectors on base board

NOTE: This card will run VR Milling 5 software efficiently. It has the ability to buffer moves and run continuous path manufacture. Upgrading to USB would only be beneficial if manufacturing large programs on high-speed machines.

Rack Control Card

Identifying features:
RED Seven Segment display
Battery fitted between Display and RS232 connector

Next Move ST RS232 & USB CURRENT NOV 2005

The Current control Card.

Identifying features:
GREEN Seven Segment display.
CAM BUS Connector fitted between Display and RS232 connector
USB port connector below the RS232 Connector
Twelve orange connectors on base board

Identification of Machine Types
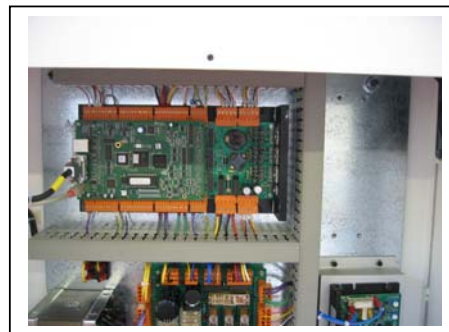
MicroRouter Version 3

This Router is clearly identified by the separate electronic control box that is connected to the machine by a conduit.

The control card will be a DenStep card unless the machine has been upgraded since delivery.

MicroRouter Standard V4

Remove the end cover of the machine and looking at the electrical panel. If there is a space on the panel to the right of the controller card and the terminals at the top right of the controller card have wires connected then the machine is a Standard Router.

MicroRouter PRO

Remove the end cover of the machine and looking at the electrical panel. If there is drive unit fitted to the right of the controller card and the terminals at the top right of the controller card are not used then the machine is a Router Pro.

Milling Machines

Disconnect the machine from the supply.

Open the electrical cabinet and identify the controller type from the previous list.

UPGRADE AVAILABILITY & PRICE LIST NOVEMBER 2005

DESCRIPTION	PART NO	Router V3	Router V4	Router Pro	Compact	NovaMill Rack	NovaMill DenStep	NovaMill NextStep	NovaMill SmartStep	StarMill SmartStep	StarMill Rack	Triac Rack	Triac DenStep
USB Upgrade & VR Milling 5	UGR0006	Y	Y	Y	Y		Y	Y					Y
USB Rack Upgrade & VR Milling 5	UGR0007					Y					Y	Y	
Smartstep to USB Upgrade & VR Milling 5	UGR0009								Y	Y			
NovaMill to Pro USB Upgrade & VR Milling 5	UGR0005						Y	Y	Y				
4th Axis Retrofit COMPACT	FR1/0900				Y								
4th Axis Retrofit ROUTER PRO	NR1/0900			Y									
4th Axis Retrofit ROUTER STANDARD	NRS1/0900		Y										
4th Axis Retrofit ROUTER VER 3	MR1/0900	Y											

NO UPGRADE AVAILABLE ON NORTH EAST ELECTRONIC CONTROLS

UGR0006 CAN BE DONE ON SITE OR RETURN TO WORKS
UGR0007 Will BE DONE ON SITE
UGR0005 & UGR0009 MUST BE RETURNED TO WORKS
ALL 4th Axis Retrofits MUST BE RETURNED TO WORKS