### Axis Control
- Digital Servo Function
- 1 Controlled Path
- 2 (up to maximum of 5) Simultaneously Controllable Axes (J801) (J803)
- Serial Encoder Interface
- Axis Names Selected from X,Y,Z,A,B,C
- Least Input Increment of 0.001mm, 0.0001", 0.001deg
- Inch/Metric Conversion (J876)
- Interlock per Axis
- Machine Lock
- Emergency Stop
- Overtravel Signal
- Stored Stroke Check 1
- Mirror Image
- Follow-up Function
- Servo Off
- Mechanical Handle Feed
- Backlash Compensation
- Stored Pitch Error Compensation (J841)

### Operation
- Memory Operation
- DNC Operation
- MDI Operation
- Program Number Search
- Sequence Number Search
- Buffer Register
- Dry Run Mode
- Single Block Mode
- Manual Feed Mode (Jog)
- Manual Reference Point Return
- Manual Handle Feed (J835) (requires MPG)
- Incremental Feed

### Interpolation
- Positioning (G00)
- Linear Interpolation
- Circular Interpolation
- Dwell (G04)
- Threading
- Skip Function (G31)
- Torque-limit Skip
- Automatic Reference Point Return (G28, G29)
- Reference Point Return Check (G27)
- 2nd Reference Point Return (G30)
### Feed Function

- Rapid Traverse Feedrate 240m/min (100m/min @0.0001mm increment)
- Rapid Traverse Feedrate Override (preset value, 25%, 50%, 100% settings)
- Feed per Minute
- Feed per Revolution
- Tangential Speed Control
- Cutting Feedrate Clamp
- Automatic Acceleration/Deceleration (Rapid Traverse: Linear; Cutting Feed: Linear or Exponential)
- Rapid Traverse Bell-Shaped Acceleration/Deceleration
- Feedrate Override 0-254%
- Jog Override 0-655.34 %
- Override Cancel
- Manual Synchronous Feed

### Programming

- EIA/ISO Automatic Identification
- Label Skip
- Parity Check
- Control In/Out
- Optional Block Skip
- Maximum Programmable Value - 8 digits
- Program Number - O with 4 digits
- Sequence Number - N with 5 digits
- Absolute or Incremental Command
- Programmable Data Input (G10)
- Decimal Point Input
- Setting in Diameter or Radius
- Plane Selection (G17, G18, G19)
- Rotary Axis Setting
- Rotary Axis Rollover
- Coordinate System Setting (G50)
- Automatic Coordinate System Setting
- Coordinate System Shift
- Direct Coordinate System Shift Setting
- Manual Absolute On/Off
- G Code System A
- Subprogram Calling
- Canned Cycles
- Multiple Repetitive Canned Cycles (G70-G76) (J877)
- Specifying the Radius of an Arc

### Auxiliary and Spindle Functions

- Miscellaneous Function - M with 8 digits
- Miscellaneous Function Lock
- High Speed M/S/T Interface
- Multiple Commands of Miscellaneous Functions (up to 3)
- Spindle Function - S with 5 digits
- Serial Spindle Interface (J850)
- Constant Surface Speed Control (J855)
- Spindle Override 0-254%
### Tool Functions and Tool Compensation
- Tool Function - T7+1/T6+2
- 32 Tool Offsets
- Tool Position Offset
- Tool Nose Radius Compensation (J930)
- Tool Compensation Counter Input
- Tool Compensation Measurement Value Input

### Part Program Storage & Editing
- 256KB Part Program Storage (J945)
- 63 Stored Part Programs
- Part Program Editing
- Part Program Protection
- Multi Part Program Editing (J956)
- Extended Part Program Editing

### Display
- Status Display
- Clock Function
- Current Position Display
- Program Display
- Parameter Setting Display
- Self Diagnosis
- Alarm Display
- Alarm History Display
- Help Function
- Run Time/Part Count Display (J971)
- Actual Cutting Speed Display
- Actual Spindle Speed/T Code Display
- Servo Adjustment Screen
- System Configuration Display
- English Language
- Data Protection Key

### Data Input/Output and Communications
- I/O Link or I/O Link i Interface
- Punch Panel with 2m Cable
- Reader/Punch Interface 1 (RS-232) (J900)
- External Workpiece Number Search
- External Data Input (J913)
  - includes External Tool Offset
  - External Message
  - External Machine Origin Shift
  - External Program Number Search
- Status Output Signal

### Other
- CD-ROM containing Product Manuals included in the BOM of the Root CNC
- Operation and Maintenance Handbook B-64487EN FS30/31i/32i-Model B Oper and Maint Handbook
- Miscellaneous Conn: Qty 2 A02B-0120-K301 HONDA CONNECTOR
  - Qty 1 each A02B-0120-K323 & A02B-0120-K324 CONNECTOR AND PINS
- Spare Fuses A02B-0236-K100 LCD or A02B-0265-K100 Stand Alone
- Cable Clamps A02B-0303-K001 8 CABLE CLAMPS
- Grounding Bar 44B295864-001 GROUNDING BAR 11 SLOT
## SERIES 31i-B5 PACKAGE CHOICES

<table>
<thead>
<tr>
<th>Package A</th>
<th>Package B</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Axes</td>
<td>2 Axes</td>
</tr>
<tr>
<td>2 Slot Rack</td>
<td>4 Slot Stand Alone</td>
</tr>
<tr>
<td>LCD Mount</td>
<td>HSSB</td>
</tr>
<tr>
<td>Embedded Ethernet</td>
<td>Embedded Ethernet</td>
</tr>
<tr>
<td>15&quot; LCD Color Touch</td>
<td>PMC 24K Steps</td>
</tr>
<tr>
<td>PMC 24K Steps</td>
<td>Serial Spindle</td>
</tr>
<tr>
<td>Serial Spindle</td>
<td>CPU Card B2</td>
</tr>
<tr>
<td>CPU Card B2</td>
<td>Basic Function G421</td>
</tr>
<tr>
<td>Basic Function G421</td>
<td>Axis Card B12</td>
</tr>
<tr>
<td>Vert Sep Type MDI</td>
<td></td>
</tr>
<tr>
<td>Axis Card B12</td>
<td></td>
</tr>
</tbody>
</table>

### PACKAGE DEPENDENT OPTIONS

- PROFIBUS DP Master
- PROFIBUS DP Slave
- HSSB
- Fast Ethernet
- Data Server
- 2nd Fast Ethernet Brd
- Automatic Data Back-up, 3 Sets of Back-up Data, SRAM + PPS
- USB Memory I/O is available on LCD Mount CNCs & the LCD for S.A. shading indicates restrictions, see Package Options for details

*This Form assumes the use of HRV2. If HRV3, HRV4 or additional servo motors are required, please complete this form as close as possible to your desired configuration, then e-mail the form and your requested changes to: cnc_express@fanucamerica.com

CNC Express will modify the form per your request and return the form to you.

G421 => Supports 2 Paths, 12 axes (12 per path), 4 spindles (4 per path)

A02B-0323-C128 or equivalent
# Series 31i-B5 CNC for Turning

## ORDER FORM

**Series 31i-B5 CNC Express Package A for Turning** - 15" LCD Mount w/ Touch Screen. **Pick One**

**Series 31i-B5 CNC Express Package B for Turning** - 4 Slot Stand Alone. **Choose Only 1**

### Package A Options

<table>
<thead>
<tr>
<th>Option Board</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROFIBUS DP Master Board (J311, S731, J562#6552)</td>
<td>Choose no more than two</td>
</tr>
<tr>
<td>PROFIBUS DP Slave Board (J313, S732, J563#655C)</td>
<td>Option Boards</td>
</tr>
<tr>
<td>PROFIBUS Application Software, J535#655B, required for all PROFIBUS</td>
<td></td>
</tr>
<tr>
<td>HSSB Board (High Speed Serial Bus) (J202) (includes Extended D/L Function, 10m F/O cbl)</td>
<td></td>
</tr>
<tr>
<td>1st Fast Ethernet Board (J147) Requires Communication Option Below:</td>
<td></td>
</tr>
<tr>
<td>Fast Ethernet Function (S707) (Uses FOCAS Protocol)</td>
<td></td>
</tr>
<tr>
<td>Data Server Funct (S737, R953) (req's ATA Flash Mem Card) (Uses FTP for data transfer)</td>
<td></td>
</tr>
<tr>
<td>Ethernet/IP Adapter Function (R967), Data Server requires a separate Ethernet Board</td>
<td></td>
</tr>
<tr>
<td>Ethernet/IP Scanner Function (R966), Data Server requires a separate Ethernet Board</td>
<td></td>
</tr>
<tr>
<td>2nd Fast Ethernet Board (J147) (Add'l Enet Port) Requires 2 of 3 (S707 or S737, R966, R967).</td>
<td></td>
</tr>
</tbody>
</table>

---

**Manual Guide 1 in Package A** - Requires Custom Macro (J873) for full functionality.

Manual Guide 1 (S790)

Manual Guide 1 Multi Path Lathe (S786) for 2 or 3 paths. **Requires (S790).**

### Package B Options

<table>
<thead>
<tr>
<th>Option Board</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROFIBUS DP Master Board (J311, S731, J562#6552)</td>
<td>Choose no more than four</td>
</tr>
<tr>
<td>PROFIBUS DP Slave Board (J313, S732, J563#655C)</td>
<td>Option Boards</td>
</tr>
<tr>
<td>PROFIBUS Application Software, J535#655B, required for all PROFIBUS</td>
<td></td>
</tr>
<tr>
<td>1st Fast Ethernet Board (J147) Requires Communication Option Below:</td>
<td></td>
</tr>
<tr>
<td>Fast Ethernet Function (S707) (Uses FOCAS Protocol)</td>
<td></td>
</tr>
<tr>
<td>Data Server Funct (S737, R953) (req's ATA Flash Mem Card) (Uses FTP for data transfer)</td>
<td></td>
</tr>
<tr>
<td>Ethernet/IP Adapter Function (R967), Data Server requires a separate Ethernet Board</td>
<td></td>
</tr>
<tr>
<td>Ethernet/IP Scanner Function (R966), Data Server requires a separate Ethernet Board</td>
<td></td>
</tr>
<tr>
<td>2nd Fast Ethernet Board (J147) (Add'l Enet Port) Requires 2 of 3 (S707 or S737, R966, R967).</td>
<td></td>
</tr>
<tr>
<td>3rd Fast Ethernet Board (J147) (Add'l Ethernet Port) Requires (S707 or S737, R966 &amp; R967).</td>
<td></td>
</tr>
</tbody>
</table>

---

Do not use HSSB from Package B. (Removes A02B-0207-J900). For LCD or Ethernet Display.

- 10.4" LCD A Color w/ Tch Scrn (C084) (290x220mm), J682, Pen & 10m F/O cbl, A02B-0120-K323, A02B-0120-K324, A02B-0319-K191. **Only one LCD**
- 15.0" LCD Color w/ Tch Scrn (C092) (400x320mm), J682, Pen & 10m F/O cbl, A02B-0120-K323, A02B-0120-K324, A02B-0120-K324. **Req MDI below.**

**CNC Side HSSB Board (incl's A02B-0207-J900, 10m F/O cbl) Requires one Option Slot**

- Without Standard CNC Display Unit - HSSB (J389) to Panel i or PC side HSSB, 10m F/O cbl. **Requires one Option Slot**
- Without Standard CNC Display Unit - Embedded Ethernet (J390) connects to iPendant only
- Ethernet Display Function (R950 & J573#658N) Embedded Ethernet to PC, not for iPendant

- Sep Type MDI (Vert PC Type) (QWERTY) (290x160mm) A02B-0323-C128 or equivalent
- Sep Type MDI (QWERTY Type B) (400x145mm) **No 10.4” LCD** A02B-0303-C129 or equivalent
- Sep Type MDI (ONG Type) (Vertical) (290x220mm) A02B-0323-C126#T or equivalent
- Sep Type MDI (ONG Type) (Horizontal) (230x220mm) A02B-0323-C125#T or equivalent

**Manual Guide 1 in Package B** - Requires Custom Macro (J873) for full functionality.

Manual Guide 1 (S790)

Manual Guide 1 Multi Path Lathe (S786) for 2 or 3 paths. **Requires (S790).**

- 10.4” Color LCD A w/ Touch Screen does not support “Large Window Animation” in Manual Guide 1. **Requires (S790).**

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**High Speed Serial Bus (HSSB) includes:**

- Extended D/L Function J900 & 10m F/O Cable

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### Series 31i-B5 CNC for Turning

#### SERIES 31i-B5 TURNING OPTIONS

The following options may be ordered for Packages A or B

<table>
<thead>
<tr>
<th>Basic Function</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>G431 Basic S/W for up to 4 paths, 20 controlled axes, 12 per path, and 6 spindles, 4 per path</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Paths</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Two Control Paths</td>
<td>Minimum of 4 Axes</td>
</tr>
<tr>
<td>Three Control Paths, requires G431 Basic Function</td>
<td>Minimum of 6 Axes</td>
</tr>
<tr>
<td>Four Control Paths, requires G431 Basic Function</td>
<td>Minimum of 8 Axes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Axis Control: up to 20 axes and 6 spindles are possible.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd Axis</td>
<td></td>
</tr>
<tr>
<td>4th Axis</td>
<td></td>
</tr>
<tr>
<td>5th Axis</td>
<td></td>
</tr>
<tr>
<td>6th Axis</td>
<td></td>
</tr>
<tr>
<td>7th Axis</td>
<td></td>
</tr>
<tr>
<td>8th Axis</td>
<td></td>
</tr>
<tr>
<td>9th Axis</td>
<td></td>
</tr>
<tr>
<td>10th Axis</td>
<td></td>
</tr>
<tr>
<td>11th Axis</td>
<td></td>
</tr>
<tr>
<td>12th Axis</td>
<td></td>
</tr>
<tr>
<td>13th Axis, Requires G431 Basic SW, changes to B13 Servo Card, 1 FSSB Servo Line</td>
<td></td>
</tr>
<tr>
<td>14th Axis</td>
<td></td>
</tr>
<tr>
<td>15th Axis</td>
<td></td>
</tr>
<tr>
<td>16th Axis</td>
<td></td>
</tr>
<tr>
<td>17th Axis</td>
<td></td>
</tr>
<tr>
<td>18th Axis</td>
<td></td>
</tr>
<tr>
<td>19th Axis changes to B24 Servo Card, 2 FSSB Servo Lines</td>
<td></td>
</tr>
<tr>
<td>20th Axis</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Serial Spindles (default is one). &gt;1 Spindle per path requires Multi Spindle Control.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Spindles</td>
<td></td>
</tr>
<tr>
<td>3 Spindles</td>
<td></td>
</tr>
<tr>
<td>4 Spindles</td>
<td></td>
</tr>
<tr>
<td>5 Spindles, Requires &gt;= 2 Paths.</td>
<td></td>
</tr>
<tr>
<td>6 Spindles</td>
<td></td>
</tr>
<tr>
<td>Multi Spindle Control. <strong>Required if more that one spindle is used per path.</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Analog Spindle.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog Spindle (J860) replaces Serial Spindle (J850). <strong>Having Serial Spindle requires R584.</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Serial/Analog Spindle Control - includes Multi Spindle Control.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Serial Spindle and 1 Analog Spindle (R584, J850, J860)</td>
<td></td>
</tr>
<tr>
<td>2 Serial Spindles and 1 Analog Spindle</td>
<td></td>
</tr>
<tr>
<td>3 Serial Spindles and 1 Analog Spindle</td>
<td></td>
</tr>
<tr>
<td>4 Serial Spindles and 1 Analog Spindle, Requires &gt;= 2 Paths.</td>
<td></td>
</tr>
<tr>
<td>5 Serial Spindles and 1 Analog Spindle</td>
<td></td>
</tr>
</tbody>
</table>
## Series 31i-B5 CNC for Turning

### Axis Control Options
- Axis Control by PMC (up to 16 axes) (J804)
- Synchronous Axis Control (up to 6 pairs axes) (J843)
- Controlled Axis Detach (J807)
- Least Input Increment of 0.0001mm, 0.00001", 0.0001deg (J805)
- Dual Position Feedback (J704)
- Stored Stroke Check 2/3 (J840)
- Stored Limit Check Before Move (J749)
- Interpolation type pitch error compensation (S644)
- Bi-directional pitch error compensation (S656)
- Straightness Compensation (J747) (4 points)
- Interpolation Type Straightness Compensation (S639) (128 points)
- Position Switch (J846)
- Rotary Axis Control (J743)

### Operation
- Program Restart (J838)
- Tool Retract & Recover (J823)
- Manual Handle Retrace (J998)
- Manual Handle Feed 2/3 Units (J836)
- Manual Handle Interruption (J837)
- Change Active Offset Value with Manual Move (S825)

### Interpolation
- Polar Coordinate Interpolation (J815)
- Cylindrical Interpolation (J816)
- Helical Interpolation (J819)
- Thread Cutting Retract (J825)
- Variable Lead Threading (G34) (J827)
- Polygon Turning (J817)
- High Speed Skip (J848)
- Multi Step Skip (J849)
- 3rd, 4th Reference Point Return (J830)
- Reference Point Setting with Mechanical Stopper (J729)
- Linear Scale I/F w/ absolute address reference mark (J670). Requires Separate Detector I/F.

### Feed Function
- Bell Shaped Acc/Dec After Interpolation for Cutting Feed (J829)
- 2nd Feedrate Override (J810)

### Grinding Options
- Canned Cycles for Grinding (S974) *(selectable per path with multiple repetitive cycles)*
### Programming

- Dynamic Switching of diameter/radius specification (G10.9) (S630)
- Workpiece Coordinate System (G52-G59) (J894)
  - Workpiece Coordinate System Preset (J917)
- Direct Drawing Dimension Programming (J870) *Only one of these options can be active per path.*
- Chamfering/Corner Rounding (J875)
- Special G Code B/C (J871)
- Custom Macro (J873)
  - Additional Custom Macro Common Variables (J887), \(100 + 500 = 600\) Total *Only One.*
  - Additional Custom Macro Common Variables 1000 (R687), \(100 + 1000 = 1100\) Total
- Interruption for Custom Macro (J874)
- Pattern Data Input (J884)
- Multiple Repetitive Canned Cycles II (J889)
- Canned Cycles for Drilling (J890)
- Mirror Image for Dual Turrets (G68, G69) (J881)
- Coordinate System Rotation (J893)
- Series 15 Tape Format (J882)

**Macro Executor (J888) 96K Reserved for System S/W.** *Choose only one Macro*

**Macro Executor + C-language Executor (J734) 700K Reserved for System S/W.**

**FANUC PICTURE Executor (R644) 2M Reserved for System S/W.** Available with J888/J734.

- Custom Software Size 512KB (J738#512K) *Not with J734 or R644.*
- Custom Software Size 2MB (J738#2M) *Not with R644.*
- Custom Software Size 4MB (J738#4M)
- Custom Software Size 6MB (J738#6M)
- Custom Software Size 8MB (J738#8M)
- Custom Software Size 12MB (J738#12M) *Choose only one Custom Software Size.*

### PMC Options

- PMC with 32K Steps (H990#32K)
- PMC with 64K Steps (H990#64K)
- PMC with 100K Steps (H990#100K) *24,000 Steps Standard, choose only One upgrade.*
- PMC with 300K Steps (H990#300K)
- Multi-path PMC function (3 paths) (R855#3) *One PMC Path Standard.*
- Multi-path PMC function (5 paths) (R855#5) *Choose Only One.*
- PMC symbol, comment, and message capacity expansion (512KB) (R856#512K)
- PMC symbol, comment, and message capacity expansion (1MB) (R856#1M) *Only One.*
- Function Block Function (R852)
- I/O Link expansion 2nd Channel w/ A20B-1007-0680 and 1m cable.
- I/O Link expansion 2nd/3rd Channel w/ A20B-1008-0360 and 1m cable.
- Dual Check Safety (S661) Req's I/O Link i, I/O Link 3rd Channel or PROFIBUS Master. *I/O Link i will be used for Dual Check Safety. Check here:*

### Auxiliary and Spindle Functions

- 1st Spindle Orientation (J853) (Applies to 1st Spindle per Path) *(req's Serial Spindle)*
- Actual Spindle Speed Output (J856) *(requires Spindle Encoder)*
- 2nd Miscellaneous Function (B6-digit binary) (J920)
- Rigid Tapping (J828) *(requires Canned Cycles, Analog Spindle requires Spindle Encoder.)*
  
See Drives Tab for Spindle Separately Mounted Position Encoder.
### Tool Functions and Tool Compensation

<table>
<thead>
<tr>
<th>Tool Offset Pairs</th>
<th>Assignable by parameter per path.</th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
<td></td>
</tr>
<tr>
<td>99</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>Choose only one if more than 32 offsets needed.</td>
</tr>
</tbody>
</table>

- Y-axis Offset (J934) *(3rd or 4th axis required)*
- Tool Geometry and Wear Compensation (J931)
- Tool Life Management (J935)
- Automatic Tool Compensation (S618)
- Direct Input of Measured Offset (J933)

### Part Program Storage & Editing

**Total PPS in the system, available to all paths.**

<table>
<thead>
<tr>
<th>Storage Size</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>512KB Part Program</td>
<td>1MB Part Program Storage (J947) (Approx 2560m)</td>
</tr>
<tr>
<td>Storage (J946)</td>
<td></td>
</tr>
<tr>
<td>1MB Part Program</td>
<td>2MB Part Program Storage + 1000 Stored Part Programs (J948) (Approx 5120m)</td>
</tr>
<tr>
<td>Storage (J947)</td>
<td></td>
</tr>
<tr>
<td>2MB Part Program</td>
<td>4MB Part Program Storage + 1000 Stored Part Programs (J949) (Approx 10240m)</td>
</tr>
<tr>
<td>Storage (J948)</td>
<td></td>
</tr>
<tr>
<td>4MB Part Program</td>
<td>8MB Part Program Storage + 1000 Stored Part Programs (J950) (Approx 20480m)</td>
</tr>
<tr>
<td>Storage (J949)</td>
<td></td>
</tr>
<tr>
<td>8MB Part Program</td>
<td></td>
</tr>
<tr>
<td>Storage (J950)</td>
<td></td>
</tr>
</tbody>
</table>

- Playback (J879)

### FANUC Picture

- FANUC Picture Function (S879) Req's LCD w/ Tch Pnl, deletes J682, not w/ J734/J888/R644
- FANUC Picture Function for non-Touch panel display (S944) Not w/ J734, J888 or R644

### Ethernet or HSSB Options

**Use Embedded Ethernet for BOP2 or Ladder Edit Function**

- Basic Operation Package (BOP2) Function (J816) & CD *(Also works w/ embedded Ethernet)*
- CNC Screen Display Function (J858)
  - Application Disk for HSSB (K775)
  - Application Disk for Ethernet (K776)
- CNC Screen Dual Display Function (S884)
- CNC Screen Display for 19" Panel (R624) *(19" Panel i requires one of these options)*
- Enlarged CNC Screen Display for 19" Panel (R673)
- CNC Web Server Function (R728) Reqs Std LCD Disp, No CNC Scrn Disp, No simul iPndnt.
- Ladder Edit Function (J820) *(Also works w/ embedded Ethernet)*

### Display

- Graphic Display (J972) *Requires LCD or CNC Screen Display Function*
- Software Operator Panel (J960)
- Software Operator Panel General Purpose Switch (J961)
- Selection of Five Optional Language (R521)

### Data Input/Output and Communications

- Compact Flash Card 128MB, Card Adapter B
- Compact Flash Card 1GB *(suggested for use with Data Server)*, 2 Card Adapters
- 2nd Reader/Punch Interface (RS-232) (J901)

### iAdaptS

- iAdaptS (S898) maintains a constant load during part processing by modifying the feedrate override. This allows for the fastest possible cycle time based on the condition of the tool, part geometry and material variation. By maintaining the manufacturer’s recommended load on the tool, tool life can also be extended. iAdaptS works on the first serial spindle in the first path only. Req's J856,J873,J810,J738#2M,J734.

- iAdaptS S/W DVD D75F-0102-PB00 Each MTB/Retrofitter must purchase a DVD once.
- iAdaptS S/W DVD with FANUC Picture (R644). Req's R644 >=J738#6M. D75F-0103-PB00.
## Series 31i-B5 CNC for Turning

### Cables
Optional: Replace 10m cable for LCD ordered with Package B with one of the following:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiber Optic Cable, CNC to LCD, 1m</td>
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</tr>
<tr>
<td>Fiber Optic Cable, CNC to LCD, 5m</td>
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<tr>
<td>Fiber Optic Cable, CNC to LCD, 20m</td>
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<tr>
<td>Fiber Optic Cable, CNC to LCD, 30m</td>
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<tr>
<td>Fiber Optic Cable, CNC to LCD, 40m</td>
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<tr>
<td>Fiber Optic Cable, CNC to LCD, 50m</td>
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</table>

### Different MDI's

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<tr>
<th>MDI Type</th>
<th>Description</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Separate Type MDI (ONG) (Vertical)</td>
<td>Replaces Vertical QWERTY in Pkg A</td>
<td>A02B-0323-C126#T or equivalent 290x220mm</td>
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<tr>
<td>Separate Type MDI (ONG) (Horizontal)</td>
<td>Replaces Vertical QWERTY in Pkg A</td>
<td>A02B-0323-C125#T or equivalent 230x220mm</td>
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<tr>
<td>Separate Type MDI QWERTY B</td>
<td>Replaces Vertical QWERTY in Pkg A</td>
<td>A02B-0303-C129 or equivalent 400x145mm</td>
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### Product Manuals

<table>
<thead>
<tr>
<th>Manual Description</th>
<th>Part Number</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>Series 30i/31i/32i-B Descriptions</td>
<td>B-64482EN</td>
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<tr>
<td>Series 30i/31i/32i-Model B Connection Manual Hardware</td>
<td>B-64483EN</td>
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<td>Series 30i/31i/32i-Model B Connection Manual (Function),</td>
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<td>Series 30i/31i/32i-Model B Maintenance Manual *,</td>
<td>B-64485EN</td>
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<tr>
<td>Series 30i/31i/32i-Model B Parameter Manual *,</td>
<td>B-64490EN</td>
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<tr>
<td>Series 30i/31i/32i-B User's Manual Common &amp; Lathe *,</td>
<td>B-64484EN &amp; -1</td>
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<tr>
<td>Series 30i/31i/32i FAST Ethernet/Data Server Operator's Manual,</td>
<td>B-64014EN</td>
<td>0</td>
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</table>

This Manual is NOT included on any CD. A complimentary copy is shipped with the CNC. Extra hard-copy manuals, if required, may be ordered here.

### Check here if no I/O is needed.

Check here if I/O has already been purchased