

# BID SOLICITATION



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
 CAPITOL HILL  
 PROVIDENCE RI 02908

**BID NUMBER: B05563**  
**TITLE: PRISONER TRANSPORT BUSES**  
**BID OPENING DATE AND TIME:**  
**09/29/2005 11:00 AM**

BUYER: LISA HILL  
 PHONE #: (401) 222 - 2142 ext. 116

**B** ADMINISTRATION  
**I** DOA CENTRAL BUSINESS OFFICE  
**L** ADMINISTRATIVE SERVICES  
**L** ONE CAPITOL HILL, 4TH FLOOR  
**T** SMITH ST  
**O** PROVIDENCE RI 02908

**S** ADMINISTRATION  
**H** DOA SHERIFFS  
**I** SEE BELOW RI N/A  
**P**  
**T**  
**O**

Requisition Number(s): R68A063394

Item	Class-Item	Quantity	Unit	Unit Price	Total
	<p>THE FOLLOWING ADDITIONAL TERMS AND CONDITIONS APPLY TO THIS INVITATION FOR BIDS:</p> <ol style="list-style-type: none"> <li>ALL VEHICLES MUST BE DELIVERED WITHOUT DEALER'S NAME OR ADVERTISING OF ANY TYPE VISIBLE ON THE BODY.</li> <li>EACH VEHICLE DELIVERED TO THE STATE MUST BE ACCOMPANIED BY A "CERTIFICATE OF ORIGIN" CONTAINING THE MANUFACTURER'S VEHICLE IDENTIFICATION NUMBER (VIN), THE NUMBER OF ENGINE CYLINDERS AND ENGINE TYPE, A GENERAL DESCRIPTION OF THE BODY, AND THE MODEL NAME OR NUMBER. CERTIFICATE OF ORIGIN MUST BE ASSIGNED TO STATE OF RI/FLEET OPERATIONS, ONE CAPITOL HILL, PROVIDENCE, RI 02908, UNLESS THE VEHICLE IS BEING PURCHASED BY THE RHODE ISLAND STATE POLICE. IF SO, CERTIFICATE OF ORIGIN MUST BE ASSIGNED TO RHODE ISLAND STATE POLICE, 311 DANIELSON PIKE, NORTH SCITUATE, RI 02857.</li> <li>BIDS MUST BE PREDICATED ON THE BASIS OF THE BIDDER'S FULL AND UNENCUMBERED TITLE TO THE VEHICLE(S) AS OF THE DATE OF DELIVERY TO THE STATE. BIDS SUBJECT TO LIEN OR ASSIGNMENT AT THE TIME OF DELIVERY TO THE STATE, OR WHICH STIPULATE THIRD PARTY OR JOINT PAYMENT, WILL BE REJECTED.</li> <li>TITLE CERTIFICATES MUST BE PROVIDED AT THE TIME OF DELIVERY TO THE STATE.</li> <li>WHERE THE FIRM SUBMITTING THE BID IS ACTING AS AN AGENT FOR ANOTHER CORPORATE ENTITY, (SPECIFICALLY WITH RESPECT TO LEASE ARRANGEMENTS), THE BID MUST IDENTIFY THE CORPORATION WHO WILL BE NAMED IN ANY SUBSEQUENT AWARD AS THE BIDDER OF RECORD.</li> <li>UNLESS OTHERWISE INDICATED, ALL VEHICLES WILL BE DELIVERED TO STATE FLEET OPERATIONS AT ONE CAPITOL HILL, PROVIDENCE, R.I.</li> </ol>				

It is the Vendor's responsibility to check and download any and all addenda from the RIVIP. This offer may not be considered unless a signed RIVIP generated Bidder Certification Cover Form is attached and the Unit Price column is completed. The signed Certification Cover Form must be attached to the front of the offer. When delivering offers in person to One Capitol Hill, vendors are advised to allow at least one hour additional time for clearance through security checkpoints.

DELIVERY: \_\_\_\_\_

RIVIP VENDOR ID#: \_\_\_\_\_

TERMS OF PAYMENT: \_\_\_\_\_

**DO NOT SIGN BID ON THIS PAGE!  
 USE CERTIFICATION COVER FORM.**

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 CAPITOL HILL  
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1.0	<p>SMITH HILL, PROVIDENCE, RI...</p> <p>THE STATE OF RHODE ISLAND RESERVES THE RIGHT TO MANDATE THE REPLACEMENT OF ALL VEHICLES IN ACCORDANCE WITH RHODE ISLAND STATE LEMON LAW 31-5.2-1 TO 31-5.2-13. REPLACEMENT EQUIPMENT MUST BE OF LIKE OR SUPERIOR SPECIFICATIONS TO THE VEHICLE IN QUESTION. COSTS ASSOCIATED WITH THE REMOVAL OF PROBLEMATIC EQUIPMENT AND DELIVERY AND INSTALLATION OF REPLACEMENT EQUIPMENT WILL BE SOLELY AT THE VENDOR'S EXPENSE.</p> <p>ALL VENDORS MUST INCLUDE SPECIFICATIONS WITH BID PROPOSAL (EVEN THOSE BIDDING BRAND SPECIFIED). FAILURE TO SUBMIT SPECIFICATIONS WITH BID PROPOSAL MAY RESULT IN DISQUALIFICATION OF BID. ITEMS IN CATALOGS MUST BE CLEARLY MARKED AND PAGES TABBED.</p> <p>RHODE ISLAND STATE SHERIFFS                      ATTN: CHIEF JAMES M. GRANT                      65 HOWARD AVE., BLDG#45                      CRANSTON, RI 02920</p> <p>070-24                      2006 INTERNATIONAL INTERGRATED FE C BUS (PC205)                      PER ATTACHED SPECIFICATIONS</p>	2.00	EA		
				<b>TOTAL:</b>	

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Prepared For:  
State of Rhode Island  
Chief James Grant  
One Capitol Hill  
Providence, RI 02903  
1401-4620024

Model Profile.

**2006 INTEGRATED FE C BUS (PC205)**

**MISSION:** Requested GVWR: 29800. Calc. GVWR: 29500  
**DIMENSION:** Wheelbase: 198, CA: N/A, Axle to Frame: 126  
**ENGINE, DIESEL:** {International DT466} 50 State, 210 HP, 520 lb-ft Torque @ 1400 RPM, 2600 RPM Governed Speed, # 2 Bell Housing  
**TRANSMISSION, AUTOMATIC:** {ALLISON 2500\_PTS} Wide Ratio, 5-Speed, With Overdrive; Less PTO Provision, Less Retarder, With 33,000-lb GVW & GCW Max.  
**CLUTCH:** Omit Item (Clutch & Control)  
**AXLE, FRONT NON-DRIVING:** {International I-120SG} I-Beam Type, 12,000-lb Capacity  
**AXLE, REAR, SINGLE:** {Dana Spicer 19060S} Single Reduction, 19,800-lb Capacity, With 190 Wheel Ends, for Buses Only  
Gear Ratio: 6.17  
**TIRE, FRONT:** (2) 11R22.5 G395 LHS (GOODYEAR) 504 rev/mile, load range G, 14 ply  
**TIRE, REAR:** (4) 11R22.5 G164 RTD M+S (GOODYEAR) 499 rev/mile, load range G, 14 ply  
**SUSPENSION, RR, SPRING, SINGLE:** Two Stage, Vari-Rate; 19,800-lb Capacity

Vehicle Specifications  
2006 INTEGRATED FE C BUS (PC205)

April 15, 2005

<u>Code</u>	<u>Description</u>
PC20500	Base Chassis, Model INTEGRATED FE C BUS with 198 Wheelbase, N/A CA, and 126 Axle to Frame.
1ADR	FRAME RAILS High Strength Low Alloy Steel (60,000 PSI Yield); 10.125" x 3.062" x 0.312" x 423.0" OAL; 144", 162", 180" & 198" WB  <u>Includes</u> : CHASSIS PAINT Chassis Painted Prior to Body Mounting : FRAME RAILS All holes Laser Aligned and Machine Punched, Powder Coated Prior to Full Assembly, Assembled in Fixture using "Grade 8" Bolts
1LLE	BUMPER, FRONT Full Width, Aerodynamic, Heavy Duty, Steel  <u>Includes</u> : BUMPER, FRONT THICKNESS 1/4 Inch
2ADD	AXLE, FRONT NON-DRIVING {International I-120SG} I-Beam Type, 12,000-lb Capacity  <u>Includes</u> : AXLE, FRONT SQUARING to Plus or Minus .015 Inch, using a Special Fixture to Assure Parallelism of Springs
3ADD	SUSPENSION, FRONT, SPRING Parabolic, Taper Leaf; 14,000-lb Capacity; With Shock Absorbers  <u>Includes</u> : SPRING PINS 1.25" Diameter Smooth Pin with Lube Distribution Flats
4036	BRAKE, PARKING {Meritor} DCM Type, 10" x 3"  <u>Includes</u> : BRAKE LEVER, PARKING Floor Mounted, Driver's Right : BRAKE WARNING INDICATOR Light for Engaged Parking Brake
4083	BRAKE SYSTEM, HYDRAULIC Split System, With Automatic Adjustment And With Four Channel ABS
4JNA	BRAKES, FRONT, HYDRAULIC DISC "DiamondLife" 15.00" x 1.44" Rotors; Dual 73mm Diam. Pistons
4NNC	BRAKES, REAR, HYDRAULIC DISC "DiamondLife" 15.00" x 1.44" Rotors; Dual 73mm Diam. Pistons
4WXN	GVWR LIMITATION FOR BUS With Hydraulic Brakes, Limited to 29,500-lbs Maximum to meet FMVSS 105 Requirements, for FE/RE Bus
5708	STEERING COLUMN Tilting
5CAL	STEERING WHEEL 2-Spoke, 18" Diam., Black
5PRJ	STEERING GEAR {TRW (Ross) TAS-65} Power
7ABW	EXHAUST SYSTEM Single, Stainless Steel, Horizontal Muffler and Catalytic Converted, Long Tail Pipe, Aluminized Steel; for 2004 Emissions Standards With International I6 Engines, Frame Mounted Right Side
8000	ELECTRICAL SYSTEM 12-Volt, Standard Equipment  <u>Includes</u> : FUSES, ELECTRICAL SAE Blade-Type : STARTER SWITCH Electric Key Operated : HEADLIGHT DIMMER SWITCH Integral with Turn Signal Switch : TURN SIGNAL SWITCH United Technologies Self-Cancelling : TURN SIGNAL FLASHER : WIRING, CHASSIS Color Coded and Continuously Numbered

Vehicle Specifications  
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April 15, 2005

<u>Code</u>	<u>Description</u>
8540	HORN, ELECTRIC (2)
8GEZ	ALTERNATOR {Leece-Neville 8LHP2246VAH} Brush Type; Pad Mounted; 12 Volt 160 Amp. Capacity, With "C" Type Regulator, With High Current Output at Low Engine Speed
8MKL	BATTERY SYSTEM (3) {International} Maintenance-Free 12-Volt 1950CCA Total <u>Includes</u> : BATTERY BOX Left Side, Behind Front Wheel Tray, Nylon Rollers, and Stops;
8WNH	RUNNING LIGHT (2) Daytime
8WWN	STARTING MOTOR {Leece-Neville M100R} 12-Volt; less Thermal Over-Crank Protection
10060	PAINT SCHEMATIC, PT-1 Single Color, Design 100 <u>Includes</u> : PAINT SCHEMATIC ID LETTERS "WB"
10788	PAINT TYPE Urethane, One or Two Colors, Other than Imron or International.
10925	KEYS,- ALL ALIKE, ID Variation E, D-250
10947	KEYS - ALL ALIKE Fleet, Ignition Only
11001	CLUTCH Omit Item (Clutch & Control)
12959	BLOCK HEATER, ENGINE {Phillips} 120 Volt/1250 Watt <u>Includes</u> : BLOCK HEATER SOCKET Receptacle Type; Mounted in Front Bumper, Right Side
12NPL	ENGINE, DIESEL {International DT466} 50 State, 210 HP, 520 lb-ft Torque @ 1400 RPM, 2600 RPM Governed Speed, # 2 Bell Housing <u>Includes</u> : GAUGE, AIR CLEANER RESTRICTION Air Cleaner Mounted : FUEL/WATER SEPARATOR Mounted on Engine and FUEL FILTER in a Single Assembly, : COLD STARTING EQUIPMENT Intake Manifold Electric Grid Heater with Engine ECM Control : WET TYPE CYLINDER SLEEVES : ENGINE SHUTDOWN Electric, Key Operated : GOVERNOR Road Speed, Electronic : ENGINE OIL DRAIN PLUG Magnetic : OIL FILTER, ENGINE Spin-On Type : DAMPER, CRANKSHAFT Viscous : FAN Optimized Position
12TSY	FAN DRIVE {Borg-Warner SA85} Viscous Screw On Type <u>Includes</u> : FAN Nylon
12UGN	THROTTLE, HAND CONTROL Electronic
12UWS	RADIATOR Aluminum; 2-Row, Cross Flow, Over Under System, 517 SqIn Louvered, With 267 SqIn Charge Air Cooler <u>Includes</u>

Vehicle Specifications  
2006 INTEGRATED FE C BUS (PC205)

April 15, 2005

<u>Code</u>	<u>Description</u>
	: ANTI-FREEZE Shell Rotella Extended Life Coolant -40F (-40C) : DEAERATION SYSTEM with Surge Tank : RADIATOR HOSES Premium, Rubber
12VAH	AIR CLEANER Dual Element, Heavy Duty, Less Restriction Gauge
12VWH	GOVERNOR Electronic Road Speed Type; for International Electronic I-6, T444E and VT365 Engines and Bus Models; With 55 MPH Default
13703	OIL COOLER, AUTO TRANSMISSION Air to Oil Type; for Allison
13AET	TRANSMISSION, AUTOMATIC {ALLISON 2500_PTS} Wide Ratio, 5-Speed, With Overdrive; Less PTO Provision, Less Retarder, With 33,000-lb GVW & GCW Max.  <u>Includes</u> : TRANSMISSION OIL PAN Magnet in Oil Pan
13WLE	TRANSMISSION OIL {Castrol TranSynd} Synthetic; 20 thru 28 Pints
14886	DIFFERENTIAL, LOCKING {Detroit Locker} No-Spin; for Dana Spicer and International Axles
14AGM	AXLE, REAR, SINGLE {Dana Spicer 19060S} Single Reduction, 19,800-lb Capacity, With 190 Wheel Ends, for Buses Only Gear Ratio: 6.17  <u>Includes</u> : REAR AXLE DRAIN PLUG (1) Magnetic
14SBK	SUSPENSION, RR, SPRING, SINGLE Two Stage, Vari-Rate; 19,800-lb Capacity
14WAP	SHOCK ABSORBERS, REAR (2)
15LJM	FUEL/WATER SEPARATOR {Fleetguard} With Thermostatic Fuel Temperature Controlled Electric Heater, and Fuel Filter With Filter Restriction/Change Indicator in a Single Assembly, Mounted on Engine; ilo Fuel/Water Separator and Fuel Filter Assembly Included with Engine
15SAL	FUEL TANK Top Draw; Rectangular Steel, 65 U.S. Gal., 246 L With Protective Cage, Mounted Right Side  <u>Includes</u> : FUEL LINES Nylon Tubing With O-Ring Snap-On Quick-Connect Fittings at Both Ends
16015	PLATFORM Standard Location
16HAB	GAUGE CLUSTER English with English Electronic Speedometer and with Tachometer for Hydraulic Brake Chassis  <u>Includes</u> : GAUGE, ENGINE OIL PRESSURE Electronic : GAUGE, WATER TEMPERATURE Electronic : VOLTMETER
16HJB	GAUGE PACKAGE Includes Hourmeter, Oil Temperature Gauge (Automatic Transmission) and 150 Amp Ammeter
27DMA	WHEELS, FRONT DISC; 22.5" Painted Steel, 10-Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 8.25 DC Rims; With Steel Hubs.  <u>Includes</u> : WHEEL SEALS, FRONT Grease Lubricated, Includes Wheel Bearings : PAINT IDENTITY, FRONT WHEELS Black

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<u>Code</u>	<u>Description</u>
28DMA	WHEELS, REAR DUAL DISC; 22.5" Painted Steel, 10-Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 8.25 DC Rims; With Steel Hubs  <u>Includes</u> : WHEEL SEALS, REAR Oil Lubricated, Includes Wheel Bearings : PAINT IDENTITY, REAR WHEELS Black
47ABL	BODY, BUS For FE; 78" Headroom, 34'6" Body Length, 72 Pass, 198 WB +9 Section Front and Rear  <u>Includes</u> : HEATER, DRIVER and Defroster, 90,000 BTU Hot Water Recirculating Type : HEADER BUMPER Padded, Mounted Over All Doors; Upholstered to Match Passenger Seat Color
47AJB	BODY CERTIFICATION TAG Mylar Label
47AJC	BODY TAG, METAL
47APU	HEADLINER, BODY Perforated First Two Sections, With Sound Insulation, Balance 22 ga. CQ Stucco
47APX	FASTENERS, HEADLINER Screws
47ARH	BOWS, ROOF 14 ga., One Piece Construction  <u>Includes</u> : ROOF BOWS Positioned Floor Line to Floor Line, Threaded Through Roof Strainers and Drip Rail
47ARP	LIGHT BARS Plastic
47ARU	SKIRT, BODY for FE 14 1/2", 16 ga.  <u>Includes</u> : SKIRT, BODY Extra Smooth Steel Supported by Floor Gussets
47AUP	TIE DOWNS, BODY Grade 2 Bolts, Every Body Section  <u>includes</u> : TIE DOWNS, BODY with Formed Tab that Fits into Floor Structure to Prevent Turning
47AUW	STEP, FRONT ENTRANCE DOOR 25 1/2" Depth  <u>Includes</u> : STEP, FRONT ENTRANCE DOOR OPENING, 35 Inch Width; Continuous Bottom to Top
47AVD	SKID PLATE Right Front Step Well Guard
47AXJ	RUB RAILS, BODY (4) for FE; Steel, 32'3", 33'0", 33'9", 34'6" Body Length, Includes Snow Rail  <u>Includes</u> : RUB RAILS Full Length, Primer Coated (Both Sides), Attached to Body without Cuts or Splices
47AYB	BODY, REAR Includes Emergency Door
47AYJ	SIDE SHEET, BODY, EXTERIOR for FE, 16ga., Smooth, 32'3", 33', 33'9", 34'6" Body Length
47BAK	BUMPER, REAR Painted; 12" High, 0.188" Thick
47BAR	SUPPORTS, REAR BUMPER Bolted to Frame

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47BAV	TOW HOOKS, FRONT (2) 1 Left, 1 Right
47BBH	LINING, SIDE INTERIOR, LOWER Embossed Steel, Clear Coated
47BBN	HANDLE, ASSIST, OVER WINDSHLD Body Color
47BBW	LATCH, ACCESS DOOR Front, Lever Type
47DAE	FASTENERS, REAR DOOR Lag Screws, Rear Door To Body
47DAJ	COVER, REAR DOOR INSIDE HANDLE Partial Coverage
47DDH	HOLD BACK, REAR DOOR Stationary, No Cables, With Plastic Cover
47DDU	LATCH, REAR DOOR One Point Slide Bar, Cam Operated, With One Inch Stroke
47DEC	CONTROL, ENTRANCE DOOR Electric, 2 Position Switch, Includes Vandal Locks, Mounted Left of Driver
47DNB	DOOR, ENTRANCE, FRONT Electric, Outward Opening, with Split Pane Glass  <u>Includes</u> : DOOR, ENTRANCE, FRONT Aluminum Frame with Pin Style Hinges, Ball Bearing Assisted, Interchangeable Top and Bottom Glass
47EAA	COMPARTMENT, BATTERY Left Front, 13" x 15" x 25.5"  <u>Includes</u> : BATTERY BOX Tray, Nylon Rollers, and Stops
47EBM	HOLD DOWN, BATTERY For (2) Standard Size Batteries
47LAB	NOISE REDUCTION, DRIVER FLOOR Insulation Covering Complete Driver Floor Area
47LAU	INSULATION, ROOF AND SIDES Fiberglass, 1.50", All Models
47MBA	UNDERCOAT, BODY Fire Resistant, Water Based, TT-C-730 Spec
47MJR	LETTERS, DOOR, REAR Decals; "EMERGENCY DOOR", 2" Black Letters Inside and Outside
47MTY	WIRING DIAGRAM Schematic, Electrical
47MVA	LETTERS, HEADER Decal; "WATCH YOUR STEP", 1" Black, Above Windshield
47MVC	LETTERS, STEPWELL Decal, "WATCH YOUR STEP", 2.5" Black, Behind Door on Step Riser
47NJB	PAINT COLOR, BODY EXTERIOR 9219 Winter White
47NKM	PAINT COLOR, BODY INTERIOR 9384 Spring White
47NLS	HANDLE, EXTERIOR, REAR Emergency Door; White
47NMG	OPERATING INSTR, REAR Decal, Inside Rear Emergency Door
47NTE	LOGO, ROOF LINE Decal; "IC CORPORATION", Wing and Shield, First Body Section, Above Driver Window and Entrance Door Over Driver Window and Entrance Door
47SAS	SUB FLOOR, PLYWOOD For FE; B-B Marine Grade, Less Sealed Edges, 5/8", 5 Ply, for 32'3", 33'0", 33'9" or 34'6" Body Lengths

Vehicle Specifications  
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<u>Code</u>	<u>Description</u>
48ANT	WINDOW, DRIVER Laminated, Clear
48APL	WINDOW, STOPS 12" Opening, Only With 78" Headroom
48BTR	WINDOW, PASSENGER, TINT For FE; 28% Light, Tempered Glass, 78" Headroom, With 32'3", 33'0", 33'9", 34'6" Body Lengths
48PAC	WINDSHIELD 4 Flat Pieces, 73% Light, With Shaded Band
48PAY	AISLE POSITION Center, for balanced seating
48PBB	FLOOR COVERING, COLOR Black
48PCG	SEAT BACK, PASSENGER Standard Back
48PCY	FLOOR COVERING, TYPE {IC CORPORATION} Rubber, All Body Lengths
48PCZ	STEP TREADS {IC CORPORATION} Rubber, With White Nosing
48PJR	FLOOR COVERING, TRIM Aluminum
48PKC	CLAMP, HEATER HOSE Constant Torque for Heater System
48PKL	FAN, DEFOG CENTER 6.50" Diam. Metal Case, Mounted Over Windshield, 15" Right of Centerline, 2-Speed Switch in Panel
48PKP	FAN, DEFOG LEFT 6.50" Diam. Metal Case, Mounted Left of Center Post, 2 Speed Switch in Panel
48PLW	HEATER, DRIVER 90,000 BTU
48PLX	HEATER, DRIVER, ADDITIONAL For FE, RE, 14,000 BTU
48PMJ	HEATER, PASS, LT REAR 84,500 BTU
48PNG	HEATER HOSE, FRONT {Goodyear} SAE 20R3, Class D2, 1.0" Diam.
48PNZ	HEATER, WATER PUMP {2 MPU 12} Self Priming, Metal Housing
48PPL	HEATER CUT OFF, VALVE Gate 3/4"
48PPS	ROOF VENT, FRONT Static
48PUH	SEAT BELT, DRIVER 3 Point, Single Locking Retractor, With Adjustable D-Loop, With Mechanical Adjustment Seat
48PUT	NUTS, BELT MOUNTING Standard Nuts For Seat Belt Mounting
48PVA	UPHOLSTERY, DRIVER SEAT, STYLE Plain, With Cloth Insert
48PVP	UPHOLSTERY, DRIVER SEAT, COLOR Drivers Seat, Black
48PWD	UPHOLSTERY, PASS SEATS, COLOR Gray, for Seats, Barriers and Head Bumpers
48PWN	UPHOLSTERY, DRIVER SEAT, TYPE Vinyl, 42 oz.
48PZP	ROOF HATCH, FRONT {Specialty 9245-0200} Emergency Exit With Alarm
48PZR	ROOF HATCH, REAR {Specialty 9245-0200} Emergency Exit With Alarm

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48RGR	HAND RAIL, ENTRANCE DOOR, AFT Stainless Steel, 4", Above Step
48RHU	SEAT CLIPS Positive Type
48RLX	CUSHION, SEAT 15" Depth
48RNY	HAND RAIL, ENTRANCE DOOR, FWD 20" Stainless Steel
48RRA	UPHOLSTERY, SEAT, STITCHING Single
48RZB	SEAT, DRIVER {National 2000} Static, With Pedestal Base, High Back, Cloth, With Mechanical Lumbar, for Bus Only
48SBG	UPHOLSTERY, PASS SEATS, TYPE Vinyl, 42 Ounce
48TPK	ANCHOR, SEATS Omit Reinforcement for Seat Belts (Standard Seat Frame)
49ABB	LIGHTS, BACK UP (2) 7" Diameter, Clear
49ACU	LIGHTS, DIRECTIONAL, REAR (2) 7" Amber, Without Arrow
49ACW	LIGHTS, DIRECTIONAL, SIDE (4) {Weldon} Armor Type, Amber, One Mounted Over Each Wheel Pocket
49ADK	LIGHTS, AUXILIARY DRIVING (2) Two Amber Front, Wired To Switch on Panel
49ADR	HEADLIGHTS Halogen, Heavy Duty 5"x 7" Rectangular, With Turn Signal
49AEG	LIGHTS, MARKER, FRONT, REAR (4) Two Amber Front and Two Red Rear, Single 1500 Hour 3cp Bulb Each Light
49AEL	LIGHTS, MARKER, SIDE Intermediate, Centered, Single Bulb, 1 cp, 1500 Hour; Required for Units 30 Foot or Longer
49AEU	LIGHTS, STOP (2) and Tail, 7" dia., Red
49AMB	WIRE, FEED 4 Gauge, Chassis To Body
49AMC	TERMINAL STRIP Chassis
49AMD	SWITCH, DRIVER PANEL, TYPE Rocker
49AMR	CIRCUIT, PROTECTION Fuse, Electrical System
	<u>Includes</u> : ACCESS PANEL for Body and Chassis Fuses/Circuit Breakers Located on Body Exterior; Below Driver Window
49AMY	SWITCH, REAR DOOR BUZZER for Emergency Door
49APB	LIGHTS, DOME Rectangular Recessed Type; Stagger Mounted in Light Bars
49APT	LIGHT, DRIVER Mounted in Wiring Access Panel Left of Driver, Switch Located in Switch Panel
49ARR	LIGHT, STEP Wired to Dome Lights, Operated by Entrance Door
49ASN	FLASHER SYSTEM (8) Warning Lights, Weldon 7000, 8-Lamps, Non-Sequential System, Electronic Solid State Flasher
49ATU	MONITOR, LIGHT SYSTEM 08 Incandescent Indicator Lights

Vehicle Specifications  
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<u>Code</u>	<u>Description</u>
49AVM	RADIO, ENTERTAINMENT Panasonic, AM/FM-MPLX Stereo With Antenna and Cable, and Public Address, 4 Speaker, Mounted In Standard Location
49AWE	SPEAKER, OUTSIDE Weatherproof Horn, Under Drivers Platform, Radio Accessory Corporation, Requires Amplifier
49BEB	LIGHTS, CLUSTER Recessed in Cap; Amber in Front and Red in Rear
49EGC	MIRROR, INSIDE 6" x 30", Clear Safety Glass, Metal Back, Round Corners
49EGM	MIRROR, CROSS VIEW, EXTERIOR Heated, Black, Rosco
49EHN	MIRROR, REAR VIEW, EXTERIOR Heated, Black, Rosco
49ENK	VISOR, INTERIOR, LEFT FRONT 6" x 30", Transparent, For Left Windshield
49GEH	SAFETY TRIANGLES Warning Reflectors, Mounted on Drivers Barrier Level With Top of a Modesty Shield
49GKZ	FUEL FILLER DOOR With Non-Locking Latch
49GLA	REFLECTORS, SIDE, INTERMEDIATE (2) 3" Amber, 1 Each Side, Mounted With Screws, Below The Third Rub Rail From the Top
49GLG	REFLECTORS, SIDE, REAR (2) 3", Red
49GLM	REFLECTORS, SIDE, FRONT (2) 3", Amber; 1 Aft Drivers Window Left, 1 Aft Entrance Door Right
49GLP	REFLECTORS, REAR (2) 3", Red
49GTV	WINDSHIELD WIPERS (2) Bottom Mounted; Pantograph Type; Wet Arms, 28.5"
49GTW	SWITCH, INTERMITTENT Wiper Operation
49GTX	WINDSHIELD WASHER Kit; 3 Quart Capacity, Bottle
49GTY	SWITCH, WIPER CONTROL Single, to Control Both Wipers
49GUH	CERTIFICATE HOLDER (01) 9.375" x 6"; With Transparent Cover
49GUJ	FENDERS, RUBBER, FRONT (2)
49GUK	FENDERS, RUBBER, REAR (2)
49GUM	INSPECTION PLATE 5" Dia. Steel
49GVA	MUD FLAPS, FRONT WHEELS (2) Anti-Spray and Anti-Sail; Behind front Wheels
49GVH	MUD FLAPS, REAR WHEELS (02) Brackets Only
49GVV	LATCH, FRONT GRILLE Non-Locking
49UBV	STATE OF OPERATION Rhode Island
7372130116	(4) TIRE, REAR 11R22.5 G164 RTD M+S (GOODYEAR) 499 rev/mile, load range G, 14 ply
7372130122	(2) TIRE, FRONT 11R22.5 G395 LHS (GOODYEAR) 504 rev/mile, load range G, 14 ply
OBD001	PAINT RUB RAILS omit

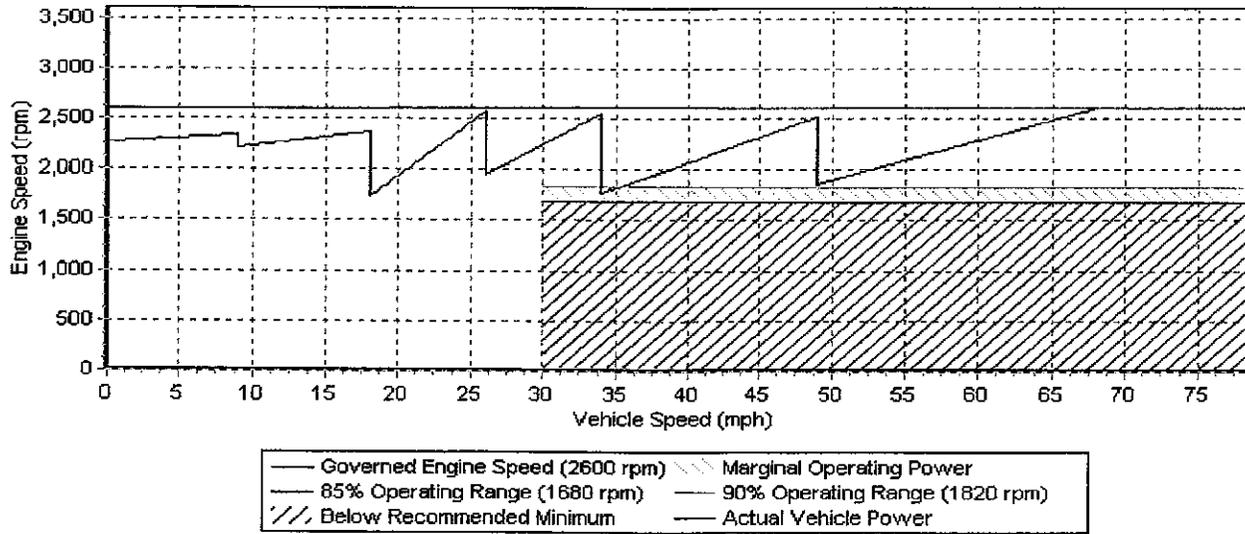
Vehicle Specifications  
2006 INTEGRATED FE C BUS (PC205)

April 15, 2005

<u>Code</u>	<u>Description</u>
OBD002	SEAT, PASS, LEFT, 2 LEG, 39" 0OBD002: omit
OBD003	STRIPING, PERIMETER, REAR 0OBD003: omit
OBD006	BODY PLAN, NON-SPECIAL NEEDS to come

ENGINE/TRANSMISSION MATCHING

Sawtooth Grid



Sawtooth Details

Gear	Trans Ratio	Upshift Power Avail		Govern Power Avail		Peak Power Comparison		
		Veh Spd (mph)	Eng Spd (rpm)	Veh Spd (mph)	Eng Spd (rpm)	Gear Step (%)	85% Range (%)	90% Range (%)
1C	3.51	0.0	2275.0	9.0	2341.9	N/A	55	43
2C	1.90	9.0	2218.8	17.9	2382.6	N/A	55	43
2L	1.90	17.9	1746.1	26.5	2580.2	N/A	55	43
3L	1.44	26.5	1955.5	34.5	2551.7	N/A	55	43
4L	1.00	34.5	1772.0	49.2	2525.0	N/A	55	43
5L	0.74	49.2	1868.5	68.5	2600.0	N/A	55	43

STEADY STATE PERFORMANCE

Performance Results	Gear	Veh Spd	Eng Spd	Fuel Econ	Grade	Notes
		(mph)	(rpm)	(mpg)	(%)	
LEVEL ROAD MAXIMUM SPEED	5L	69.6	2643	6.04	0.00	
HI GEAR SPEED @ RATED RPM	5L	68.5	2600	6.16	0.39	
55.0 MPH STEADY-STATE	5L	55.0	2088	8.19	2.12	- Calculated Grade Ability/Fuel Economy

VEHICLE ORDER CODING ERRORS MAY RESULT IF THE "LEVEL ROAD MAX SPEED" VALUE EXCEEDS THE "HI GEAR SPEED @ RATED RPM" AND IS USED AS THE ENGINE PROGRAMMABLE VEHICLE SPEED LIMIT.

IDLE FUEL RATE : 0.62 GALS/HR @ 700 RPM

TORQUE CONVERTER: TC-211 STALL RATIO: 2.05

IF THE RESULTS CONTAIN "——", VEHICLE CANNOT ATTAIN THAT SPEED.

IF THE RESULTS CONTAIN "\*\*\*\*\*", THE ENGINE USED DOES NOT HAVE A FUEL MAP. FUEL ECONOMY CANNOT BE PREDICTED.

FUEL ECONOMY

Fuel Economy Route: School Bus Route

Key Fuel Economy Information	Results	Notes
MILES PER GALLON	6.92	
AVERAGE MPH	13.22	
MISSION MINUTES	27.2	

IF THE RESULTS CONTAIN "\*\*\*\*\*", THE ENGINE USED DOES NOT HAVE A FUEL MAP. FUEL ECONOMY CANNOT BE PREDICTED.

GRADEABILITY PERFORMANCE

ENROUTE / FULL THROTTLE UPSHIFT PERFORMANCE

Gear	Tran Ratio	Veh Spd (mph)	Eng Spd (rpm)	Whl Pwr (hp)	Grade (%)	Notes
1C	3.51	0.0	2275.0	0.0	40.7	STALL
		6.1	2247.0	130.5	27.1	70% EFF
		7.9	2293.1	147.5	23.3	80% EFF
		9.0	2341.9	153.9	21.3	
2C	1.90	9.0	2218.8	115.5	15.7	
		17.9	2382.6	157.5	10.3	
2L	1.90	17.9	1746.1	155.6	10.2	
3L	1.44	26.5	2580.2	178.8	7.6	
		34.5	2551.7	180.3	5.4	
4L	1.00	34.5	1772.0	156.5	4.5	
		42.9	2200.0	186.6	4.0	
		49.2	2525.0	180.5	2.9	
5L	0.74	49.2	1868.5	159.3	2.4	
		57.9	2200.0	179.7	1.8	
		64.4	2443.8	175.5	1.00	
		67.8	2575.0	168.5	0.50	
		68.5	2600.0	166.2	0.4	RATED RPM
		69.6	2642.5	151.4	0.00	LEVEL ROAD

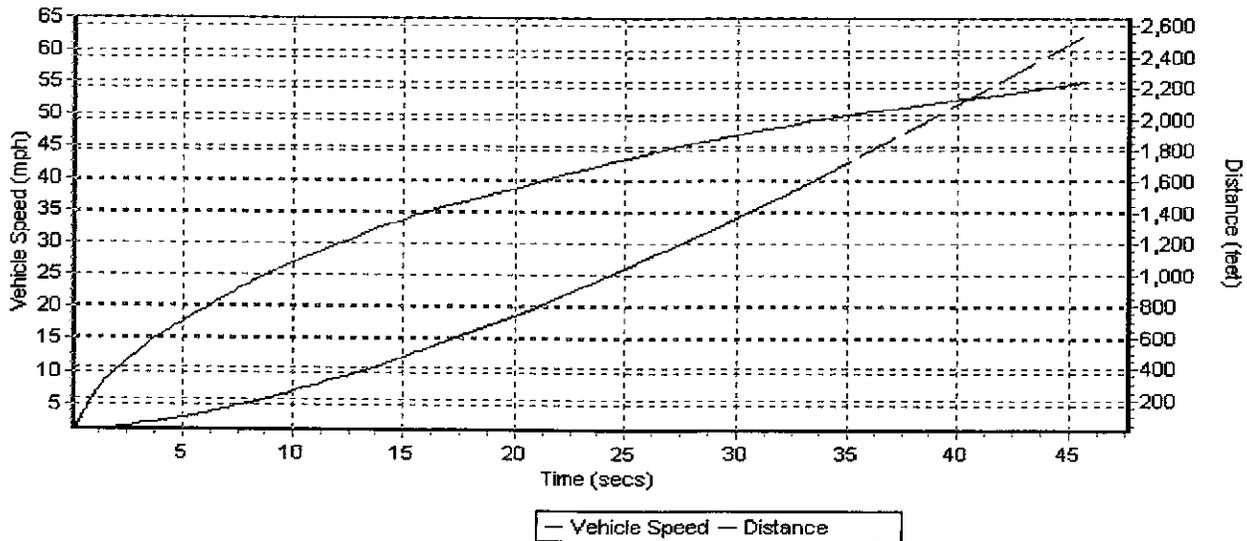
STARTING GEAR PERFORMANCE

Gear	Tran Ratio	Veh Spd (mph)	Eng Spd (rpm)	Whl Pwr (hp)	Grade (%)	Notes
1C	3.51	0.0	2275.0	0.0	40.7	STALL
		7.9	2293.1	147.5	23.3	80% EFF - Calculated Start Ability

THE TRANSMISSION WAS SIMULATED IN PERFORMANCE OPERATING MODE.

**ACCELERATION PERFORMANCE RESULTS**

**Acceleration Performance Grid**



Acceleration Performance: TIME TO ACCELERATE ON A 0.00% GRADE TO 55.0 (MPH) IS 45.73 (SECS)

**Acceleration Performance Details**

<b>Gear</b>	<b>Time (secs)</b>	<b>Distance (feet)</b>	<b>Speed (mph)</b>	<b>Notes</b>
1	0.16	0.1	1.0	
	0.31	0.4	2.0	
	0.45	1.0	3.0	
	0.60	1.7	4.0	
	0.77	2.8	5.0	
	0.94	4.2	6.0	
	1.13	6.0	7.0	
	1.34	8.4	8.0	
2	1.57	11.2	9.0	
	1.90	15.8	10.0	
	2.24	21.0	11.0	
	2.58	26.8	12.0	
	2.94	33.4	13.0	
	3.32	40.9	14.0	
	3.72	49.3	15.0	
	4.13	58.7	16.0	
3	4.57	69.2	17.0	
	4.99	80.1	17.9	
	5.49	93.5	18.9	
	5.99	107.7	19.9	
	6.48	122.6	20.9	
	6.99	138.4	21.9	
	7.51	155.5	22.9	
	8.06	174.4	23.9	
4	8.64	195.2	24.9	
	9.25	218.1	25.9	
	9.63	232.5	26.5	

Performance (TCAPE) Summary  
 2006 INTEGRATED FE C BUS (PC205)

April 15, 2005

Gear	ACCELERATION PERFORMANCE RESULTS			
	Time (secs)	Distance (feet)	Speed (mph)	Notes
	10.30	259.0	27.5	
	10.97	286.5	28.5	
	11.65	315.6	29.5	
	12.37	347.1	30.5	
	13.12	381.3	31.5	
	13.91	418.3	32.5	
	14.74	458.0	33.5	
	15.60	501.3	34.5	
5	15.67	504.6	34.5	
	16.72	558.8	35.5	
	17.79	614.9	36.5	
	18.85	673.0	37.5	
	19.93	733.0	38.5	
	21.02	795.1	39.5	
	22.11	859.3	40.5	
	23.22	926.2	41.5	
	24.37	996.8	42.5	
	25.56	1072.3	43.5	
	26.82	1153.5	44.5	
	28.14	1240.9	45.5	
	29.53	1334.4	46.5	
	30.98	1434.3	47.5	
	32.49	1541.1	48.5	
6	33.58	1619.1	49.2	
	35.58	1765.1	50.2	
	37.62	1916.7	51.2	
	39.70	2074.4	52.2	
	41.82	2238.4	53.2	
	43.99	2409.1	54.2	
	45.73	2548.2	55.0	

REQUIRED TCAPE INFORMATION

TCAPE Factors For Vehicle

Selected Rear Axle Gear Ratio(s):	6.17
Transmission Mode:	Performance
Engine Fan Type:	VISCOUS
Enroute PTO:	NO
Fuel Economy Route:	School Bus Route
ID Wheel Slip Conditions:	Yes
Parked PTO:	NO
Road Governor/Cruise Ctrl:	No
Road Surface Type:	TYPICAL
Vehicle Vocation:	GENERAL ON HIGHWAY
Steering Gear (hp):	2.60
Alternator (a):	45
Acceleration Grade (%):	0.0
Acceleration Vehicle Spd (mph):	55.0
Frontal Area (ft <sup>2</sup> ):	81
Relative Drag Coefficient:	91
Speed Limit on Route (mph):	61.0
Vehicle Height (in):	123
Vehicle Width (in):	96
Weight on Drive Axle (lbf):	19800
Tire, Front Quantity:	2 - RADIAL NORMAL
Tire, Rear Quantity:	4 - RADIAL NORMAL

Components

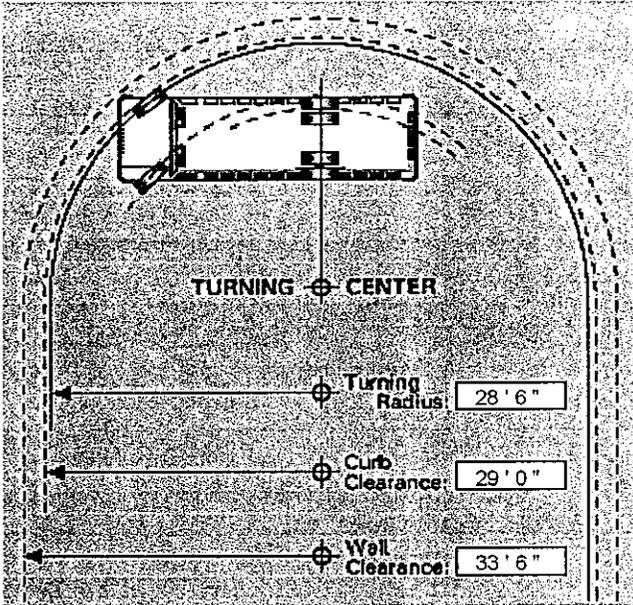
0002ADD	AXLE, FRONT NON-DRIVING {International I-120SG} I-Beam Type, 12,000-lb Capacity
0005PRJ	STEERING GEAR {TRW (Ross) TAS-65} Power
0008GEZ	ALTERNATOR {Leece-Neville 8LHP2246VAH} Brush Type; Pad Mounted; 12 Volt 160 Amp. Capacity, With "C" Type Regulator, With High Current Output at Low Engine Speed
0012NPL	ENGINE, DIESEL {International DT466} 50 State, 210 HP, 520 lb-ft Torque @ 1400 RPM, 2600 RPM Governed Speed, # 2 Bell Housing
0012TSY	FAN DRIVE {Borg-Warner SA85} Viscous Screw On Type
0013AET	TRANSMISSION, AUTOMATIC {ALLISON 2500_PTS} Wide Ratio, 5-Speed, With Overdrive; Less PTO Provision, Less Retarder, With 33,000-lb GVW & GCW Max.
0014AGM	AXLE, REAR, SINGLE {Dana Spicer 19060S} Single Reduction, 19,800-lb Capacity, With 190 Wheel Ends, for Buses Only
07372130116	TIRE, REAR 11R22.5 G164 RTD M+S (GOODYEAR) 499 rev/mile, load range G, 14 ply
07372130122	TIRE, FRONT 11R22.5 G395 LHS (GOODYEAR) 504 rev/mile, load range G, 14 ply

TCAPE HAS BEEN DESIGNED TO GIVE ECONOMY AND PERFORMANCE PREDICTIONS WHICH HAVE BEEN SHOWN TO BE TYPICAL FOR MOST OPERATIONS. HOWEVER, DUE TO OPERATING CONDITIONS, DRIVER INFLUENCES, AND OTHER FACTORS, YOUR RESULTS MAY VARY FROM THOSE PREDICTED. ALSO, BECAUSE OF FUEL MAPPING PROCEDURES USED BY VARIOUS ENGINE MANUFACTURERS, COMPARISONS OF FUEL ECONOMY RESULTS FOR DIFFERENT BRANDS OF ENGINES MAY VARY FROM THOSE SHOWN.

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**Turning Radius Summary**  
**2006 INTEGRATED FE C BUS (PC205)**

April 15, 2005



Series: INGB  
 Model: PC205  
 Description: INTEGRATED FE C BUS

**Calculation Factors**

Wheelbase: 198  
 Front Axle: 0002ADD  
 Description: AXLE, FRONT NON-DRIVING, {International I-120SG} I-Beam Type, 12,000-lb Capacity

Front Wheel: 0027DMA  
 Description: WHEELS, FRONT, DISC; 22.5" Painted Steel, 10-Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 8.25 DC Rims; With Steel Hubs.

Front Tire: 07372130122  
 Description: TIRES, 11R22.5 G395 LHS (GOODYEAR) 504 rev/mile, load range G, 14 ply

Steering Gear: 0005PRJ  
 Description: STEERING GEAR, {TRW (Ross) TAS-65} Power

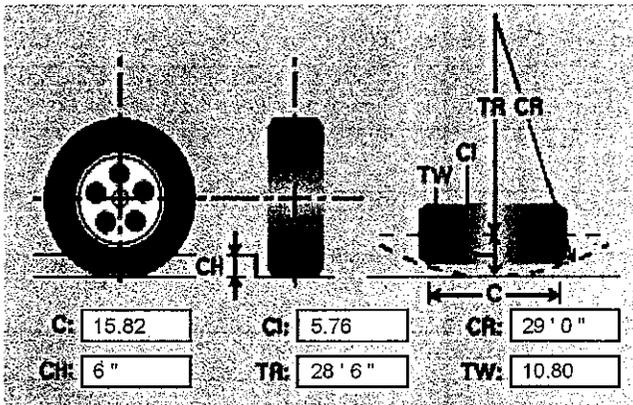
**Turning Radius Statistics**

General Information

Inside Turn Angle: 45.00 Degrees  
 Radial Overhang: 60.00

Axle Information

Kingpin Inclination: 7.50 Degrees  
 Kingpin Center: 69.12



**Turning Radius - Curb View**

C - Curb Contact Length: 15.82  
 CI - Curb Clearance Increment: 5.76  
 CR - Curb Clearance Radius: 29' 0"  
 CH - Curb Height: 6"  
 TR - Turning Radius: 28' 6"  
 TW - Tire Width: 10.80

\* All measurements are in inches, unless otherwise specified.

This information is based on engineering information available at this time. Actual figures may vary. IC Corporation cannot accept liability for consequences due to this variance.