



823 South 19th Ave. Marshalltown, Iowa 50158 877-752-4733

New Hampton CSD
710 West Main St.
New Hampton, IA

Christy Roethler,

Order Out: 2020 IC CE
47 Passenger with Wheel Chair position
PSI Propane 270hp
Allison 2500 (7 yr warranty)
Hydraulic Brake
Electric Door
\$98,527.00

In addition to your specs, IC offers many additional items at no extra cost which will lower your cost of ownership.

- Rust is always an issue, so we use **60% thicker** side sheet steel (1.6 mm vs 1.00 mm) than Thomas/Bluebird
- **50% more** galvanizing prior to paint G-90 (IC) vs G60 (Thomas/Bluebird)
- **The widest entrance door at 33" and widest steps at 36"** because everyone has a book bag.
- Four one piece rub rails with 3 wrap around for more strength (all sealed on the top)
- **All seat frames are seat belt ready** so 4 different backs can be used without changing frames.(built-in car seats, lap/shoulder, CRS/lap shoulder and regular)
- 3 Piece Hood for LCO and easy replacement in case of accident
- Bendix **ACTIVE** Stability Control and Bendix traction Control
- **Only fully caged fuel tank** under a school bus
- Riveted Ceiling panels
- 36" width non tapered step well for student safety
- IC body is fully riveted for safety, **NOT GLUED**
- ALL drivers controls are forward of driver to keep eyes on the road
- 78" Headroom

Get what you wanted, and much more.

Marc Steele
Hoglund Bus Co., Inc.
823 S. 19th Ave.
Marshalltown, IA 50158
641-512-3854
marcsteele@hoglundbus.com

Prepared For:
New Hampton Community School District
Bob Ayers
710 West Main St.
New Hampton, IA 50659-
(641)394 - 2251
Reference ID: Propane Lift

Presented By:
HOGLUND BUS CO INC
Nicole V Crum
P.O. BOX 249
MONTICELLO MN 55362
763-295-5119

Model Profile
2021 INTEGRATED CE S BUS (PB105)

APPLICATION:	School Transportation, Special Needs
MISSION:	Requested GVWR: 31000. Calc. GVWR: 29800 Calc. Start / Grade Ability: 21.83% / 1.97% @ 55 MPH Calc. Geared Speed: 76.0 MPH
DIMENSION:	Wheelbase: 276.00, CA: N/A, Axle to Frame: 148.00
ENGINE, PROPANE:	{Power Solutions International 8.8 Liter LPG} EPA 2018, 270 HP @ 2600 RPM, 565 lb-ft Torque @ 1600 RPM, 2700 RPM Governed Speed, 270 Peak HP (Max)
TRANSMISSION, AUTOMATIC:	{Allison 2500 PTS} 5th Generation Controls, Wide Ratio, 5-Speed with Overdrive, Less PTO Provision, Less Retarder, with 33,000-lb GVW and GCW Max, School Bus
CLUTCH:	Omit Item (Clutch & Control)
AXLE, FRONT NON-DRIVING:	{Meritor MFS-10-122A} I-Beam Type, 10,000-lb Capacity
AXLE, REAR, SINGLE:	{Dana Spicer 21060S} Single Reduction, 21,000-lb Capacity, 190 Wheel Ends Gear Ratio: 5.57
TIRE, FRONT:	(2) 11R22.5 Load Range G AH37 (HANKOOK), 501 rev/mile, 75 MPH, All-Position
TIRE, REAR:	(4) 11R22.5 Load Range G DH37 (HANKOOK), 498 rev/mile, 75 MPH, Drive
SUSPENSION, REAR, SINGLE:	19,800-lb Capacity, Two Stage Vari-Rate Springs
PAINT:	Cab schematic 100NB Location 1: 4421, School Bus Yellow (Std) Chassis schematic N/A

Vehicle Specifications
2021 INTEGRATED CE S BUS (PB105)

August 15, 2019

<u>Code</u>	<u>Description</u>
PB10500	Base Chassis, Model INTEGRATED CE S BUS with 276.00 Wheelbase, N/A CA, and 148.00 Axle to Frame.
1570	TOW HOOK, FRONT (2) Frame Mounted
1CAC	FRAME RAILS High Strength Low Alloy Steel (50,000 PSI Yield); 10.125" x 3.062" x 0.312" (257.2mm x 77.8mm x 8.0mm); 480.1" (12195mm) Maximum OAL <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 : FRAME REINFORCEMENT, SPECIAL 3.30" x 1.80" x 0.312" x 31.50" Inverted "L" in Front Shock Absorber Mounting Area
1LLE	BUMPER, FRONT Contoured, Steel, Severe Duty <u>Includes</u> : BUMPER, FRONT THICKNESS 1/4 Inch
1LNW	CROSSING GATE, FRONT Air, Yellow Blade, Bumper Mounted <u>Includes</u> : CONTROL ASSEMBLY Located Rear of Front Bumper, Heater not Required : CONTROL ASSEMBLY Solid State, Located Rear of Front Bumper, Heater not Required : CROSSING GATE, FRONT Matches Contour of Bumper
1SAL	CROSSMEMBER, REAR, AF (1)
1WJE	WHEELBASE RANGE 276" (700cm) Only
1WRP	TOW HOOK, REAR (2) Mounted on Lower Rail Flange
2ASH	AXLE, FRONT NON-DRIVING {Meritor MFS-10-122A} I-Beam Type, 10,000-lb Capacity <u>Includes</u> : AXLE, FRONT SQUARING to Plus or Minus .015 Inch, using a Special Fixture to Assure Parallelism of Springs <u>Notes</u> : The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.
3ADB	SUSPENSION, FRONT, SPRING Parabolic Taper Leaf, Shackle Type, 10,000-lb Capacity, with Shock Absorbers <u>Includes</u> : SPRING PINS Bolt and Nut Type : SPRING PINS Rubber Bushings, Maintenance-Free <u>Notes</u> : The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.
4091	BRAKE SYSTEM, AIR Dual System for Straight Truck Applications <u>Includes</u> : BRAKE LINES Color and Size Coded Nylon : DRAIN VALVE Twist-Type : GAUGE, AIR PRESSURE (2) Air 1 and Air 2 Gauges; Located in Instrument Cluster : PARKING BRAKE CONTROL Yellow Knob, Located on Instrument Panel : PARKING BRAKE VALVE For Truck : QUICK RELEASE VALVE On Rear Axle for Spring Brake Release: 1 for 4x2, 2 for 6x4 : SLACK ADJUSTERS, FRONT Automatic (with Air Cam Brakes) : SLACK ADJUSTERS, REAR Automatic (with Air Cam Brakes) : SPRING BRAKE MODULATOR VALVE R-7 for 4x2, SR-7 with relay valve for 6x4/8x6

Vehicle Specifications
2021 INTEGRATED CE S BUS (PB105)

August 15, 2019

<u>Code</u>	<u>Description</u>
	<u>Notes</u> : Rear Axle is Limited to 19,000-LB GAWR with Code 04091 BRAKE SYSTEM, AIR and Code 04NDC BRAKES, REAR, AIR CAM Regardless of Axle/Suspension Ordered : Rear Axle is Limited to 20,000-LB GAWR with Code 04092 BRAKE SYSTEM, AIR and Code 04NCW BRAKES, REAR, AIR CAM Regardless of Axle/Suspension Ordered
4732	DRAIN VALVE {Berg} with Pull Chain, for Air Tank <u>Includes</u> : DRAIN VALVE Mounted in Wet Tank
4AZS	AIR BRAKE ABS {Bendix AntiLock Brake System} with Electronic Stability Program (4-Channel; 4 Sensor/4 Modulator) with Automatic Traction Control
4EBS	AIR DRYER {Bendix AD-9} with Heater
4EXP	BRAKE CHAMBERS, FRONT AXLE {Bendix} 20 SqIn
4EXU	BRAKE CHAMBERS, REAR AXLE {Bendix EverSure} 30/30 Spring Brake
4JCG	BRAKES, FRONT, AIR CAM S-Cam; 15.0" x 4.0"; Includes 20 Sq. In. Long Stroke Brake Chambers <u>Notes</u> : Front Axle with 14,000-lb GAWR is Limited to 13,200-lb GAWR when used in Conjunction with 15" BRAKES, FRONT, AIR CAM.
4NDB	BRAKES, REAR, AIR CAM S-Cam; 16.5" x 7.0"; Includes 30/30 Sq.In. Long Stroke Brake Chamber and Spring Actuated Parking Brake <u>Notes</u> : The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.
4SBC	AIR COMPRESSOR {Bendix Tu-Flo 550} 13.2 CFM
4WBX	DUST SHIELDS, FRONT BRAKE for Air Brakes
4WDM	DUST SHIELDS, REAR BRAKE for Air Brakes
4WEA	PARKING BRAKE INTERLOCK Parking Brake Cannot be Released until Ignition Switch is in the "ON" Position and the Service Brake Pedal is Applied, Use with air brake chassis only.
4WZT	GVWR LIMITATION FOR BUS with Air Brakes, Limited to 33,000-lbs Maximum to meet FMVSS 121 Requirements, for Conventional Bus
5708	STEERING COLUMN Tilting
5CAL	STEERING WHEEL 2-Spoke, 18" Dia., Black
5PRR	STEERING GEAR {TRW (Ross) TAS66} Power
6DGA	DRIVELINE SYSTEM {Dana Spicer} SPL100, for 4x2/6x2
7DXS	EXHAUST SYSTEM Horizontal Dual Catalytic Converters, Frame Mounted Muffler Right Side, Includes Long Horizontal Tail Pipe, for use with Propane or Gasoline Engines
7WBM	TAIL PIPE (1) Horizontal, Long, Exits Left Side Ahead of Rear Wheels
8000	ELECTRICAL SYSTEM 12-Volt, Standard Equipment <u>Includes</u> : FUSES, ELECTRICAL SAE Blade-Type : HAZARD SWITCH Push On/Push Off, Located on Top of Steering Column Cover : HEADLIGHT DIMMER SWITCH Integral with Turn Signal Lever : MISCELLANEOUS FEATURES Modular, Loom Protected, Grommets in all Applicable Body Openings, Assembled in Computer Assisted Fixture which Verifies Continuity and Correct Assembly Prior to Installation

Vehicle Specifications
2021 INTEGRATED CE S BUS (PB105)

August 15, 2019

<u>Code</u>	<u>Description</u>
	: PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light : STARTER SWITCH Electric, Key Operated : TURN SIGNAL FLASHER : TURN SIGNAL SWITCH Self-Cancelling with Lane Change Feature : TURN SIGNALS, FRONT Includes Reflectors; Flush Mounted : WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever : WIRING, CHASSIS Color Coded and Continuously Numbered
8541	HORN, ELECTRIC (2) Disc Style
8GXG	ALTERNATOR {Leece-Neville AVI160P2003} Brush Type; 12 Volt 240 Amp. Capacity, Pad Mount
8MSG	BATTERY SYSTEM {Fleetrite} Maintenance-Free, (3) 12-Volt 1980CCA Total, Top Threaded Stud
8TTK	BATTERY BOX Steel, with Sliding Tray, 25.25" Wide, for Standard Batteries, 1-3 Battery Capacity, Mounted Left Side Behind Front Axle Perpendicular to Frame Rail
8TTN	BATTERY BOX COVER Plastic, Front Cover for Frame Mounted Battery Box Compartment
8TUT	COLLISION MITIGATION SYSTEM Omit
8WPB	HEADLIGHTS Halogen, Composite Aero Design, with Daytime Running Lights
8WWJ	INDICATOR, LOW COOLANT LEVEL with Audible Alarm
8WXB	HEADLIGHT WARNING BUZZER Sounds When Head Light Switch is on and Ignition Switch is in "Off" Position
8XAH	CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III with Trip Indicators, Replaces All Fuses
8XHE	STARTING MOTOR {Delco Remy PG260N2} 12 Volt; less Thermal Over-Crank Protection
9WAB	HOOD TILT ASSIST {EASY TILT} Mechanical
9WAY	FRONT END Tilting, Fiberglass, with Three Piece Construction
	<u>Includes</u> : AIR INTAKE SYSTEM Integrated Pre-Cleaning System to Enhance Air Filter Life : GRILLE Removable; Fiberglass Painted Hood Color : SPLASH SHIELD Integral with Front End Assembly
10020	CHASSIS PAINT Full Chassis
10060	PAINT SCHEMATIC, PT-1 Single Color, Design 100
	<u>Includes</u> : PAINT SCHEMATIC ID LETTERS "NB"
10788	PAINT TYPE Urethane, One or Two Colors, Other than Imron or International.
10XAK	PROMOTIONAL PACKAGE 7 Year Unlimited Miles/km Warranty, Limited Time Program for Allison 2000 Series Transmission on School and Commercial Buses (Supplied directly through Allison)
11001	CLUTCH Omit Item (Clutch & Control)
12PAC	ENGINE, PROPANE {Power Solutions International 8.8 Liter LPG} EPA 2018, 270 HP @ 2600 RPM, 565 lb-ft Torque @ 1600 RPM, 2700 RPM Governed Speed, 270 Peak HP (Max)
12TSV	FAN DRIVE {Borg-Warner SA-75} Viscous Type, Screw On
12UGN	THROTTLE, HAND CONTROL Electronic
	<u>Notes</u> : Cruise Control Switches Mounted on Steering Wheel are Non-Illuminated.
12VBR	AIR CLEANER with Service Protection Element

Vehicle Specifications
2021 INTEGRATED CE S BUS (PB105)

August 15, 2019

<u>Code</u>	<u>Description</u>
	<u>Includes</u> : GAUGE, AIR CLEANER RESTRICTION Air Cleaner Mounted
12VGW	FEDERAL EMISSIONS {Power Solutions International 8.8L LPG} EPA, OBD and GHG Certified for Calendar Year 2019
12VVN	CRUISE CONTROL Electronic
	<u>Notes</u> : Cruise Control Switches Mounted on Steering Wheel are Non-Illuminated.
12VWH	GOVERNOR Electronic Road Speed Type; for Electronic Engines and Bus Models; with 55 MPH Default
12WUK	BLOCK HEATER, ENGINE {Phillips} 120V/1000W, and 120V/150W Oil Pan Heater with "Y" Cord from Socket to Operate Both Heaters, Socket Mounted in Standard Location
12WZV	EMISSION COMPLIANCE Federal Emissions Certification, for Alternate Fuel Vehicle
12XBA	RADIATOR Down Flow, 665 SqIn Aluminum Radiator Core with Internal Water to Oil Transmission Cooler
13ART	TRANSMISSION, AUTOMATIC {Allison 2500 PTS} 5th Generation Controls, Wide Ratio, 5-Speed with Overdrive, Less PTO Provision, Less Retarder, with 33,000-lb GVW and GCW Max, School Bus
	<u>Includes</u> : OIL FILTER, TRANSMISSION Mounted on Transmission : TRANSMISSION OIL PAN Magnet in Oil Pan
13WLN	TRANSMISSION OIL Synthetic; 20 thru 28 Pints
13WYY	SHIFT CONTROL PARAMETERS Allison 1000 or 2000 Series Transmissions, 5th Generation Controls, Performance Programming
14AGG	AXLE, REAR, SINGLE {Dana Spicer 21060S} Single Reduction, 21,000-lb Capacity, 190 Wheel Ends . Gear Ratio: 5.57
	<u>Includes</u> : REAR AXLE DRAIN PLUG (1) Magnetic, For Single Rear Axle
	<u>Notes</u> : The following features should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension; Brake System; Brakes, Rear Air Cam; Brake Shoes, Rear; Special Rating, GAWR; Wheels; Tires. : When Specifying Axle Ratio, Check Performance Guidelines and TCAPE for Startability and Performance
14SBK	SUSPENSION, REAR, SINGLE 19,800-lb Capacity, Two Stage Vari-Rate Springs
	<u>Notes</u> : The following features should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension; Brake System; Brakes, Rear Air Cam; Brake Shoes, Rear; Special Rating, GAWR; Wheels; Tires.
14WAP	SHOCK ABSORBERS, REAR (2)
15SXP	FUEL TANK, PROPANE Two Tank System, 69.20 U.S. Gal. 261.95 L (80%) Capacity, Includes Protective Cage, Mounted Between the Frame Rails Behind Rear Axle
16010	COWL Flat Back
16HBA	GAUGE CLUSTER English with English Electronic Speedometer
	<u>Includes</u> : GAUGE CLUSTER (5) Engine Oil Pressure (Electronic), Water Temperature (Electronic), Fuel (Electronic), Tachometer (Electronic), Voltmeter : ODOMETER DISPLAY, Miles, Trip Miles, Engine Hours, Trip Hours, Fault Code Readout : WARNING SYSTEM Low Fuel, Low Oil Pressure, High Engine Coolant Temp, and Low Battery Voltage (Visual and Audible)
16HGH	GAUGE, OIL TEMP, AUTO TRANS for Allison Transmission

Vehicle Specifications
2021 INTEGRATED CE S BUS (PB105)

August 15, 2019

<u>Code</u>	<u>Description</u>
16HKT	IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster
27DUW	WHEELS, FRONT {Accuride 51408} DISC; 22.5x8.25 Rims, Powder Coat Steel, 2-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with Steel Hubs
28DUW	WHEELS, REAR {Accuride 51408} DUAL DISC; 22.5x8.25 Rims, Powder Coat Steel, 2-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with Steel Hubs
29580	WHEEL SEALS, FRONT {International} Oil-Lubricated Wheel Bearings
47AGJ	BODY, BUS Conventional; 78" Headroom, 33'5" Body Length, +9 Section Front and Rear, 72 Passenger, 276 WB
47AJB	BODY CERTIFICATION TAG Mylar Label
47AJC	BODY TAG, METAL Capacity to Include the Total Number of Passengers
47AJW	STEP, FRONT ENTRANCE DOOR 27 1/4" Depth; 14ga Steel
	<u>Includes</u> : STEP, FRONT ENTRANCE DOOR OPENING, 35 Inch Width; Continuous Bottom to Top
47APR	HEADLINER, BODY Conventional; 25'11"-34'11" Body Length, Perforated Full Length with Sound Insulation Full Length
47APW	FASTENERS, HEADLINER Rivets
47ARH	BOWS, ROOF 14 ga., One Piece Construction
	<u>Includes</u> : BOWS, ROOF Positioned Floor Line to Floor Line, Threaded Through Roof Strainers and Drip Rail
47ARP	LIGHT BARS Plastic
47ATB	SKIRT, BODY Conventional, 20", 16ga., 31'2", 31'11", 32'8", 33'5", 34'2", 34'11", Body Length
	<u>Includes</u> : SKIRT, BODY Extra Smooth Steel Supported by Floor Gussets
47AUR	TIE DOWNS, BODY Grade 8 Bolts, Every Body Section
	<u>Includes</u> : TIE DOWNS, BODY with Formed Tab that Fits into Floor Structure to Prevent Turning
47AXT	RUB RAILS, BODY (4) Conventional; Steel, 31'2", 31'11", 32'8", 33'5", 34'2", 34'11", 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
	<u>Includes</u> : DOOR, REAR EMERGENCY with Concealed Hinges : HEADER BUMPER Padded, Mounted Over Rear Door; Upholstered to Match Passenger Seat Color
47AZE	SIDE SHEET, BODY, EXTERIOR Conventional, 16ga., Smooth, 31'2", 31'11", 32'8", 33'5", 34'2", 34'11", Body Length
47AZL	FLOOR, BODY with Wheel Wells
47AZY	RAILS, WRAP-AROUND, FLOOR At Floor Level To Radii
47AZZ	RAILS, WRAP-AROUND Just Below Window Line
47BAK	BUMPER, REAR Painted, 12" High, 3/16" Thick

Vehicle Specifications
2021 INTEGRATED CE S BUS (PB105)

August 15, 2019

<u>Code</u>	<u>Description</u>
47BAR	SUPPORTS, REAR BUMPER Bolted to Frame
47BBH	LINING, SIDE INTERIOR, LOWER Embossed Steel, Clear Coated
47BBZ	SEALER Extra; Sidewall to Floor, In Wheel Pocket Area, and Rear Wall to Floor
47BCV	CONTROL, CHASSIS AIR DRAIN Clip and Cable for Remote Operation of Chassis Air Tank Drain Valve, with 1 Berg Pull Chain
47BKK	LETTERS, SCHOOL BUS FRONT/REAR Decal; "SCHOOL BUS"; with 8" Black Reflective Letters, 3M Fluorescent Diamond Grade, Yellow On Front and Rear Cap
47DAE	FASTENERS, REAR DOOR Lag Screws, Rear Door To Body
47DAJ	COVER, REAR DOOR INSIDE HANDLE Partial Coverage
47DCW	HANDLE, EXTERIOR, LIFT DOOR Single Door, Yellow
47DDE	HANDLE, ASSIST, ENTRANCE DOOR Outside Entrance
47DDH	HOLD BACK, REAR DOOR Stationary, No Cables, with Plastic Cover
47DDR	LATCH, LIFT DOOR Single, Three Point Slide Bar
47DDU	LATCH, REAR DOOR One Point Slide Bar, Cam Operated, with One Inch Stroke
47DEK	LOCK, VANDAL, REAR DOOR with Ignition Starter Interlock
47DEY	HANDLE, EXTERIOR, REAR Emergency Door; Yellow
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 Vandal Lock : LOCK, VANDAL, ENTRANCE DOOR With Key Switch
47DNR	SWITCH, LOCATION Left of Driver; Includes Master Flasher, Amber Flasher, and 3 Position Door Control with Red Override
47DWR	DOOR, LIFT Single, 43" x 69.79"; Mounted Just Aft of Entrance Door, with 78" Headroom
47EBM	HOLD DOWN, BATTERY For (2) Standard Size Batteries
47EWW	DECALS, NSTSP/NFPA NSTSP/NFPA Compliant
47KDC	MONITOR, POST TRIP INSPECTION {Leave No Student Behind} Accessory Controlled, with Push Button Alarm Disable at Rear of Bus Prompts Driver to Walk to Back of Bus and Push Button in Light Bar to Deactivate System
47LAB	NOISE REDUCTION, DRIVER FLOOR Insulation Covering Complete Driver Floor Area
47LAT	NOISE REDUCTION, ROOF BOW Conventional; Insulation, 31'2", 31'11", 32'8", 33'5", 34'2", 34'11", Body Lengths
47LAU	INSULATION, ROOF AND SIDES 1.50", All Models
47MAC	UNDERCOAT, FLOOR/STEPWLL/SIDES for Engine Noise Reduction
47MBA	UNDERCOAT, BODY Fire Resistant, Water Based, TT-C-730 Spec
	<u>Includes</u> : UNDERCOATING Performed Before and After Mounting on Chassis
47MBC	INSULATION, STEPWELL
47MJR	LETTERS, DOOR, REAR Decals; "EMERGENCY DOOR", 2" Black Letters Inside and Outside

Vehicle Specifications
2021 INTEGRATED CE S BUS (PB105)

August 15, 2019

<u>Code</u>	<u>Description</u>
47MNM	LETTERS, BATTERY COMPARTMENT (01) Decal; "Battery"; 2" Black Letters, Centered on Standard Battery Box
47MNT	ARROW, RR DOOR, INSIDE Decal; Red, .75" Stroke, Indicating Handle Direction
47MRU	LETTERS, E/E WINDOW, LEFT (2) Decal Sets, "EMERGENCY EXIT", Black Inside and Outside
47MTY	WIRING DIAGRAM Schematic, Electrical
	<u>Includes</u> : ACCESS PANEL for Wiring Diagram Schematic Located on Body Exterior; Below Driver Window
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
47MWZ	LETTERS, SIGN, REAR Decal, "UNLAWFUL TO PASS WHEN LIGHTS FLASH", Black Letters 27" x 2", Mounted Center of Rear Emergency Door
47NAB	PAINT COLOR, RUB RAILS 0001 Canyon Black
47NGE	LETTERS, CAPACITY 2" Black Decals, (2) Places, with Bus Number, for State of Iowa, Rated Cap
47NGW	SEAL, RUB RAILS Top Edge, All Rails
47NHL	LETTERS, E/E WINDOW, RIGHT (2) Decal Sets, "EMERGENCY EXIT", Black, Inside and Outside
47NJA	PAINT COLOR, BODY EXTERIOR 4421 School Bus Yellow
47NJM	PAINT FLASHER BACKGRD 0001 Canyon Black
47NJS	PAINT COLOR, BUMPER Rear, 0001 Canyon Black
47NKL	PAINT, RUB RAIL Flange to Flange
47NKM	PAINT COLOR, BODY INTERIOR 9384 Spring White
47NMG	OPERATING INSTR, REAR Decal, Inside Rear Emergency Door
47NTE	LOGO, ROOF LINE Decal; Wing and Shield, First Body Section, Above Driver Window and Entrance Door Over Driver Window and Entrance Door
47NTY	PAINT HOOD AND FENDER To Match Body Exterior
47NWH	STRIPING, ROOF HATCH, REAR {3M} Decal, Perimeter, 1" Yellow Fluorescent Diamond Grade
47NWJ	STRIPING, SEATLINE {3M} 2" Yellow Fluorescent Diamond Grade
47NWR	STRIPING, REAR END {3M} 2" Yellow Fluorescent Diamond Grade
47NWT	STRIPING, ROOF HATCH, FRONT {3M} Decal, Perimeter, 1" Yellow Fluorescent Diamond Grade
47NWU	STRIPING, E/E WINDOW, RIGHT {3M} (02) Perimeter, 1" Yellow Fluorescent Diamond Grade
47NXH	STRIPING, E/E WINDOW, LEFT {3M} (02) Perimeter, 1" Yellow Fluorescent Diamond Grade
47NXN	STRIPING, PERIMETER, REAR {3M} Emergency Door, 1" Yellow Fluorescent Diamond Grade
47PBZ	HANDLE, ASSIST Windshield Side Mounted, Left and Right, Body Color
47SBS	SUB FLOOR, PLYWOOD Conventional; B-C Exterior Grade, Less Sealed Edges, 5/8", 5 Ply, for 31'2", 31'11", 32'8", 33'5", 34'2", 34'11", Body Length
48ACN	SEAT BELT, DRIVER, COLOR with Blaze Orange Seat Belt Webbing
48ANW	WINDOW, DRIVER Storm
48APL	WINDOW, STOPS 12" Opening, Only with 78" Headroom

Vehicle Specifications
2021 INTEGRATED CE S BUS (PB105)

August 15, 2019

<u>Code</u>	<u>Description</u>
48APW	WINDOW, ENTRANCE DOOR, TOP Storm, Laminated, Clear
48ARK	WINDOW, SASH (14) 27" Sections, 9"x 23" Opening
48ASR	WINDOW, SASH +9 SECTIONS (3) 9" x 32 1/4" Opening
48BAH	WINDOW, E/E, LEFT (2) Vertical Hinge
48BBL	BARRIER, CRASH, RT, 1ST Position; 30", 2 Leg
48BBU	BARRIER, CRASH, RT, 2ND Position; 30", 1 Leg
48BJA	COLOR, WINDOW FRAME, PASS Passenger Window, Natural Aluminum Finish
48BKP	WINDOW, E/E, RIGHT (2) Vertical Hinge
48BUB	WINDOW, PASSENGER, TINT Conventional; 28% Light, Tempered Glass, 78" Headroom, with 34'11", 31'2", 31'11", 32'8", 33'5", 34'2" Body Lengths
48DBN	SHIELD, COURTESY, AFT ENTR DR Padded, 30", Mounted Under Stanchion
48DCA	STANCHION, AFT ENTRANCE DOOR Padded, 30"
48GHC	HEATER, DRIVER 90,000 BTU, with Defroster and without Rear Heat Duct
	<u>Includes</u> : AIR FILTER : HEATER HOSES Premium : HOSE CLAMPS, HEATER HOSE Mubea Constant Tension Clamps
48PAV	WHEEL POCKET COVER Plastic, ABS
48PAX	AISLE POSITION for 39" Left and 30" Right (21" aisle)
48PAZ	WINDSHIELD 3 Flat Pieces, 73% Light
48PBB	FLOOR COVERING, COLOR Black
48PHN	UPHOLSTERY, PASS SEATS, TYPE Prevaill, 42 oz.; for (21-22) Seats
48PJR	FLOOR COVERING, TRIM Aluminum
48PJZ	FLOOR COVERING, TYPE {Koroseal} All Body Lengths
48PKC	HOSE CLAMPS, HEATER HOSE Constant Torque for Heater System
48PKN	FAN, DEFOG FAR RIGHT (01) Black, Mounted Right Above Windshield, Forward Entrance Door, 2-Speed Switch in Panel
48PKR	FAN, DEFOG LEFT CENTER 6.50" Diameter, Black, Mounted Left of Center Post, 2-Speed Switch in Panel
48PMC	HEATER, PASS, LT MIDSHIP 1ST 50,000 BTU
	<u>Includes</u> : AIR FILTER
48PMJ	HEATER, PASS, LT REAR 84,500 BTU
	<u>Includes</u> : AIR FILTER
48PMS	HEATER, STEPWELL 50,000 BTU
	<u>Includes</u> : AIR FILTER
48PNW	HEATER, WATER PUMP {2 MPU 12} Self Priming, with Plastic Housing

Vehicle Specifications
2021 INTEGRATED CE S BUS (PB105)

August 15, 2019

<u>Code</u>	<u>Description</u>
48PPC	SWITCH, HTR FAN, REAR, LT with 84,500 BTU Rear Heater Only
48PPM	HEATER CUT OFF, VALVE Ball, with Butterfly Handle
48PPP	HEATER CUT OFF, VALVE INSIDE Brass Ball, Inside Forward of Driver Heater
48PPS	ROOF VENT, FRONT Static
48PSH	SEAT, DRIVER {Magnum 200} Mechanical Suspension
	<u>Includes</u> : SEAT BELT, DRIVER Adjustable D-Loop Seat Belt, Single Locking Retractor
48PTR	ARM REST, DRIVER, RIGHT for Magnum 200 Seat
48PUT	NUTS, BELT MOUNTING Standard Nuts For Seat Belt Mounting
48PVA	UPHOLSTERY, DRIVER SEAT, STYLE Plain, with Cloth Insert
48PVN	UPHOLSTERY, DRIVER SEAT, COLOR Drivers Seat, Gray
48PWD	UPHOLSTERY, PASS SEATS, COLOR Gray, for Seats, Barriers and Head Bumpers
48PWR	UPHOLSTERY, DRIVER SEAT, TYPE Prevail, 42 oz.
48PXW	UPHOLSTERY, BARRIER, TYPE (1-2) Prevaill, 52 oz.
48RAL	BARRIER, CRASH, AFT DRIVER 39", 1 Leg
48REP	PANEL, MODESTY, AFT OF DRIVER Mounted Under Barrier
48RGE	HAND RAIL, ENTRANCE DOOR, FWD Stainless Steel; Curved
48RGR	HAND RAIL, ENTRANCE DOOR, AFT Stainless Steel, 4", Above Step
48RLX	CUSHION, SEAT 15" Depth
	<u>Includes</u> : WARRANTY Four Years
48RRA	UPHOLSTERY, SEAT, STITCHING Single
	<u>Includes</u> : WARRANTY Two Years
48RTE	SEAT, TRACK, LT, 30", 2 LEG (1)
48RZJ	STEP TREADS {Koroseal} Pebble Top with White Nosing, with Non-Metal Backing
48SDU	SEAT, PASS, LT, 39", 2 LEG (11)
	<u>Notes</u> : BTI Seating System Base Seat. Retrofittable, Contact IC Bus Application Engineering for more information.
48SGG	SEAT, PASS, RT, 30", 2 LEG (06)
48UCP	ROOF HATCH, FRONT {Transpec 1975-028-121-03} with Outside Release, with English Decals
48UCR	ROOF HATCH, REAR {Transpec 1975-028-121-03} with Outside Release, with English Decals
48USV	SEAT BACK, PASSENGER High Back
49040	BODY PLAN, APPROVED VARIATION Number 040
49AAW	LIGHT, ENTRY DOOR Light Mounted in Skirt Behind Entrance Door, Wired To Step Light
49AAZ	SWITCH, INTERRUPT CROSS GATE Single Cycle; with Auto Reset, Located In Driver Compartment
49ABB	LIGHTS, BACK UP (2) 7" Diameter, Clear

Vehicle Specifications
2021 INTEGRATED CE S BUS (PB105)

August 15, 2019

<u>Code</u>	<u>Description</u>
49ACB	LIGHTS, DIRECTIONAL, FRONT 7" Amber, on Front Cowl
49ACU	LIGHTS, DIRECTIONAL, REAR (2) 7" Amber, without Arrow
49ADA	LIGHTS, DIRECTIONAL, SIDE (2) {Weldon} Armor Type, Amber, One Each Side First Section Behind Entrance Door
49ADC	LIGHTS, WARNING (8) Quartz Halogen Beams, 7", 2 Front, 2 Rear, Red and Amber Lights
49AEA	LIGHT, LIFT DOOR Exterior; Light Mounted Above Lift Door Activated By Opening Lift Door
49AEG	LIGHTS, MARKER, FRONT, REAR (4) Two Amber Front and Two Red Rear, Single 1500 Hour 3cp Bulb Each Light
49AEU	LIGHTS, STOP (2) and Tail, 7" dia., Red
49AJH	CONNECTION, LIGHTS Cluster, Clearance and Side Marker To Tail Lights
49AMB	WIRE, FEED 4 Gauge, Chassis To Body
	<u>Notes</u> : Terminals have heat shrink protection.
49AMD	SWITCH, DRIVER PANEL, TYPE Rocker
49AMT	CIRCUIT, PROTECTION Breakers, Manual Reset in Lieu of Fuses
	<u>Includes</u> : ACCESS PANEL for Body and Chassis Fuses/Circuit Breakers Located on Body Exterior; Below Driver Window
49AMV	ALARM, BACKING {Ecco #850} 112 db
49AMY	SWITCH, REAR DOOR BUZZER for Emergency Door
49ANG	LIGHT, INDIC EMRG DR RED Wired To Buzzer and Mounted on Dash
49ANH	SWITCH, MAGNETIC, DISCONNECT Master, Ignition Operated, All Body Circuits
49ANT	SWITCH, LIFT OPERATION Rocker Switch, Dash Mounted
49ANU	SOURCE, POWER 12 VDC, Mounted In Dash
49APA	LIGHT, DRIVER, CEILING Deluxe, with Separate Switch, Mounted in Light Bar
49APV	LIGHT, LIFT DOOR, INTERIOR Above Lift Door, with Door Operated Switch
49APZ	LIGHTS, DOME Conventional; Rectangular Recessed Type, Two Full Rows, for 31'2", 31'11", 32'8", 33' 5", 34'2", 34'11", Body Lengths
	<u>Includes</u> : WIRING HARNESS Main Body Wiring Harness Accessed by Removing Dome Light
49ARA	LIGHT, RED, EMERG EXIT, REAR 3" Inside, Over Rear Door, Connected to Clearance Lights
49ARM	SWITCH, DOME LIGHT, REAR Separate, for Rear Row Dome Lights, Last Light on Each Side
49ARN	LIGHT, STEP Wired to Clearance Lights
49ATJ	LIGHT, INDIC, LIFT DOOR Amber; Flashing, Located in Driver Area
49ATV	LIGHT, INDIC, WARNING LIGHTS Red and Amber
	<u>Includes</u> : LIGHTS, WARNING Indicator Located in Instrument Cluster
49AUM	SWITCH, MASTER FLASHER Omit Master Flasher Switch, 8-Lamp System

Vehicle Specifications
2021 INTEGRATED CE S BUS (PB105)

August 15, 2019

<u>Code</u>	<u>Description</u>
49AWT	SPEAKERS AND WIRING (4) Flush Mounted in Light Bar
49BCM	FLASHER SYSTEM (8) Warning Lights, 8-Lamp System, Electronic Relay Flasher, Sequential Operation, Red Lights Activate after Ambers Lights with Door Open
49BCR	LIGHT, EXTERIOR, CHECK Automatically Activates Lights for Pre Trip Inspection
49BRE	LIGHTS, MARKER, SIDE Intermediate, Single Bulb, Centered, 3cp, 1500 HR Bulb, Required for Units 30 Foot or Longer
49BWM	LIFT, WHEELCHAIR {Braun Model NL919IB} Gen-2, Power Pack Mounted Rear of Lift, 800-lb Capacity
49BYD	RADIO, ENTERTAINMENT {Panasonic} AM/FM-MPLX Stereo, Includes Antenna and Cable, with Public Address System
49CKU	FUEL FILLER PIPE Located Right Side at 4th Floor Sill, Behind Wheel Pocket, for Propane Fuel Tanks
49DBR	HOOD, WARNING LAMP (4) Black, 8-Lamp System, One Hood Above Two Lights
49DDC	LIGHTS, CLUSTER {Truck Lite 07045A & 07045R} LED; Amber Front and Red Rear
49EGB	MIRROR, INSIDE 10" x 30", Clear
49EGM	MIRROR, CROSS VIEW, EXTERIOR Heated, Black, Rosco
	<u>Includes</u>
	: MIRROR MOUNT Attached to Body with Metal Backing Plates
49EKP	STOP ARM, FRONT Electric, Metal Blade, 18" Octagon, Double Sided, 1/2" White Border, Hi Intensity Grade, Flashing Red Incandescent Lights
49ENK	VISOR, INTERIOR, LEFT FRONT 6" x 30", Transparent, For Left Windshield
49ETJ	KIT, FIRST AID No. 918, 24 UNIT, Iowa
49EVL	SWITCH, NOISE SUPPRESSION Actuator Legend States, "NOISE SUPP ", for Separate Solenoid, with Red Switch in Panel
49EXD	MIRROR, REAR VIEW, EXTERIOR {Rosco} Open View, Black, Heated, Motorized, Non-Detent
49EYD	LIGHT, STROBE ECCO 6710C, Low Profile, Double Flash, 4.9" High
49GAR	KIT, BODY FLUID Nebraska
49GBV	WINDSHIELD WIPERS (2) Cowl Mounted
	<u>Includes</u>
	: WINDSHIELD WIPERS CONTROL Single Motor, Overlapping Wipe Pattern
49GDB	LATCH, DOOR BULKHEAD Lever Latch, for Bulkhead Mounted Safety Compartment or Destination Sign Access Doors
49GDD	DOOR, REAR BULKHEAD For Access to Rear Bulkhead
49GEE	COMPARTMENT, OVER WINDSHIELD with Latch, No Lock, No Buzzer, Centered Over Windshield, with Single Piece Panel, (Requires Latch)
49GEM	SAFETY TRIANGLES Warning Reflectors, Mounted on Front of Drivers Barrier 6" Below Top of Modesty Shield
49GGE	FIRE EXTINGUISHER, DRIVER AREA 5 lb 2A-40BC Minimum with Flexible Hose and Metal Nozzle
49GHN	REFLECTORS, REAR (2) 3", Red, Adhesive Back
49GHR	REFLECTORS, SIDE, REAR (2) 3", Red, Adhesive Back
49GHV	REFLECTORS, SIDE, FRONT (2) 3", Amber; Adhesive Back, 1 Aft Drivers Window Left, 1 Aft Entrance Door Right

Vehicle Specifications
2021 INTEGRATED CE S BUS (PB105)

August 15, 2019

<u>Code</u>	<u>Description</u>
49GHX	REFLECTORS, SIDE, INTERMEDIATE (2) 3" Amber, 1 Each Side, Below The Third Rub Rail From the Top, Adhesive Back
49GKZ	FUEL FILLER DOOR with Non-Locking Latch
49GLZ	INTERLOCK, LIFT for FMVSS Wheel Chair Interlock Requirements; with Key in "ON Position", Park Brake Must Be Applied, Transmission in Park or Neutral for Air Brakes, or in Park Only for Hyd Brakes, Lift Door Must be Opened Before Lift Can be Activated, w/ Automatic or Procision Transmissions
49GUB	CUTTER, SEAT BELT {TIE TECH Safecut} for Cutting Seat Belts
49GUK	FENDERS, RUBBER, REAR (2)
49GUX	MUD FLAPS, FRONT WHEELS (2) Rubber
49GVC	MUD FLAPS, REAR WHEELS (2) Rubber
49GWW	WINDSHIELD WASHER Kit; 6 Quart Capacity, Bottle
	<u>Includes</u> : WINDSHIELD WASHER ELECTRICAL CONNECTIONS Sealed and Locking Type
49HGZ	TIE DOWN, TRACK (01) Retractable
49HJL	REINFORCEMENT, SHOULDER TRACK Mounted Above Light Bar Full Length of Bus
49JBG	TRACK, TYPE (BRAND) {OMNI L Track}
49JCT	INSPECTION PLATE Fuel Sending Unit Omit
49MJX	TIE DOWN, TRACK TYPE {QRT Q-8107-A1-L2} Retractable, with Track Fittings on Shoulder Belt
49MNJ	TRACK, FLOOR LENGTHS 50", with 8" Shoulder Track
49UAT	STATE OF OPERATION Iowa
7372135809	(2) TIRE, FRONT 11R22.5 Load Range G AH37 (HANKOOK), 501 rev/mile, 75 MPH, All-Position
7372135810	(4) TIRE, REAR 11R22.5 Load Range G DH37 (HANKOOK), 498 rev/mile, 75 MPH, Drive
OBD001	BODY PLAN, SPECIAL NEEDS BODY PLAN, SPECIAL NEEDS,Pending Factory Approved Body Plan
	Services Section:
40126	WARRANTY Standard for CE, RE, BE School Bus Models, Effective with Vehicles Built March 1, 2017 or Later, CTS-3304H
49GVN	WARRANTY 5-Year, Limited

Electronic Parameters Summary
2021 INTEGRATED CE S BUS (PB105)

August 15, 2019

(0012PAC)
ATTACHMENTS: 0012VVN

<u>Parameter</u>	<u>Value</u>	<u>UOM</u>
Max Accelerator Vehicle Speed Limit	75	MPH

These Electronic Parameters have been successfully finalized

**GASOLINE & PROPANE
8.8L V-8**

PURPOSE BUILT FOR THE SCHOOL BUS INDUSTRY

*Power Solutions International
(PSI) 8.8L — uncompromised
power performance, maximum
fuel efficiency, emissions
certification and fuel flexibility*



HEAVY-DUTY DESIGN

- ▶ Forged, induction-hardened crankshaft
- ▶ Forged rods and pistons
- ▶ Oil bath lubrication provides piston cooling
- ▶ Low engine-speed design produces less noise, heat and wear than competitor gasoline and propane engines

SERVICEABLE

- ▶ Both the engine compartment and engine provide best-in-class accessibility for easy maintenance
- ▶ Includes the industry's only one-stop warranty for gasoline and propane vehicles
- ▶ Allison Transmission 7-year/Unlimited mileage warranty
- ▶ Industry's broadest, most capable parts distribution and dealer network

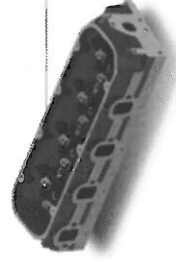
ALLISON TRANSMISSIONS

- ▶ Shorter, sturdier shaft has increased durability vs. Ford
- ▶ Over 44% more clutch material vs. Ford so it holds gear and lasts longer in the toughest operation
- ▶ Heavy-duty park pawl better secures vehicle
- ▶ Same transmission used across all IC Bus* powertrains for ease of maintenance

POWER OF CHOICE

- ▶ Gasoline and Propane versions use same engine block providing an easy solution for mechanics and drivers of mixed fleets
- ▶ Gasoline and Propane make cold weather startup easy
- ▶ Upfront cost is lower for gasoline compared to diesel

DEVELOPED FROM THE BLOCK UP TO BE RELIABLE AND DURABLE



CYLINDER HEADS

Modernized, heavy-duty, high-flow heads create fast burn to improve efficiency and reduce emissions



CRANKSHAFT

Forged and induction-hardened steel crankshaft creates durable block capable of 1,000+ ft-lb of torque



INTAKE MANIFOLD

Tuned long-runner provides higher torque and special air gap design keeps engine air cooler for improved efficiency

ENGINE COMPARISON: IC BUS® VS. BLUE BIRD

PSI 8.8L V-8 vs. FORD 6.8L V-10

PSI 8.8L V-8	GASOLINE	PROPANE
Displacement	8.8L	8.8L
Rated Horsepower	265 hp @ 2600	270 hp @ 2600
@ 1000 RPM	95 hp	103 hp
@ 2000 RPM	202 hp	215 hp
Rated Torque	548 lb.-ft. @ 1800	565 lb.-ft. @ 1500
@ 1000 RPM	500 lb.-ft.	540 lb.-ft.
@ 2000 RPM	530 lb.-ft.	564 lb.-ft.
Bore / Stroke	4.35" x 4.50"	4.35" x 4.50"
Compression Ratio	9.1:1	10:1

DISPLACEMENT: **18.8L** | RATED POWER: **265-270 HP** | RATED TORQUE: **548-565 LB-FT**

RPM / HORSEPOWER

The PSI 8.8L low engine speed design drives like a diesel, with no compromise on engine power and reliability.



@ 1000 RPM
PSI: 103 HP
FORD: 71 HP



@ 2000 RPM
PSI: 215 HP
FORD: 160 HP

FORD 6.8L V-10	PROPANE
Displacement	6.8L
Rated Horsepower	362 hp @ 4750
@ 1000 RPM	71 hp
@ 2000 RPM	160 hp
Rated Torque	457 lb.-ft. @ 3250
@ 1000 RPM	375 lb.-ft.
@ 2000 RPM	420 lb.-ft.
Bore / Stroke	3.55" x 4.17"
Compression Ratio	9.2:1

DISPLACEMENT: **6.8L** | RATED POWER: **362 HP** | RATED TORQUE: **457 LB-FT**

WARRANTY COVERAGE — ADVANTAGE: IC BUS®

PSI POWERTRAIN:
5-year / Unlimited miles

ALLISON TRANSMISSION:
7-year / Unlimited miles

When it comes to servicing your IC Bus®, you can count on the broadest, most capable dealer network in the industry — no matter what component needs attention. In contrast, a Blue Bird customer will need to visit either Ford or Roush depending on the service requirement.

The simplicity of the IC Bus® warranty means less frustration and quicker service.

CAN I GET MY BUS SERVICED AT A BUS DEALERSHIP?

SERVICE	IC BUS	BLUE BIRD
Gasoline Engine:	YES	NO
Gasoline Fuel System:	YES	NO
Propane Engine:	YES	NO
Propane Fuel System:	YES	NO

ALLISON 2000 SERIES™ TRANSMISSION ADVANTAGE

ALLISON SHAFT

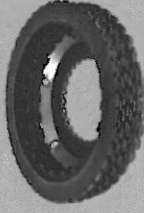
▶ **Shorter sturdier shaft** has increased strength and reliability vs. Ford



ALLISON C1 CLUTCH

▶ **8.3% more** clutch material vs. Ford

▶ Better holding force and delivering more power to the drive wheels



ALLISON C5 CLUTCH

▶ **44.2% more** clutch material vs. Ford

▶ Holds 1st gear and lasts longer in the toughest operation



ALLISON PARK PAWL

▶ **Heavy-duty** park pawl better secures vehicle when you need it most



www.ICBus.com

Specifications, descriptors and illustrative material in this literature are accurate as known at time of publication, but are subject to change without notice. Illustrations may include optional equipment and accessories, and may not include all standard equipment. IC Bus is a registered trademark of Navistar, Inc. BAD18005

© 2018 Navistar Inc. All rights reserved. All marks are trademarks of their respective owners. Lithographed in the United States of America.



IC BUS COMPANY

OBTAINING SERVICE

Return this vehicle to any IC Bus Dealer authorized to service this model vehicle and engine.

DISCLAIMER

NO WARRANTIES ARE GIVEN BEYOND THOSE DESCRIBED HEREIN. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. THE COMPANY SPECIFICALLY DISCLAIMS WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ALL OTHER REPRESENTATIONS TO THE USER/PURCHASER, AND ALL OTHER OBLIGATIONS OR LIABILITIES. THE COMPANY FURTHER EXCLUDES LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES, ON THE PART OF THE COMPANY OR SELLER. No person is authorized to give any other warranties or to assume any liabilities on the Company's behalf unless made or assumed in writing by the Company; and no other person is authorized to give any warranties or to assume any liabilities on the seller's behalf unless made or assumed in writing by the seller.

Remedies Under State or Provincial Law: Any suit for breach of this Limited Warranty must be initiated within one year after breach. Some States and Provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to the owner. This warranty gives the owner specific legal rights, and he may also have other legal rights which may vary by state or province.

RECORD OF OWNERSHIP

Upon receipt of new vehicle by original owner, complete the following: I have read this Warranty Brochure and fully understand the warranty coverage, and the limitations and exclusions. I acknowledge that I have received a copy of the Owner's Limited Warranty and I accept the terms described herein.

Customer Signature _____ Date _____

Owner's Address _____ City _____ State/Prov _____ Postal Code _____

Bus Model _____ Vehicle Identification Number _____

Engine Number _____ Engine Serial Number _____

Date Delivered to User (DTU) _____ Odometer Reading at Delivery _____

IMPORTANT: The information contained in this Warranty Policy explains the coverage provided on your new IC Bus™ brand vehicle. This policy should be kept in the vehicle for presentation to the Dealer when you request warranty services. Any provisions of this Limited Warranty that are prohibited or not enforceable in any jurisdiction shall be, as to such jurisdiction, ineffective to the extent of such prohibition or non-enforceability without invalidating the remaining provisions hereof, and any such prohibition or non-enforceability in any jurisdiction shall not invalidate or render non-enforceable any such provisions in any other jurisdiction. All claims under this Limited Warranty must be submitted in writing to an authorized IC Bus dealer within the warranty period as stated herein. If you have questions regarding this Limited Warranty, contact IC Bus, LLC dealer. To locate nearest dealer, visit the IC Bus website www.ICBus.com.

EFFECTIVE WITH VEHICLES BUILT MARCH 01, 2017 OR LATER

LIMITED WARRANTY FOR SCHOOL BUS MODELS

CE Series (PB105), RE Series (PB305), BE Series (PB405)

IC Bus, LLC warrants to the original purchaser (the "Purchaser") that IC Bus, LLC brand buses and component parts thereof are, at the time of purchase, free from defects in material and workmanship and will remain free from such defects under normal use after delivery to the Purchaser as provided herein. Warranty shall begin at the time of delivery unless otherwise approved by IC Bus, LLC. The delivery limitations as set forth herein shall run from the date of delivery to the Purchaser in the United States of America and Canada. The remedy available under this Limited Warranty is non-cumulative in nature and is limited to repair or replacement at IC Bus, LLC option of the bus or component parts thereof that are returned to locations approved by IC Bus, LLC transportation charges prepaid, and which IC Bus, LLC examination disclosed to its satisfaction to be defective. IC Bus, LLC, at its option, will repair or replace any part of this vehicle which proves defective in material and/or workmanship in normal use and service, with new or ReNEWed parts. Exceptions are listed below under *What is Not Covered*.

This warranty is automatically transferred to subsequent owners at no charge. Visit your local IC Bus Dealer for name and address change information.

COMPONENT COVERAGE

The components described below are given additional warranty coverage of variable time periods and distance traveled limitations, as shown in the *Warranty Coverage Schedule*.

1. Frame Rails and Crossmembers
2. Body/Cowl Structure
 - Body Structure defined as the steel body frame (which includes the roof, metal floor, sides and front and rear sections only).
 - As to items not considered Body Structure include but are not limited to the following: doors, corner moldings, inner ABS panels, interior wall, plywood, floor covering, windows, and trim moldings.
3. The Body/Cowl is warranted against perforation due to corrosion, except for perforation caused by industrial chemicals and/or corrosion caused by use in a corrosive industrial environment.
4. Navistar Diesel Engine Coverage Includes: Navistar Diesel Engine block, cylinder heads, internally lubricated components fuel pump, high pressure pump, turbocharger, water pump, air compressor, injectors/nozzles; electronic engine modules, engine relays, engine sensors and regulators required for electronic engine operation, and certain aftertreatment components. Excluding: attaching accessories (e.g., fan clutch, alternator, starter, etc.), and externally mounted electrical and filtration systems.
5. Power Solutions International 8.8L Propane Engine Coverage Includes: Engine block, cylinder heads, internally lubricated components, water pump, air compressor, injectors/nozzles, fuel system components; electronic engine modules, engine relays, engine sensors and regulators required for electronic engine operation, exhaust catalyst. Excluding: attaching accessories (e.g., fan clutch, alternator, starter, etc.)
6. Spicer front & rear axles and propeller shaft, when used with Allison transmission; excluding brakes, wheel ends axle shafts, controls & attachments.

THE PROVISIONS HEREOF CONSTITUTE THE EXCLUSIVE AND COMPLETE WARRANTY BY IC BUS, LLC ON IC BUS™ BRAND BUSES AND COMPONENT PARTS THEREOF MANUFACTURED BY IT, OR APPROVED BUS BODY CONTRACT MANUFACTURERS AND IS IN LIEU OF ALL OTHER OBLIGATIONS OR LIABILITIES OF IC BUS, LLC WHETHER EXPRESS OR IMPLIED.

Note: The customer has 365 days and up to a maximum of 100,000 miles (160,000 km) from DTU (delivery to end user) to purchase an extended warranty on the unit. For extended warranty purchases between 181 and 365 days from DTU and <100,000 miles (160,000 km) an additional fee will be assessed. See your local IC Bus dealer for details.



Items Covered	Months	Miles/Km (000)
BASIC VEHICLE COVERAGE		
Basic Vehicle Warranty	12	Unlimited
Towing (Chassis related issues)	3	Unlimited
Towing (Vehicles with Navistar built engine failures only)	24	Unlimited
Towing (Vehicles with Power Solutions International, Inc. 8.8L Propane engine failures only)	60	Unlimited
Towing (Vehicles with Power Solutions International, Inc. 8.8L Gasoline engine failures only)	60	Unlimited
COMPONENTS		
Frame Rails and Crossmembers	60	Unlimited
Body/Cowl Structure (Roof, Metal Floor, Sides and Front and Rear Sections)	60	Unlimited
Body/Cowl Perforation Corrosion	60	Unlimited
Bumper Corrosion and Paint Delamination	36	Unlimited
Body/Cowl/Hood Paint Delamination	60	Unlimited
Brightwork, Chassis Paint and Corrosion	6	Unlimited
IC Bus, LLC Factory Installed Air-Conditioning (IC Air)	30	Unlimited
SEATS***IC Bus manufactured Seats Only		
Foam	48	50/80
Upholstery	24	24/40
Frame and Barriers	60	Unlimited
ENGINE*		
MaxxFo [®] 7 Engine	60	100/160
Power Solutions International, Inc. 8.8L Propane Engine	60	Unlimited
Power Solutions International, Inc. 8.8L Gasoline Engine	60	Unlimited
MaxxFo [®] DT Engine Standard Torque	60	100/160
MaxxFo [®] DT Engine High Torque	60	100/160
DRIVETRAIN**		
Eaton Precision Transmission	12	Unlimited
Spicer - 3 Part Dana Drivetrain (Front & Rear Axles, Propeller Shaft, When Used With Allison Transmission Only)	48	50/80
Meritor Axles	48	75/120

*Emission Coverage: Refer to engine operator's manual for emission coverage.

**Drivetrain:

- Allison Transmissions products or Transynd lubricants and fluids are not covered under this warranty. For warranty information see: www.allisontransmission.com/publications/
- For specific Eaton/Fuller Warranty coverage, see supplier information: www.roadrangerwarranty.com
- For extended component warranty: www.roadranger.com/Roadranger/Warranty/Extended_Warranty/index.htm

***For non IC Bus Manufactured seats, contact the seat supplier for their warranty coverage. For Enova charge sustaining and charge depleting standard warranty to: <http://enovasytems.com/customer-support.html>

WHAT IS NOT COVERED

AFTER THE FIRST 90 DAYS FROM DELIVERY TO USER (DTU):

- Correction of loose fasteners, squeaks, rattles and unusual noises.
- Towing (vehicles with non-engine failures only)
- Adjustments (e.g., headlights, brake/clutch adjustments, steering system adjustments, coolant levels, doors).

COMPONENTS / ITEMS:

- Warranted by their respective manufacturers (e.g., non Navistar brand engines, tires & tubes, Allison Transmissions, Hybrid electric, lubricants, etc.)
- Bodies, equipment and accessories installed by other than authorized IC Bus employees at IC Bus manufacturing plants.
- Front and rear axle alignment
- Front & Rear axle coverage excludes brakes, wheel ends, axle shafts, controls & attachments.

REPAIRS:

- Maintenance-related items/repairs or those as a result of normal wear and tear, including tune-ups, brake/clutch lining, windshield wiper blades, tire balancing, lubrication and other similar procedures/parts required to keep vehicle in good working condition.
- To any part of the vehicle subjected to misuse, negligence, improper maintenance, improper operation, or which is the result of an accident.
- Fade, runs, mismatch or damage to paint, trim items, upholstery, chrome, polished surfaces, etc., resulting from environmental causes, improper polishes, cleaners or washing solutions, or chemical and industrial fallout.
- In which power train, propeller shaft and suspension sales guidelines (specifications) are not strictly adhered to by all owners and operators of this vehicle.

OTHER:

- Vehicles sold and/or operated outside the United States and Canada.
- Vehicles/components that have had unauthorized alterations or modifications.
- Vehicles on which the odometer reading has been altered.
- Loss of time or use of the vehicle, loss of profits, inconvenience, or other consequential or incidental damages or expenses.
- Replacement of defective parts with parts other than those provided by IC Bus, LLC.

This warranty does not apply, or include coverage for defects attributable to the following:

- Damage resulting from: (i) misuse, abuse, accident, neglect, negligence, vandalism, fire, riot, war, or Acts of God;
- (ii) Structural or other modifications or alteration without prior express written authorization by IC Bus, LLC; (iii) Repair or attempted repair by unauthorized persons; (iv) Replacement of original components with substitutes without prior express written authorization by IC Bus, LLC; (v) Failure to perform routine preventative maintenance as customarily accepted within the industry or failure to provide proof of such preventative maintenance having been performed; (vi) Exposure to corrosives, contaminants, chemicals, salt, irradiation or atmospheric or environmental conditions; (vii) Usage or loading in excess of recommended capacities or in non-standard applications, including off-road.
- Fading or discoloration of paint, lettering or decals.
- Effects of aftermarket installation and aftermarket parts installed by the dealer or customer.