

APPENDIX "C"

TYPE C and TYPE A2 OPTION COMPONENT PRICING LIST

2019 SCHOOL BUS ORDER - TYPE C CHASSIS OPTION COMPONENT PRICING FOR DIESEL, GASOLINE, AND PROPANE

VENDOR TO SUPPLY CHASSIS OPTION PRICING. TO HELP IDENTIFY OPTIONS AS BEING STANDARD EQUIPMENT OR NOT AVAILABLE, THE FOLLOWING LEGEND IS TO BE USED IN THE " PRICE" COLUMN: N/A= NOT AVAILABLE. STD = STANDARD EQUIPMENT

CHASSIS OPTIONS	PRICE	COMMENTS
Bus Equipped with Rear Leaf Spring Suspension:		
▪ No air compressor required (credit)		
▪ Engine air compressor, air dryer system, air ride driver's seat, air door (credit)		
▪ Engine air compressor, air dryer system, air ride driver's seat, electric door (credit)		
Front air ride suspension		
Automatic traction control system (works in conjunction with anti-lock brake system)		
Eaton NoSpin Differential		
Optional automatic transmission		
Diesel engines: Cummins 6.7L		
220 HP; torque rating 600		
240 HP; torque rating 560		
250 HP; torque rating 660		
260 HP; torque rating 660		
Optional diesel engine model (minimum 200 HP) (state model in comments section)		
1000W block heater with Y-cord for oil pan heater (diesel only)		
Crankcase ventilator heater for ISB 6.7L (installed price)		
Adjustable brake and accelerator pedal		
Diagnostic communication cable		
Electronic engine diagnostic software (state name of software in Comments section)		
Diesel		
Gasoline		
Propane		
Anti-lock brake system diagnostic software		
Allison automatic transmission diagnostic DOC software - most current version		
Complete repair manual for school bus (DVD version or USB Stick)		
3-31 Series - AGM Technology batteries with a minimum of 2100 CCA		

2019 SCHOOL BUS ORDER - TYPE C CHASSIS OPTION COMPONENT PRICING FOR DIESEL, GASOLINE, AND PROPANE

CHASSIS OPTIONS	PRICE	COMMENTS
Two additional keys for ignition, service door, fuel door, and luggage compartments		
Upgrade to higher quality front and rear axle seals (state product name)		
Durable, high-performance black coating for front bumper only that provides a flexible, textured surface		
Optional larger fuel tank capacities (state tank size in U.S. gallons)		Tank Size:
Diesel 65 passenger		
Diesel 71 passenger		
Diesel 77 passenger		
Gasoline 65 passenger		
Gasoline 71 passenger		
Gasoline 77 passenger		
Propane 65 passenger		
Propane 71 passenger		
Propane 77 passenger		
Optional 11R x 22.5 tires with 8.25" rims - tubeless with radial Load Range G or H with highway tread on front and mud and snow grip on rear.		State model of tires to be supplied and credit if applicable
Option 1 - Hankook		
Option 2 - Continental		
Option 3 - Firestone		
Optional 10R x 22.5 tires with 7.5" rims - tubeless with radial Load Range G or H with highway tread on front and mud and snow grip on rear.		State model of tires to be supplied and credit if applicable
Option 1 - Hankook		
Option 2 - Continental		
Option 3 - Firestone		
Wheel wrench and bar		

2019 SCHOOL BUS ORDER - TYPE C BODY OPTION COMPONENT PRICING FOR DIESEL, GASOLINE, AND PROPANE

VENDOR TO SUPPLY BODY OPTION PRICING. TO HELP IDENTIFY OPTIONS AS BEING STANDARD EQUIPMENT OR NOT AVAILABLE, THE FOLLOWING LEGEND IS TO BE USED IN THE "PRICE" COLUMN: N/A = NOT AVAILABLE. STD = STANDARD EQUIPMENT

BODY OPTIONS	PRICE	COMMENTS
Integrated Passenger Seats:		
C.E. White Model CR11 ICS. 39" wide with two integrated child seat positions. URCA latches and lower tether anchors required.		
Syntec Model S3C ICS. 39" wide with two integrated child seats positions. URCA latches and lower tether anchors required.		
Safe Guard ICS IMMI. 39" wide with two integrated child seats positions. URCA latches and tether anchors required.		
Stop Arm - Defender Electric Series: 3M high intensity prismatic grade decal required.		
Defender 7000 series L.E.D. word "STOP"		
Defender series solid state 2 light incandescent		
Defender series solid state 2 light strobing L.E.D.		
Defender series solid state 2 light L.E.D.		
Additional rear mounted electric stop arm to be the same as front stop arm		
Defender Series Electric Front Crossing Arm on Bumper - front mount or integrated		
Stop Arm - Air-operated:		
Specialty 2000 series 2 light strobing L.E.D.		
Specialty 2000 series 2 light L.E.D.		
Additional rear mounted air stop arm		
Lockable luggage compartment (state actual length closest to dimension provided):		Actual Length:
Approximately 56"		
Approximately 84"		
Approximately 96"		
Stainless steel mirror brackets for system A and B mirrors		
Back-up alarm, 110 dB min. (must activate when bus is put in reverse)		
Public address system with internal speakers only and PA microphone		
Public address system with internal speakers, one external speaker, and PA microphone		

2019 SCHOOL BUS ORDER - TYPE C BODY OPTION COMPONENT PRICING FOR DIESEL, GASOLINE, AND PROPANE

BODY OPTIONS	PRICE	COMMENTS
AM/FM radio/CD with premium speakers		
AM/FM radio/CD with internal speakers and PA microphone		
AM/FM radio/CD with internal speakers, one external speaker, and PA microphone		
Premium quality speakers only		
Coaxial cable for 2-way radio to include ends for antenna and 2-way radio		
Pre-wired with power and ground for 2-way radio		
Pre-wired for video camera - DVR unit (power, accessory and ground wires only)		
Cup holder		
Screen over lower rear door glass		
Thermopane passenger windows - first two right side positions and first left side		
Tinted window glass on side passenger and all back windows. <u>No tint</u> on Thermopane pane windows.		
35 passenger		
47 passenger		
53 passenger		
65 passenger		
71 passenger		
77 passenger		
Optional Driver's Seats: (state model and manufacturer in Comments section)		
Air ride driver's seat - self-contained air compressor		
Air ride premium driver's seat with built-in seat belt		
Air ride heated driver's seat		
L.E.D. rear turn/tail/brake and back-up lamps including front fender mounted turn signal lamps		
L.E.D. clearance/marker/rear floor level and body side turn signal lamps (only)		
Full L.E.D. package (includes all items listed above)		
Rear-mounted air foil (requires high mount strobe light)		
Marked storage compartment above windshield for reflectors, fire extinguisher, first aid kit, crow bar		
Locking fuel filler tank door (minimum two keys required)		

2019 SCHOOL BUS ORDER - TYPE C BODY OPTION COMPONENT PRICING FOR DIESEL, GASOLINE, AND PROPANE

BODY OPTIONS	PRICE	COMMENTS
Locking Urea filler tank door (minimum two keys)		
Extra lighting of two rows of interior incandescent passenger dome lights:		
35 passenger. Quantity: 6		
47 passenger. Quantity: 8		
53 passenger. Quantity: 8		
65 passenger. Quantity: 8		
71 passenger. Quantity: 10		
77 passenger. Quantity: 10		
L.E.D. Interior Dome Lights, including Stepwell Light - Standard Quantity		
35 passenger		
47 passenger		
53 passenger		
65 passenger		
71 passenger		
77 passenger		
Service door control – automatic; electric		
Service door control - manually operated		
Floor Material Marble Colour Options: Black; Grey; Blue, Green		
35 passenger		
47 passenger		
53 passenger		
65 passenger		
71 passenger		
77 passenger		

2019 SCHOOL BUS ORDER - TYPE C BODY OPTION COMPONENT PRICING FOR DIESEL, GASOLINE, AND PROPANE

Passenger Seat Colour Options: Burgundy; Blue; Grey; Green, Brown		
35 passenger		
47 passenger		
53 passenger		
65 passenger		
71 passenger		
77 passenger		
Acoustical Ceiling not required by Division (credit amount)		
35 passenger		
47 passenger		
53 passenger		
65 passenger		
71 passenger		
77 passenger		
Auxiliary diesel engine coolant heating systems with timer to be installed at the side electrical access door below driver's window or an approved location determined by Manitoba inspectors. Prices provided are for complete installation of heater and timer.		
Espar Guardian D5; 2mm fuel supply line; 17,000 BTU		
Espar Guardian MII-D-12; 4mm fuel supply line; 42,000 BTU		
Webasto Thermo Top C; TTC 12V D Kit; 2mm fuel supply line; 17,000 BTU		
Webasto Scholastic 12V; 2010 Series EB Kit; 1/4" fuel supply line; 45,000 BTU		
<i>Note: SmarTemp Control Fx timer required for Webasto heaters.</i>		
Proheat model X30 part # PH0340 AND PK 3000 7 Day Timer		
Proheat model X45 Plus part # PH048P, Aluminum Box PK0300 and PK0001-1 7 Day Timer		
Air heater - Espar Airtronic Model D4 with Timer		
Booster pump - Dur-a-Tek prime (7 year warranty on parts)		
Snooze feature for post-trip child check monitor		
Side-mounted locking compartment for future auxiliary heater or exterior compartment		
Heated windshield wiper blades with timer		

2019 SCHOOL BUS ORDER - TYPE C BODY OPTION COMPONENT PRICING FOR DIESEL, GASOLINE, AND PROPANE

BODY OPTIONS	PRICE	COMMENTS
<p>POST-TRIP CHILD CHECK SYSTEM shall work in the following sequence:</p> <ol style="list-style-type: none"> 1. System to be armed from initial sequential activation of the warning/loading lights only. 2. A deactivation switch is to be located at the interior rear of the bus for deactivating the system. 3. L.E.D. indicator and/or (chime) located at front interior of bus to indicate system is activated. 4. When bus is shut down, all passenger dome lights shall be activated when system is armed. Dome lights to remain on after deactivation for a minimum of one minute. 5. Use of vehicle horn in conjunction with flashing headlights to indicate the entrance or emergency door(s) has been opened before deactivation switch has been depressed. 		

2019 SCHOOL BUS ORDER - TYPE C WHEELCHAIR BUS OPTION COMPONENT PRICING

Depending on floor plan design and location of wheelchair lift, an alternate model number may be required to accommodate a proper configuration due to location of the electronics and hydraulic pump on the lift. **NOTE: It is the bidder's responsibility to review wheelchair bus specifications to ensure components meet all specifications, regulations, and CSA D250-16 Standards.** N/A = NOT AVAILABLE STD = STANDARD EQUIPMENT

Wheelchair Bus Options	PRICE	COMMENTS
MANDATORY EQUIPMENT		
Emergency Evac-aide device		
Storage bag (each)		
One set of Webbing loops (4 required)		
Wheelchair Lifts:		
Ricon Klearvue K5510; folding platform; 33" x 54"; 800 lb. capacity		
Ricon Klearvue Titanium K5510 folding platform 33" x 54" 1000 lb capacity:		
Ricon S Series 5510; full platform; 34" x 54"; 800 lb. capacity; installed		
Ricon Titanium S Series S2010; full platform; 34" x 54"; 1000 lb. capacity		
Braun Millennium - NL919IBHB-2; 34" x 51"; 800 lb. capacity; with retractable platform hand belt		
Braun Millennium - NL919FIBHB-2; 34" x 51"; 800 lb. capacity with retractable platform hand belt		
Braun Century 2 - NCL919IB3454HB-2; 34" x 51"; 800 lb. capacity; with retractable platform hand belt		
Braun Century 2 - NCL919FI3454HB-2; 34" x 51"; 800 lb. capacity; with retractable platform hand belt		
Braun Century 2 - NCL1000IB3454HB-2; 34" x 51"; 1000 lb. capacity; with retractable platform hand belt		
Braun Vista Series - NVL919FIBHB-2 34"x 51"; 800 lb. capacity; with retractable platform hand belt		
Braun Vista Series - NVL919IBHB-2 34"x 51"; 800 lb. capacity; with retractable platform hand belt		

2019 SCHOOL BUS ORDER - TYPE C WHEELCHAIR BUS OPTION COMPONENT PRICING

Wheelchair Bus Options Continued	PRICE	COMMENTS
L-Track and/or Saf-T-Anchor Removable Seat (STARS) Seating System - Buses equipped with 4 continuous L-Tracks or STARS system seating at time of order may use L-Track or STARS seating to increase the seating capacity of the bus if the wheelchair station is not in service. The capacity decal shall state the maximum number of passengers to be transported even if seats are not requested at time of order.		
L-Track seat for L-Track tie-down system:		
39" (price per seat)		
30" (price per seat)		
26" (price per seat)		
L-Track barrier as required per floor plan:		
30" (price per barrier)		
39" (price per barrier)		
STARS seats:		
30" (price per seat)		
39" (price per seat)		
Wheelchair Tie-Down and Occupant Restraint System Kits		
Q'Straint QRT MAX Slide and Click combo belt with retractable height adjuster. Price to include four installed floor anchorages as per specifications, four tie-downs and Q'Straint occupant restraint assemblies installed at time of delivery. Complete price per station.		
Q'Straint and Omni L-Tracking System in Floor – Q'Straint QRT Max - Omni (L) track system wheelchair tie-downs and Q'Straint occupant restraint with four Omni (L) tracks installed on the floor. Manufacturer to supply Omni (L) tracks with combo belt and retractable height adjuster . Price to include four installed Omni (L) tracks as per specifications, four tie-downs and with occupant restraint assembly installed at time of delivery. Complete price per station.		
Rear wall-mounted heater (for wheelchair buses only). State maximum BTU availability for heaters.		
Option 1: Number of BTU's:		
Option 2: Number of BTU's:		

2019 SCHOOL BUS ORDER - TYPE C WHEELCHAIR BUS OPTION COMPONENT PRICING

<p><u>Left side emergency door.</u> In some cases, body plans may require a left side emergency door to meet regulations. The door shall be a minimum of 30” in width and be equipped with a positive door-opening device and three-point latch to improve sealing against dust entry. All lighting at door shall meet C.S.A. D250-16. Door shall be equipped with a locking mechanism designated to function as a security (vandal) lock. The lock shall prevent operation of the bus when engaged.</p>		
<p>Flat floor with low profile tires on both front and rear axles (includes air ride suspension and components listed in items 2.16, 2.18, and 2.22 of the specification)</p>		

EXTENDED WARRANTIES TYPE C BUSES ONLY

EXTENDED DIESEL ENGINE ONE-WAY TOWING SPECIFICATION - 2 YEAR/161,000 KILOMETRE

OPTIONAL LENGTH	KILOMETRES	COST
3 YEAR		
4 YEAR		
5 YEAR		

TOWING CAPPED?

- YES
 NO

EXTENDED TOWING FOR BODY AND CHASSIS (ALL FUEL TYPES) SPECIFICATION - 2 YEAR/60,000 KILOMETRE

OPTIONAL LENGTH	KILOMETRES	COST
3 YEAR		
4 YEAR		
5 YEAR		

TOWING CAPPED?

- YES
 NO

EXTENDED DIESEL ENGINE WARRANTIES (EXC COVERAGE PLAN FROM CUMMINS) SPECIFICATION - 5 YEAR/161,000 KILOMETRE

OPTIONAL LENGTH	KILOMETRES	COST
7 YEAR	241,402	
8 YEAR	241,402	
10 YEAR	193,121	
10 YEAR	241,402	
10 YEAR	321,869	
10 YEAR	UNLIMITED	

TOWING CAPPED?

- YES
 NO

EXTENDED WARRANTIES TYPE C BUSES ONLY

EXTENDED GASOLINE AND PROPANE ENGINE/EMISSION WARRANTIES

SPECIFICATION - 5 YEAR/UNLIMITED KILOMETRE

OPTIONAL LENGTH	KILOMETRES	COST
6 YEAR	UNLIMITED	
7 YEAR	UNLIMITED	
8 YEAR	UNLIMITED	

EXTENDED CHASSIS AND BODY COMPONENT WARRANTIES - ALL FUEL TYPES

(COVERS ALL CHASSIS COMPONENTS EXCEPT ENGINE AND TRANSMISSION)

SPECIFICATION - 3 YEAR/80,000 KILOMETRE

OPTIONAL LENGTH	KILOMETRES	COST
4 YEAR		
5 YEAR		

2019 SCHOOL BUS ORDER - TYPE C VIDEO CAMERA SPECIFICATIONS AND CAMERA OPTIONS

VIDEO CAMERA SPECIFICATIONS

Video Camera System Installation Specifications

- The following are the minimum vehicle inputs to the DVR controller if external camera(s) are in use: amber loading lights, red loading lights, brake signal, vehicle speed, and stop arm.
- In some cases, the video recording showing the stop arm will be sufficient if no stop arm signal is present.
- The DVR should be located in a locked compartment or an approved location by the end user.
- Driver event button to be installed on left side within easy reach of the driver.
- When tying into the OEM wiring and camera wiring, it shall be spliced, soldered, and sealed to prevent premature corrosion. Quick connectors or open butt connectors are not acceptable.
- Wiring shall be routed, secured, and protected from premature chaffing.
- System to stay activated a minimum of 10 minutes after ignition key is removed.
- All cameras to be adjusted to provide the best overall view and function at each location prior to delivery.

Recommended Camera Installation Locations on Manitoba School Buses

Position 1: High Definition Dash Cam forward-facing - installed at right front bulkhead area or approved location. Camera to be mounted below the dark tinting band on the windshield.

Position 2: Front centre of bus facing inward toward the passenger area.

Position 3: Above the driver's seat area facing the entrance door/stepwell area.

Position 4: Mid-ship area facing rearward to assist coverage from rear centre camera. Camera location to be determined by length of the bus body.

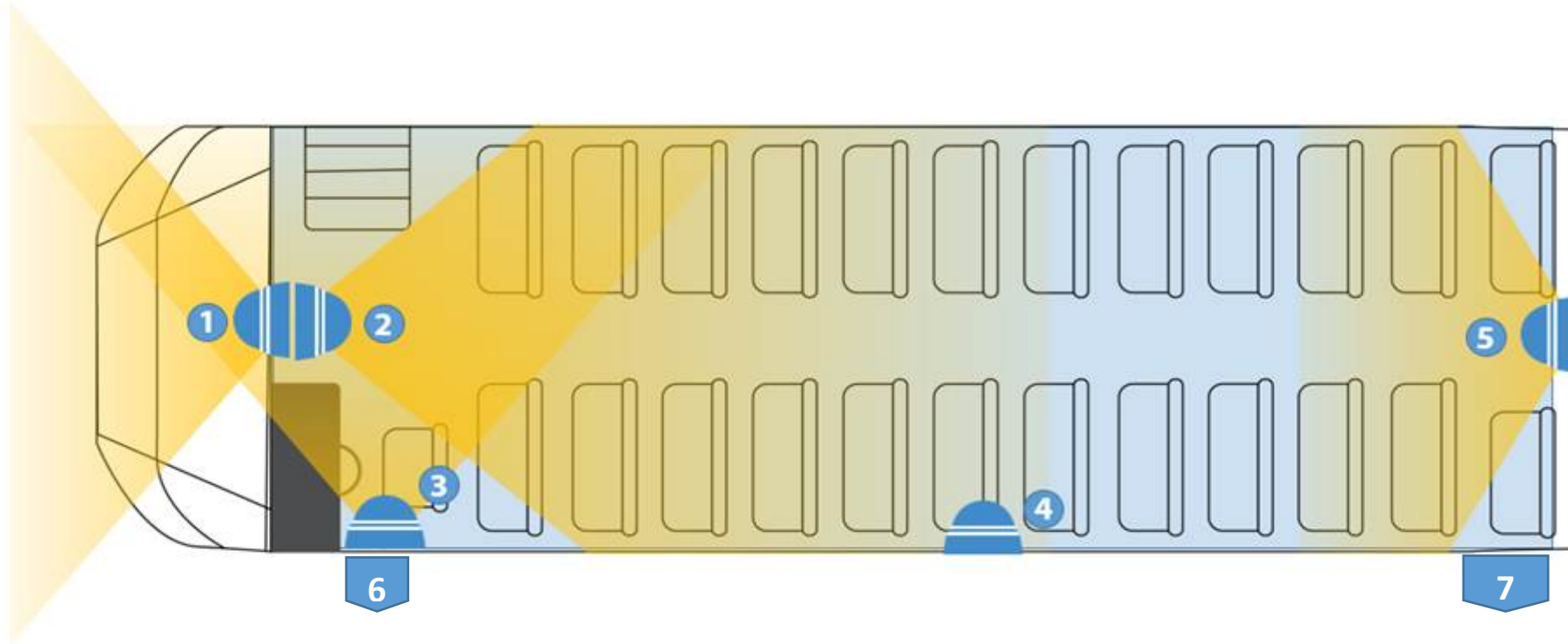
Position 5: To be located on ceiling just in front of the rear emergency exit door facing inward.

Position 6: Outside rear-facing. To be installed high enough to reduce road/tire spray that impedes visibility of the camera.

At least one stop arm flashing light must be in site line of camera while system is recording. If an optional rear stop arm is provided, the camera may be installed at rear of front stop arm. The camera will need to be located at the same belt line as the front stop arm.

Position 7: Above the left rear passenger window near the red marker lamp facing forward to get an overall view. Front stop arm should be visible in camera. Depending on the camera's capabilities or technology, this location may need to be adjusted forward to achieve best results.

2019 SCHOOL BUS ORDER - TYPE C VIDEO CAMERA SPECIFICATIONS AND CAMERA OPTIONS



2019 SCHOOL BUS ORDER - TYPE C VIDEO CAMERA SPECIFICATIONS AND CAMERA OPTIONS

Prices quoted are for complete installed pricing of each video camera configuration and must include DVR (minimum 6 channel with two HD channels), driver event button, and all hard cabling (wiring) required to install the DVR and cameras.

BRAND: SEON	PRICE	COMMENTS
Software Kit		
GPS antenna kit (if applicable)		
Configuration: 1 Six Camera system - includes two HD stop arm cameras and four interior cameras		
Configuration: 2 Five Camera system - includes two HD stop arm cameras and three interior cameras		
Configuration: 3 Five Camera system - includes one HD stop arm cameras and four interior cameras		
Configuration: 4 Four Camera system - includes one HD stop arm cameras and three interior cameras		
Configuration: 5 Four Interior Camera system		
Configuration: 6 Three Interior Camera system		
Configuration: 7 Two Interior Camera system		
Configuration: 8 One exterior HD camera system		
High Definition Dash Cam as requested, in addition to configurations above		

BRAND: GATEKEEPER	PRICE	COMMENTS
Software Kit		
GPS antenna kit (if applicable)		
Configuration: 1 Six Camera system - includes two HD stop arm cameras and four interior cameras		
Configuration: 2 Five Camera system - includes two HD stop arm cameras and three interior cameras		
Configuration: 3 Five Camera system - includes one HD stop arm cameras and four interior cameras		
Configuration: 4 Four Camera system - includes one HD stop arm cameras and three interior cameras		
Configuration: 5 Four Interior Camera system		
Configuration: 6 Three Interior Camera system		
Configuration: 7 Two Interior Camera system		
Configuration: 8 One exterior HD camera system		
High Definition Dash Cam as requested, in addition to configurations above		

2019 SCHOOL BUS ORDER - TYPE C VIDEO CAMERA SPECIFICATIONS AND CAMERA OPTIONS

BRAND: MJG TECHNOLOGIES	PRICE	COMMENTS
Software Kit		
GPS antenna kit (if applicable)		
Configuration: 1 Six Camera system - includes two HD stop arm cameras and four interior cameras		
Configuration: 2 Five Camera system - includes two HD stop arm cameras and three interior cameras		
Configuration: 3 Five Camera system - includes one HD stop arm cameras and four interior cameras		
Configuration: 4 Four Camera system - includes one HD stop arm cameras and three interior cameras		
Configuration: 5 Four Interior Camera system		
Configuration: 6 Three Interior Camera system		
Configuration: 7 Two Interior Camera system		
Configuration: 8 One exterior HD camera system		
High Definition Dash Cam as requested, in addition to configurations above		

2019 SCHOOL BUS ORDER - TYPE A2 WHEELCHAIR BUS and STANDARD OPTION COMPONENT PRICING

Depending on floor plan design and location of wheelchair lift, an alternate model number may be required to accommodate a proper configuration due to location of the electronics and hydraulic pump on the lift. **NOTE: It is the bidder's responsibility to review wheelchair bus specifications to ensure components meet all specifications, regulations, and CSA D250-16 Standards.** N/A = NOT AVAILABLE STD = STANDARD

Type A2 Wheelchair Bus Options	PRICE	COMMENTS
MANDATORY EQUIPMENT		
Emergency Evac-aide device		
Storage bag (each)		
One set of Webbing Loops (4 required)		
Wheelchair Lifts: installed pricing		
Ricon Klearvue K5510; folding platform; 33" x 54"; 800 lb. capacity; installed		
Ricon Klearvue Titanium K5510 folding platform 33" x 54" 1000 lb capacity: installed		
Ricon S Series 5510; full platform; 34" x 54"; 800 lb. capacity; installed		
Ricon Titanium S Series S2010; full platform; 34" x 54"; 1000 lb. capacity; installed		
Braun Millennium - NL917IBHB-2; 33" x 51"; 800 lb. capacity; with retractable platform hand belt		
Braun Millennium -NL917FIBHB-2-2; 33" x 51"; 800 lb. capacity with retractable platform hand belt		
Braun Century 2 - NCL917IB3454HB-2; 33" x 51"; 800 lb. capacity; with retractable platform hand belt		
Braun Century 2 - NCL917FI3454HB-2; 33" x 51"; 800 lb. capacity; with retractable platform hand belt		
L-Track and/or Saf-T-Anchor Removable Seat (STARS) Seating System - Buses equipped with 4 continuous L-Tracks or STARS system seating at time of order may use L-Track or STARS seating to increase the seating capacity of the bus if the wheelchair station is not in service. The capacity decal shall state the maximum number of passengers to be transported even if seats are not requested at time of order.		
L-Track seat for L-Track tie-down system:		
26" (price per seat)		
30" (price per seat)		
39" (price per seat)		

2019 SCHOOL BUS ORDER - TYPE A2 WHEELCHAIR BUS and STANDARD OPTION COMPONENT PRICING

Type A2 Wheelchair Bus Options	PRICE	COMMENTS
L-Track barrier as required per floor plan:		
30" (price per barrier)		
39" (price per barrier)		
STARS seats:		
30" (price per seat)		
39" (price per seat)		

Wheelchair Tie-Down and Occupant Restraint System Kits		
Q'Straint QRT MAX Slide and Click combo belt with retractable height adjuster. Price to include four installed floor anchorages as per specifications, four tie-downs and occupant restraint assemblies installed at time of delivery. Complete price per station.		
Q'Straint Omni L-Tracking System in Floor – Q'Straint QRT Max - Omni (L) track system wheelchair tie-downs and occupant restraint with four Omni (L) tracks installed on the floor. Manufacturer to supply Omni (L) tracks with combo belt and retractable height adjuster . Price to include four installed Omni (L) tracks as per specifications, four tie-downs and with occupant restraint assembly installed at time of delivery. Complete price per station.		
TYPE A2 OPTIONS LIST		
Integrated Passenger Seats:		
C.E. White Model CR11 ICS. 39" wide with two integrated child seat positions. URCA latches and lower tether anchors required.		
Syntec Model S3C ICS. 39" wide with two integrated child seat positions. URCA latches and lower tether anchors required.		
Safe Guard ICS IMMI. 39" wide with two integrated child seats positions. URCA latches and lower tether anchors required.		
Back-up alarm, 110 dB min. (must activate when bus is put in reverse)		
AM/FM radio/CD with internal speakers and PA microphone		
AM/FM radio/CD with internal speakers, one external speaker, and PA microphone		
Coaxial cable for 2-way radio to include ends for antenna base and 2-way radio		
Pre-wired with power and ground for 2-way radio		

2019 SCHOOL BUS ORDER - TYPE A2 VIDEO CAMERA SPECIFICATIONS AND CAMERA SYSTEM OPTIONS

Video Camera System Installation Specifications

- 1) The following are the minimum vehicle inputs to the DVR controller if external camera(s) are in use: amber loading lights, red loading lights, brake signal, vehicle speed, and stop arm. Stop Arm Light to be visible in exterior camera.
- 2) The DVR should be located in a locked compartment or an approved location by the end user.
- 3) Driver event button to be installed on right side within easy reach of the driver.
- 4) When tying into the OEM wiring and camera wiring, it shall be spliced, soldered, and sealed to prevent premature corrosion. **Quick connectors or open butt connectors are not acceptable.**
- 5) Wiring shall be routed, secured, and protected from premature chaffing.
- 6) System to stay activated a minimum of 10 minutes after ignition key is removed.
- 7) All cameras to be adjusted to provide the best overall view and function at each location prior to delivery.

Recommended Camera Installation Locations on Manitoba School Buses

Position 1: Front centre of bus facing inward toward the passenger area.

Position 2: Above the driver's seat area facing the entrance door/stepwell area.

Position 3: Stop Arm Camera to be installed rearward in best area to gain full view of roadway. In addition, area selected should prevent camera lens from road spray as much as possible.

Prices quoted are for complete installed pricing for each video camera configuration and must include DVR (minimum 4 channel with two HD channels), driver event button, and all hard cabling (wiring) required to install the DVR and cameras.

BRAND: SEON	PRICE
Software Kit	
GPS antenna kit (if applicable)	
Configuration: 1 Four Camera system - includes one HD stop arm camera and three interior cameras	
Configuration: 2 Three Camera system - includes one HD stop arm camera and two interior cameras	
Configuration: 3 Two Camera system - includes one HD stop arm cameras and one interior camera	
Configuration: 4 One exterior HD camera only	
High Definition Dash Cam as requested, in addition to the above configurations	

BRAND: GATEKEEPER	PRICE
Software Kit	
GPS antenna kit (if applicable)	
Configuration: 1 Four Camera system - includes one HD stop arm camera and three interior cameras	
Configuration: 2 Three Camera system - includes one HD stop arm camera and two interior cameras	
Configuration: 3 Two Camera system - includes one HD stop arm cameras and one interior camera	
Configuration: 4 One exterior HD camera only	
High Definition Dash Cam as requested, in addition to the above configurations	

BRAND: MJG TECHNOLOGIES	PRICE
Software Kit	
GPS antenna kit (if applicable)	
Configuration: 1 Four Camera system - includes one HD stop arm camera and three interior cameras	
Configuration: 2 Three Camera system - includes one HD stop arm camera and two interior cameras	
Configuration: 3 Two Camera system - includes one HD stop arm cameras and one interior camera	
Configuration: 4 One exterior HD camera only	
High Definition Dash Cam as requested, in addition to the above configurations	