



**CUSHMAN**

**MODEL: REFRESHER® FS4 EFI**  
**TYPE: GASOLINE POWERED REFRESHMENT VEHICLE**  
**MODEL YEAR: 2019**  
**Part No: 657065**



**PRODUCT SPECIFICATION**

**CONFIGURATION HIGHLIGHTS**

**Refresher Unit Overview:** Refresher unit designed for inventory of unopened, pre-packaged, non-perishable foods for distribution through daily use. This Refresher unit is not meant for long term food storage or storage of opened food and beverage items. Adherence to local food handling regulations.

**Each Refresher Unit Consist Of:** Windshield with Frame; Struts and Slate Canopy; 4 Insulated Sliding Drawers with Locks; Slide out Trash/recycle storage bin system, 2 plastic removable bins; Lower Rear Corner Storage Sections - both sides of endcap; Locking System for Holding & Changing Modules; Polar White Counter top; Left & Right Side Mirrors.

**Accessories:** Drawer Dividers (2); Consumable Ice Bin (1); Candy & Sandwich Tray (1).

**Modules:** 6" Snack module with one dual-sided pullout polycarbon pegboard, hooks (6), baskets (2) and chip strips (2); 18" Display Module with 4 adjustable shelves; 18" Cup & Display Module with 2 adjustable shelves/1 cup tray with 4 slots/1 beverage box.

**Upper Rear Endcap:** Reversible insert for airtops and bottles; 3.0 liter airtops (2); shelves for napkins and bottles on back panel (3); shelves on inside of doors (6); Coffee/Creamer serving caddy (2).

**Engine:** 13.5 hp (10.1 kW) per SAE J1940 standard, 4 cycle, 24.5 ci (401 cc) single cylinder, air-cooled

- **Valve Train:** Overhead valve
- **Lubrication:** Pressurized oil system, spin-on oil filter
- **Balancer:** Internal counter rotating balance shaft
- **Fuel System:** Closed-loop electronic fuel injection
- **Ignition:** Electronic inductive spark
- **Air Cleaner:** Replaceable dry cartridge

**Electrical:** Starter/Generator, solid-state regulator, 12 Volt maintenance free battery (525 CCA, 85 minute reserve)

**Drive Train:** Automatic, continuously variable transmission (CVT)

**Brakes:** 4 Wheel hydraulic, front disc/rear drum. Single point park brake release with self-compensating system

**Transaxle:** Differential with helical gears, ground speed governor, forward/reverse

**Canopy:** Sunbrella®

**Beverage Unit:** 5000 Series Aluminum, Super Durable TGIC Polyester Powder Coating

**Beverage Unit Storage Capacity:**

- **Cold Storage Cabinets:** 4
- **Merchandising Capacity:** 21.1 cu ft (.59 m3)
- **Trash Bin Volume** 3.4 cu ft (0.96 m3)
- **Work Space:** 13 ft2 (4 m2)

**PRODUCT OVERVIEW**

Dimensions		Performance	
Overall Length	147 in (366 cm)	Seating Capacity	1 Person Std, 2 Persons Optional
Overall Width	54 in (137 cm)	Dry Weight	1470lb (661 kg)
Overall Height (No Canopy)	49 in (124 cm) (Top of steering wheel)	Curb Weight	1508 lb (684 kg)
Overall Height (With Canopy)	80 in (203 cm)	Vehicle load capacity	1015 lb (460 kg)
Wheel Base	93.5 in (235 cm)	Outside Clearance Circle	Left 26.8 ft (8.1 m), Right 25.2 ft (7.6 m)
Front Wheel Track	39.6 in (100 cm)	Intersecting Aisle Clearance	N/A
Rear Wheel Track	39.5 in (100 cm)	Speed (Level Ground)	Fwd - 12 mph +/- 0.5 mph (19 kph +/-0.8 kph) Rev - 11 mph +/- 0.5 mph (17 kph +/-0.8 kph)
Gnd Clearance @ Differential	4.5 in (11 cm)	Towing Capacity	N/A
Vehicle Power		Steering & Suspension	
Power Source	4 Cycle 24.5 cu in (401 cc)	Steering	Self-compensating rack and pinion
Valve Train	Single Cylinder OHV	Front Suspension	Leaf springs with hydraulic shock absorbers
Horsepower (kW)	13 hp (10.1 kW)	Rear Suspension	Heavy Duty leaf springs with hydraulic shocks
Electrical System	Starter/Generator. Solid State Regulator	Service Brake	4 Wheel hydraulic, front disc/rear drum
Batteries (Qty, Type)	One, 12 Volt Maintenance Free	Parking Brake	Mechanical hand brake
Key or Pedal Start	Pedal	Front Tires	Load Star 205/65-10
Air Cleaner	Industrial Rated Dry Filter	Rear Tires	Load Star 205/65-10
Lubrication	Pressurized Oil System		

*Some items shown may be optional equipment*



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**Vehicle Power (cont.)**

Oil Filter	Spin-On
Cooling System	Air Cooled
Fuel Capacity	5.82 Gallon (22 L) tank
Drive Train	Continuously variable transmission (CVT)
Transaxle	Differential with helical gears
Gear Selection	Forward-Reverse
Rear Axle Ratio	16.53:1 (Forward) 16.81:1 (Reverse)

**Body & Chassis**

Frame	Welded steel with DuraShield™ powder coat
Front Body & Finish	Injection molded TPO
Rear Body & Finish	Steel. Base coat/clear coat
Standard Color	Forest Green

**Noise & Vibration**

Noise	Sound pressure; continued A-weighted equal to or less than 78 db(A).	Vibration, WBV	Highest RMS value of weighted acceleration is less than 2.5 m/s <sup>2</sup> .
		Vibration, HAV	Highest RMS value of weighted acceleration is less than 2.5 m/s <sup>2</sup> .
Measurement methods were applied per the ISO 2631 and ISO 5349 standards under conditions of typical vehicle surfaces.			The uncertainty of measurement is 1.08 m/s <sup>2</sup>

*Some items shown may be optional equipment*

**Refresher Unit Dimensions**

Refresher Unit Length	66.5 in (169 cm)
Refresher Unit Width	51 in (130 cm)
Refresher Unit Height	55.5 in (140 cm)
Refresher Unit Weight	565 lb (256kg)
Canopy	Sunbrella®
Standard Color	Pebble Platinum
Canopy	Slate Canopy
Standard Module Configuration	42" (106 cm) Total Capacity: - 6" (15.2 cm) Snack Pull Out - 18" (35.7 cm) Module with Adjustable Shelves - 18" (35.7 cm) Cup & Display Module

**Refresher Unit Dimensions Cont.**

Maximum Merchandising Capacity	21.1 cu ft (.59 m <sup>3</sup> )
Cold Storage Drawer Vol. (Total)	11.1 cu ft (0.31 m <sup>3</sup> )
Cold Storage Drainage	Single Drain Per Drawer
Cold Storage Capacity	12 oz cans: 400
Trash Bin Volume	3.4 cu ft (0.96 m <sup>3</sup> )
U Shaped Work Space	13 ft <sup>2</sup> (1.2 m <sup>2</sup> )
Beverage Unit	5000 Series Aluminum - TGIC Polyester Powder Coating - Visible Product Doors w/Locks

**OPTIONS & FIELD INSTALLED ACCESSORIES (Installation not included)\***

Item	Std	Opt	Fld
<b>TIRES &amp; WHEELS:</b>			
<b>Front &amp; Rear:</b>			
Load Star 205/65-10	X		
<b>Wheel Covers:</b>			
10" Painted Silver		X	
<b>COLORS:</b>			
Body Color Forest Green	X		
Body Color Ivory		X	
Body Color White		X	
Body Color Yellow		X	
Body Color Orange		X	
Body Color Black		X	
Body Color Platinum		X	
Body Color Blue		X	
Custom Body Color (upon request)		X	
<b>Seating:</b>			
Seat Color (Gray) Driver Only	X		
Seat Color (Gray) Driver & Pass		X	
Additional Seat Colors: White or Black		X	

Item	Std	Opt	Fld
<b>OTHER PERFORMANCE:</b>			
Front Bumper & Guard (Black)		X	
Horn		X	
Low Oil Indicator		X	
Glove Box Door (Locking) Driver & Passenger Sides			X
Glove Box Door (Locking) Driver Side			X
Glove Box Door (Locking) Passenger Side			X
<b>ELECTRICAL:</b>			
Brake Lights			X
Headlights		X	
LED Headlights			X
Turn Signals with 4-Way Flashers			X
Unique Individual Key Switch			X
12 Volt Outlet			X
Hour Meter			X



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**Refresher Unit**

Base Unit, for FS4 - Pebble Platinum	X		
Base Unit, for FS4 - Desert Stone		X	
Canopy - Slate (standard for Pebble Platinum unit)	X		
Canopy - Walnut Tweed (standard for Desert Stone unit)		X	
Canopy - Additional Color Options		X	X
Refresher Countertop - Polar White	X		
Refresher Countertop - Mercury Gray, Sand Shade		X	
End Cap with Trash & Recycle	X		
Windshield	X		
Side Mirrors	X		

**Refresher Accessories**

6" Snack Module with Hooks Kit	X		X
6" Cup Holder Module - 5 internal Racks			X
12" Snack Module with Hooks Kit			X
12" Module with 4 Adjustable Shelves			X
12" Standard Shelves - 2 Pack			X
12" Wedge Shelves - 2 Pack			X
12" Single Airpot Holder -White			X
18" Module with 4 Adjustable Shelves	X		X
18" Cup & Display Module	X		X
18" Standard Shelves - 2 Pack			X
18" Wedge Shelves - 2 Pack			X
18" Dual Airpot Holder - White			X
18" Food Warmer Module			X
24" Keg Module			X
Food Warmer Bags			X
Consumable Ice Drawer Insert, SS, 10x10x20	X		X
3.0 Liter Airpot (2 Standard)	X		X
Reversible Insert For Airpots/Bottles	X		X
Napkin & Bottle Holder Shelves - 3 Pack w/Hardware	X		X
Coffee/Creamer Serving Caddy - 2 Pack	X		X
Mini Bottle Holder Shelves - 3 Pack w/Hardware	X		X
Drawer Inserts: Candy & Sandwich Tray - 2 Pack			X
Snack Module Kit (6HKS, 2 Clip Strips, 2 Baskets)			X
Mini Tray Set - 3 Pack			X
Humidor			X
Drawer Dividers	X		X