

MILITARY PERSONNEL PARACHUTE, MAIN MC1-1B/C/D/E

Updated: April 15, 2021

All parachute assemblies are qualified, manufactured and inspected in strict accordance with current applicable MIL-DTL-6645, MIL-DTL-7567 and MIL-STD-849.

Troop Back Personnel Main Parachute System
35 feet diameter, steerable

Part number	MC1-1B	MC1-1C	MC1-1D	MC1-1E
Complete set (NSN)	11-1-900-1 (1670-00-598-0751)	11-1-900-2 (1670-01-262-2359)	11-1-900-3 (1670-01-487-0777)	11-1-900-4 (1670-01-499-6573)
Canopy	11-1-1501-1	11-1-1501-3	11-1-1501-3	11-1-1501-1
Risers	11-1-2149-1	11-1-2149-1	11-1-2149-1	11-1-2149-1
Harness	11-1-2143-1	11-1-2143-1	11-1-2143-1	11-1-2143-1
Pack tray	62J4342	62J4342	62J4342	62J4342
Deployment bag	56D6276	56D6276	11-1-6994-1	11-1-6994-1
Static line	Standard 15-ft long 55D6481	Standard 15-ft long 55D6481	USL 15-ft: 11-1-6993-1 USL 5-ft Ext.: 11-1-6993-2 Snap hook: 11-1-6991-1	



Specification	MC1-1B	MC1-1C	MC1-1D	MC1-1E
Canopy shape	Parabolic	Parabolic	Parabolic	Parabolic
Canopy diameter [ft]	35, nominal	35, nominal	35, nominal	35, nominal
Number of gores	30	30	30	30
Canopy material	PIA-C-7020 Type I	PIA-C-44378 Type I	PIA-C-44378 Type I	PIA-C-7020 Type I
Standard color	CG483	CG483	CG483	CG483
Suspension line material	PIA-C-5040 Type II	PIA-C-5040 Type II	PIA-C-5040 Type II	PIA-C-5040 Type II
Suspension line length [ft]	25.5	22.0	22.0	25.5
Suspension line tensile strength [lbf]	400	400	400	400
Time for 360° turn [sec]	8 - 9	8 - 9	8 - 9	8 - 9
Assembled weight [lbs]	29	29	29	29
Suspended weight, max. [lbs]	360	360	360	360
Deployment altitude, min. [ft. AGL]	500	500	500	500
Deployment velocity, max. [KIAS]	150	150	150	150
Jump wind speed, max. [kts]	13	13	13	13
Rate of descent [fps]	18 - 25	15 - 20	15 - 20	18 - 25
Forward speed [kts]	8	8	8	8

The MC1 series troop back personnel parachute provides a capability to safely deliver an airborne soldier and individual equipment from an aircraft in flight for a vertical assault on the enemy.

The MC1-1B maneuverable parachute assembly is used primarily for a premeditated jump when a precision landing in a small target area is necessary. The basic canopy is the same as the T-10B assembly, except that there are orifices or cut-out areas in eleven (11) of the thirty (30) gores, creating a gliding type descent. The canopy has two (2) control lines, each extending from an outboard orifice to toggles which may be manipulated in such a way as to make 360° turns.

It has a 3-3/4 inches mesh anti-inversion net attached to the skirt of the canopy that extends 18 inches below the canopy skirt. When packed for service, the complete assembly weighs approximately 29 lbs, and has a nominal diameter of 35 feet and a projected or inflated diameter of 24.5 feet.

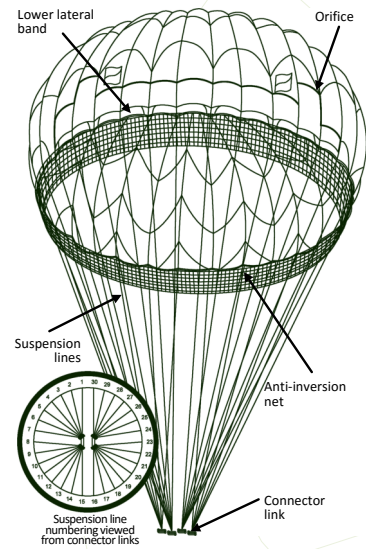
The MC1-1C maneuverable parachute assembly designed from the basic MC1-1B canopy is used primarily for a premeditated jump when a precision soft landing in a small target area is necessary. The basic canopy is the same as the MC1-1B drawing changes as noted are incorporated. These changes create a fast opening canopy with a gliding type descent rate of approximately 4 to 5 feet per second, with more steerable.

- The cloth used in MC1-1C/D was changed to 0.5-5.0 CFM porosity, specification PIA-C-44378 Type I
- The old eleven (11) orifice design was revised to seventeen (17) orifices in the same eleven (11) of the thirty (30) gores; three (3) openings on gore #4 and #26
- Orifices are tape reinforced horizontally on gore #4 and #26 between upper edge at large orifice and lower edge of new lower small opening
- Shorter (22 feet) suspension lines are arranged eight (8) lines each instead of seven (7) on the back risers
- Shorter (25 feet) control lines are used
- The 11-3/4 inches long pocket bands are used instead of the old 8-3/4 inches long
- Reinforcement zigzag stitching was added for main seams #6 through #25 (orifice area only), 30 inches long about suspension lines
- Radial tape cut length is now cut 2-1/4 inches shorter (17 feet) to insure cloth fullness in main seam length
- A reinforcement tape was added under each bridle line on inside of canopy, main seam #5 and #6; #25 and #26
- Zigzagged stitched reinforcement on the noted main seams was to provide greater tear resistance of the canopy



Troop Back Personnel Main Parachute System
35 feet diameter, steerable

Canopy assembly

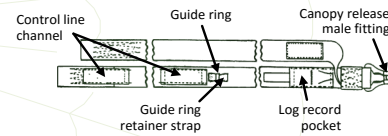


The MC1 series parachute canopy has a 3-3/4 inches mesh anti-inversion net attached to the skirt of the canopy. The net extends 18 inches below the canopy skirt. The canopy has two (2) vent line centering loops and an orifice cut out to give forward movement for directional control.

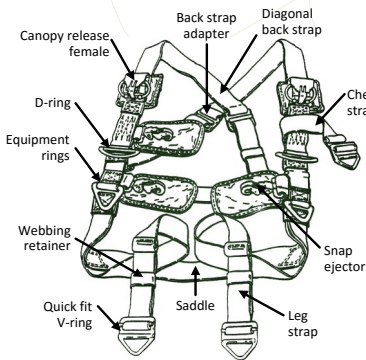
- Shape: parabolic
- Diameter: 35 feet, nominal
- Diameter of skirt: 24.5 feet
- Number of gores: 30
- Number of sections per gore: 4 or 5
- Number of radial tapes: 30
- Number of control lines: 2
- Number of control line bridles: 2
- Control line guide: reefing ring
- Control line toggle: dowel, hardwood
- Orifice (perimeter): 100.04 sq.ft
- Number of vent lines: 15
- Number of suspension lines: 30
- Number of V-tabs: 30
- Number of pocket bands: 15

Riser assembly

Each of the two (2) riser assemblies is 30 inches long (finished length) and constructed of Type XIII nylon webbing, with the male canopy release fitting permanently attached. The two (2) ends of each riser are attached to the suspension line connector links.



Harness assembly

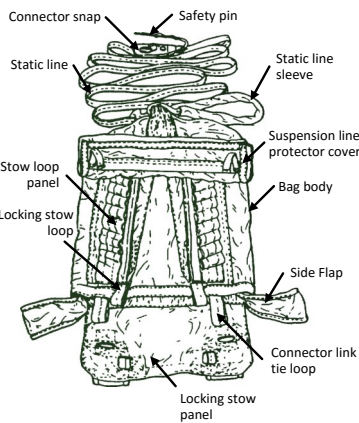


The parachute is attached to the harness assembly, which secures the parachute to the paratrooper before the jump and during the descent. The harness assembly is equipped with one (1) chest and two (2) leg straps, and secured with quick-ejector snaps. The female portion of the canopy release has a cable loop-type release. There are three (3) ejector snap pads for the ejector snaps. There are two (2) canopy release pads for the canopy release. The harness also has two (2) D-rings and two (2) equipment rings.

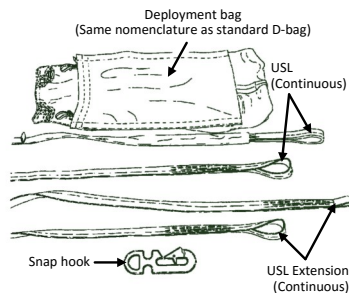
NOTE) The MC1-1C/D parachute harness assembly, equipped with equipment rings, will replace the MC1-1B/E parachute harness assembly through attrition. Also, the nylon pack tray, with waistband located in the lower position, will replace the cotton and nylon pack trays, with waistband located in the center of the pack tray, through attrition. During the transition period, numerous configurations may occur. Interchangeability of components is permitted, provided shelf service life and serviceability criteria are met.

Deployment bag with static line

The parachute is packed in the deployment bag. The deployment bag is constructed of 8.2 ounces cotton sateen cloth. These bags differ in the attachment of a static line, standard and universal static line (USL). The static 15 feet or 20 feet line allows a slider to be dropped from several different aircrafts.



<Deployment bag with standard static line>



<Deployment bag with universal static line>

Pack assembly

The pack tray holds the parachute, packed in the deployment bag, to the parachute harness. It is constructed of 7.25 ounces nylon duck. The waistband is located near the bottom of the pack tray.

