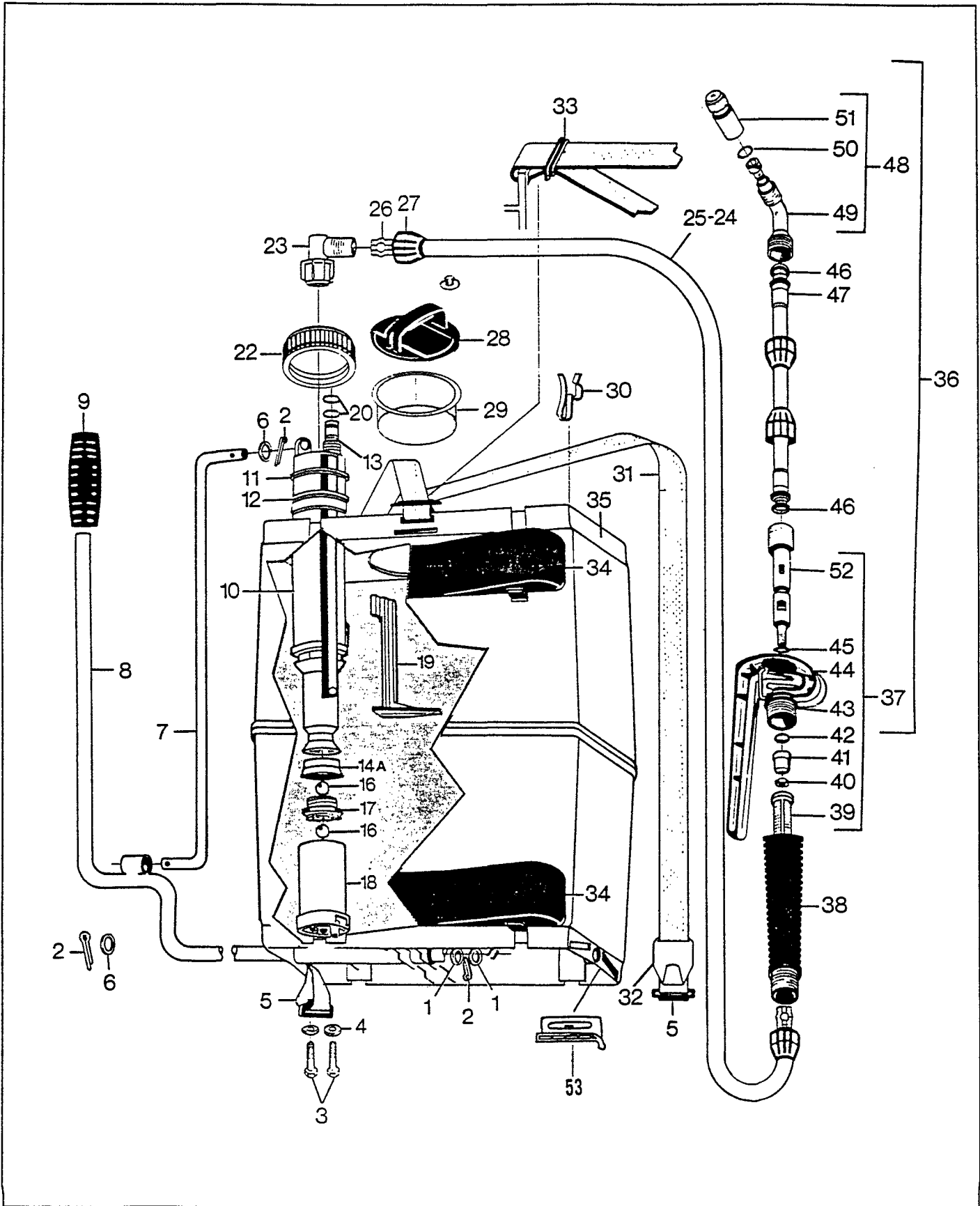




**SPRAYER  
PARTS CATALOG  
MODEL MS-16  
ALL UNITS**

**ECHO, INCORPORATED  
400 OAKWOOD ROAD  
LAKE ZURICH, IL 60047**

**999222 02222  
02/93**





## 11. PARTS

| Item | Quantity | Description                        | Part No.    |
|------|----------|------------------------------------|-------------|
| 1    | 2        | Washer, Flat, 13 x 2               | 221 999 003 |
| *2   | 3        | Pin, Cotter                        | 223 322 902 |
| 3    | 2        | Capscrew, M8 x 25                  | 225 323 825 |
| 4    | 2        | Washer, Zinc Plated                | 221 123 008 |
| *5   | 2        | Ring, Strap                        | 283 918 316 |
| *6   | 2        | Washer                             | 221 122 903 |
| 7    | 1        | Arm                                | 283 918 023 |
| 8    | 1        | Lever, Pump                        | 283 918 622 |
| 9    | 1        | Grip, Hand                         | 283 918 317 |
| 10   | 1        | Pump Assembly (13, 14, 16, 17, 20) | 283 918 826 |
| 11   | 1        | Washer, Sealing                    | 283 909 409 |
| 12   | 1        | Bushing, Guide                     | 283 911 307 |
| 13   | 1        | Pipe Assembly                      | 283 928 822 |
| *14  | 1        | Washer, Rubber                     | 283 909 306 |
| 14A  | Opt.     | Washer, Cup Viton                  | 283 911 305 |
| *16  | 2        | Ball Bearing, 1/2"                 | 222 008 902 |
| 17   | 1        | Valve                              | 283 909 404 |
| 18   | 1        | Cylinder                           | 283 909 303 |
| 19   | 1        | Agitator                           | 283 911 306 |
| 20   | 2        | O-Ring, AN-6                       | 222 315 906 |
| 20A  | Opt.     | O-Ring, AN-6 Viton                 | 222 316 906 |
| 22   | 1        | Nut, Guide                         | 283 918 308 |
| 23   | 1        | Elbow                              | 283 918 322 |
| 24   | 1        | Hose Assembly (26, 27)             | 283 918 815 |
| 25   | 1        | Hose, 60 x 12 x 1, 3M              | 211 009 312 |
| 26   | 2        | Bushing, Hose                      | 283 808 308 |
| 27   | 2        | Nut                                | 283 808 312 |
| 28   | 1        | Lid, Tank                          | 283 918 302 |
| 29   | 1        | Filter, Tank                       | 283 918 303 |
| 30   | 1        | Clip                               | 283 918 315 |
| 31   | 1        | Strap - 1, 9M                      | 283 928 003 |
| 32   | 1        | Hook, Strap End                    | 283 918 318 |
| *33  | 1        | Ring, Strap Tightener              | 283 918 328 |
| 34   | 2        | Backrest                           | 283 918 306 |
| 35   | 1        | Tank                               | 283 918 301 |
| 36   | 1        | Wand Assembly                      | 283 918 816 |
| 37   | 1        | Handle Assembly                    | 283 918 817 |
| 38   | 1        | Holder, Filter                     | 283 918 305 |
| *39  | 1        | Filter                             | 283 808 327 |
| 40   | 1        | Brass, M6 Nut                      | 226 200 006 |
| 41   | 1        | Guide                              | 283 906 332 |
| *42  | 1        | O-Ring, AN-8                       | 222 315 908 |
| 42A  | Opt.     | O-Ring, AN-8 Viton                 | 222 316 908 |
| 43   | 1        | O-Ring                             | 222 315 914 |
| 44   | 1        | Body, Handle                       | 283 805 306 |
| 45   | 1        | O-Ring, AN-6                       | 222 315 906 |
| 45A  | Opt.     | O-Ring, AN-6 Viton                 | 222 316 906 |
| *46  | 2        | Washer, Flat                       | 284 202 334 |
| 47   | 1        | Pipe Assembly                      | 283 918 627 |
| 48   | 1        | Elbow & Nozzle Assembly            | 283 808 803 |
| 49   | 1        | Sprayer                            | 283 901 322 |
| 50   | 1        | O-Ring, AN-5                       | 222 315 905 |
| 50A  | Opt.     | O-Ring, AN-5 Viton                 | 222 316 905 |
| 51   | 1        | Nozzle, 1mm                        | 283 902 323 |
| 51A  | Opt.     | Nozzle, .75mm                      | 283 901 123 |
| 51B  | Opt.     | Nozzle, 1.5mm                      | 283 901 023 |
| 52   | 1        | Body                               | 283 918 817 |
| 53   | 1        | Clip                               | 283 918 350 |



## 12. ACCESSORIES



Front Quadruple Nozzle 283 808 894



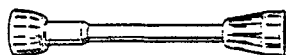
Double T-Shaped Nozzle 283 808 892



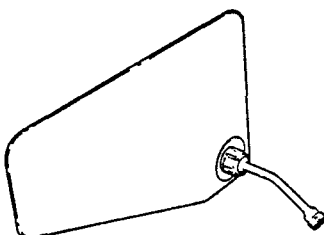
Low-Volume Elbow for Weed Killers 283 808 898



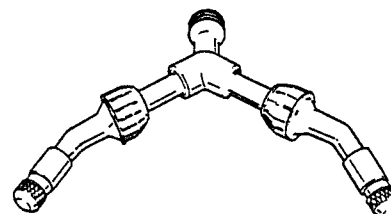
Elbow for Normal  
Weed Killers  
283 808 896



Extension for  
Short Wand  
283 808 891



Protective Hood 283 808 897



Double V-Shaped  
Nozzle 283 808 895

## 13. SPECIFICATIONS

|   |                         |                |
|---|-------------------------|----------------|
| Tank capacity   |                         | 16 lt          |
| Working pressure  | Herbicides              | 1 to 2 atm.    |
|   | Insecticides/Fungicides | 1.5 to 3 atm.  |
| Hose length   |                         | 1,300 mm       |
| Wand length   |                         | 670 mm         |
| Strap length  |                         | 900 mm         |
| Pumping actions per minute to maintain pressure of 3 atm. with the standard nozzle. |                         | 10/14          |
| Liters/minute at 3 atm. with the standard nozzle                                    |                         | 0.7 - 0.9/min. |
| Width of filler hole diameter   |                         | 120 mm         |
| Taper spray nozzle (outlet hole diameter)   |                         | 1 mm           |
| Range - taper spray - horizontal  |                         | 4 m            |
| Range - taper spray - vertical  |                         | 3 m            |
| Range - jet spray - horizontal  |                         | 7 m            |
| Range - jet spray - vertical  |                         | 6 m            |