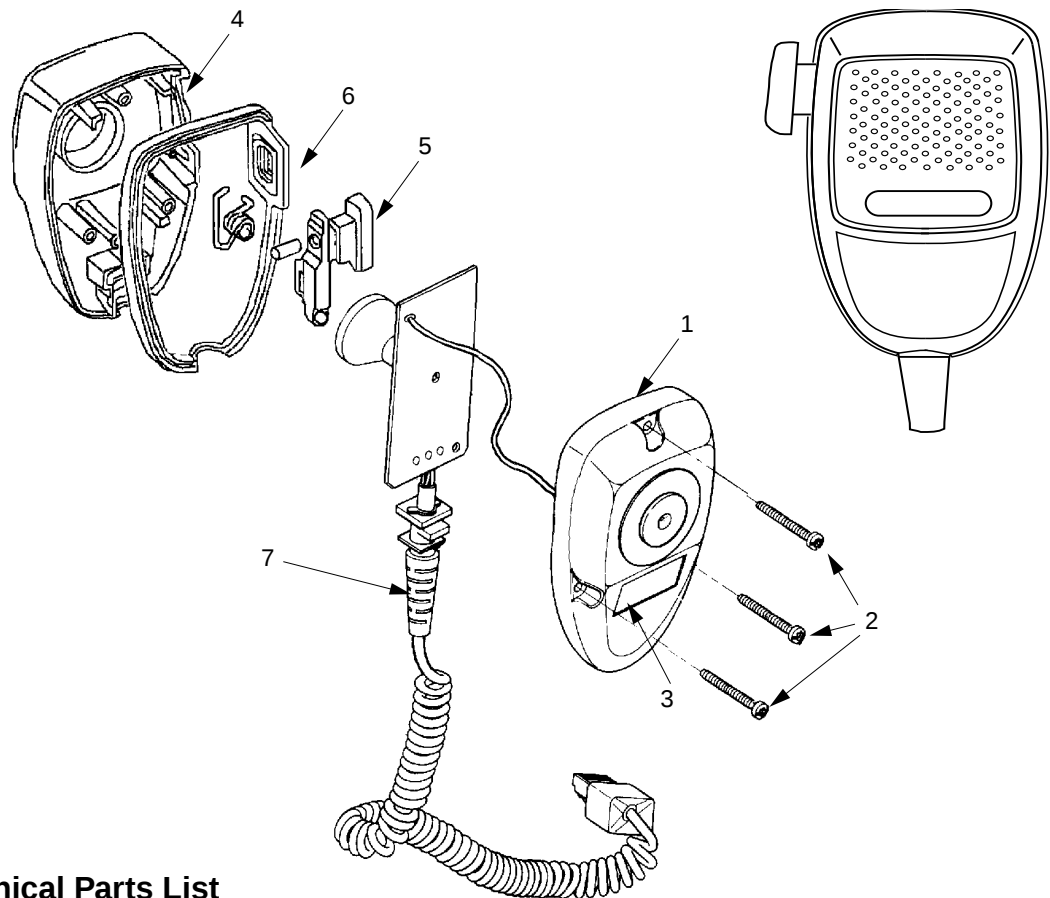


## 2.3 Enhanced Compact Microphone GMN6146 Mechanical Exploded View

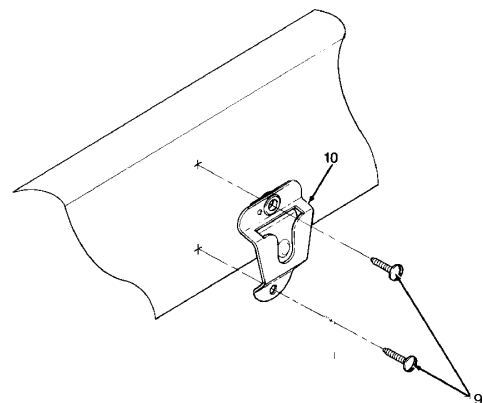


### Mechanical Parts List

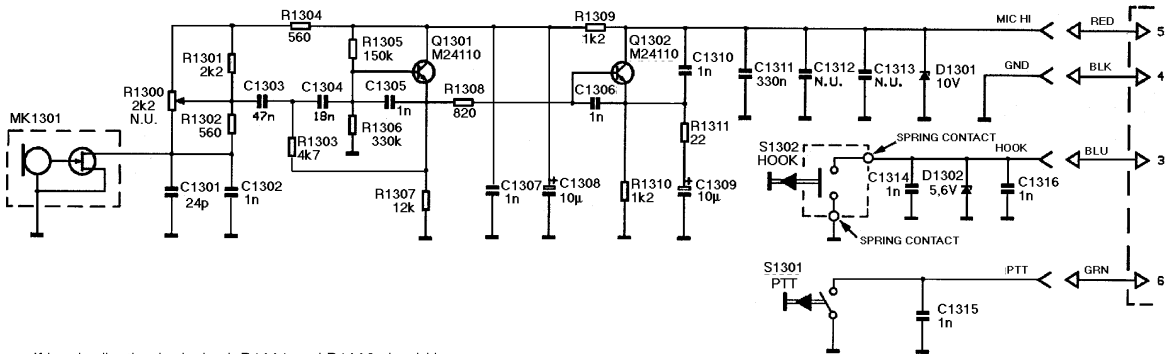
| <i>Ref No.</i> | <i>Motorola Part No.</i> | <i>Description</i>     | <i>Ref No.</i> | <i>Motorola Part No.</i> | <i>Description</i> |
|----------------|--------------------------|------------------------|----------------|--------------------------|--------------------|
| 1              | 0180704Y99               | Rear Housing assembly  | 5              | 3880568B01               | PTT Button         |
| 2              | 0311994A23               | Screw (3 used)         | 7580983Z03     | Rubber Spacer            |                    |
| 3              | 5480104R12               | Model Label (GMN6146C) | 4180150R01     | Spring Tension           |                    |
|                | 5480104R02               | Model Label (GMN6146B) | 6              | 3280565B01               | Gasket MIC         |
| 4              | 1580566B02               | Front Housing          | 7              | 3002593Y02               | Coiled Cord        |

### Hang-Up Clip Parts List

| <i>Ref No.</i> | <i>Motorola Part No.</i> | <i>Description</i>       |
|----------------|--------------------------|--------------------------|
| 9              | 03-00139913              | Screw, 8-18x1/2 (3 used) |
| 10             | 01-80743T91              | Hang-up clip             |



Schematic Diagram



If level adjusting is desired, R1301 and R1302 should be taken out and be replaced by R1300 (p/n 1805500L04).

GEPD 5468

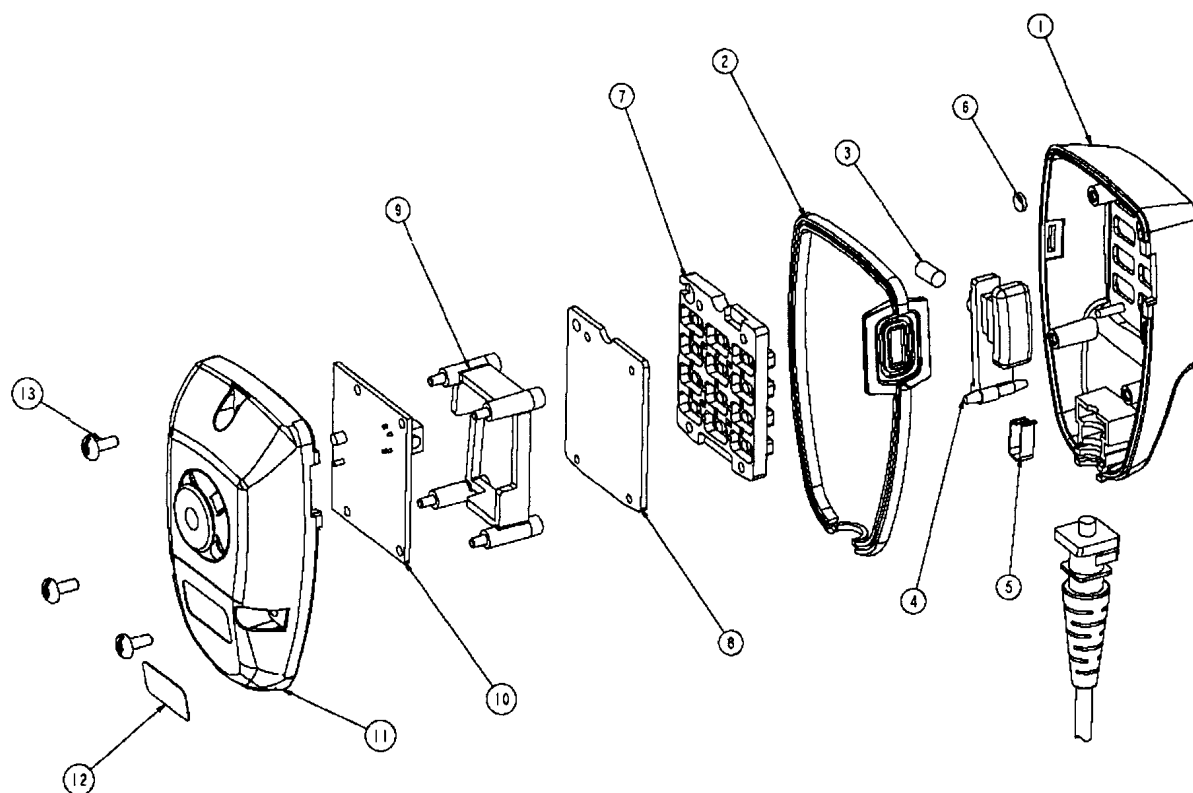
Kit No. GMN6146C

Electrical Parts Lists

| Circuit Ref | Motorola Part No. | Description             |
|-------------|-------------------|-------------------------|
| R1300       | 1805500L04        | RES VAR 2.2k (not used) |
| R1301       | 0660076A57        | RES CHIP 2.2k 5 1/8     |
| R1302       | 0660076A43        | RES CHIP 560 5 1/8      |
| R1303       | 0660076A65        | RES CHIP 4.7k 5 1/8     |
| R1304       | 0660076A43        | RES CHIP 560 5 1/8      |
| R1305       | 0660076B05        | RES CHIP 150k 5 1/8     |
| R1306       | 0660076B13        | RES CHIP 330k 5 1/8     |
| R1307       | 0660076A75        | RES CHIP 12k 5 1/8      |
| R1308       | 0660076A47        | RES CHIP 820 5 1/8      |
| R1309       | 0660076A51        | RES CHIP 1.2k 5 1/8     |
| R1310       | 0660076A51        | RES CHIP 1.2k 5 1/8     |
|             |                   |                         |
| C1301       | 2113740A38        | CAP CHIP CL1 24p        |
| C1302       | 2113741A21        | CAP CHIP CL2 X7R 1n     |
| C1303       | 2113741A61        | CAP CHIP CL2 X7R 47n    |
| C1304       | 2113741A51        | CAP CHIP CL2 X7R 18n    |
| C1305       | 2113741A21        | CAP CHIP CL2 X7R 1n     |

| Circuit Ref | Motorola Part No. | Description            |
|-------------|-------------------|------------------------|
| C1306       | 2113741A21        | CAP CHIP CL2 X7R 1n    |
| C1307       | 2113741A21        | CAP CHIP CL2 X7R 1n    |
| C1308       | 2311049J26        | CAP TANT CHIP 10uF 16V |
| C1309       | 2311049J26        | CAP TANT CHIP 10uF 16V |
| C1310       | 2113741A21        | CAP CHIP CL2 X7R 1n    |
| C1311       | 2113743F12        | CER CHIP CAP 330n      |
| C1314       | 2113741A21        | CAP CHIP CL2 X7R 1n    |
| C1315       | 2113741A21        | CAP CHIP CL2 X7R 1n    |
| C1316       | 2113741A21        | CAP CHIP CL2 X7R 1n    |
| Q1301       | 4813824A10        | XSTR NPN 40V .2A       |
| Q1302       | 4813824A10        | XSTR NPN 40V .2A       |
| D1301       | 4880140L15        | DIODE SOT ZENER 10V    |
| D1302       | 4880140L07        | DIODE SOT ZENER 5.6V   |
|             | 4080164S01        | SWITCH,PTT             |
|             | 5080258E04        | ELECTRET MIC CTRG      |
|             | 8402571Y01        | PCB RENA MIC BLK       |

## 2.4 DTMF Microphone GMN6148 Mechanical Exploded View

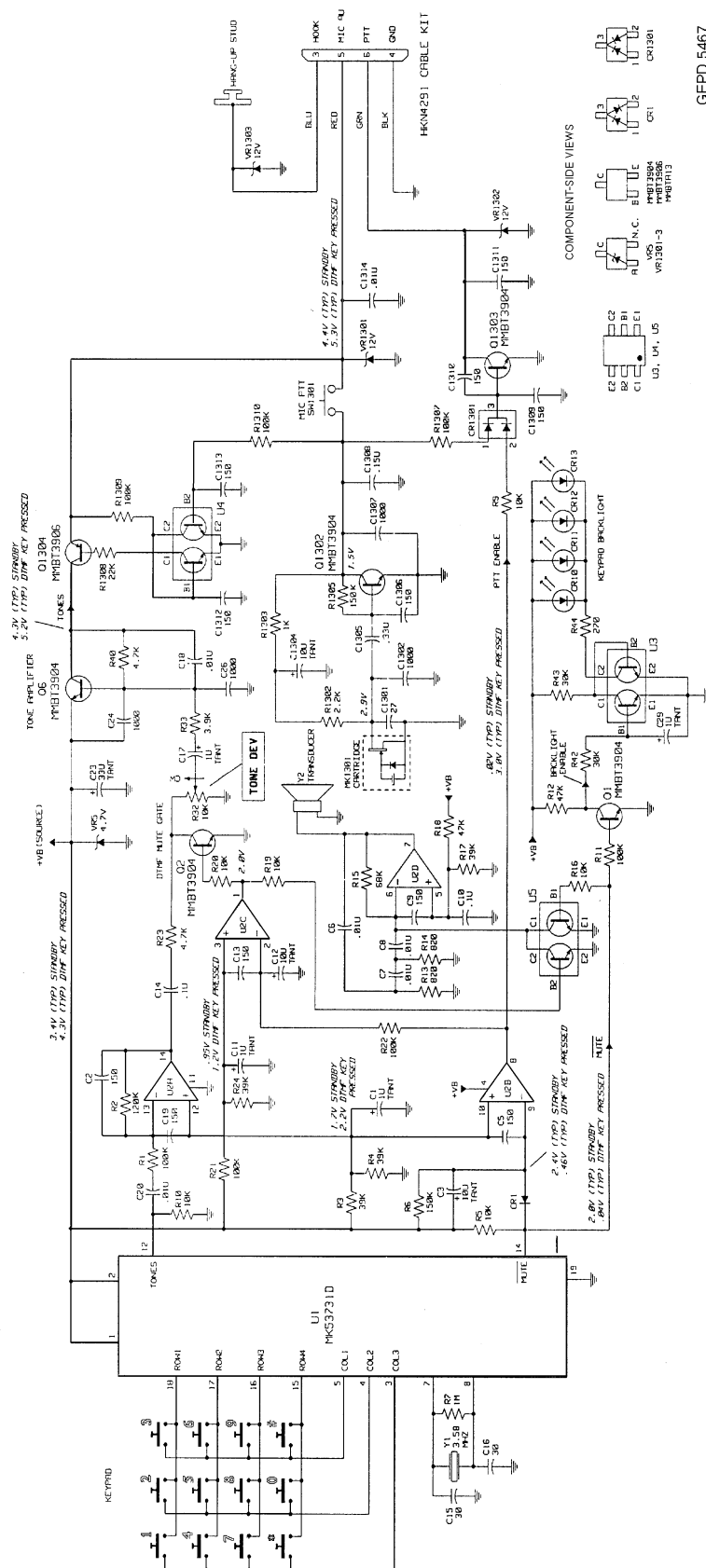


### Mechanical Parts List

| <b>Ref No.</b> | <b>Motorola Part No.</b> | <b>Description</b>         |
|----------------|--------------------------|----------------------------|
| 1              | 15-80652D02              | Microphone front housing   |
| 2              | 32-80565B01              | Microphone gasket          |
| 3              | 75-80983Z03              | Rubber Spacer, Switch      |
| 4              | 38-80654D01              | Button, push to talk       |
| 5              | 41-80658D01              | Spring, PTT                |
| 6              | 35-80089D02              | Felt baffle                |
| 7              | 75-80655D01              | Keypad                     |
| 8              | 01-80707Y77              | DTMF Encoder board assy    |
| 9              | 42-80656D01              | Spacer                     |
| 10             | 01-80707Y78              | Switch/Sidetone board assy |
| 11             | 01C80669D01              | Microphone rear Housing    |
| 12             | 54-80104R10              | Mic label                  |
| 13             | 03-139959                | Screw, thread forming      |



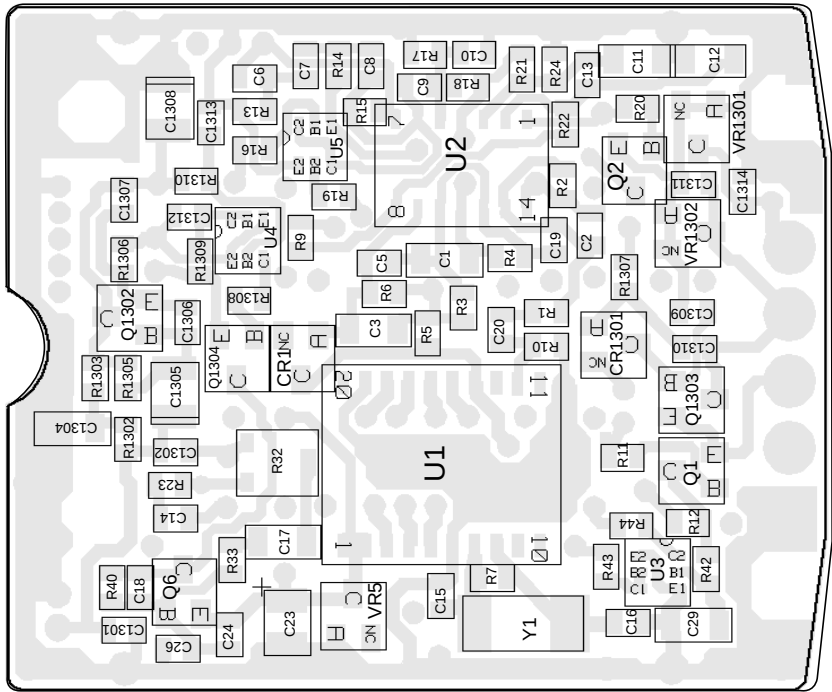
## Schematic Diagram



GEPD 5467

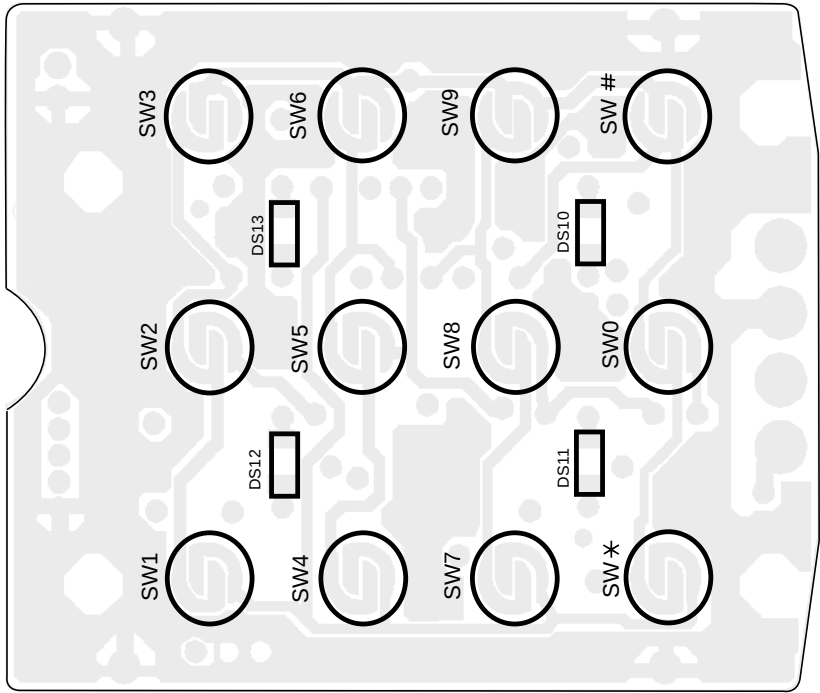
Kit No. GMN6148A

PCB Layout



8402685Y01 GEPD 5469

SHOWN FROM COMPONENT SIDE



8402685Y01 GEPD 5470

SHOWN FROM SOLDER SIDE

## Electrical Parts List

## GMN6148\_

| Circuit Ref | Motorola Part No. | Description         | Circuit Ref | Motorola Part No. | Description     |
|-------------|-------------------|---------------------|-------------|-------------------|-----------------|
| C1          | 23-11049A07       | 1uF; 16V, 10%, TANT | CR12        | 48-83636N18       | LED; GREEN, SMD |
| C2          | 21-13740A73       | 560pF               | CR13        | 48-83636N18       | LED; GREEN, SMD |
| C3          | 23-11049A59       | 10uF; 6V,10%, TANT  | CR1301      | 48-13833C04       | BAV70LT1        |
| C5          | 21-13740A59       | 150pF               | Q1          | 4880214G02        | MMBT 3904       |
| C6          | 21-13741A45       | 0.01uF              | Q2          | 4880214G02        | MMBT 3904       |
| C7          | 21-13741A45       | 0.01uF              | Q6          | 4880214G02        | MMBT 3904       |
| C8          | 21-13741A45       | 0.01uF              | Q1302       | 48-80214G02       | MMBT 3904       |
| C9          | 21-13740A59       | 150pF               | Q1303       | 48-05128M19       | MMBTA 13        |
| C10         | 21-60521G37       | 0.1uF               | Q1304       | 48-05128M16       | MMBT 3906       |
| C11         | 23-11049A07       | 1uF; TANT           | R1          | 06-60076B01       | 100K            |
| C13         | 21-13740A59       | 150pF               | R2          | 06-60076B03       | 120K            |
| C14         | 21-60521G37       | 0.1uF               | R3          | 06-60076A87       | 39K             |
| C15         | 21-13740A40       | 30pF                | R4          | 06-60076A87       | 39K             |
| C16         | 21-13740A40       | 30pF                | R5          | 06-60076A73       | 10K             |
| C17         | 23-11049A07       | 1uF; TANT           | R6          | 06-60076B05       | 150K            |
| C18         | 21-13741A45       | 0.01uF              | R7          | 06-60076B25       | 1Meg            |
| C19         | 21-13740A59       | 150pF               | R9          | 06-60076B01       | 100K            |
| C20         | 21-13741A45       | 0.01uF              | R10         | 06-60076A73       | 10K             |
| C23         | 23-11049A30       | 33uF, 6V, 10%, TANT | R11         | 06-60076B01       | 100K            |
| C24         | 21-13740A79       | 1000pF              | R12         | 06-60076A89       | 47K             |
| C26         | 21-13740A79       | 1000pF              | R13         | 06-60076A47       | 820             |
| C29         | 23-11049A07       | 1uF; TANT           | R14         | 06-60076A47       | 820             |
| C1301       | 21-13740A39       | 27pF, 50V, NPO.     | R15         | 06-60076A93       | 68K             |
| C1302       | 21-13740A79       | 1000pF              | R16         | 06-60076A73       | 10K             |
| C1304       | 23-11049A59       | 10uF; 6V, 10%, TANT | R17         | 06-60076A87       | 39K             |
| C1305       | 21-13743B23       | 0.330uF             | R18         | 06-60076A89       | 47K             |
| C1306       | 21-13740A59       | 150pF               | R19         | 06-60076A73       | 10K             |
| C1307       | 21-13740A79       | 1000pF              | R20         | 06-60076A73       | 10K             |
| C1308       | 21-11032B14       | 0.15uF              | R21         | 06-60076B01       | 100K            |
| C1309       | 21-13740A59       | 150pF               | R22         | 06-60076A89       | 47K             |
| C1310       | 21-13740A59       | 150pF               | R23         | 06-60076A65       | 4.7K            |
| C1311       | 21-13740A59       | 150pF               | R24         | 06-60076A87       | 39K             |
| C1312       | 21-13740A59       | 150pF               | R32         | 18-60502A13       | 10K VAR; SMD    |
| C1313       | 21-13740A59       | 150pF               | R33         | 06-60076A63       | 3.9K            |
| C1314       | 21-13741A45       | 0.01uF              | R40         | 06-60076A65       | 4.7K            |
| CR1         | 48-84336R03       | MMBD 7000           | R42         | 06-60076A84       | 30K             |
| CR10        | 48-83636N18       | LED; GREEN, SMD     | R43         | 06-60076A84       | 30K             |
| CR11        | 48-83636N18       | LED; GREEN, SMD     | R44         | 06-60076A25       | 100             |

## GMN6148\_ continued,

| Circuit Ref | Motorola Part No. | Description               | Circuit Ref | Motorola Part No. | Description                        |
|-------------|-------------------|---------------------------|-------------|-------------------|------------------------------------|
| R1302       | 06-60076A57       | 2.2K; 5%, 1/8W            | VR5         | 48-80140L05       | 4.7V; 5%, ZENER                    |
| R1303       | 06-60076A49       | 1K; 5%, 1/8W              | VR1301      | 48-80140L17       | 12V; 5%, ZENER                     |
| R1305       | 06-60076B05       | 150K; 5%, 1/8W            | VR1302      | 48-80140L17       | 12V; 5%, ZENER                     |
| R1306       | 06-60076M01       | 0; RES. JUMPER            | Y1          | 48-80915W02       | 3.58 MHZ Resonator                 |
| R1307       | 06-60076B01       | 100K; 5%, 1/8W            | Y2          | 50-80121L01       | Transducer                         |
| R1308       | 06-60076A81       | 22K; 5%, 1/8W             |             | 50-13920A04       | ADHESIVE, MIC SHIELD, DTMF ENCODER |
| R1309       | 06-60076B01       | 100K; 5%, 1/8W            |             | 30-02593Y02       | COIL CORD W. IP54 BOOT             |
| R1310       | 06-60076B01       | 100K; 5%, 1/8W            |             | 84-02685Y01       | Circuit Board EURO DTMF MIC        |
| SW1301      | 40-80164S01       | SWITCH, PTT               |             | 84-80661D01       | Circuit Board, Switch/sidetone     |
| U1          | 51-80662D01       | MK53731D DTMF DIALER I.C. |             |                   |                                    |
| U2          | 51-13819A02       | LM2902D OPAMP             |             |                   |                                    |
| U3 to U5    | 51-80159R01       | DUAL TRANSISTOR; IMX1     |             |                   |                                    |

## 2.5 Base Tray GLN7318/GLN7326

## Mechanical Parts List

| Ref No. | Motorola Part No. | Description        |
|---------|-------------------|--------------------|
| 1       | 1580155J02        | Base housing       |
| 2       | 7510606A06        | Bumper RBR black   |
| 3       | 0384725C09        | Screw 4.2x16       |
| 4       | 4205722C02        | Clamp fastener     |
| 5       | 1580154J02        | Cover base housing |
| 6       | 7510606A13        | Bumper black       |
|         | 5080085D03        | Speaker (GLN7326)  |
|         |                   | Not shown          |

