

# AC-8017/8017A 100-Hz to 10-Hz Conversion Kit (622-3453-001, -002)



Rockwell  
International

instructions

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Instructions

AC-8017/8017A 100-Hz to 10-Hz Conversion Kit  
(622-3453-001, -002)

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## 1. DESCRIPTION

AC-8017 100-Hz to 10-Hz Conversion Kit 622-3453-001 contains a 10-Hz frequency switchboard assembly and a synthesizer decade card. When installed, the AC-8017 100-Hz to 10-Hz conversion kit provides 10-Hz tuning on all applicable units listed in table 1.

### Note

If 100-Hz frequency display has been installed in unit it should be replaced with a 10-Hz display during installation of this kit.

Table 1. AC-8017/8017A 100-Hz to 10-Hz Conversion Kit, Equipment Used On.

| EQUIPMENT  | COLLINS PART NUMBER |
|--|---------------------|
| AC-8017 100-Hz TO 10-Hz CONVERSION KIT 622-3453-001  |                     |
| HF-8010 Exciter                                      | 622-3389-( )        |
| HF-8010A Exciter                                     | 622-3395-( )        |
| HF-8014 Exciter                                      | 622-3472-( )        |
| HF-8014A Exciter                                     | 622-3473-( )        |
| HF-8050 Receiver                                     | 622-3385-( )        |
| HF-8050A Receiver                                    | 622-3393-( )        |
| HF-8054 Receiver                                     | 622-3474-( )        |
| HF-8054A Receiver                                    | 622-3475-( )        |
| HF-8070 Receiver-Exciter                             | 622-3387-( )        |
| HF-8070A Receiver-Exciter                            | 622-3394-( )        |
| AC-8017A 100-Hz TO 10-Hz CONVERSION KIT 622-3453-002 |                     |
| HF-8090 Exciter Control                              | 622-3390-( )        |
| HF-8091 Receiver Control                             | 622-3391-( )        |
| HF-8092 Receiver-Exciter Control                     | 622-3392-( )        |
| HF-8093 Exciter Control                              | 622-3476-( )        |
| HF-8094 Receiver Control                             | 622-3477-( )        |

NOTICE: This section replaces first edition dated 1 June 1978.

The AC-8017A 100-Hz to 10-Hz Conversion Kit 622-3453-002 contains a 10-Hz frequency switchboard assembly and a 10-Hz to 29-MHz frequency display. When installed, the AC-8017A 100-Hz to 10-Hz conversion kit provides 10-Hz tuning and a 10-Hz display on all applicable units listed in table 1.

## 2. INSTALLATION

Installation instructions for the AC-8017/8017A are divided into two procedures; instructions for installation of 622-3453-001 and instructions for installation of 622-3453-002.

Installation of AC-8017 100-Hz to 10-Hz Conversion Kit 622-3453-001 consists of replacing the existing frequency switchboard assembly with one from the kit, and configuring the synthesizer assembly for 10-Hz operation using the 100/10-Hz decade card supplied with the kit.

Installation of AC-8017A 100-Hz to 10-Hz Conversion Kit 622-3453-002 consists of replacing the existing frequency switchboard and frequency display assemblies using the assemblies supplied with the kit.

### 2.1 AC-8017 100-Hz to 10-Hz Conversion Kit 622-3453-001 Installation

#### a. Frequency Switchboard Replacement

**Note**

Retain hardware removed during disassembly for use in reassembly. Refer to unit parts list as an aid in disassembly and assembly.

1. Remove unit top cover.
2. Remove front panel from unit by removing four hexhead screws and attaching hardware.

**Caution**

Upper overlay panel (plexiglass) is brittle; exercise care during removal of upper overlay panel.

3. Remove upper overlay panel from front panel as follows:
  - (a) Remove four Phillips-head screws and lockwashers that secure back of front panel to upper edge bar.
  - (b) Remove four Phillips-head screws and lockwashers that secure back of front panel

to panel support (middle bar on front panel).

- (c) Lift upper edge bar from front panel.
- (d) Carefully remove upper overlay panel.
4. Remove cover plate on back of front panel by removing five Phillips-head screws and attaching hardware (screws on front of front panel).
5. Disconnect plug P2 from frequency switchboard jack A2J4.
6. Remove frequency switchboard 635-0830-001 by removing four Phillips-head screws and attaching hardware (screwheads on front of front panel).
7. Secure frequency switchboard 635-0830-002 supplied in kit to front panel using four Phillips-head screws and attaching hardware (screwheads on front of front panel).
8. Connect plug P2 to jack A2J4 on frequency switchboard.
9. Secure cover plate to back of front panel with five Phillips-head screws and attaching hardware (screwheads on front side of front panel).

**Caution**

Upper overlay panel (plexiglass) is brittle; exercise care during replacement of upper overlay panel.

10. Insert upper overlay panel into slot on panel support (middle bar on front panel).
  11. Replace edge bar on top of front panel ensuring upper overlay panel fits properly.
  12. Secure upper overlay panel to front panel with eight Phillips-head screws and lockwashers.
  13. Secure front panel to unit with four hexhead screws and attaching hardware.
- b. Configuring Synthesizer Assembly 635-9697-001 for 10-Hz Operation
    1. Remove synthesizer assembly top cover.
    2. Remove END DECADE from A18 slot and install into A17 slot.
    3. Install decade card 623-2080-004 into the A18 slot.
    4. Reinstall synthesizer assembly top cover.
    5. Reinstall unit top cover.
  - c. Configuring Synthesizer Assembly 634-8201-001 for 10-Hz Operation
    1. Remove synthesizer assembly top cover.
    2. Remove END DECADE from A19 slot and install into A18 slot.

3. Install decade card 623-2080-004 into the A19 slot.
4. Reinstall synthesizer assembly top cover.
5. Reinstall unit top cover.

**2.2 AC-8017A 100-Hz to 10-Hz Conversion Kit 622-3452-002 Installation**

**Note**

Retain hardware removed during disassembly for reassembly. Refer to unit parts list as an aid in disassembly and assembly.

- a. Remove unit top cover.
- b. Remove frequency display as follows:
  1. Remove four Phillips-head screws and attaching hardware.
  2. Disconnect plug P8 from jack A2J5 on frequency display.
- c. Remove front panel from unit by removing four hexhead screws and attaching hardware.

**Caution**

Upper overlay panel (plexiglass) is brittle; exercise care during removal of upper overlay panel.

- d. Remove upper overlay panel from front panel as follows:
  1. Remove four Phillips-head screws and lockwashers that secure back of front panel to upper edge bar.
  2. Remove four Phillips-head screws and lockwashers that secure back of front panel to panel support (middle bar on front panel).
  3. Lift upper edge bar from front panel.
  4. Carefully remove upper overlay panel.
- e. Disconnect plug P2 from frequency switchboard jack A2J4.
- f. Remove frequency switchboard 635-0830-001 by removing four Phillips-head screws and attaching hardware (screwheads on front of front panel).
- g. Secure frequency switchboard 635-0830-002 supplied in kit to front panel using four Phillips-head screws and attaching hardware (screwheads on front of front panel).
- h. Connect plug P2 to jack A2J4 on frequency switchboard.

**Caution**

Upper overlay panel (plexiglass) is brittle; exercise care during replacement of upper overlay panel.

- i. Insert upper overlay panel into slot on panel support (middle bar on front panel).
- j. Replace edge bar on top of front panel ensuring upper overlay panel fits properly.
- k. Secure upper overlay panel to front panel with eight Phillips-head screws and attaching hardware.
- l. Secure front panel to unit with four hexhead screws and attaching hardware.
- m. Install frequency display 637-1781-002 as follows:
  1. Connecting plug P8 to jack A2J5 on frequency display.
  2. Securing frequency display to mounts with four Phillips-head screws and attaching hardware.
- n. Reinstall unit top cover.

**3. REPAIR**

Repair of the AC-8017/8017A 100-Hz to 10-Hz Conversion Kit is accomplished using standard maintenance and planar card repair procedures. Refer to the maintenance section of this instruction book for planar card repair procedures.

**4. PARTS LIST/DIAGRAMS**

This paragraph assists in identification, requisition, and issuance of parts, and in maintenance of the equipment. The Collins part number and description for each nonstandard replacement part are listed in table 2.

These cards are covered in the following instructions which are included in the associated instruction book.

- a. Frequency display (637-1781-001, -002) instructions (Collins part number 523-0767975).
- b. Frequency switchboard (635-0830-001, -002) instructions (Collins part number 523-0767947).
- c. Synthesizer decade (623-2080-001, -002, -003, -004) instructions (Collins part number 523-0767972).

Table 2. AC-8017/8017A 100-Hz to 10-Hz Conversion Kit Parts List.

| DESCRIPTION           | COLLINS PART NUMBER |
|-----------------------|---------------------|
| AC-8017               | 622-3453-001        |
| Frequency switchboard | 635-0830-002        |
| Synthesizer decade    | 623-2080-004        |
| AC-8017A              | 622-3453-002        |
| Frequency switchboard | 635-0830-002        |
| Frequency display     | 637-1781-002        |