

## P-9 QUICK PROGRAMMING GUIDE FOR DF-16

### COMMUNICATOR

The DF-16 contains a modified Model 1704 4-zone digital communicator. The zones have been pre-defined as follows:

Zone #1	FIRE
Zone #2	EMERGENCY
Zone #3	BURGLARY
Zone #4	Not Used

### Programming the Communicator

To program the communicator a file must be created in the P-9 programmer for downloading into the communicator's permanent memory. A simplified explanation of the programming options follows:

#### Creating a 1700 File

Select the Create option under the File Maintenance menu on the P-9. Scroll down to the "1700?" option and press the ENTER key.

#### Masterfile Header

This allows you to identify the file with a heading of up to 16 characters in length. You may want to use this to identify location, customer I.D. number, or other data. It does not affect the operation of the communicator, and may be left blank if desired.

#### Enable Communicator?

This step must be answered with a "Y". If a "N" is entered, the communicator will not function.

#### Enter Phone #1,2,3:

Up to three different phone numbers may be entered. Each zone can be programmed to call any 2 of the 3 numbers. Each phone number can report a different account number.

NOTE: Phone numbers 1 and 2 can be 15 characters long. Phone number 3 can be up to 28 characters long and is entered as 3A and 3B.

Entering a "D" will cause the communicator pause for a dial tone. Entering a "S" will cause a 3 second pause. Entering a "L" will cause a 6 second pause.

#### Central Station Format

Each phone number called can report using a different reporting format. Select one compatible with the central station being reported to. the formats available are:

<b>SESCOA STANDARD</b>	
(3 by 1, Dual Round Compared)	
Handshake and Kissoff	2300 Hz
Transmission Frequency	1800 Hz
Message Speed	20 ppS
<b>SESCOA SUPERSPEED</b>	
(4 by 3, Single Round with Check Sum)	
Handshake and Kissoff	2300 Hz
Transmission Frequency	1800 Hz
Message Speed	40 ppS
<b>RADIONIX HEX</b>	
(3 by 1, Single Round with Check Sum)	
Handshake and Kissoff	2300 Hz
Transmission Frequency	1800 Hz
Message Speed	40 ppS

#### Account Number

The communicator can report a different account number at each phone number called. The range of account numbers is determined by the reporting format. The account numbers available for each format are:

- SESCOA STANDARD 000 through 999
- SESCOA SUPERSPEED 0000 through 3374
- RADIONIX HEX 000 through FFE  
( "A", "BBB", "CCC", "DDD", and "EEE" may not be used)

#### DTMF Dialing

Select this if your phone can use DTMF (tone dialing). If selected you will be asked to select fast or slow rate. You can select either, because the communicator only uses one rate at this time.

#### Pulse Dialing

If you do not select DTMF Dialing, you will be using pulse dialing. Two break/make ratios are available using this dialing method, 60/40 American ratio used in the United States and the 67/33 ratio used in some foreign countries. If the American ratio is not selected, the communicator will use the 67/33 ratio.

#### Ground Start

Ground start is not supported on this communicator.

#### Call Tries and Sleep Cycles

This communicator can be programmed to make multiple attempts to reach a central station to transmit a message. The number of attempts applies to all phone numbers and all events. Up to 15 call attempts can be made after each sleep cycle and up to 14 sleep cycles can be made. Sleep cycles can be from 1 to 255 minutes in length. The communicator will remain on line during call tries and then release the line during sleep periods. If the communicator cannot reach the central station after all call tries and sleep cycles, the event will be canceled.

#### Anti-Jam Time

This refers to the time the communicator waits between call tries. It is to insure that the call did not fail due to the phone being off-hook (in use) or ringing when the previous call was attempted. This time can be from 15 to 255 seconds. A value for U.S. phone systems is 15.

#### Loop Restoral Code

Loop restorals are not used with the DF-16.

#### Supervisory Reports

With the DF-16, you must respond with a "Y" at this prompt.

#### Supervisory Phone Numbers

A primary and secondary phone number for supervisory reports must be entered. This refers to which of the phone numbers entered earlier you wish the communicator to report supervisory events to (see Enter Phone #1,2,3:). A primary and secondary phone number must be specified and they must be different. If you do not want a secondary number to be dialed, you may enter a "4" as the secondary phone number.

#### Report to Both Numbers

You can select to have the communicator report supervisory events to both the primary and secondary phone numbers. If you choose to have it report to one number it will call the primary phone the specified number of tries and then call the secondary number. If it does not reach either, it will enter a sleep period and then repeat the process. If set to call both numbers it will call

until it reports to both numbers, or all tries and sleep cycles are exhausted. If "4" was selected as the secondary phone number it will attempt to report only to the primary phone.

**Open and Close Reports**

These reports are not used with the DF-16. Answer "N".

**Send Test Code**

If test codes are enabled, a "test" message maybe sent at any time, by activating the TEST/CANCEL feature on the DF-16. If a "N" is entered, the TEST/CANCEL button will only be active immediately following an alarm (cancel only).

**Test/Cancel Code**

Sescoa Standard format does not use a pre-defined code. Enter a number from 1 to 9 to be sent as a Test/Cancel Report.

Sescoa Superspeed format uses a pre-defined code of "CH" as a Test/Cancel report.

Radionix Hex format uses a pre-defined code of "D" as a Test/Cancel report.

**Battery Reports**

This feature is not used. Answer "N".

**24-Hour Check-In**

If enabled, the communicator will report to the central station every 24 hours.

**Check-In Code**

Sescoa Standard format does not use a pre-defined code. Enter a number from 1 to 9 to be sent as a check-in Report.

Sescoa Superspeed format uses a pre-defined code of "24H" as a check-in report.

Radionix Hex format uses a pre-defined code of "D" as a check-in report.

**Loop Programming**

Loops 1 through 3 are used with the DF-16. Loops 4 through 8 are not used and should be inactive.

Loops 1 through 3 should be set as follows:

- Trigger polarity +? Y
- Eliminate swingers? N
- Primary phone # ? (1,2,or 3)
- Secondary phone # ? (1,2,3,or 4)
- Report to both #'s? (Y or N)
- Report loop restoral? N
- Enter alarm code?

Sescoa Standard format does not use a pre-defined code. Enter a number from 1 to 9.

Sescoa Superspeed format uses pre-defined codes. A01 for FIRE, A02 for EMER, A03 for BURGLARY

Radionix Hex format uses pre-defined codes. 1 for FIRE, 2 for EMER, 3 for BURGLARY

- Enter loop response: 0
- Enter loop priority (1 through 7)
- Audio loop? (Y or N)
- Audio listen only? (Y or N)

**Enter RCM Direction**

This feature is not used. Answer "N".

**Enable Remote Access**

This feature allows the communicator to be reprogrammed over the phone line. If programming over the phone line is required, enable this function. If disabled, the communicator will not respond to a ring, and will have to be programmed locally.

**Lock Communicator**

If remote access is enabled, the communicator may be "locked". If the communicator is locked, access will be granted only if the P-9 provides the correct 4-character access code when communications are first established. If the communicator is not locked, any P-9 programmer will be able to call and establish communication with the communicator.

**Keep Same Access Code**

If the communicator has an access code and you do not wish to change it, answer "Y". If you wish to enter a new access code answer "N".

**Enter Access Code**

Enter "Y" to select your own 4-character access code. If "Y" is entered you will be prompted to enter the 4-character code. Enter "N" to allow the P-9 to generate a random access code. The access code will then be displayed. It should be written down and stored, so it isn't forgotten. Should an access code be lost, the communicator will have to be programmed locally.

**Save Master File ?**

Enter "Y" to save file. Enter "N" to erase the file.

**ESTABLISHING COMMUNICATIONS**

**Local Communications**

To program the communicator locally, connect the P-9 directly to the communicator with the appropriate modular phone cord. Enter the Local Communication function on the P-9. To write the created file above into the communicator's permanent memory, select the Write File command. You will then be prompted for the File Number (1 to 8) you wish to write from. Enter the file number of the program you wish to place in the communicator. The P-9 will prompt you to "Depress Communicator Switch" to begin data transfer. This switch may be accessed by removing the dialer lid from the DF-16 and depressing the red button by the 120 pin computer chip. When the transfer is completed you will be prompted for further commands by selecting "ESC".

**Remote Communications**

To program the communicator remotely, connect the P-9 to the phone network using an appropriate modular cord. Select the Remote Communication function on the P-9. To write the created file above into the communicator's permanent memory, select the Write File command. The P-9 will prompt you for the phone number the communicator is attached to. The P-9 will now prompt you for the 4-character access code. Enter it or any 4 characters if the communicator is not locked. After the P-9 has established a link with the communicator, you will then be prompted for the File Number (1 to 8) you wish to write from. Enter the file number of the program you wish to place in the communicator. When the transfer is

# DF-16 COMMUNICATOR PROGRAMMING QUESTIONNAIRE

Please answer the following questions and fax your completed form to (619) 438-7043.

1) What is the name of your company and the VOICE number where you may be reached?

2) What phone number is the panel/communicator plugged into? **This MUST be a dedicated line, i.e. NO FAX or ANSWERING MACHINES!**

3) What phone numbers will the communicator dial to reach the central station? *If more than one number, report to both numbers for each call?*

A) PRIMARY NUMBER:

B) SECONDARY NUMBER (NOT REQUIRED):

4) What Central Station format will you be using? *Circle One!*

A) SESCOA STANDARD (Three digit ACCOUNT number/One digit ALARM code/20 PPS)

Valid account numbers: 000-999

Valid alarm codes: 0-9

Test codes, if enabled, are selectable. 24 Hour reports, if enabled, are selectable.

B) RADIONICS HEX (Three digit ACCOUNT number/One digit ALARM code/40 PPS)

Valid account numbers: 000-FFE AAA, BBB, CCC, DDD or FFF are not valid.

Alarm codes are predefined as 1 for FIRE, 2 for EMERGENCY and 3 for BURGLARY.

Test codes and 24 Hour reports, if enabled, will send a d.

C) SESCOA SUPERSPEED (Four digit ACCOUNT number/Three digit ALARM code/40 PPS)

Valid account numbers: 0000-3374

Valid alarm codes: 00-99 The first digit of the alarm code will normally be an "A".

Test code, if enabled, will send in a CH. 24 Hour reports, if enabled, will send in a 24H.

**DF-16 COMMUNICATOR PROGRAMMING CONTINUED...**

5) Do you want the dialer to dial touch-tone or pulse? *Circle One!*

Touch-Tone

Pulse

6) What is the account number? *Remember the parameters listed in #4!*

7) Send TEST code? *If using SESCOA Standard, what code?*

8) Send 24 hr report? *If using SESCOA Standard, what code?*

9) What code do you want the dialer to send for: *Remember the parameters listed in #4!*

A) FIRE - 1

B) EMERGENCY - 2

C) BURGLARY - 3

10) Is this a 2-way audio unit?

YES OR NO

When we (Linear Tech Services) program units remotely, we will always enable remote access and we will not lock the communicator.

\*\* MASTER FILE: 8 \*\* TYPE: 1700 \*\* OPERATOR: AR \*\* D&T:  
ITEM STEP \*\*\* MASTER FILE ITEM \*\*\* VALUE

\*\* PAGE: 1  
YES NO

ITEM	STEP	*** MASTER FILE ITEM ***	VALUE	YES	NO
1	1	ENTER MF HEADER:	SSD/DF-16 2-WAY		
2	2	ENABLE TELEPHONE COMMUN? (Y/N)		(Y)	
3	3	ENTER PHONE #1:	18002340451		
4	3	CNTRL STA FORMAT FOR PH1?	RADI HEX		
5	3	ENTER ACCOUNT # FOR PH1:	889		
6	4	ENTER PHONE #2:	0		
7	4	CNTRL STA FORMAT FOR PH2:	RADI HEX		
8	4	ENTER ACCOUNT # FOR PH2:	889		
9	5	ENTER PHONE #3A:	0		
10	6	ENTER PHONE #3B:	0		
11	6	CNTRL STA FORMAT FOR PH3:	RADI HEX		
12	6	ENTER ACCOUNT # FOR PH3:	889		
13	7	USE DTMF DIALING? (Y/N)		Y	
14	7	DTMF FAST RATE DIALING? (Y/N)		Y	
15	8	IS GROUND START REQUIRED? (Y/N)			N
16	9	ENTER NUMBER OF CALL TRIES:	15		
17	10	ENTER SLEEP CYCLES(0-14):	2		
18	11	ENTER SLEEP TIME (MIN):	4		
19	12	ENTER ANTI-JAM TIME (15-255):	30		
20	13	ENTER LOOP RESTORAL CODE:	0		
21	14	SUPERVISORY REPORTS? (Y/N)		(Y)	
22	15	ENTER PRIMARY SUPRV PHONE #:	1		
23	16	ENTER SECONDARY SUPRV PHONE #:	4		
24	17	REPORT TO BOTH NUMBERS? (Y/N)			N
25	18	OPEN OR CLOSE REPORTS? (Y/N)		(Y)	(N)
26	19	OPEN SIGNAL POLARITY +? (Y/N)		(Y)	
27	20	ENTER OPEN (DISARM) CODE:	0		
28	21	ENTER CLOSE (ARM) CODE:	0		
29	22	SEND TEST CODE? (Y/N)			N
30	23	ENTER TEST/CANCEL CODE:	0		
31	24	ARE BATTERY RPTS REQUIRED? (Y/N)			(N)
32	25	ENTER LOW BATTERY CODE:	0		
33	26	ENABLE BATTERY RESTORAL? (Y/N)		Y	
34	27	ENTER BATTERY RESTORAL CODE:	0		
35	28	ENTER BATTERY DETECT TIME:	0		
36	29	IS 24HR CHECK-IN REQUIRED? (Y/N)			(N)
37	30	ENTER CHECK-IN CODE:	0		
38	31	L01-ACTIVE LOOP? (Y/N)		Y	
39	31	L01-TRIGGER POLARITY +? (Y/N)		Y	
40	31	L01-ELIMINATE SWINGERS? (Y/N)			N
41	31	L01-ENTER E.S. COUNT (1-8):	1		
42	31	L01-PRIMARY PHONE #? (1-3)	1		
43	31	L01-SECONDARY PHONE #? (1-3)	4		
44	31	L01-REPORT TO BOTH #'S? (Y/N)			N
45	31	L01-REPORT LOOP RESTORAL? (Y/N)			N
46	31	L01-ENTER ALARM CODE (0-99):	01		
47	31	L01-ENTER LOOP RESPONSE:	0		
48	31	L01-ENTER LOOP PRIORITY (1-7H)	7		
49	31	L01-AUDIO LOOP? (Y/N)		Y	
50	31	L01-AUDIO LISTEN ONLY? (Y/N)			N
51	31	L02-ACTIVE LOOP? (Y/N)		Y	
52	31	L02-TRIGGER POLARITY +? (Y/N)		Y	
53	31	L02-ELIMINATE SWINGERS? (Y/N)			(N)

Y N

