KAA 0701

Multi-Model Cloning Cable

User's Manual

BK RADIO

Contents

Introduction

The KAA0701 Cloning Cable offers radio users to ability to share programmed information between KNG portable radios and/or other BK Radio models.

Clonable BK Radio legacy radios include DPH, DPHX and DPH-CMD digital portables and DMH digital mobiles. Compatible analog models include GPH Plus, GPH-CMD, EMH and most standard GPH radios.

Operation

The Source radio is a radio programmed with the desired radio frequencies and settings you wish to transfer to another radio of the same frequency range.

In order to clone radio information the Source radio must have a menu item programmed, via PC Radio Editor LAA0730, to allow cloning. (Refer to the "Menus/Controls" section of the radio editor.)

The radio receiving the program is referred to as the Target.

Target radios can be programmed to block incoming cloning information on a zone by zone basis.

The KAA0701 Cloning Cable requires the use of a KNG model as either the Source or Target radio.

KNG to KNG Cloning

KNG radios allow for three cloning options: Active Zone, Zone-to-Zone or entire radio.

Active Zone - Copies the information in the Source radio's active zone to the Target radio's active zone.

Zone-to-Zone - Allows for selection of any zone in the source radio to be copied into any non-blocked zone in the Target radio.

Entire Radio - Copies all non radio specific data from the Source radio to the Target radio. Radio specific data includes P25 ID, serial number, encryption keys and passwords.

NOTE: Radios programmed with any zones blocked from receiving cloning information will not accept an "Entire Radio" clone.

Zone-to-Zone Cloning Information

Cloned zone information includes:

Channel and Zone Labels	Bandwidth
Frequencies	Low Power Selection
Operating Modes	ANI Settings
Code Guards (CG)*	Zone Priority Settings
Network Access Codes (NAC)*	Zone Scan List Selection
Squelch Operation	Security Settings
Talk Groups*	OTAR Channel
Scan List	

*If picklist selections are assigned in the source radio, the associated value will be cloned to the target radio. For instance, if a channel has a picklist selected NAC whose value is $123, then $123 will be sent to the target radio. The target radio picklists will not be affected.

Entire Radio Cloning Information

When "Entire Radio" is selected from the cloning menu, information from the all zones is sent to the corresponding zones of the radio being cloned.

NOTE: Radios programmed with any zones blocked from receiving cloning information will not accept an "Entire Radio" clone.

Entire Radio cloning transfers all radio information except the following:

Radio Serial Number	Encryption Keys
P25 Identification Number	Passwords

NOTE: Some zones may be blocked by PC programming to prevent them from being overwritten. Only unlocked zones will accept incoming clones. Target radios with one or more zones blocked will not accept an "Entire Radio" clone.

KNG to KNG Instructions

Source Radio
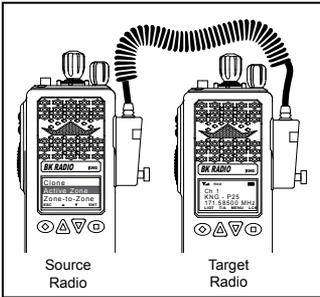
Target Radio

Connect the KAA0700 Cloning Cable to the side connector of the Source and target radios and power up both radios.

On the Source radio:
1. Press the Menu button.

2. Use the up/down buttons to select "Cloning".

3. Press the [ENT] button.

4. Use the up/down buttons to select the cloning type.

5. Press the Enter button to send the cloning information.

The following additional steps are required for Zone-to-Zone cloning:

a. Use the up/down buttons to select the desired source radio zone.

b. Press the Enter button.

c. Use the up/down buttons to select the desired target radio zone.

d. Press the Enter button to send the cloning information.
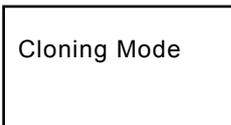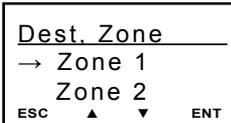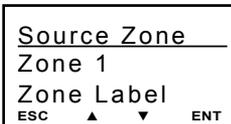
While sending or receiving information "Cloning Mode" will be shown on the Target radio display.

```
Zone-to-Zone
Successfully
Cloned
ESC    ▲    ▼    ENT
```

After a successful information transfer, "Cloning Successful" is displayed on the Source radio before reverting to Send Clone mode.

```
Clone Failed:
Target Zone
Locked
ESC    ▲    ▼    ENT
```

If the cloning process fails or the target radio's zone is blocked form accepting an incoming clone, a failure message will appear on the Source radio.

KNG to Legacy Radio Cloning

Information programmed in a KNG-P150 portable can be cloned to other BK Radio models on a Zone-to-Zone basis. Entire radio cloning is not available between different radio models. Cloning compatible models include: DPHX5102X, GPH5102XP, DPHX-CMD, GPH-CMD, DMH, GMH Plus and most GPH portable models.

NOTE: E-Series portables are not cloning compatible with the KNG series.

NOTE: Earlier BK Radio models use the term "Group" instead of "Zone".

Cloning Information

A KNG Source Radio sends only information the Target Radio requires. For example, digital settings such as Network Access Codes will not be transferred to analog only models like the GPH.

Some zones may be blocked by PC programming to prevent them from being overwritten. Only unlocked groups will accept incoming clones.

The following table shows cloned information when using a KNG-P150 as the Source Radio:

	DPHX 5102X	GPH 5102XP	DPHX CMD	GPH CMD	DMH	GMH	GPH
Channel and Zone Labels	✓	✓	✓	✓	✓	✓	✓
RX/TX Frequencies	✓	✓	✓	✓	✓	✓	✓
Digital/Analog/ Mixed Mode	✓		✓		✓		

	DPHX 5102X	GPH 5102XP	DPHX CMD	GPH CMD	DMH	GMH	GPH
Code Guards (CG)*	✓	✓	✓	✓	✓	✓	✓
Network Access Codes (NAC)*	✓		✓		✓		
Digital Squelch Operation	✓		✓		✓		
Talk Groups*	✓		✓		✓		
Scan List	✓	✓	✓	✓	✓	✓	✓
Analog Bandwidth	✓	✓	✓	✓	✓	✓	✓
Low Power Selection	✓	✓	✓	✓			✓
Security Settings	✓				✓		
OTAR Channel	✓				✓		
ANI ID	✓	✓	✓	✓	✓	✓	✓
Zone Priority Settings	✓	✓			✓	✓	✓
Scan Hold Time	✓	✓			✓	✓	✓
Tx Timeout Timer	✓	✓			✓	✓	✓
Picklist References*			✓	✓			

*Picklists are not available on all legacy models.

*Picklist Capable Target Radio Considerations
If picklist selections are assigned in the source radio, and the target radio is capable of picklist selections, the associated picklist reference will be cloned to the target radio. For example, if a channel has a picklist selection of Tone 3 then a picklist reference of 3 will be sent to the target radio and the target radio will use the value stored in the 3 position of the radios picklist. The target radio picklists will not be affected.

*Non-Picklist Capable Radio Considerations

If picklist selections are assigned in the source radio, and the target radio is not capable of picklist selection, the associated picklist value will be cloned to the target radio. For example, if a channel has a picklist selected NAC whose value is \$123, then \$123 will be sent to the target radio.

KNG to Legacy Instructions

NOTE: Earlier BK Radio models use the term "Group" instead of "Zone".
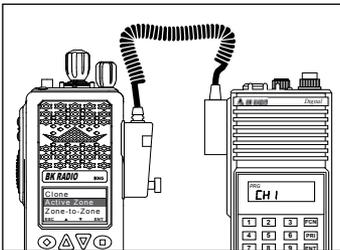
Connect the KAA0701 Cloning Cable to the side connector of the Source and target radios and power up both radios.

On the Target radio select the target zone/group by pressing the [#] key and entering the number of the desired zone/group.

On the KNG Source radio:

1. Press the Menu button.

2. Use the up/down buttons to select "Cloning".

3. Press the [ENT] button.

4. Use the up/down buttons and select "**Active Zone"**

5. Press the Enter button to send the cloning information.
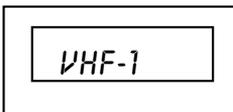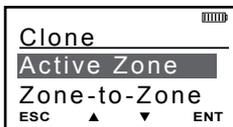
Target Radio

While receiving information "VHF-1" will be shown on the target radio display.

After a successful information transfer, a "Successful" message is displayed on the Source radio before reverting to Send Clone mode.

If the cloning process fails or the target radio's zone is blocked from accepting an incoming clone, a fail message will appear on the Source radio.

Failure of downloading can be due to:

• Improper connection
• Failure to turn on the clone
• Setting the clone in Programming Mode

Legacy to KNG Radio Cloning

The KNG-P150 portable can be cloned from other BK Radio models on a Zone-to-Zone basis. Entire radio cloning is not available between different radio models. Cloning compatible models include: DPHX5102X, GPH5102XP, DPHX-CMD, GPH-CMD, DMH, GMH Plus and most GPH portable models.

NOTE: Earlier BK Radio models use the term "Group" instead of "Zone".

Cloning Information

The following table shows cloned information when using a KNG-P150 as the Target Radio:

	DPHX 5102X	GPH 5102XP	DPHX CMD	GPH CMD	GPH
Channel and Zone Labels	✓	✓	✓	✓	✓
RX/TX Frequencies	✓	✓	✓	✓	✓
Operating Modes (Digital/Analog/Mixed)	✓		✓		
Code Guards (CG)	✓	✓	✓	✓	✓
Network Access Codes (NAC)	✓		✓		
Digital Squelch Operation	✓		✓		

	DPHX 5102X	GPH 5102XP	DPHX CMD	GPH CMD	GPH
Talk Groups	✓		✓		
Channel/Zone Scan List	✓	✓	✓	✓	✓
Analog Bandwidth	✓	✓	✓	✓	✓
Low Power Selection	✓	✓	✓	✓	✓
Security Settings	✓				
OTAR Channel	✓				
Picklist References*			✓	✓	

*Picklist Capable Source Radio Considerations
If picklist selections are assigned in the source radio the associated pick-list reference will be cloned to the target radio. For example, if a channel has a picklist selection of Tone 3 then a picklist reference of 3 will be sent to the target radio and the target radio will use the value stored in the 3 position of the its picklist. The target radio picklists will not be affected.

Source radio channels programmed with a static transmit Code Guard or Network Access Code will assign the value to the associated channel in the Target radio. Once cloned these channels will not be able access picklists for that function.

Source radio channels with no transmit Code Guard or Network Access Code will allow for picklist selection in the Target radio.

*Non-Picklist Capable Radio Considerations
If picklist selections are assigned in the source radio, and the target radio is not capable of picklist selection, the associated picklist value will be cloned to the target radio. For example, if a channel has a picklist selected NAC whose value is $123, then $123 will be sent to the target radio.

Legacy to KNG Instructions
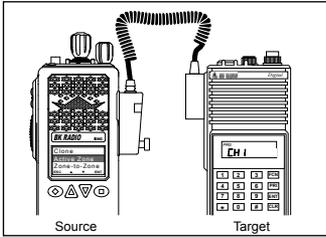
Source   Target

Connect the KAA0701 Cloning Cable to the side connector of the Source and target radios and power up both radios.

On the KNG Target radio, select the zone to receive the incoming information.
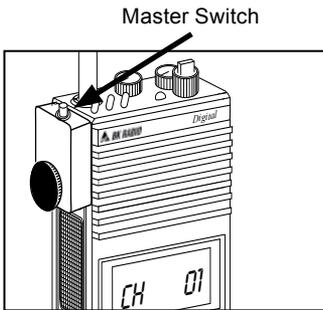
Master Switch

On the Legacy Source radio:

1. Select the source group/zone by pressing the [#] key and entering the number of the desired zone.

2. Press and hold the master switch then press and hold the [FCN] key until the display shows   "- - - ID."
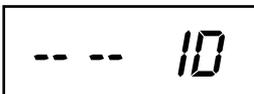
3. Enter the password of the selected zone. The display shows "PRG CH 00."

4. Press the [*] key on the Source radio keypad. The display will flash "PROG" signifying that the radio is ready to download its program to the target.

5. Press the [FCN] key send the cloning information.

While sending information "CLONE" will be shown on the source radio display.

If the cloning process fails or the target radio's zone is blocked form accepting an incoming clone, A fail message will appear on the Source radio.

Failure of downloading can be due to:

• Improper connection
• Failure to turn on the clone
• Setting the clone in Programming Mode
NOTE: To stop the 'FAIL' Mode, press [CLR], .

Command Radio Model Target Selection

```
PRG
PROG|D/GPH-CMD
GROUP 01
```

When using a BK Radio Command (CMD) radio as a cloning source you must designate the target as a G/DPH-CMD not a standard G/DPH. Press and hold the [∗] key to select "PRG | D/GPH".

NOTE: The KNG will refuse the clone if PRG|D/GPH-CMD is not selected

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Quick Reference

Legacy to KNG
1. Put Source and Target radios in the desired Zone.
2. Put the Source radio in Program Mode.
3. Press [∗] button to enter cloning mode.
4. Press [FCN] button to send.

KNG to Legacy
1. Put Source and Target radios in the desired Zone.
2. Select "Cloning" from the menu.
3. Select "Active Zone" from the cloning menu.
4. Press the ENT button to send.

KNG to KNG
1. Select "Cloning" from the menu.
2. Select "Active Zone", "Zone-to-Zone" or "Entire Radio" from the cloning menu.
2(a). If "Zone-to-Zone" is selected, select desires source and target zones.
3. Press the ENT button to send.

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