AIRWAVE DIGITAL™

Telco Upgrade

Installation & Operations Manual

71-1131

Revision A · 6/00

HARRIS

Installation

T he Telco operation in AirWave Digital offers mutually exclusive assignment of the PGM and Off-line buses. The new modified Telco operation supports multiple bus assignments.

This allows the caller or remote to be sent to multiple PGM outputs while receiving an appropriate mix-minus.

NOTE: Because the new functions of the Telco Upgrade are a result of changes in DSP programming code, this upgrade is not available for the original *AirWave* console.

INSTALLATION PRECAUTIONS

This installation involves changing a Gate Array chip and a DSP Eprom. Therefore, the console must be powered down during the installation process.

It is also strongly recommended that the installer take the necessary precautions to prevent discharging static electricity into any part of the console while performing this installation.

FIELD INSTALLATION KIT

The Field Installation Kit for AirWave Digital (76-905) contains the following items:

Qty.	Part#	Description
1	21-210-4	DSP Eprom
1	70-130	Extraction Tool
1	71-1131	Manual
2	21-193-9	Gate Array

Installation

USING THE EXTRACTION TOOL

Insert the short end of the Extraction Tool into one of the pry positions on the socket. Pry up on the chip using light pressure until the corner of the chip comes loose. Insert the tool into the diagonally adjacent pry position and pry up that corner of the chip. At this point, the chip may pop free or it may be necessary to use the opposite end
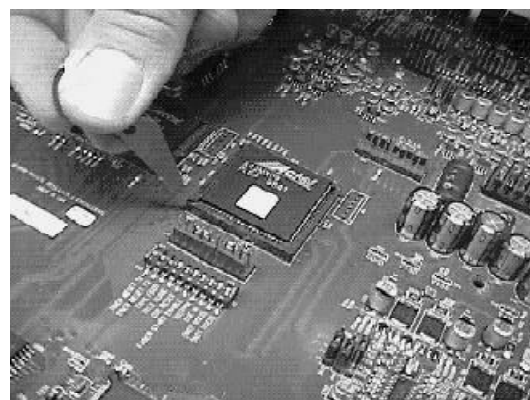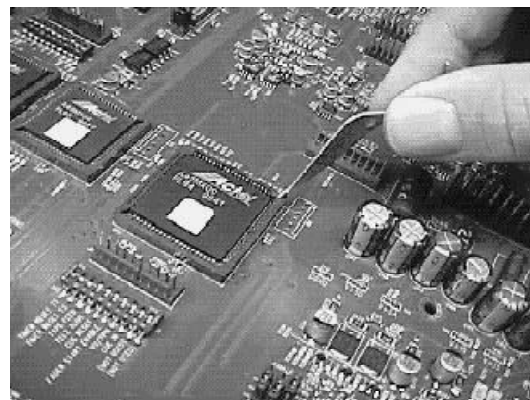
Removing chip using Extraction Tool
(Impulse Assembly shown)

of the Extraction Tool to pry the chip completely free from the socket.

REMOVING MODULES

The last 10 modules on the right side of the console must be removed in order to access and remove the DSP Board (95-1010-3).

Raise the meter housing to expose the tops of the modules. To remove a module, unscrew the captive thumbscrew at the top of the module. Remove the Allen screw at the bottom of the module. Gripping the captive thumbscrew, gently lift the module up and out of the console. This procedure should be repeated for all of the modules that must be removed.

CHANGING THE DSP EPROM

Remove the two Phillips screws holding the bumper in place and then remove the bumper from the console. The DSP Board (95-1010-3) is located directly behind the metal bumper.

Lift the DSP Board straight up and off of the

96-pin din connector and place on a static-free surface. Using the Extraction Tool, remove DSP Eprom 21-210-3 (U23) and replace it with 21-210-4. Make sure the chip is properly seated in the socket.
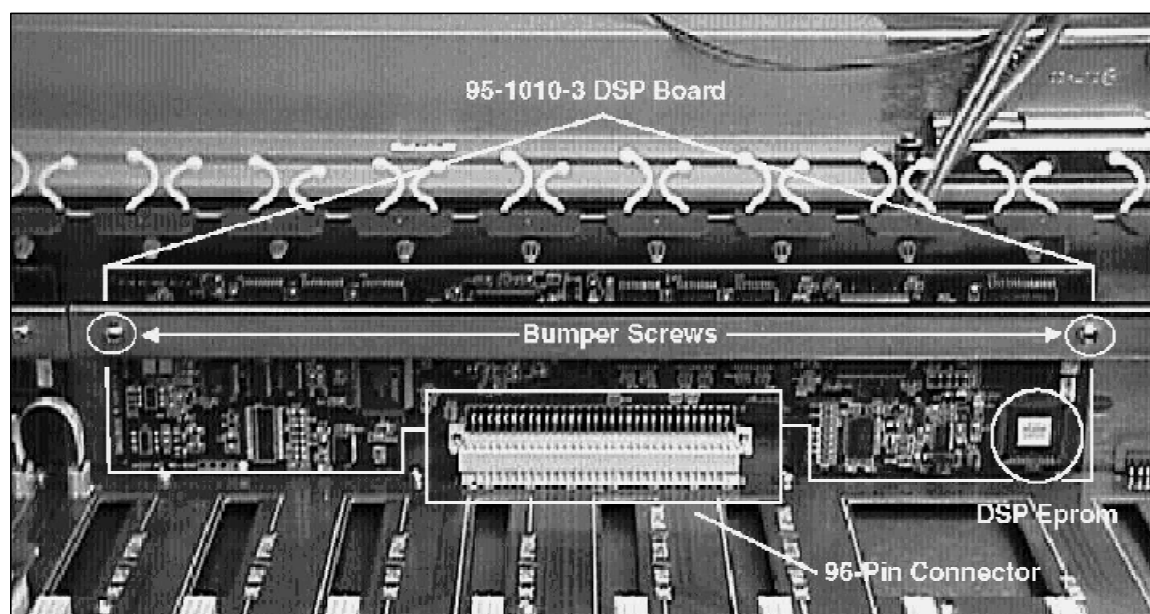
NOTE: In order for the chip installation to be successful, the cut corner of the chip must match the extruded corner of the socket.

Replace the DSP Board (95-1010-3) onto the 96-pin din connector making sure the board is seated properly. Then replace the bumper using the two Phillips screws.

CHANGING THE GATE ARRAY

Locate the Telco module(s) previously removed from the console. The Field Installation Kit (76-905) contains two Gate Array chips (21-193-9) in the event that the console contains the maximum two Telco modules.

On the component side of the Telco Module (99-1005), remove IC 21-193-2 (U4) using the Ex-


DSP Board (95-1010-3) Removal

traction Tool. Replace this chip with IC 21-193-9 making sure the chip is properly seated in the socket.

NOTE: In order for the chip installation to be successful, the cut corner of the chip must match the extruded corner of the socket.

REPLACING THE MODULES

Line the module up with its connector on the console motherboard. Holding the captive thumbscrew at the top of the module, gently push the module down onto the connector until it is seated properly. Replace the Allen screw at the bottom of the module and then tighten the captive thumbscrew at the top of the module. Repeat this procedure for the remaining modules.

Finally, lower the meter housing to its operating position and return power to the console.
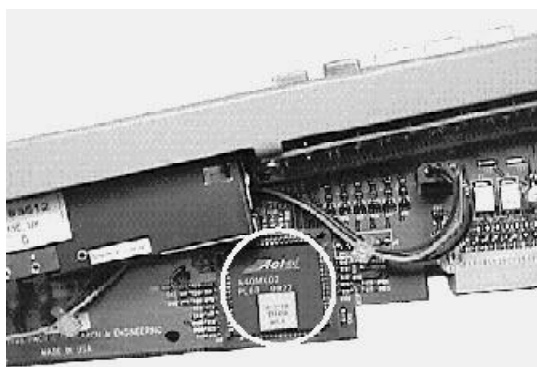
***99-1005 Telco Module
with Gate Array highlighted***
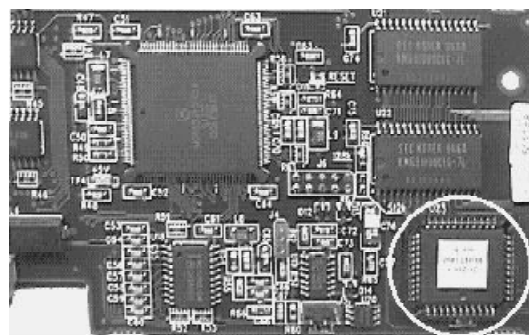
***95-1010-3 DSP Board
with DSP Eprom highlighted***

Operation

The Telco operation in AirWave Digital offers mutually exclusive assignment of the PGM and Off-line buses. The new modified Telco operation supports multiple bus assignments. This allows the caller or remote to be sent to multiple PGM outputs while receiving an appropriate mix-minus.

From this point forward, the manual will refer to the Telco/Remote input as "caller."

ASSIGNMENT PRIORITY

The mix-minus output that the caller receives is determined by a preset priority structure. The priority is as follows from highest to lowest:

Off-line
PGM 1
PGM 2
PGM 3

For example, if the caller is assigned to feed all four buses simultaneously, the caller will hear the Off-line mix-minus because it is at the top of the priority list. If the caller is feeding PGM 1, PGM 2 and PGM 3 simultaneously, the caller will hear

the PGM 1 mix-minus. If the caller is assigned to feed PGM 2 and PGM 3 simultaneously, the caller will hear the PGM 2 mix-minus.

Even when the caller is being assigned to non-adjacent outputs, the priority structure still applies. For example; if the caller is assigned to feed PGM 1 and PGM 3, the caller will hear the PGM 1 mix-minus.

ASSIGNING OUTPUTS

The caller is fed to a particular output by depressing the assign button for that output. When depressed, the button lamp will illuminate and remain lit to remind the user which outputs are receiving the caller when the module is on.

Depressing the same button a second time removes the caller from that output and turns the button lamp off.

NOTE: Deselecting an output may also change which mix-minus feed the caller hears.

If a second Telco module is present, the output assignments will be identical on both modules. Both callers will hear the same mix-minus, which can include the other caller when appropriate.

AUTO MODE

Multiple assignments are also supported in Auto Mode. When the caller's input channel is off, the caller hears
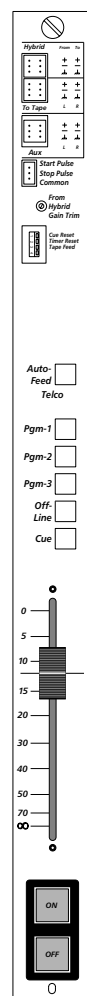
Telco Module

the Off-line mix by default. When the caller's channel is turned on, the caller will hear the highest priority mix-minus feed, which is determined by the outputs that are assigned at the time the caller's channel is turned on.

Also in Auto Mode; if no outputs have been assigned (no buttons are depressed), and the channel is turned on, the lamps will blink to alert the user that no outputs have been assigned. Similarly, if an output has been assigned (one or more buttons are depressed), the chosen lamps will wink while the channel is off.

Those same lamps will be continuously lit when the channel is turned on.