IMPULSE

BY PACIFIC RESEARCH & ENGINEERING

Telco Upgrade

Installation & Operations Manual

71-1132

Revision A • 6/00

HARRIS

Installation

The standard Telco operation in Impulse 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.

Because this installation involves changing a Gate Array chip and a DSP Eprom, the console must be powered down during the installation process. It is 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

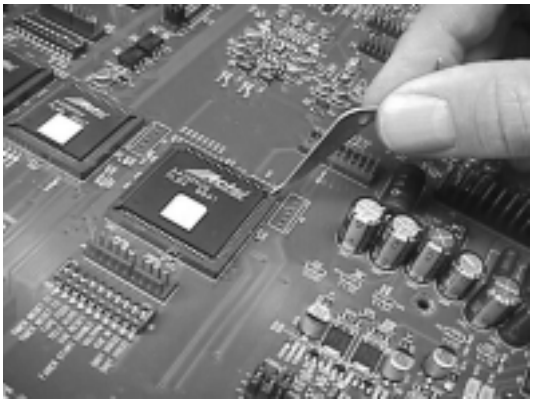
The Field Installation Kit for the Impulse Telco Upgrade (76-906) contains the following items:

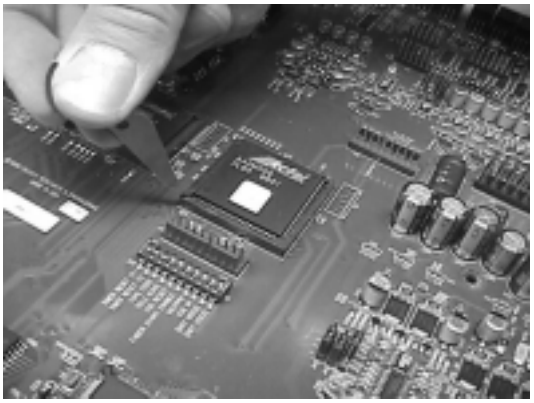
Qty.	Part#	Description
1	21-194-4	Gate Array
1	21-210-4	DSP Eprom
1	70-130	Extraction Tool
1	71-1132	Manual

Installation

USING THE EXTRACTION TOOL

Each socket has two pry positions that are easily recognized by the narrow slot where the Extraction Tool fits.





Removing chip using Extraction Tool

Insert the short end of the Extraction Tool into one of the pry positions on the chip socket. Pry up on the chip using light pressure until the corner of the chip has come 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 of the Extraction Tool to pry the chip completely free from the socket (see examples on previous page).

CHANGING THE GATE ARRAY

Loosen the two captive Phillips screws at the top of the control surface and raise it to expose the motherboard assemblies within the console.

Locate the 99-1047 assembly in the lower right corner of the console. Using the Extraction Tool, remove IC 21-210-3 (U141) from the assembly. Replace it with IC 21-210-4 making sure the chip is properly seated.

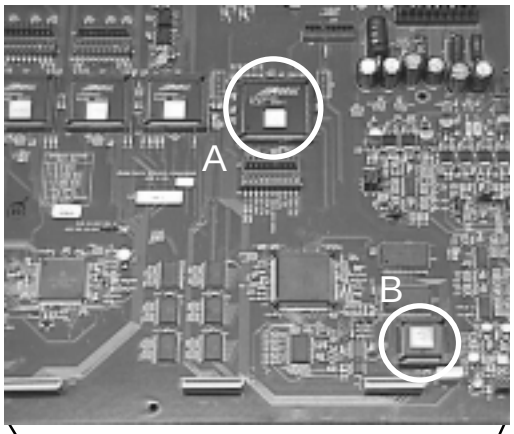
In order for the chip installation to be successful, the cut corner of the chip must match the extruded corner of the socket.

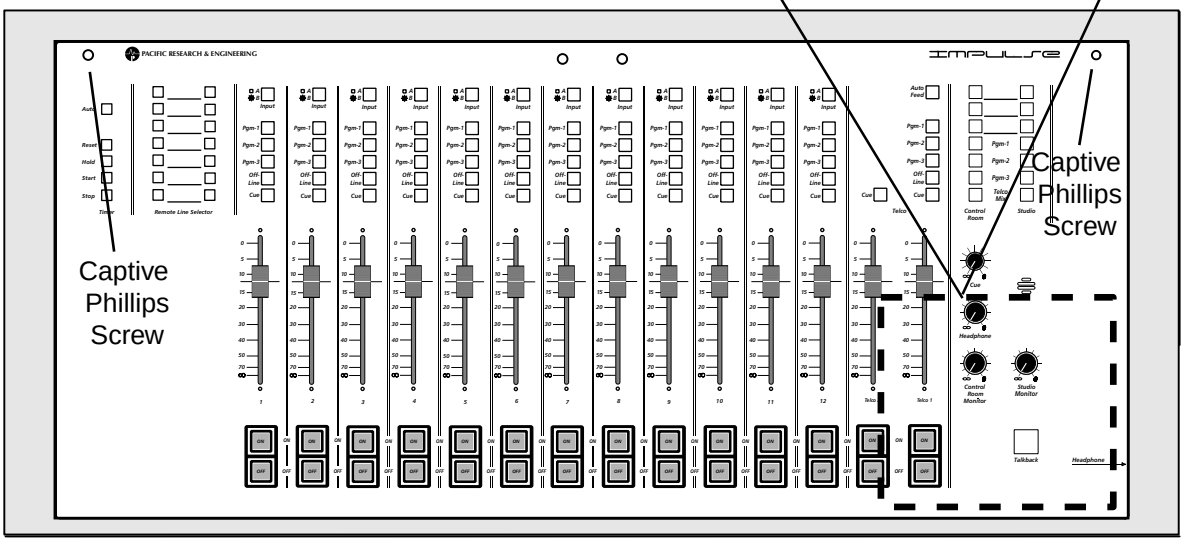
NOTE: The reference designator for IC 21-210-3 (U141) may be obscured.

On the same assembly, remove IC 21-194-2 (U115) and replace it with IC 21-194-4 making sure the chip is properly seated.

Return the control surface to its operating position and fasten the two captive Phillips screws. Finally, restore power to the console.

99-1047 Assembly for Impulse (A is 21-194-2 , B is 21-210-3)





Location of 99-1047 Assembly underneath Impulse Control Surface

Operation

The standard Telco operation in Impulse 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."

ASSIGNING OUTPUTS

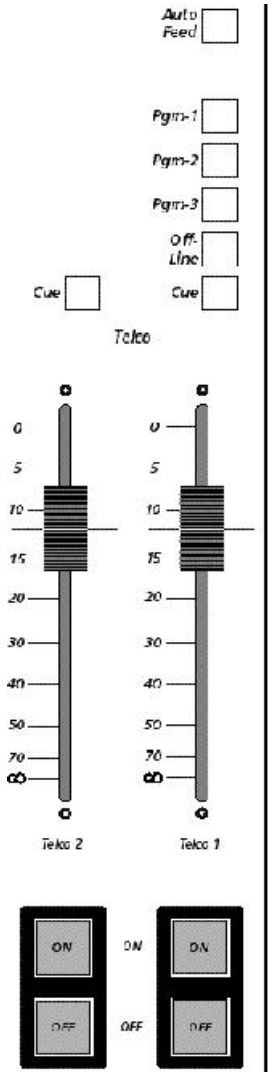
The caller is fed to a particular output by depressing the button for that output. When depressed, the button lamp will illuminate and remain lit to remind the user which outputs are receiving the caller when the module is on. Depressing the same button a second time removes the caller from that output and turns the button lamp off. Be aware that deselecting an output may also change which mix-minus feed the caller hears.

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 level of priority. 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.



Telco Module

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.

AUTO MODE

Multiple assignments are also supported in Auto mode. When the caller's input channel is off, the caller hears the Off-line mix. When the caller's channel is turned on, the caller will hear the highest priority mix-minus feed, which is

determined by the outputs selected 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.

The output assignments will be identical to both outputs. Both callers will hear the same mix-minus, which can include the other caller when appropriate.