

FLEXPAK PLUS/ MINPAK PLUS

ACCESSORY



MASTER ISOLATED REFERENCE RECEIVER KIT MODEL NUMBER 14C229

The equipment described below should be installed only by qualified electrical maintenance personnel familiar with the construction and operation of the equipment and the hazards involved.

DESCRIPTION

The addition of the optional Master Isolated Reference Receiver Kit allows the MinPak Plus/FlexPak Plus to receive and decode a PWM speed reference signal from the Master Isolated Reference Transmitter. The Receiver Kit consists of two printed circuit boards: a Switch Receiver Module and a Reference Receiver Module which are mounted on the MinPak Plus/FlexPak Plus Regulator Module. (Refer to Figure 1).

The Operator Control Station AUTO/MANUAL selector switch is used to obtain local control or master reference control of the individual drive. When the selector switch is placed in the automatic mode, the individual drive speed potentiometer automatically is converted into a draw pot adjustment for precise trim control between drives. The only adjustment requirement is a zero set adjustment on the Reference Receiver Module. Should the speed refer-

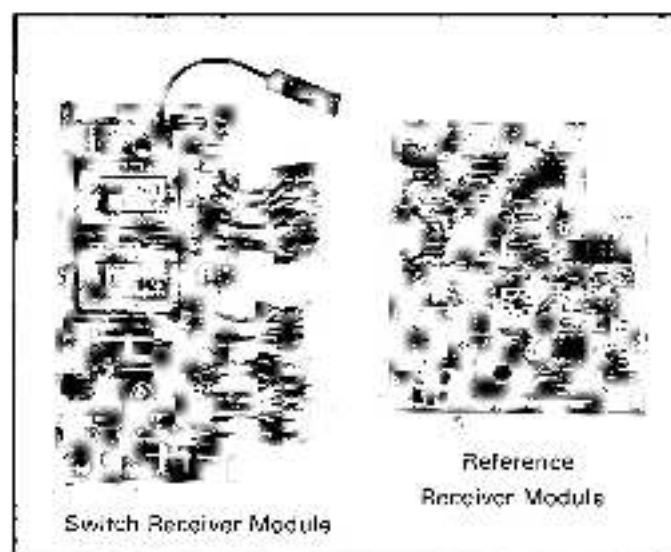


Figure 1 — Master Isolated Reference Receiver Kit

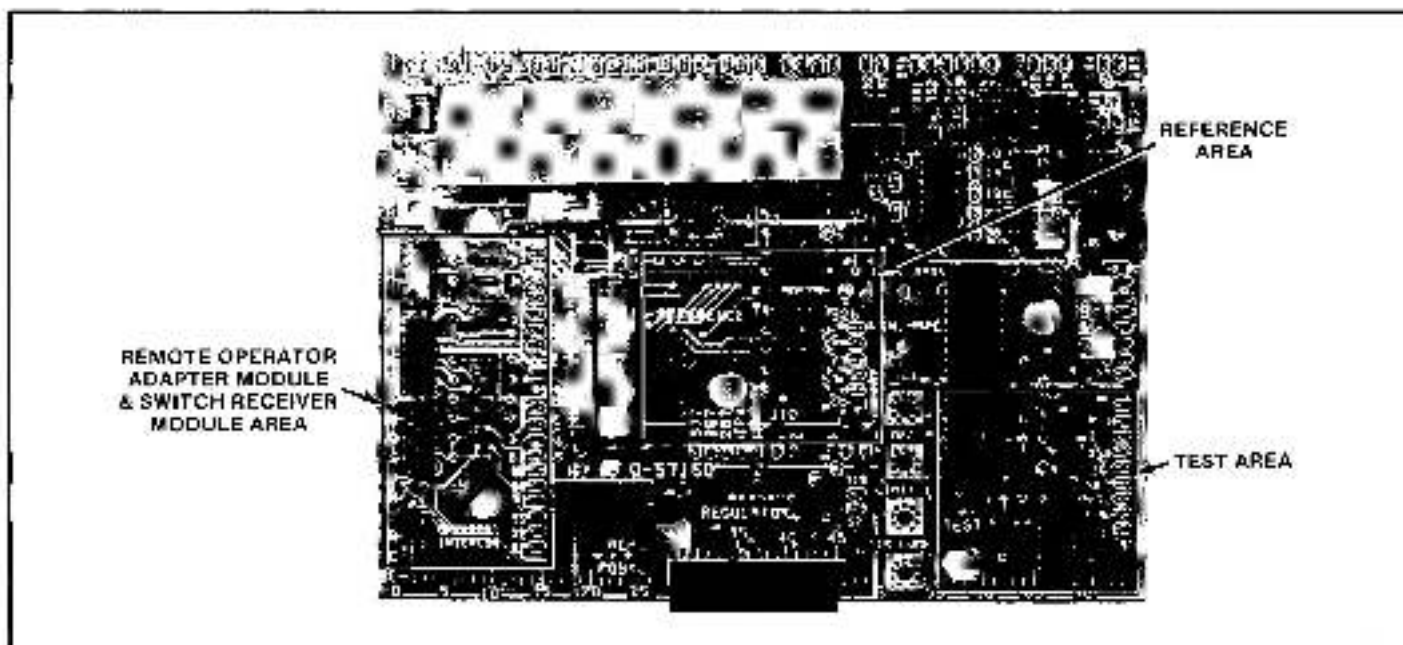


Figure 2 — Regulator Module Kit Locations

ence wires become disconnected, the MinPak Plus/FlexPak Plus will go to zero speed.

Master Isolated Reference controlled MinPak Plus's & FlexPak Plus's are ideally suited for non-reversing multiple conveyor drives, proportional pumps, feeder drives, web lines or other similar operations which require multiple drives to follow a common reference signal.

INSTALLATION INSTRUCTIONS

WARNING

BEFORE ATTEMPTING TO INSTALL THIS MINPAK PLUS/FLEXPAC PLUS MODIFICATION KIT DISCONNECT AND LOCK OUT ALL SOURCES OF INCOMING POWER TO THE CONTROLLER UNIT AND CABINET.

1. Open face plate cover and let it hang down.
2. Refer to Figure 2 and note the heavy border area at the extreme left-hand side of the Regulator Module. This is the area where the Switch Receiver Module is to be mounted. First, remove the Remote Operator Adapter Module. Then, place the Switch Receiver Module in the proper orientation so the two connectors are aligned over the two sets of pins (marked GRN 28 and RED 32). Carefully, slowly and gently press the connectors down on the pins until they bottom. Then, connect the black pig-tail jumper of the Switch Receiver Module to pin 40 on the Regulator Module.

(NOTE: Pin 40 is located at top of Regulator Module just above board metal heat sink.) If drive incorporates the front panel green LED indicator, remove white wire on Pin 40 and connect black pig-tail jumper from Switch Receiver Module to Pin 40. Connect white wire to Pin 139 near Pin 40.

3. Fold the PC board over the top of the two connectors so the mounting spacers fit into the mounting holes.
4. Mount the Remote Operator Adapter Module on top of the Switch Receiver Module and secure the two PC boards with the two long screws provided.

If a Local Operator Station is being used, secure the Switch Receiver Module with the two short screws provided. The Local Operator Station is then mounted and connected to the two sets of pins on the Switch Receiver Module.

NOTE: The external start-stop wires from the Master Isolated Reference Transmitter (wires 189 and 288) must be connected to the Switch Receiver Module (Refer to Step 6.) before mounting the Remote Operator Adapter Module on the Switch Receiver Module. Jumpers J1 and J2 on the Switch Receiver Module (Refer to Figure 3) must be cut when Local or Remote Operator Stations are used. These jumpers are left connected when only control from the Master Isolated Reference Transmitter is desired.

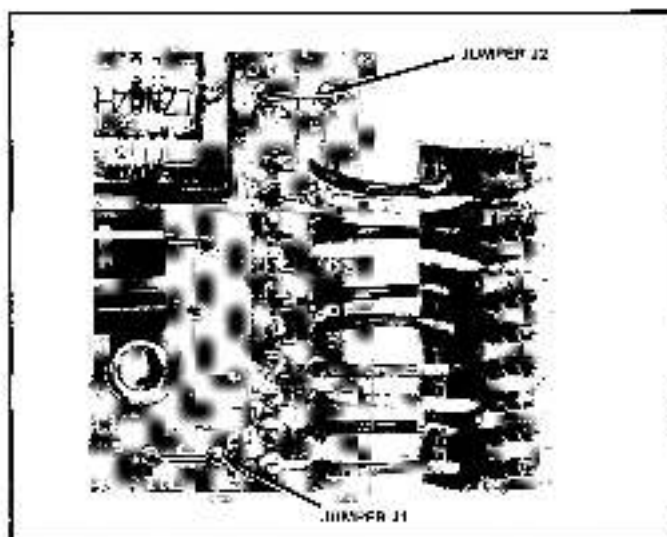


Figure 3 — Jumpers J1 and J2 on Switch Receiver Module

5. Refer to Figure 2 and note the heavy border area in the center of the Regulator Module marked REFERENCE. This is the area where the Reference Receiver Module is to be mounted. Place the Reference Receiver Module in the proper orientation so the pin guides on the module are aligned over the set of five pins on the Regulator Module. Lower the Reference Receiver Module so the pins pass through the pin guides and the mounting spacer seats in the mounting hole. (It may be necessary to remove a protective plastic cap from the pins.) Secure the module with the supplied screw.
6. Connect the external start-stop wires (wires 189 and 288) from the external Master Isolated Reference Transmitter to the terminal block on the Switch Receiver Module in the controller cabinet.
7. Using a twisted pair, connect the external reference wires (wires 1 and 2) from the external Master Isolated Reference Transmitter to the terminal block on the Reference Receiver Module in the controller cabinet. Connect wire 1 to terminal 1 and wire 2 to terminal 2.

NOTE: — Do not strip more than 1/8 inch (3 mm) of insulation off the ends of the wires because a short circuit could occur at any point where the bare wire is exposed. Maintain the twisted configuration of the two wires as much as possible.

8. If an AUTO/MANUAL selector switch is included in the Operator Control Station, cut jumper J1 on the Reference Receiver Module. Refer to Figure 4. Also cut jumper J4 at Regulator Module.
9. With the MASTER Speed Potentiometer on the Master Isolated Reference Transmitter set at zero, depress the START pushbutton on the Master Isolated

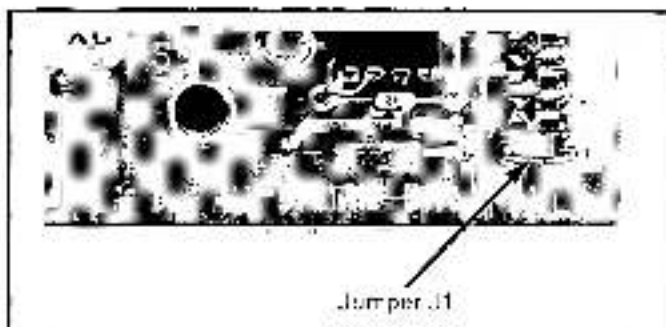


Figure 4 — Jumper J1 on Reference Receiver Module
Isolated Reference Transmitter. Adjust the ZERO SET Potentiometer on the Reference Receiver Module to obtain zero speed of the drive motor.

DANGER
ALTHOUGH ZERO SET ADJUSTMENT ON THIS KIT ALLOWS FOR ADJUSTMENT DOWN TO ZERO SPEED, THIS ZERO SPEED SETTING MUST NOT BE USED WHERE THE OPERATOR MAY RELY ON A MAINTAINED ZERO SPEED. ELECTRICAL NOISE, IMPROPER WIRING, POWER LINE, OR MALFUNCTIONING COMPONENTS MAY CAUSE THE DRIVE TO TURN ON WHILE AT THE ZERO SPEED SETTING.

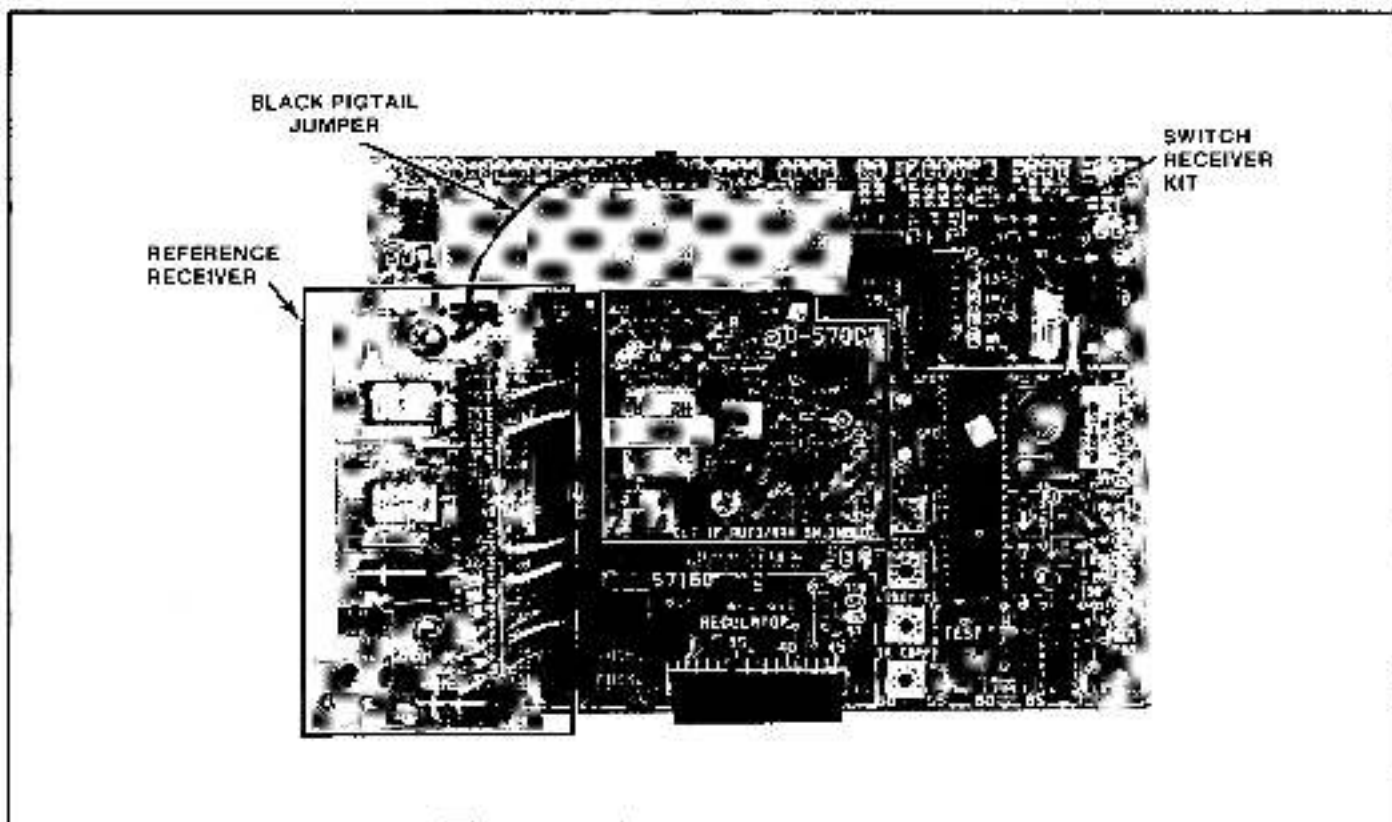


Figure 5 — Master Isolated Reference Receiver Kit Mounted on Regulator Module

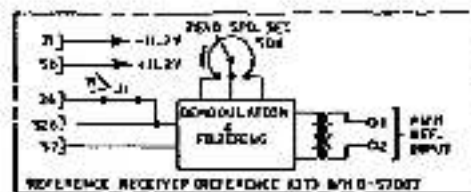
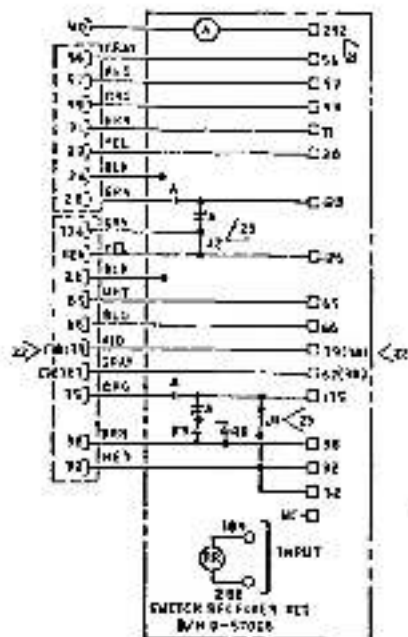


Figure 6 — Master Isolated Reference Receiver Kit Schematic Diagrams

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