



351R-1/2 Rack Mounts

instruction sheet

Collins Radio Company | Cedar Rapids, Iowa

*Collins Radio Company 1961
Third Printing December 1968
Printed in the United States of America

523-0185000-001311
15 November 1961



C580-20-P

Figure 1. 32S-1 Transmitter in 351R-1 Rack Mount



C580-22-P

Figure 2. 312B-4 Station Control in 351R-2 Rack Mount

1.1 DESCRIPTION.

The 351R-1 Rack Mount (Collins part number 522-2665-00) permits mounting of series 51S and 75S Receivers, series 32S Transmitters, KWM-2/2A Transceivers, or 30L-1 Amplifiers in a standard relay rack. Figure 1 shows a 32S-1 Transmitter installed in a 351R-1 Rack Mount. The 351R-2 Rack Mount (Collins part number 522-2666-00) serves the same function for 516F-2 Power Supplies, 312B-4 and 312B-5 Station Controls, or other equipments having the same front-panel and trim-ring dimensions. Figure 2 shows a 312B-4 installed in a 351R-2 Rack Mount.

The 351R-1 and 351R-2 are 8-3/4 inches high and 13-3/16 inches deep behind the front panel. The edges of the front panels are slotted on standard relay-rack centers. Mounting hardware is furnished with each rack mount and is listed in tables 1 and 2.

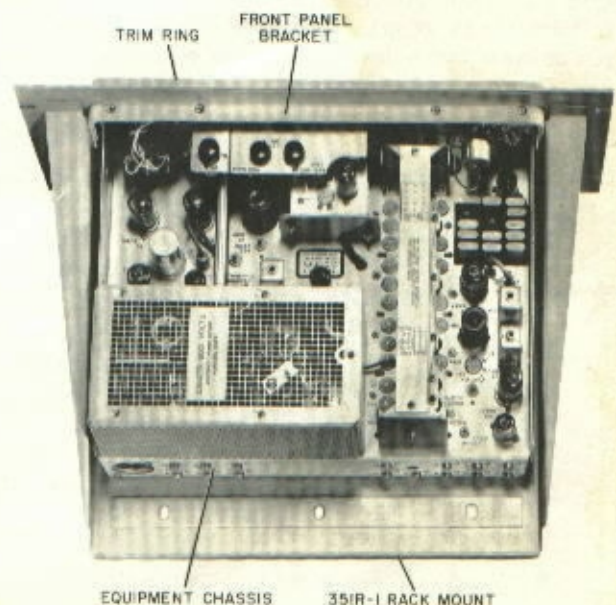
2.1 INSTALLATION.

2.1.1 GENERAL.

If more than one equipment is to be installed in the relay rack, the panel heights of 351R-1 and 351R-2 Rack Mounts provide sufficient spacing between equipments to allow for adequate cooling under normal conditions. If several equipments are installed in an enclosed relay rack and ambient temperature is appreciably higher than normal room temperature, make sure the relay rack is well ventilated or install an exhaust fan.

2.1.2 351R-1 RACK MOUNT.

The 351R-1 is drilled to accommodate the equipment to be installed in it as listed in paragraph 1.1. Figure 3 is a top view of a typical installation of a 32S-1 Transmitter. The deeper chassis used with 51S-1, KWM-2, and 30L-1 equipments will extend to the



C580-21-P

Figure 3. 32S-1 in 351R-1, Top View

TABLE 1. HARDWARE SUPPLIED WITH 351R-1

QTY	ITEM	FUNCTION	COLLINS PART NUMBER
2	6-32 x 7/16 screws	Hold trim ring to 351R-1 Rack Mount.	343-0170-00
2	6-32 hex nut	Hold trim ring to 351R-1 Rack Mount.	313-0053-00
7	No. 6 flat washer	Use with 6-32 screws.	310-0046-00
7	No. 6 lock washer	Use with 6-32 screws.	310-0077-00
7	6-32 x 5/8 screws	Hold chassis in 351R-1 Rack Mount.	343-0173-00
4	12-24 x 5/8 screws	Hold mount in relay rack.	348-0008-00
4	Trim washers	Use with no. 12 rack screws.	310-0092-00
4	10-32 x 1/2 screws	Hold mount in relay rack.	319-0165-00
4	Trim washers	Use with no. 10 rack screws.	310-0086-00

second row of three holes showing at the rear of the 351R-1. Proceed with installation as follows:

a. Remove the cabinet from the equipment to be installed in the 351R-1.

b. Remove the trim ring from the equipment cabinet by removing the 6-32 screws located at the top right and left corners of the cabinet.

c. Install the trim ring in the 351R-1 from the front side so that the holes at the top corners of the trim ring line up with the outer holes in the bracket on the top-rear side of the 351R-1 front panel.

d. Install 6-32 x 7/16-inch screws in each of these two holes from the top side, and place a no. 6 flat washer, a no. 6 lock washer, and a 6-32 hex nut, in that order, on each screw from the bottom side. Tighten to a snug fit.

e. Slide the equipment chassis into the 351R-1 from the front until the inner pair of holes on the 351R-1 front-panel bracket line up with the captive nuts on top of the equipment chassis.

f. Install and tighten a 6-32 x 5/8-inch screw in each of these two holes. Do not use washers.

g. Place a no. 6 lock washer and a no. 6 flat washer, in that order, on each of the five remaining 6-32 x 5/8-inch screws.

h. Holding the equipment chassis at the rear, carefully turn over chassis and 351R-1 and install the preceding five screws in the positions formerly occupied by the equipment mounting feet and the screw located midway between the rear feet. Tighten to a snug fit.

i. CAREFULLY CHECK the panel screw size required by the relay rack, select either the no. 10 screws or the no. 12 screws as required, and place the appropriate finishing washers on the screws.

j. Supporting the completed 351R-1 and equipment assembly at the bottom, place the assembly in the relay rack and install the mounting screws. Tighten firmly. This completes installation.

2.1.3 351R-2 RACK MOUNT.

Installation of the equipment listed in paragraph 1.1 requires that the front panel of the equipment be removed in order to remove the trim ring. Refer to figure 4, and proceed as follows:

TABLE 2. HARDWARE SUPPLIED WITH 351R-2

QTY	ITEM	FUNCTION	COLLINS PART NUMBER
10	6-32 x 5/8 screws	Hold trim ring and equipment in 351R-2 Rack Mount.	343-0173-00
8	6-32 hex nuts	Use with 6-32 screws.	313-0053-00
10	No. 6 flat washer	Use with 6-32 screws.	310-0046-00
10	No. 6 lock washer	Use with 6-32 screws.	310-0077-00
4	12-24 x 5/8 screws	Hold mount in relay rack.	348-0008-00
4	Trim washers	Use with no. 12 rack screws.	310-0092-00
4	10-32 x 1/2 screws	Hold mount in relay rack.	319-0165-00
4	Trim washers	Use with no. 10 rack screws.	310-0086-00



C580-24-P

Figure 4. 312B-4 in 351R-2, Front Panel Removed

a. Remove the four screws holding the front panel to the trim ring and position the panel as shown. Be careful not to damage any leads or components mounted on the panel.

b. Remove the four feet and the two screws on the top of the equipment cabinet, and carefully work the trim ring off the cabinet past the front panel.

c. Install the trim ring in the 351R-2 from the front so that the two holes in the top of the trim ring line up with the front pair of holes in the front-panel bracket on the 351R-2. This is shown in figure 5.

d. Place a no. 6 lock washer and a no. 6 flat washer on each of two 6-32 x 5/8-inch screws and, from the top, install the screws in the holes described in the preceding step. The screws go through the front-panel bracket and the trim ring.

e. Place a 6-32 hex nut on each screw and tighten.

f. Place a no. 6 lock washer and a no. 6 flat washer on each of two more 6-32 x 5/8-inch screws and, from the bottom side of the 351R-2, install a screw in each of the two holes nearest the 351R-2 front panel. These screws should pass through the bottom pair of holes in the trim ring.

g. Place a 6-32 hex nut on each of the two screws and tighten.

h. Set the equipment into the 351R-2, and carefully work the equipment panel through the trim ring, leaving it positioned as in figure 4.

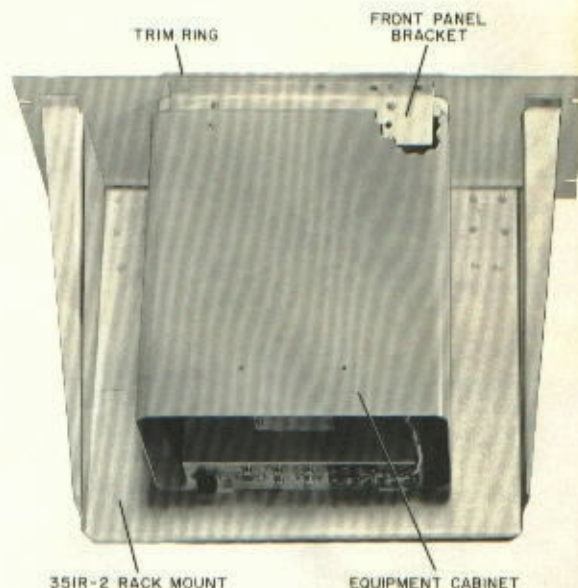
i. Position the equipment so that the two holes in the top-front of the cabinet line up with the two holes left open on the 351R-2 front-panel bracket.

j. Place a no. 6 lock washer and a no. 6 flat washer on each of two 6-32 x 5/8-inch screws and, from the top, install the screws in the holes described in the preceding step.

k. Place a 6-32 hex nut on each of the two screws and tighten.

l. In a similar manner, install screws and hardware from the bottom of the 351R-2 in the elongated holes near the back of the front panel. Refer to figure 6.

m. Install the two remaining 6-32 screws with washers through the bottom of the 351R-2 in the elongated holes located at the extreme rear of the mount. These screws are held by captive nuts in the equipment chassis. Tighten to a snug fit.



C580-25-P

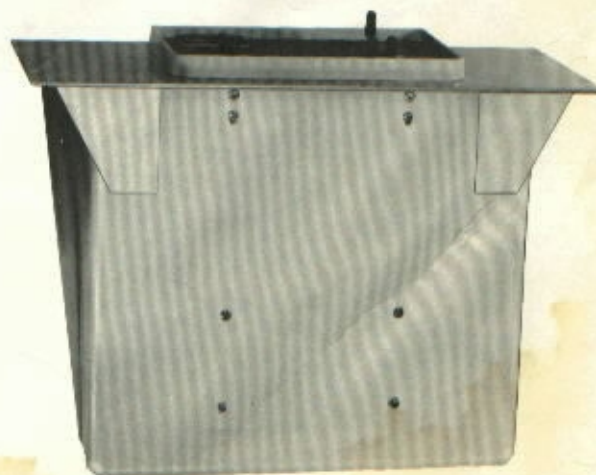
Figure 5. 312B-4 in 351R-2, Top View

n. Inspect the equipment panel to make sure that neither cabling nor components are damaged, and carefully replace the panel in the trim-ring recess.

o. Replace and tighten the four screws holding the panel in the trim ring.

p. CAREFULLY CHECK the panel screw size required by the relay rack, select either the no. 10 screws or the no. 12 screws, and place the appropriate finishing washers on the screws.

q. Supporting the completed 351R-2 and equipment assembly at the rear, place the assembly in the relay rack and install the mounting screws. Tighten firmly. This completes installation.



C580-23-P

Figure 6. 312B-4 in 351R-2, Bottom View