



HUGHES

GROUND SYSTEMS GROUP

PROJECT MANAGER
FIREFINDER
U.S. ARMY COMMUNICATIONS-ELECTRONICS COMMAND
FORT MONMOUTH, NEW JERSEY 07703

MAINTENANCE BULLETIN

COMMON SHELTER AN/TPQ-36 TRAILER	FILE NO: 133	REVISION:
	DATE: 2/12/93	CATEGORY: A
SUBJECT QUICK-CHANGE AIR FILTER FRAMES	SYSTEMS AFFECTED: ALL	

THE MAINTENANCE TASK DESCRIBED IN THIS BULLETIN IS INTENDED TO BE PERFORMED AT THE ORGANIZATIONAL ECHELON OF MAINTENANCE

REFERENCES:

- a. TM 11-5840-354-20-1. PREVENTIVE MAINTENANCE CHECKS AND SERVICES INDEX Item No. 6 "Inspect and Clean Roadside Filters," (page 3-52).
- b. TM 11-5840-354-20-1. PREVENTIVE MAINTENANCE CHECKS AND SERVICES INDEX, Item No. 21 "Inspect and Clean Air Filters," (page 3-52).
- c. TM 11-5840-355-20-1. PREVENTIVE MAINTENANCE CHECKS AND SERVICES INDEX, Item No. 22 "Inspect and Clean Air Filters," (page 3-62).
- d. TM 11-5840-373-20-1. PREVENTIVE MAINTENANCE CHECKS AND SERVICES INDEX Item No. 25 "Inspect and Clean Air Filters," (page 3-62).
- e. TM 11-5840-364-20P and -34P. OK-398(V)/TPQ SHELTER RPSTL, Figure 21 Air Inlet Door, Item No. 25 Air Filter Element.
- f. TM 11-5840-364-20P and -34P. OK-398(V)/TPQ SHELTER RPSTL, Figure 22 Curbside Air Inlet Door, Item No. 24 Air Filter Element.
- g. TM 11-5840-354-20P and -34P. OY-71/TPQ-36(V) TRAILER RPSTL, Figure 12 Transceiver Cabinet and Closures, Item No. 82 Air Filter Element.

APPROVED BY CHIEF LMD:

[Signature]
PMFF

DATE: 3 MAY 93

2/12/93



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ENCLOSURE 1

COMMON SHELTER AND AN/TPQ-36 TRAILER AIR FILTER FRAME INSTALLATION

MATERIALS REQUIRED:

ITEM	DESCRIPTION	STOCK NUMBER	PART NUMBER	CAGE	UNIT PRICE	QTY EACH
1	SCREW,CAPTIVE, .164-32X1.000 INCH	5305-01-325-8296	A3141207	80063	\$ 5.88	16
2	FRAME,FILTER RETAINING-LARGE	5340-01-324-9456	A3133830	80063	115.00	1
3	FRAME,FILTER RETAINING-SMALL	5340-01-324-9455	A3133835	80063	53.87	2
4	FRAME,FILTER RETAINING-EXHAUST	5340-01-367-7650	A3133906	80063	200.00	1
5	SCREW,CAPTIVE, .164-32X1.875 INCH	5305-01-372-8683	A3134000	80063	3.00	8
6	FRAME,FILTER RETAINING-EXHAUST	5340-01-367-7649	A3133905	80063	200.00	1
7	SCREW,CAP, .164-32X.625 INCH	5305-00-978-9371	MS16997-33	96906	0.03	12

PROCEDURE

1. Figure 1. Shelter Curbside Power Supply Air Filter Frame.
 - a. At the shelter curbside power supply air inlet door (1), release rim latches and open door.
 - b. Remove twenty-two capscrews, lock washers and flat washers (2) from air filters (3). Discard removed hardware.
 - c. Install eight screws (4), Item 1, into new filter frame (5), Item 2. Thread screws into frame until screws are captive.
 - d. Install new filter frame (5) over air filter (3). Tighten eight captive screws (4).
 - e. Close air inlet door (1) and secure rim latches.

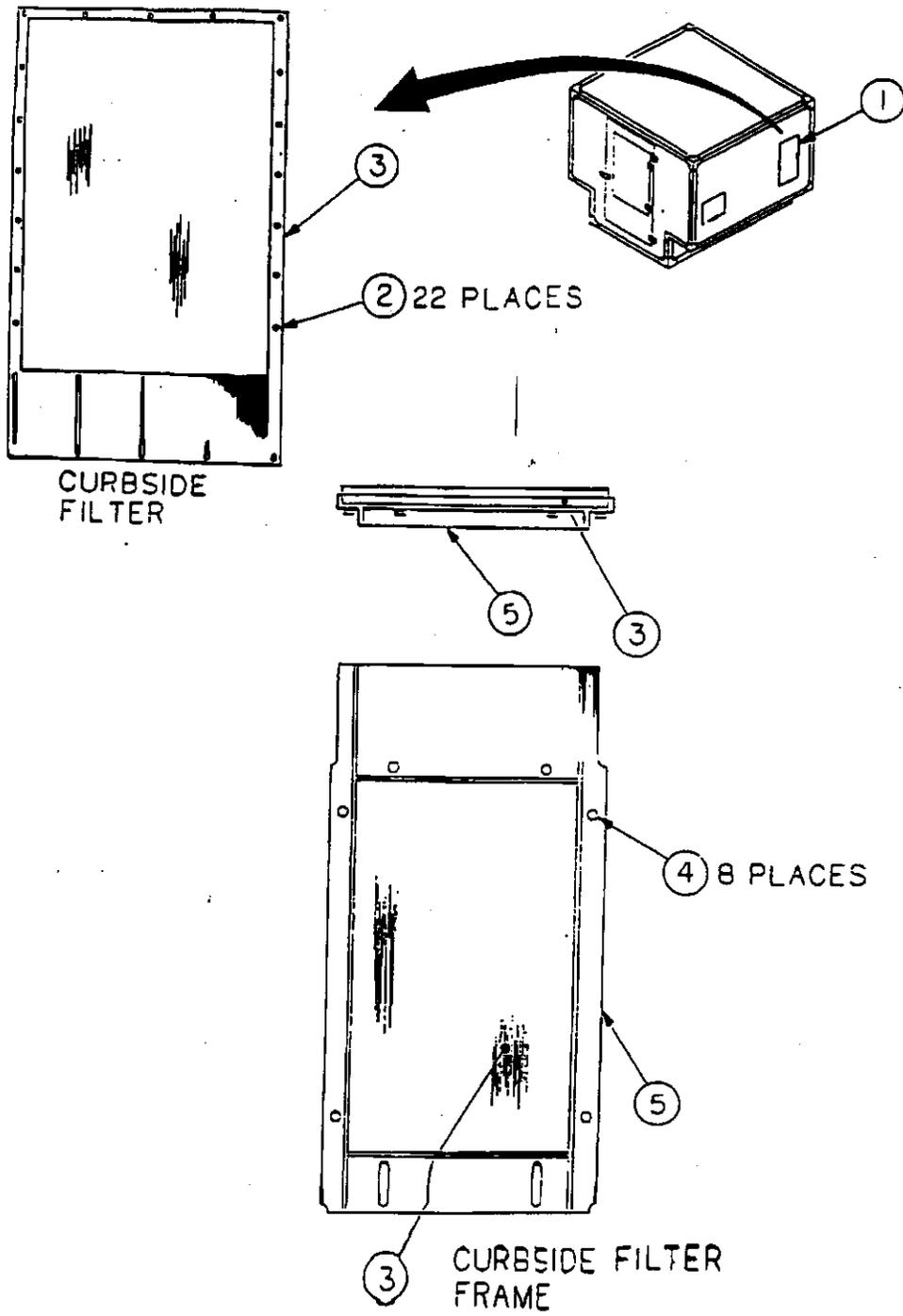


FIGURE I. INSTALLATION OF CURBSIDE POWER SUPPLY AIR FILTER FRAME

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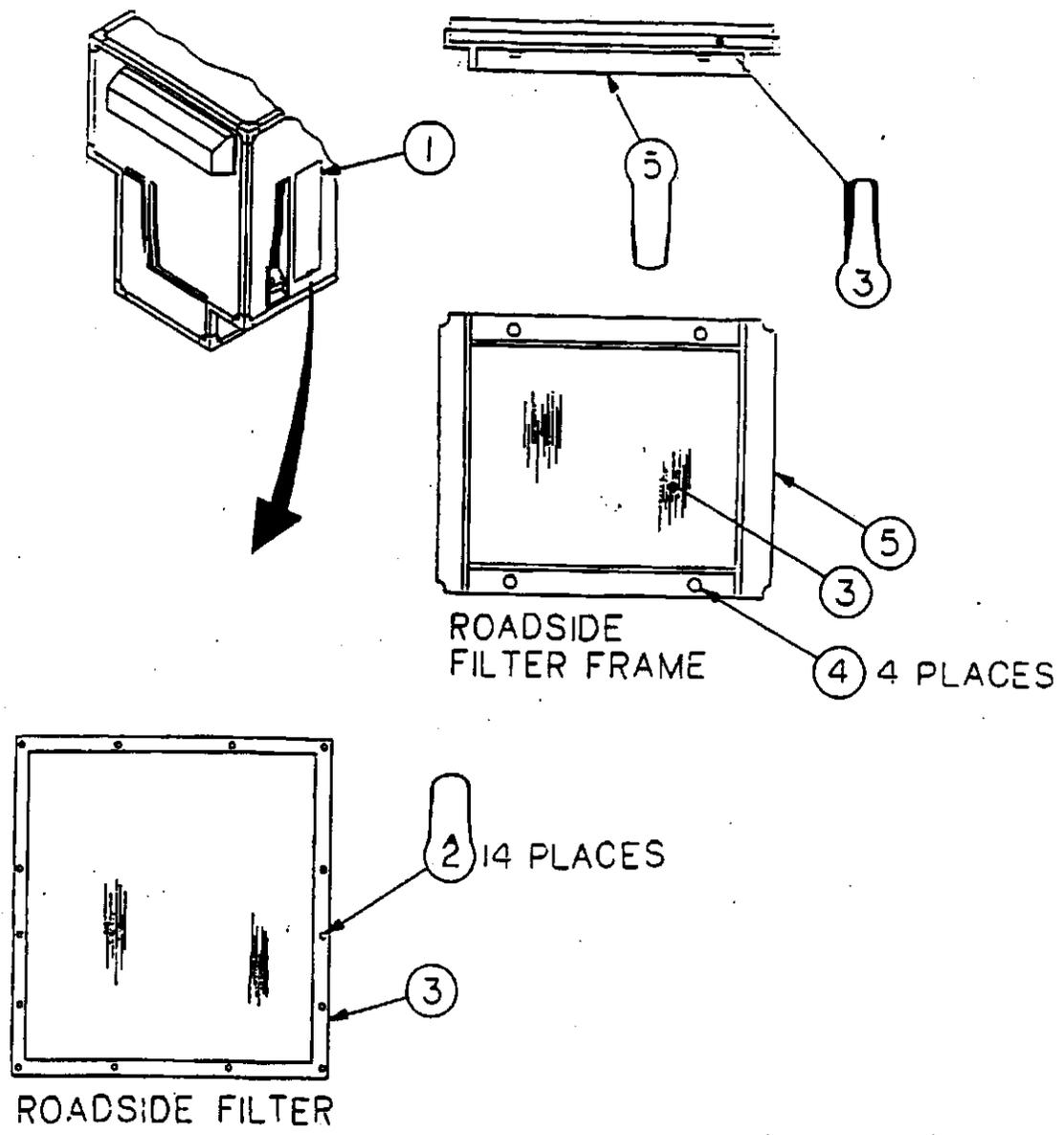


FIGURE 3. INSTALLATION OF ROADSIDE SIGNAL PROCESSOR AND FILTER FRAME

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2. BACKGROUND:

Experience in Desert Storm and elsewhere indicates that the Air Filters require more frequent replacement in a desert environment than the weekly PMCS specified in references 1a thru 1d above. As presently configured, replacement of the three Common Shelter Air Filters and the 36 Trailer roadside exhaust Air Filter requires removal/replacement of 70 non-captive screws and 120 associated flat and lock washers. This amount of hardware is needed to ensure a tight fit between the flexible filter frame and its seat.

3. IMPROVEMENTS:

Stiffener Frames have been developed for use with the three Common Shelter Air Filters and the one 36 Trailer Air Filter discussed above. These aluminum frames fit over the existing filters and are sufficiently rigid to require only 24 screws for a tight fit. Moreover, the screws are captive within the frame and require no washers. The net effect is to change the filter replacement task from one requiring fumbling with 190 pieces of loose hardware to one involving 24 screws that cannot be lost.

PROCEDURE:

The procedure to accomplish this task is set forth in the enclosed Figures 1 thru 4.

5. REQUISITION:

The Filter Frames identified in this Bulletin are not presently incorporated into the configuration baselines for the AN/TPQ-36(V)3 and AN/TPQ-36(V)5 Radar Sets nor into the baseline configuration of the OK-398(V)/TPQ Operations Control Group. However, they are authorized as an optional upgrade. Units that desire these filter frames should cite this Bulletin as the authority for requisitioning. The table on the next page shows the NSNs that are assigned to the seven items involved. Frames are not in stock at this moment, but requisitions will be filled in the Issue Priority Group (IPG)/Date order of receipt.

6. DOCUMENTATION:

Updated RPSTLs for the Common Shelter and 36 Trailer will be published in Spring 1993. They incorporate the Filter Frames described in this Bulletin as "optional upgrade" items.

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ENCLOSURE 1**2. Figure 2. Shelter Curbside Personnel Air Filter Frame.**

- a. At the shelter curbside personnel air inlet door (1), release rim latches and open door.
- b. Remove fourteen capscrews, lock washers and flat washers (2) from air filter (3). Discard removed hardware.
- c. Install four screws (4), Item 1, into new filter frame (5), Item 3. Thread screws into frame until screws are captive.
- d. Install new filter frame (5) over air filter (3). Tighten four captive screws (4).
- e. Close air inlet door (1) and secure rim latches.

3. Figure 3. Shelter Roadside Signal Processor Air Filter Frame.

- a. At the shelter roadside signal processor air inlet door (1), release rim latches and open door.
- b. Remove fourteen capscrews, lock washers and flat washers (2) from air filter (3). Discard removed hardware.
- c. Install four screws (4), Item 1, into new filter frame (5), Item 3. Thread screws into frame until screws are captive.
- d. Install new filter frame (5) over air filter (3). Tighten four captive screws (4).
- e. Close air inlet door (1) and secure rim latches.

1. Figure 4. Trailer Roadside Exhaust Air Filter Frame.

- a. At the trailer roadside exhaust air filter enclosure (1), remove access panel (2) by turning four captive screws (3).
 - b. Remove twenty capscrews and flat washers (4) from air filter (5). Discard removed hardware. Remove air filter through bottom of filter enclosure (1).
 - c. Replace air filter with inner exhaust filter retaining frame (6), Item 4. Secure filter frame with twelve capscrews (7), Item 7, at places indicated by arrows in Figure 4.
 - d. Install eight screws (8), Item 5, into outer exhaust filter retaining frame (9), Item 6. Thread screws into frame until screws are captive.
 - e. Install air filter (5) with outer exhaust filter retaining frame 9 attached, through bottom of filter enclosure (1). Tighten eight captive screws (8).
- Replace access panel (2) and tighten four captive screws (3).

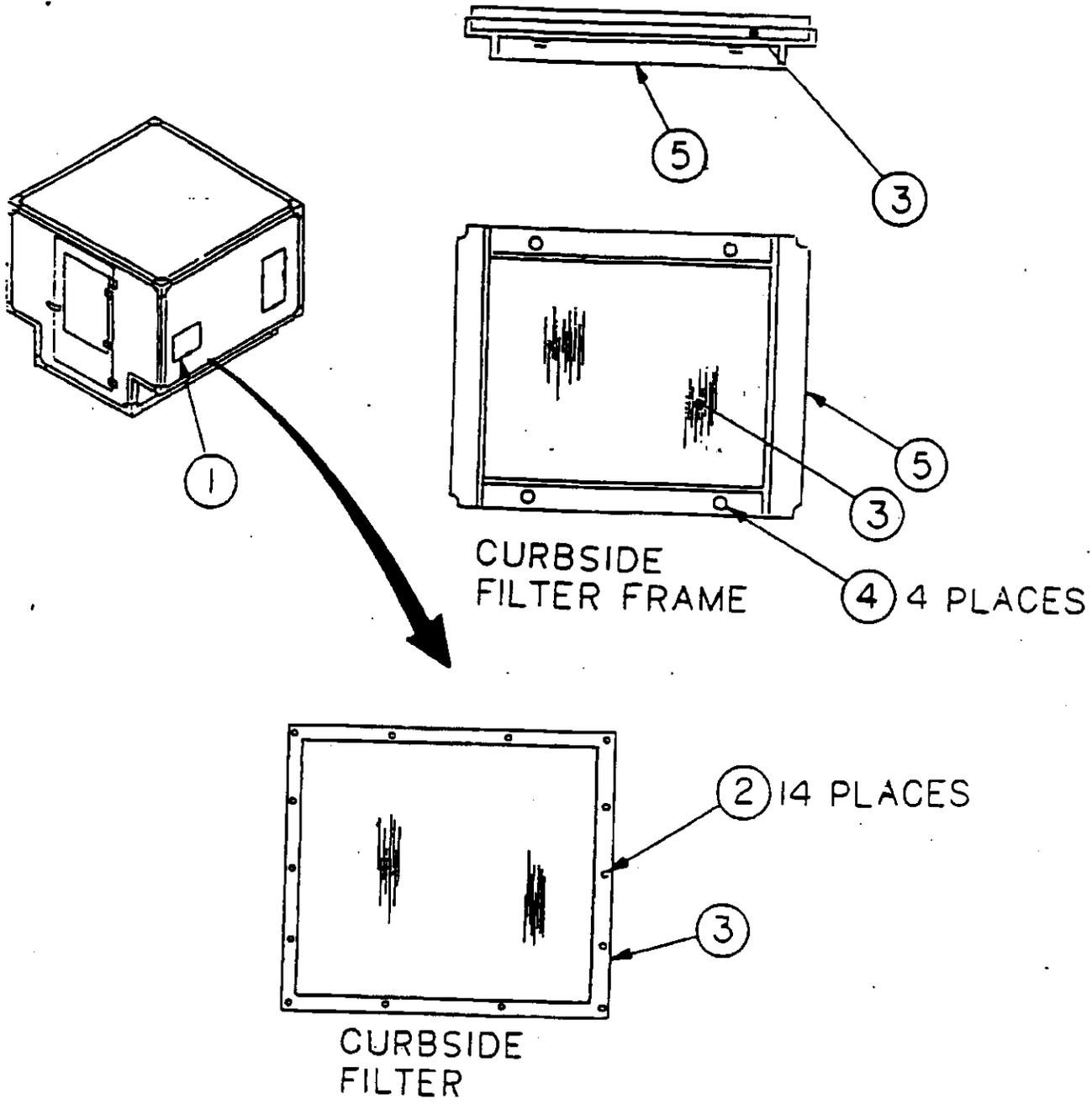


FIGURE 2. INSTALLATION OF CURBSIDE PERSONNEL AIR FILTER FRAME

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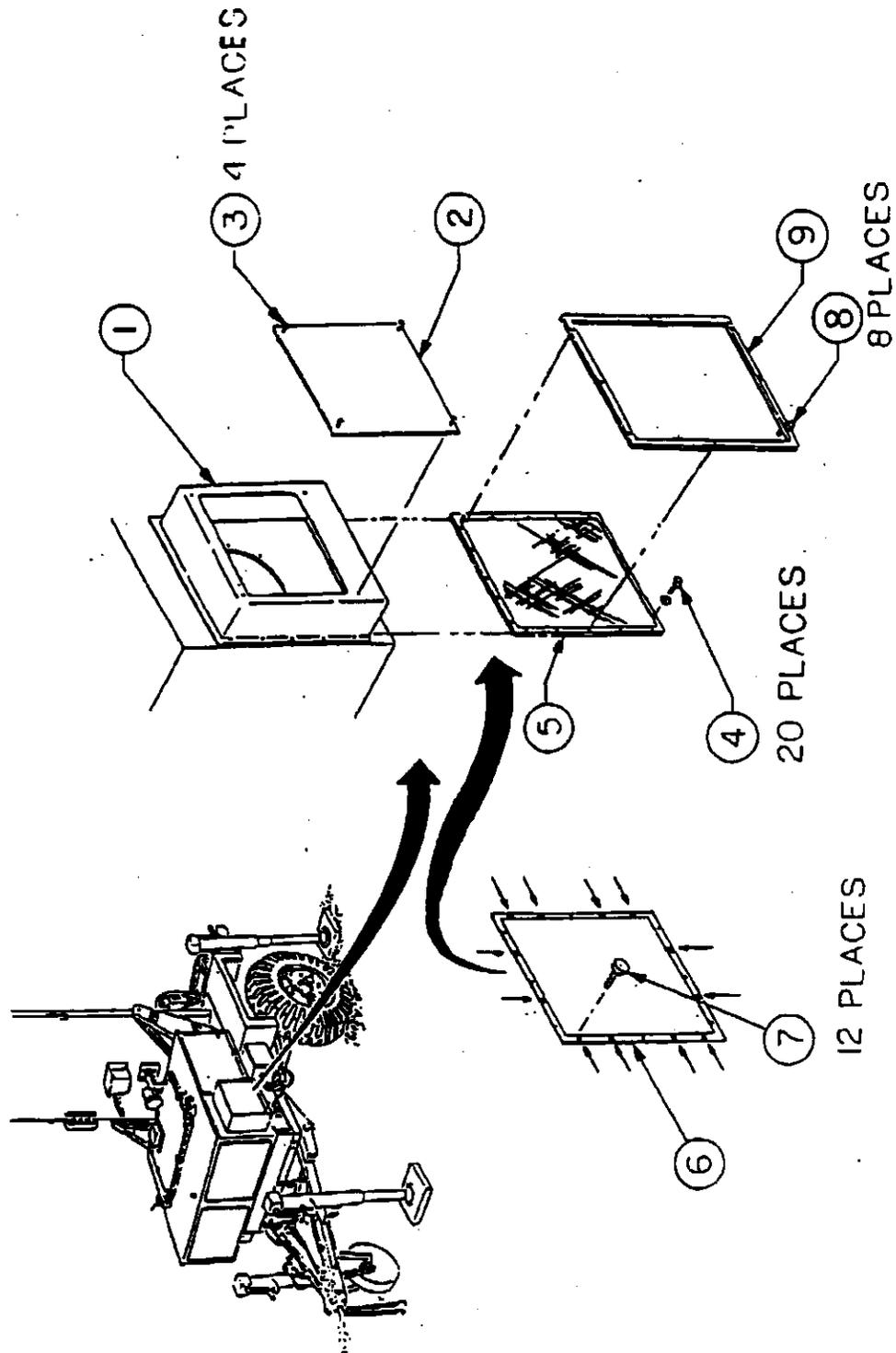


FIGURE 4. INSTALLATION OF TRAILER ROADSIDE EXHAUST AIR FILTER FRAME