CABLE PRESSURE SYSTEM
PIPE SYSTEMS
INSTALLATION

1. GENERAL

1.001 This addendum supplements Section 637-050-200, Issue 3.

1.002 This addendum is reissued to:

(a) Delete reference to protect pipe with C wire guard across splicing area in Figures 1, 2, and 15.

(b) Add information on Nylon Cable Protector.

(c) Add information on the placing of aerial pipe and "B" cable guard.

(d) Revise Paragraphs 2.01, 3, 4.01, 4.02, 8.04, and 8.09.

(e) Add Part 10 and Figure 16 to provide installation information for installing C check valves on the cable side of manifold.

2. ADVANCE PREPARATION

The following change applies to Part 2 of the section:

(a) 2.01(d) - change fourth line to read "F transducer and/or high-valve block"

Page 3, Figure 1, Page 5, Figure 2, and Page 17, Figure 15

Delete references to "Protect pipe with C wire guard across splicing area".

3. MANIFOLD INSTALLATION

The following changes apply to Part 3 of the section:

(a) **NOTE:** In IBT the recommended method of installing manifolds on new pipe routes and for converting existing manifolds to prevent interlacing through the manifold is outlined in Part 10 of the section.

(b) 3.07 — revised

3.07 Revised to add the following sentence: "All unused openings (male or female) shall be capped or plugged".

4. F TRANSDUCER OR HIGH-VALVE INSTALLATION

The following changes apply to Part 4 of the section:

(a) 4.01 — add Note
(b) 4.02 — revised

4.01 If the F transducer is selected for use in a monitoring manhole, refer to the detailed installation instruction outlined in Section 637-222-101 of the Bell Company Practices.

NOTE: In IBT, a high-valve is also included in a manhole where F transducers are placed.

4.02 At each high-valve location, attach the high-valve block on the vertical surface of the manhole collar as shown in Figure 2. Locate the block so that it will be off the line of pull for subsequent cable placing or removing operation. Where additional blocks are required, they should be installed adjacent to and at the same level as the first block.

6. PLACING PIPE IN UNDERGROUND CONDUIT

The following change applies to Part 6 of the section:

(a) 6.10

(1) Protect the pipe with a C wire guard or a nylon cable protector (LG 225 or LG 345) where it comes out of the duct.

(3) Delete

7. PLACING PIPE ON POLE LINES

The following change applies to Part 7 of the section:

(a) 7.02 — add paragraph

7.02 Protect the aerial pipe (CA-3131 or CA-3131UM) with a C wire guard or a "B" cable guard where mechanical protection is required. The pipe should also be protected from contact with hardware and abrasion points such as lashing clamps, splice case bolts, terminal lids, etc.

8. PRELIMINARY CHECK ON OBJECTIVE PRESSURES

The following changes apply to Part 8 of the section:

(a) 8.04 — revised
(b) 8.09 — revised

8.04 When stabilization has been obtained, as described in 8.03, arrange to have the flow alarm on the pipe alarm meter panel set to operate at approximately 100 scfd above the normal flow rate indicated on the panel. The normal flow rate and the alarm flow rate should be pencil marked in the space provided on the face of the meter panel. The C meter panel is non-standard in Indiana Bell. When the D meter panel is employed (with CPMS), the CPMS computer automatically computes the air flow rate and total air usage and issues an alarm bulletin when the air flow rate exceeds a predetermined value.

8.09 A most important point to be kept in mind in connection with pipe systems is the following:

As long as objective pressures are obtained in the pipe system and the total flow in each pipe compares favorably with AIRPAP, the amount of air loss or air usage is no cause for concern. There should be no attempt; e.g., to strive for a straigntline pipe gradient. Each manifold will probably have a separate and distinct flow rate that is of interest only when leak locating becomes necessary to obtain objective pressure.

The pressure and flow rate of each cable at all manifold locations should be recorded annually on Form E-5406 or upon each maintenance visit.

10. INSTALLATION OF "C" CHECK VALVES ON THE CABLE SIDE OF A MANIFOLD

10.01 The manifold assembly shown in Figure 16 is to be used when constructing new pipe routes and on existing pipe routes when it is desired to prevent interlacing of air through the manifold.

NOTE: When this type of installation is used, it shall be used on the entire pipe route.

10.02 Ordering information is shown in BSP 637-050-100NB.

10.03 The installation of this manifold is the same as shown in Paragraph 3 of the section with the following exceptions:

(1) Mounting bracket kit GL 9359-80 may be used to attach manifold assembly to manhole wall.

NOTE: The same bracket kit may be used to mount any like manifold.

(2) All fittings and connections shall be assembled according to Figure 16, depending on the number of cables that are to be connected to the manifold.

NOTE: The arrow on the C automatic shut-off valve must be pointed toward the cable.

(3) Although it is not necessary to close the manifold shut-off control valves to prevent interflow between the cables, as stated in Paragraph 3.07, all shut-off control valves should be shut off until pressure is available and the feeder pipe connected. Open only those valves that are connected to cables.

10.04 To install C automatic shut-off valves to manifolds in existing pipe routes, use the following procedures:

(1) Analyze the route as it exists by visiting each manifold and high-valve locations and record the flow and pressure reading for each cable on form E-5406. Leave 2 vacant lines under each entry for additional readings.

(2) Start installation at central office end of pipe route.

(3) As each manifold location is converted, permit a short stabilization period of approximately 10 minutes and record flow and pressure reading again on Form E-5406 directly below the reading taken in Procedure #1. An increase in flow of 4 or 5 scfh above the initial

reading may be cause for concern and a pressure reading at the adjacent underground trandsucer or high-valve should be taken to assure the cable pressure with the increased flow is not dangerously low. If a cable pressure drops below 5 psi at an underground transducer location, proceed to read the affected cable and locate the pressure leak.

(4) After all manifolds in the pipe route have been equipped with C automatic shut-off valves, obtain a third set of readings at all manifold and high-valve locations along the pipe route and log on Form E-5406 for analysis purposes.

CAUTION: Installation of C automatic shut-off valves in one pipe route could affect flows in other pipes. One should be constantly aware of the entire pressure system when converting existing pipe routes.

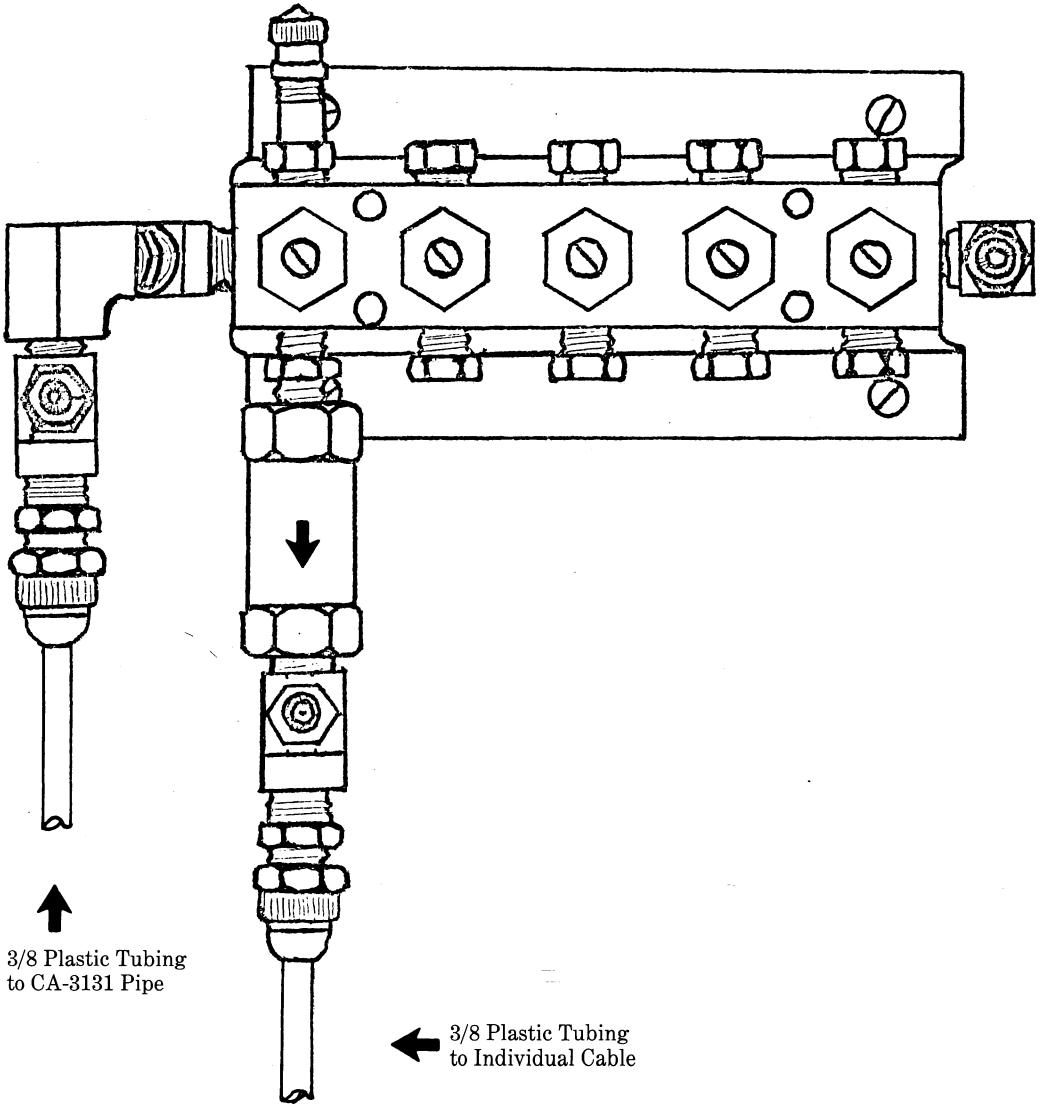
3/8 Plastic Tubing
to CA-3131 Pipe
3/8 Plastic Tubing
to Individual Cable

FIGURE 16